"A VERY LARGE SUPPLY OF MEDICAL STORES, TENTS, GUNS, AND AMMUNITION": ARCHAEOLOGICAL INVESTIGATIONS OF THE FRAZER FARMSTEAD (15HR42) IN CYNTHIANA, HARRISON COUNTY, KENTUCKY

By:
Brian Mabelitini, M.A., RPA
with contributions by:
Janie-Rice Brother, M.A, Bruce L. Manzano, M.A;
Jack Rossen, PhD; and Eric J. Schlarb

Research Report No. 13
Kentucky Archaeological Survey

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Kentucky Archaeological Survey
Research Report No. 13

Jointly Administered by: The University of Kentucky Department of Anthropology and
The Kentucky Heritage Council
Lexington, Kentucky

Report Prepared for:

Mr. Carl Shields
Division of Environmental Analysis, Kentucky Transportation Cabinet
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Kentucky Archaeological Survey

The Kentucky Archaeological Survey is jointly administered by the Kentucky Heritage Council (State Historic Preservation Office) and the University of Kentucky Department of Anthropology. Its mission is to provide a service to other state agencies, to work with private landowners to protect archaeological sites, and to educate the public about Kentucky's rich archaeological heritage.

Kentucky Heritage Council

The mandate of the Kentucky Heritage Council is to identify, preserve, and protect the cultural resources of Kentucky. The Council also maintains continually updated inventories of historic structures and archaeological sites and nominates properties to the National Register of Historic Places. By working with other state and federal agencies, local communities, and interested citizens, the Council seeks to build a greater awareness of Kentucky's past and to encourage the long-term preservation of Kentucky's significant cultural resources. Through its various programs (e.g., Main Street, Grants, Publications, Rural Preservation, Civil War Initiative, Conferences), the Council strives to show how historic resources contribute to the heritage, economy, and quality of life of all Kentuckians.

University of Kentucky
Department of Anthropology

The University of Kentucky Department of Anthropology has a mission to educate students and promote scholarly research in the field of archaeology. The Department also is charged by state law with enforcing and administering the State Antiquities Act, which prohibits the destruction of archaeological sites on state and municipal lands. It maintains comprehensive inventory files and records on archaeological sites in the Commonwealth through the Office of State Archaeology, and supports the major state curation repository for archaeological collections (the William S. Webb Museum of Anthropology).

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I also owe a great deal of gratitude to Bill Penn for sharing his invaluable insights into John Hunt Morgan's 1862 Cynthiana Raid and the Union occupation of Camp Frazer. Tremendous thanks are also extended to Carl Shields at the Kentucky Transportation Cabinet for his assistance and interest in this project.

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CHAPTER 1:
INTRODUCTION TO THE PROJECT AREA AND ENVIRONMENT

At the request of the Kentucky Transportation Cabinet (KYTC), the Kentucky Archaeological Survey (KAS) conducted archaeological investigations at the Frazer Farmstead (15Hr42) in Harrison County, Kentucky, prior to construction of the West Cynthiana Bypass (Figure 1). The Frazer Farmstead is located within the Inner Bluegrass physiographic region of north-central Kentucky. More specifically, the site is situated at the base of a ridge on the eastern floodplain of the South Fork of the Licking River, just north of Cynthiana in Harrison County, on the western side of present-day US 27 (Figure 2). It is bounded by the CSX (formerly Kentucky Central) railroad to the west, and a drainage to the north. The southern and eastern boundaries were delineated by negative shovel probes during Phase I investigations (Sandefur and Andrews 1997). The old Falmouth Pike was located along the eastern boundary of the site, and remnants of this former roadway are characterized by a deep depression that is still visible on the modern ground surface. The Frazer Farmstead is located on the Cynthiana Quadrangle (USGS 1961), at an elevation of 740 ft (225.55 m) AMSL (Figure 2).

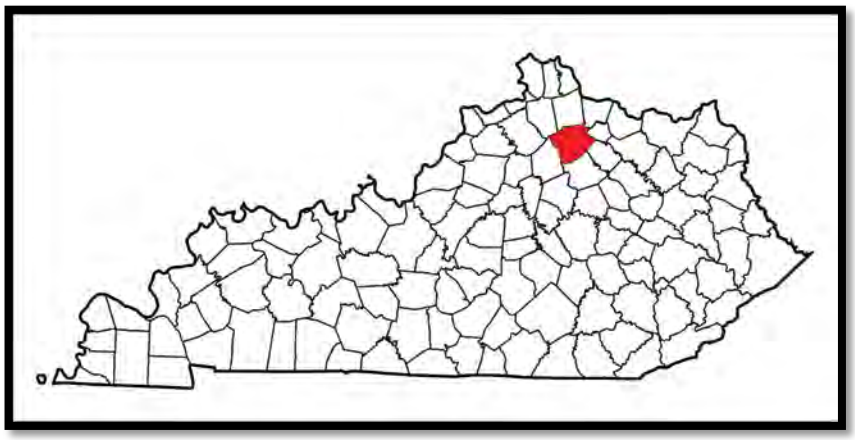


Figure 1. Location of Harrison County, Kentucky.

ENVIRONMENTAL SETTING

Harrison County is bounded on the north by Grant, Pendleton, Bracken, and Robertson Counties, to the east by Robertson and Nicholas Counties, to the south by Bourbon County, and to the west by Scott and Grant Counties. It is drained by the South Fork of the Licking River and major tributaries, which include Flat Run and Indian Creek. The Licking River drains directly into the Ohio River.

The county is entirely underlain by Eden and Cynthiana Ordovician limestone and shale formations. Soil associations consist of Faywood-Loradale, Elk-Ashton-Huntington, Cynthiana-Faywood, and Eden-Heitt. Local soils for the Joel C. Frazer Farmstead site area consist of the Elk-Ashton-Huntington silt loam Series (Odor et al. 1968). Elk-Ashton-

Huntington soils are deep, mostly well-drained, nearly level to sloping soils on terraces and flood plains that occur along major streams. The Elk silt loam, with 2 to 6% slopes, is also present within the project area. These soils are deep, well drained soils that are formed in mixed alluvium of limestone origin on terraces along streams. These soils exhibit excellent properties for agriculture (Odor et al. 1968).

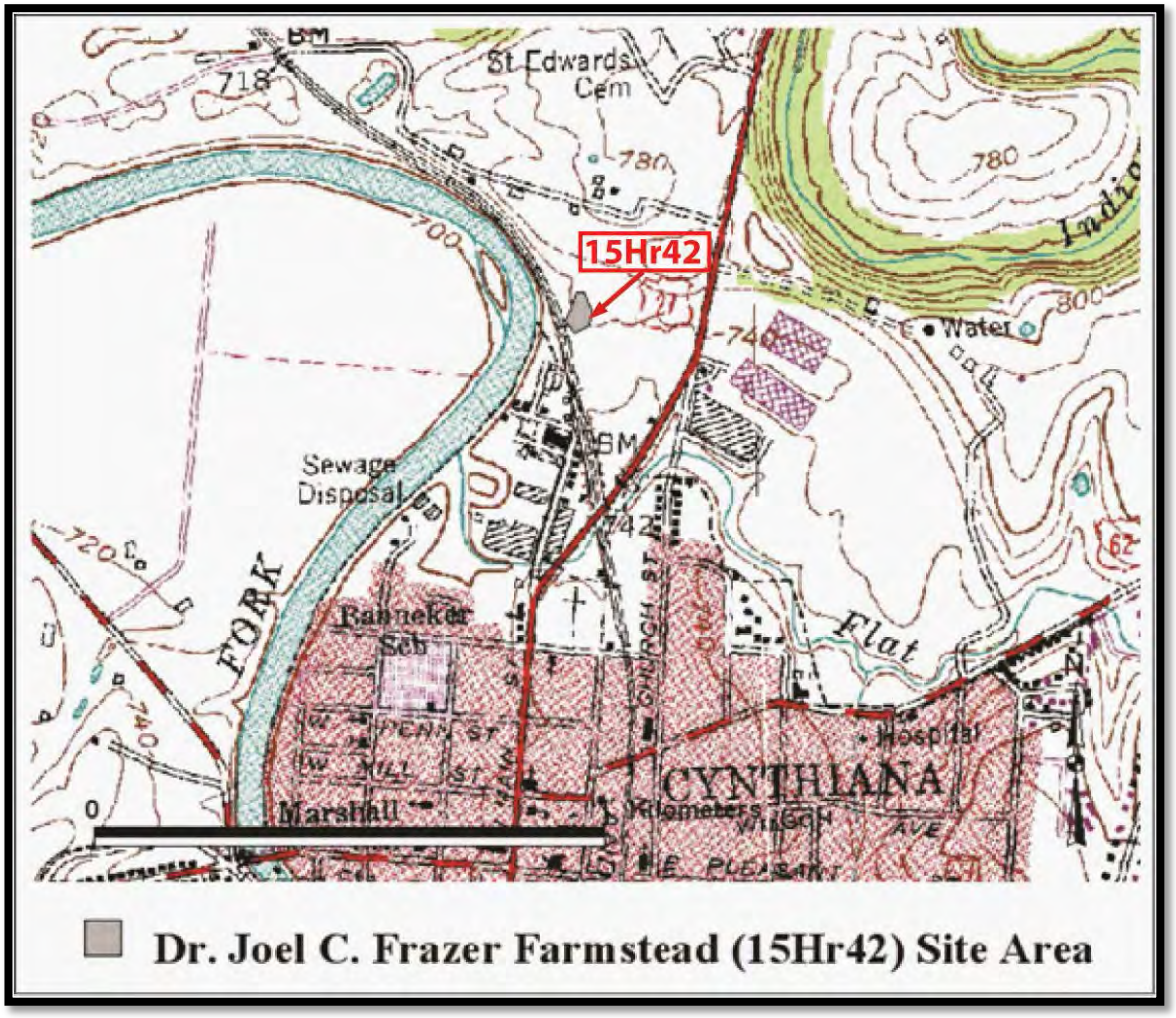


Figure 2. Location of the Frazer Farmstead (USGS Cynthiana 7.5' Topographic Quadrangle, 1961).

Harrison County lies within the Mixed Mesophytic Forest Region (Braun 1950:146). Historically, the native forests of the area consisted of sugar maple, basswood, buckeye, and tulip polar primarily on north-facing slopes. Oak-chestnut and oak-hickory dominated the upper slopes and ridgetops, while pine was the principal species on ridgetops where rock outcrops occurred. Beech and white oak were found in areas of underlying shale. Today, oak, oak-hickory, and oak-pine comprise the eastern Kentucky forest community (Niquette and Henderson 1984).

Fauna exploited for subsistence both prehistorically and into the historic period included white-tailed deer, bear, raccoon, rabbit, rodents, wild turkey, and several fish and mollusk species. The faunal community today includes a variety of small mammals, including shrew, mole, bats, rabbit, chipmunk, woodchuck, and squirrel, as well as medium mammals such as fox, raccoon, and opossum. The only large mammal remaining is deer. Other fauna include several species of fish and amphibians in the Licking River and its tributaries (Barbour and Davis 1974).

PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

Archaeologists from Wilbur Smith Associates, Inc., originally discovered the Frazer Farmstead in 1997 during a Phase I survey as part of project planning for the West Cynthiana Bypass in Harrison County (Sandefur and Andrews 1997). The Phase I investigations revealed evidence of a small, early- to mid-nineteenth century farm/residence with intact cultural deposits and possible midden features (Figure 3). A low density of unassigned prehistoric debitage was also present. Due to the absence of later nineteenth or twentieth century materials and the presence of intact deposits, the site was recommended for further testing in order to determine its eligibility for listing in the National Register of Historic Places (Sandefur and Andrews 1997).

In 2004, Phase II testing was conducted by Cultural Resource Analysts, Inc. (CRAI) that included archival research, a geophysical survey, and the hand excavation of 15 test units (Allgood, et al. 2004). The Phase II investigations located the remains of one historic structure and several features, including an intact limestone foundation, a cellar with stratified fill, a sheet midden, a trash pit, and two post holes (Figure 4). CRAI identified the historic component of site as an early- to late nineteenth century farm/residence that was occupied from circa 1835 to 1875. A Middle Archaic, Early and Middle Woodland, and Late Prehistoric component was also present; however, these materials were recovered from mixed contexts and could not be associated with any of the time periods represented. Based on the relatively short period of occupation and the presence of intact cultural deposits, the historic component could be attributed to a specific temporal context. For these reasons, the site was determined to be eligible for listing in the National Register of Historic Places under Criterion D.

Since the Frazer Farmstead was considered eligible for the National Register of Historic Places and avoidance was not possible, additional archaeological excavation was undertaken. The additional archaeological investigations were designed to recover significant site data prior to construction of the West Cynthiana Bypass. Field investigations began on November 29, 2006, and continued through December 21, 2006. However, due to inclement weather, completion of the project was postponed through the winter of 2006-2007. Field investigations resumed on April 16, 2007, and fieldwork was completed on May 25, 2007. Fieldwork consisted of the hand excavation of 21 shovel probes and 43 test units (104.75 m^2), and the mechanical excavation of one large block (approximately 1500 m^2). Fieldwork was confined almost exclusively within the site limits as defined during the Phase II investigations (Allgood et al. 2004). However, the dimensions of the structure and site area

were found to extend north of the defined site limits. Therefore, limited work was conducted outside the defined site limits slightly north of the right-of-way, with consent of the landowner (Jesse Burrier, Carl Shields, personal communication 2006), in order to fully investigate the dimensions of the structure and the layout of the site area.

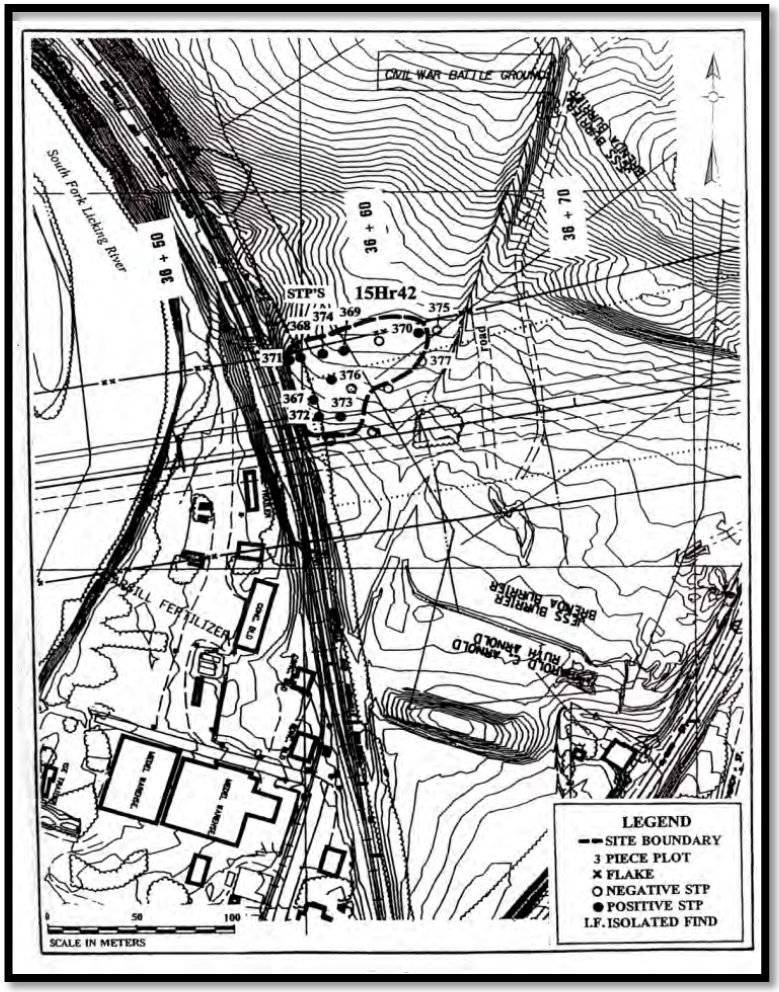


Figure 3. Schematic Plan Map of Phase I Investigations at Frazer Farmstead (Sandefur and Andrews 1997).

REPORT ORGANIZATION

The remainder of this report is organized as follows: Chapter 1 provides an introduction to the project area and environment. Field and general laboratory methodology is proved in Chapter 2, and archival research of the project area is presented in Chapter 3. Chapter 4 provides a description of the project area during the American Civil War. Analysis of the historical artifacts recovered during this research is provided in Chapter 5. Chapter 6 describes and interprets the faunal remains. Chapter 7 describes and interprets the botanical assemblage. Chapter 8 presents the results of the field investigations. Chapter 9 provides an architectural evaluation of the archaeological footprint of the dwelling associated with the

farmstead. Site interpretations and analysis is discussed in Chapter 10. This chapter is subdivided into three sections: (1) the spatial layout of the site; (2) status and consumption analysis, and (3) the Civil War-era military occupation. Chapter 11 presents a summary and conclusions of the project results. A comprehensive list of sources referenced in the text is provided in Chapter 12. The recovered prehistoric materials are described in Appendix A.

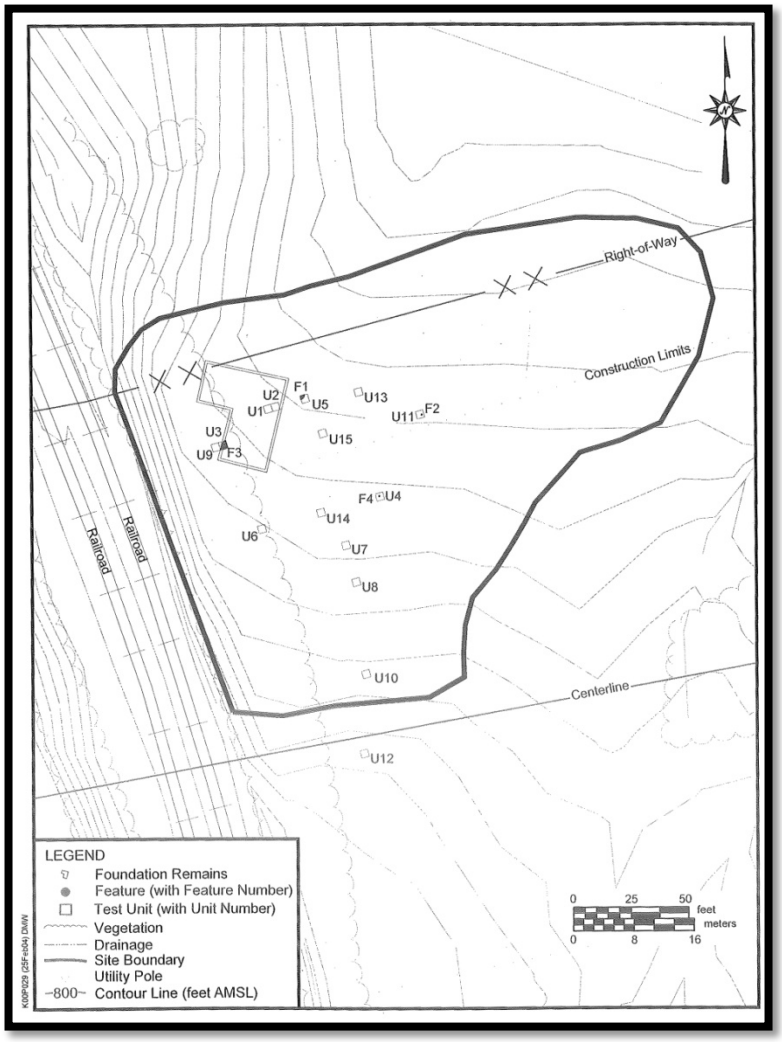


Figure 4. Schematic Plan Map of Phase II Investigations (Allgood et al. 2004).

CHAPTER 2:
METHODOLOGY

INTRODUCTION

Research methodologies consisted of both archaeological and historical research. Archaeological research strategies included the creation of a map of the site area, the hand excavation of shovel probes and test units, as well as the mechanical removal of topsoil in order to expose features associated with the occupation of the site. Historical research consisted of a review of both primary and secondary documents related to the project area. These investigations were directed toward understanding the spatial layout of the site, locating and excavating features, and recovering a substantive sample of nineteenth century material culture. To meet these goals, a three-step approach involving additional shovel probing and test unit excavation with mechanical stripping of the site was employed. The goal of this research was to determine when the structure was built, and who occupied the site during the nineteenth century. Another important goal was to identify any related activity areas on the site, and how or if they changed over time.

ARCHIVAL RESEARCH

Archival research was not conducted during Phase I investigations. Phase II investigations consisted of archival research that included an attempt at the establishment of the chain of title, a review of tax assessment lists and U.S. Census records, as well as the location of a 1929 geological survey map and 1941 highway map. Several errors were noted in the Phase II archival research. Therefore, all Phase II archival research was reexamined during our KAS investigations. To accomplish the historical review, archival and literary research was conducted at the Special Collections and Archives at the M. I. King Library and the Young Library at the University of Kentucky in Lexington; Kentucky Department of Libraries and Archives, Frankfort; the Harrison County Clerk's Office, Cynthiana; and the National Archives in Washington D. C. The results of the archival research are presented in Chapter 3.

FIELD METHODS

The fieldwork was conducted under the direction of Dr. W. Stephen McBride, and was carried out in accordance with the 1991 Kentucky SHPO guidelines. Field methods consisted of mapping and laying out a grid on the site area, limited shovel probing, the hand excavation of test units, and mechanical removal of the topsoil. Within the site area, 21 shovel probes were excavated in three transects to assist in the development of an excavation strategy. Shovel probes were useful in attaining a better understanding of the overall distribution of artifacts and stratigraphy across the site area.

Larger test units were excavated to obtain a more adequate sample of artifacts and identify subsurface features. The 43 test units (11 1 x 1 m, one 1 x 1.5 m, one 1.65 x 2 m, 26 1 x 2 m, three 2 x 2 m, and one 3 x 2.5 m) excavated at the site encompassed 104.75 meters^2.

These units were scattered over the entire site area, although a higher density were placed in the artifact rich midden (Feature 14) on the southern side of the site.

All soils from each shovel probe and test unit were screened through 1/4 in. (6.35 mm) hardware cloth and described as to color, artifact content, and degree of disturbance. Photographs of each test unit, feature, and the site area were taken. Detailed notes concerning provenience, soils, and artifacts were recorded for each excavated test unit. Coordinates of test units and features were then recorded with a total station. The southwest corner of each unit was selected as a datum, and all measurements within each unit taken using a line level and a hand held tape. All measurements were recorded using metric units of measurement. Planview and profile maps were drawn for each test unit. Potential features were mapped and photographed at the base of the level in which they appeared and then cross-sectioned. All feature fill was dry screened through 1/4 in. (6.35 mm) hardware cloth. Additionally, flotation sample(s) were taken from most of the recognizable feature fill zones. Detailed notes concerning provenience, contents, form, and probable function were recorded for each feature on appropriate forms.

Upon completion of hand excavations, a small bulldozer/trackhoe was used to remove overlying soil and expose features and architectural remains at the top of the subsoil. One large block (approximately 1500 m^2) was mechanically excavated. Mechanical excavation exposed 67 features, including small midden areas, trash pit/cellars, and scattered posts, as well as posts that appear to be in a line that may designate the separation of the outer and inner yard. Stripping also further exposed the stone foundation of the house. The exposed portion of the house consisted of three rooms – two larger rooms side-by-side to the east and west, and a kitchen to the south, each of which contained a hearth/chimney base. Two large cellars were also present. The cellar in the southeastern room (Cellar 2, Fetrue 98) contained a low density of artifacts and appears to have been backfilled during the mid-twentieth century. The western cellar (Cellar 2, Feature 97) contained intact house destruction deposits at the base that date from the early nineteenth century to the American Civil War, as did the western room of the house.

LABORATORY METHODS

Following the completion of fieldwork, all recovered artifacts were washed, sorted, and catalogued at the University of Kentucky Archaeology Laboratory according to standard archaeological procedures. All historic materials recovered during these investigations were included in the analysis, but materials recovered during Phase I and II research were not used. Historic artifacts were assigned to functional groups modified from South (1977). A complete description of functional groups and diagnostic historical artifacts within material classes is presented in Chapter 4. All artifacts and materials related to this research are curated at the William S. Webb Museum of Anthropology at the University of Kentucky in Lexington.

RESEARCH QUESTIONS

The research methodologies employed in this project consisted of both archaeological and historical investigations. This research was directed towards understanding the layout and construction of the house, determining the length of occupation and use of the house and site over time, as well as examining the socio-economic status of its occupants. Specific research questions addressed were:

1) What was the nature and layout of the house and activity areas on the site, and how did these change over time?

2) What were the consumption patterns of the occupants of the house through time?

3) Did the foodways practiced at the site match the Upland South Model found at domestic sites in the Upper South and Ohio Valley, or are they different?

4) Was the house incorporated into Camp Frazer (Camp Tod), which was located on the Frazer farm during the American Civil War?

CHAPTER 3:
ARCHIVAL RESEARCH

INTRODUCTION

Archival research was not conducted during the Phase I investigations; however, the location of an 1877 atlas was identified. Phase II investigations consisted of archival research that included an attempt at the establishment of the chain of title, identification of tax assessment lists, U.S. Census research, and the location of a 1929 geological survey map and 1941 highway map. Phase II research suggested that the tract was originally owned by John Sellers, who in 1797 sold it to James Powers of Pennsylvania (Kirkwood 2004). According to Kirkwood (2004), Powers held the property until 1820, when it was sold by his widow to Joel C. Frazer. Kirkwood (2004) asserts that Frazer held the tract until his death in 1846, at which time it was passed to his son Joel C. Frazer, Jr. Closer examination of the genealogy of the Joel C. Frazer family revealed several errors in Kirkwood's (2004) research. Most notable, "Joel C. Frazer, Jr." never existed, and the individual cited as "Joel C. Frazer, Sr." is actually a paternal uncle of Dr. Joel C. Frazer. A major difficulty in Frazer family archival research is differentiating between the various contemporary Joel Frazer's (alternately spelled Fraser, Fraizer, and Frazier) residing in Harrison County from the late-eighteenth through the nineteenth centuries. All Phase II archival research was reexamined during these investigations. Although a 1797 plat of Cynthiana was located, this plat unfortunately does not extend to the project area (Harrison County Clerk's Office [HCCO]: Deed Book [DB] 1:1).

These additional archival investigations were directed towards the correct establishment of the chain of title, and recovery of information about the landowners. To accomplish this, archival and literature research was conducted at the Special Collections and Archives of the M. I. King Library and the Young Library at the University of Kentucky in Lexington, Kentucky Department of Libraries and Archives, Frankfort, the Harrison County Clerk's Office (HCCO) in Cynthiana, and the National Archives in Washington D. C. This chapter provides a history of the farmstead and its various landowners, as well as a comprehensive history and genealogy of the Frazer family in Harrison County.

CHAIN OF TITLE

Constructing the chain of title for the property upon which the Joel C. Frazer Farmstead is located proved difficult. Previous researchers focused on Dr. Joel C. Frazer, who was the Civil War-era landowner. A more in-depth analysis of archival materials revealed that the property was part of a parcel originally surveyed by John Milton, John Rhodes, and Samuel Vanhook (HCCO: DB 11:274). Although no record of this survey or deed of transfer of this property could be located, tax assessments indicate that James Finley (alternately spelled Findley) had acquired the 330 acre tract on the South Fork of the Licking River by 1814, at which time it was valued at $25 per acre (Harrison County Tax Assessment Book [HCTAB]: 1814).

Deed records indicate that James Finley began acquiring property in Cynthiana in 1806 (HCCO: DB: 2:124), although he first appears in the Harrison County tax lists in 1805 (HCTAB: 1805). Although Finley was taxed for a 130 acre parcel of land in Harrison County in 1805, tax records indicate that he also owned a 314 acre tract in neighboring Scott County (HCTAB: 1805). In addition to these properties, he also owned land in Campbell County (150 acres) and Boone County (333 acres). On July 28, 1806, he married Rebecca Timberlake in Bourbon County, and by at least 1807, was residing on the 130 acre tract in Cynthiana (HCTAB: 1805, 1806, 1807).

Finley's fortunes appear to have improved by 1807. By this time he was taxed for three slaves, including one male over 16 years of age, and one carriage, as well as an additional 294 acres of land in Floyd County (HCTAB: 1807). By 1810, his household included two free white males between 26 to 44 years of age, one free white male under 10 years of age, one free white male between 10 to 15 years of age, one free white female between 16 to 25 years of age, one free white female aged 45 and over, and 10 slaves (United States Census Bureau [USCB]: 1810).

James Finley was a prominent citizen of Cynthiana: in 1805 he was appointed the town's fourth postmaster; in 1807 he was appointed commissioner (along with Samuel McMillain, William Stephenson, William Moore, and Josephus Perrin) to draft a plan for the placement and construction of a bridge across the South Fork of the Licking River; in 1810 he was among the founding members of the Cynthiana chapter of Freemasons Grand Lodge of Kentucky; he served in Captain William Brown's company during the War of 1812; and in 1816, he served as a commissioner in the sale of public land in order to raise funds for the construction of a new courthouse (Perrin 1882:252, 267, 273; HCTAB: 1813; Historic American Buildings Survey 1936). He also was among the earliest merchants in Cynthiana, where he operated a retail store from 1805 through 1818, which suggests he may have resided in Cynthiana by 1805 (HCTAB: 1805-1818). The covered bridge across the river that Finley helped plan would later play a major role in the July 1862 First Battle of Cynthiana during the American Civil War.

Tax records indicate that in 1814 he resided on the 330 acre tract on the South Fork of the Licking River that had been part of the Milton, Rhodes, and Vanhook survey, which by 1818 had grown to 350 acres (HCTAB: 1814, 1818). By 1817 the value had of his property had increased from $25,007.50 in 1814 to $58,164, and it is around this time that he likely constructed the house associated with the Frazer Farmstead (HCTAB: 1814, 1817). In addition to this tract, he owned an added 670 acres in Harrison County, as well as property in Campbell County (550 acres) and Boone County (700 acres). He was also taxed for 17 slaves, 12 horses, one carriage, and four town lots (HCTAB: 1819). In 1820, his household included one free white male and one free white female aged 45 years and over, one free white female between 26 to 45 years of age, one free white male between 16 to 26 years of age, and one free white male and three free white females under 10 years of age (USCB: 1820). By this time, he owned 18 slaves, including five males and five females under 14 years of age, one female between 14 to 26 years of age, four males and two females between 26 to 45 years of age, and one male aged 45 years and over (USCB: 1820). Additionally, 10 members of his household are listed as being engaged in agriculture and two are listed as

being engaged in commerce, and by 1821 his property was assessed at $31,264 (USCB: 1820; HCTAB: 1821).

Tax records indicate that by 1819, James Finley no longer owned a retail store (HCTAB: 1819). At the beginning of the 1820s, Kentucky, like the rest of the nation was in the middle of an economic depression (known historically as the Panic of 1819), which affected many merchants, including James Finley (McBride and McBride 1990:599). By 1822, Finley's land holdings began to decline. The 350 acre tract upon which he resided had decreased to 300 acres, and his additional property included land in Harrison County (668 acres) and Boone County (500 acres), as well as four town lots in Cynthiana (HCTAB: 1822). His estate also included 13 slaves, 8 horses, one carriage, and his estate was valued at $26,680 (HCTAB: 1822). However, by the fall of 1822, James Finley was bankrupt (Perrin 1882:267). According to William H. Perrin's *History of Bourbon, Scott, Harrison, & Nicholas Counties, Kentucky*:

> James Finley, and also James Kelley, are remembered as early merchants before, and for some years after the war of 1812. But all early merchants broke after the war of 1812, sooner or later […] (Perrin 1882:267).

With mounting debts, he began to mortgage his property in order to repay his creditors. On September 9, 1822, he mortgaged a town lot, which he was renting to William Grubs, to William Moore "in consideration of the sum of one dollar to the said Finley in hand and more especially for the purpose of securing the payment of a note now held by said William Moore on said Finley for the sum of nine hundred dollars with interest" (HCCO: DB 8:272). Eventually, on September 28, 1822, he mortgaged the 300 acre tract upon which he resided on the South Fork of the Licking River near Cynthiana, including all slaves and buildings, to the President Directors and Company of the Bank of the United States to secure the payment of $6,240 owed to the bank (HCCO: DB 8:293-295). Interestingly, the names of the slaves are given in the deed: Philo, Andrew, William, Sam, Robert, Charles, Amy, Juno, Minny, Matilda, Charlotte, and Harriett (HCCO: DB 8:295).

Finley was unable to repay his debt to the bank, and on November 15, 1822, the Seventh Circuit Court of the United States ruled in a suit against Finley by the President Directors and Company of the Bank of the United States that the 300 acre tract "occupied by said Finley with the buildings and improvements and appurtenances thereto belonging" to him to be sold at public auction on February 7, 1823 (HCCO: DB 11:274). However, the property did not sell, and the Marshal advertised for it "to be sold on the 23rd day of March, 1823, between the hours of eleven o'clock A.M. and three o'clock P.M. at the residence of said Finley" (HCCO: DB 11:275). The property was sold at public auction to the highest bidders, which were William Moore of Harrison County (with whom Finley had served as commissioner in 1807 for construction of the bridge) and Samuel Williams of Bourbon County, for the sum of $3,531 ($2,031 paid by Moore and $1,500 paid by Williams).

William Moore and Samuel Williams do not appear to have resided in the house on this property, and it is possible that they allowed Finley to remain in his home. By 1823, James Finley owned no land and he was only taxed for one slave, however, he was still

residing in Harrison County. His property was assessed at $80 (HCTAB: 1823). By 1824, he was taxed for one town lot and one horse. He no longer owned any slaves, and his property was assessed at $600 (HCTAB: 1824). By 1825, James Finley disappears from the tax record; although a "James Findley" does appear in the 1820 U.S. Census of Cynthiana, Harrison County. It is unclear if this is the same person as the James Finley who owned and occupied the Frazer Farmstead. An 1830 deed refers to him as the late James Finley, therefore it is likely that he died sometime between 1824 and 1825 (HCCO: DB 12:31).

Although neither Moore nor Williams resided in the house, they retained ownership of the property until May 19, 1829, when Samuel Moore sold his interest to William Brown, and William Moore transferred his interest to his son, Samuel Moore (HCCO: DB 11:274-277). According to his will, probated in November 1829, William Moore bequeathed to his son, Samuel, "my interest in the farm called Fairley Farm, by me purchased at the Marshall's [sic] Sale in a decree of the Federal Court in the case of the U. S. Bank vs. James Finley" (Harrison County Probate Abstracts [HCPA] Vol. B:422). On April 28, 1830, Samuel Moore sold the 300 acre "tract of land owned by the late James Finley [up to 1822] and by him mortgaged to the United States Bank and subsequently sold by the Marshall [sic] of the State of Kentucky and by the said Samuel Moore and William Brown purchasers" to William Lamme for the sum of $2,031 (HCCO: DB 12:30-31).

William Lamme was the son of Samuel Lamme, who operated a saw and grist mill in Harrison County during the late-eighteenth to early nineteenth century (Boyd 1894:15). William Lamme relocated to Harrison County, Kentucky from Howard County, Missouri in 1828 in order to run his father's mill (HCTAB: 1828; Boyd 1894:16). In addition to running the mill, he also formed a mercantile partnership with William A. Withers (Boyd 1894:16). William Lamme sold a 153 acre portion of the land to his brother-in-law, James J. Allen, on November 13, 1834 for the sum of $3,825 (HCCO: DB 14:224-225). An additional 73 acres of the original 300 acre parcel, valued at $3,307.50, was transferred to James J. and Ann Allen on February 1, 1841 by Richard Stowers, who was the executor of William Lamme's will (HCCO: DB 18:154-155).

James J. Allen was a racehorse dealer, and tax assessments indicate that he and his wife, Anna Lamme, resided on a 100 acre farm in Barren County that they had obtained through the will of Samuel Lamme (Perrin 1882:309; HCTAB: 1839, 1840, 1842, 1843, 1844). However, tax assessments for 1837, 1839, and 1843 suggest they may have resided on the 226 acre tract associated with the Joel C. Frazer Farmstead in Harrison County during those years (HCTAB: 1837, 1839, 1843). In 1839, Allen was taxed in Cynthiana for a tavern license, and it is possible that the house associated with the Frazer Farmstead may have briefly functioned as a tavern (HCTAB: 1839). Allen held the property until March 7, 1844, when he sold both tracts (226 acres) to Hugh Fraizer for the sum of $6,500 (HCCO: DB 19:384-386). Tax assessments indicate that Hugh Fraizer occupied a town lot in Cynthiana, and most likely did not reside in the residence that he purchased from Allen (HCTAB: 1844, 1845, 1847). Hugh Fraizer sold the property to Dr. Joel C. Frazer on November 13, 1845 for the sum of $7,500 (HCCO: DB 20:276-278).

Shortly after Dr. Joel Frazer acquired the property in late 1845, construction of the Kentucky Central Railroad (now the Covington and Lexington Railroad) began. Construction was underway as early as 1848, and the landowners through whose property it passed granted right-of-way for the railroad. In Harrison County, a portion of the railroad passed through the western portion of Frazer's property. The railroad was completed from Lexington to Paris in 1853 (Perrin 1882:58). The portion of the railroad from Covington to Paris was completed the following year, and the new railroad opened in 1854 (*New York Times* 10 June 1854; Perrin 1882:58; 93). The railroad, which courses directly behind the Frazer Farmstead, may have been a factor in the abandonment of the house.

Dr. Joel C. Frazer held the property until his death in 1863. In the settlement of his will, the property remained in the possession of his widow, Nancy Frazer (HCCO: Will Book [WB] H:465). Nancy Frazer died intestate in 1872, and the property was divided among their grandchildren (HCCO: WB J:299-302; HCCO: DB 35:454-455, 36:202-203). The tract that included the Joel C. Frazer Farmstead was conveyed to Nannie and Caleb W. West (HCCO:DB 36:202-203). Nannie West was the daughter of Joel C. and Nancy Frazer's only son, Hubbard, who died on November 9, 1860.

Nannie and Caleb W. West, who later served two non-consecutive terms as territorial governor of Utah, sold the tract to John K. Lake on January 21, 1874 (HCCO: DB 36:329-331; Murphy 1994). John K. Lake died intestate on March 23, 1886, and his farm was sold by the Harrison County Commissioner to Lewis Lebus for an unknown sum in May 1886 (HCCO: Settlement Book [SB] 1:276-277, 566-577; HCCO: DB 49:482-483).

Martha C. Lebus, the widow of Lewis Lebus, sold 456.83 acres of land, including the Lake tract, to Orie Lebus on February 17, 1909. The property remained in the Lebus family for most of the twentieth century. Martha T. Lebus sold the 248 acre tract that includes the Joel C. Frazer Farmstead to Jesse and Brenda Burrier on July 1, 1992 for the sum of $460,000 (HCCO: DB 73:235-238, 110:339-345, 193:295-298).

FRAZER FAMILY GENEALOGY IN HARRISON COUNTY

The Frazer family was among the earliest pioneer families in Harrison County (Boyd 1894:24). One of these early settlers was George Frazer (also spelled Frazier) of Pennsylvania, who died in 1801 in Cynthiana. George and his wife Mary Frazer were the progenitors of seven children (HCCO: WB I:35). Among the children born to George and Mary Frazer were two sons; John (birth date unknown) and Joel (born 1768).

John Frazer married Sally Veatch on October 1, 1795 (Harrison County General Index to Marriages [HCGIM]: 1794-1893). In 1798, Joel C. Frazer (later Dr. Frazer) was born to John and Sally Frazer at the home of William Redmon about a mile southeast of downtown Cynthiana on the Lair's Mill Pike (Perrin 1882:308; Boyd 1894:98). John's brother, Joel Frazer, married Margaret Miller (HCGIM: 1794-1893). On December 14, 1807, Joel and Margaret Miller Frazer had a son named Joel B. Frazer (Perrin, et. al. 1887). Both Joel Frazer and John Frazer, the sons of George and Mary Frazer, relocated to neighboring Pendleton County in 1817 and 1826, respectively (Perrin 1882:309; HCTAB: 1817). Joel B.

Frazer married America Snodgrass and relocated to Boone County sometime during the late 1830s (Perrin, et. al. 1887; USCB: 1840). Joel B. Frazer, a cousin of Joel C. Frazer, is the "Joel C. Frazer, Jr." erroneously cited by Kirkwood (2004). Joel B. Frazer never held ownership of the site identified as the Joel C. Frazer Farmstead. Joel C. Frazer remained in Harrison County and studied medicine from an early age with Dr. George W. Timberlake, who was a prominent physician in Cynthiana from 1810 until his death in 1828 (Perrin 1882:309; Boyd 1894:95).

Joel C. Frazer married Ruth Warfield on March 10, 1823 (HCGIM: 1794-1893). Ruth Warfield was the daughter of Elisha and Ruth Burgess Warfield. Elisha Warfield was a famous physician at Transylvania University in Lexington, Kentucky (Peters 1903). However, their marriage was brief as Ruth Warfield Frazer died on May 11, 1823 at her mother's home near Cynthiana (*The Reporter* 19 May 1823). Historical accounts state that Frazer and Warfield's marriage lasted two years (Perrin 1882:309; Boyd 1894:95); however, primary documents indicate that it lasted merely two months (HCGCIM: 1794-1893; *The Reporter* 19 May 1823). Following the death of Ruth Warfield Frazer, Joel C. Frazer graduated in medicine from Transylvania University in 1824, and briefly moved to St. Charles, Missouri (Perrin 1882:309; Boyd 1894:95).

Joel C. Frazer returned to Cynthiana sometime between 1824 and 1825, and began his medical practice (Perrin 1882:309; Boyd 1894:95). He married his second wife, Nancy Williams Sanders, in 1826 (Perrin 1882:309; Boyd 1894:95; HCGIM: 1794-1893). Joel C. and Nancy Frazer's only child, Hubbard Williams Frazer, was born in 1827 (Perrin 1882:309; Boyd 1894:96).

Joel C. Frazer first appeared in the tax assessment books in 1819, but the county only taxed him for a horse worth $100. By 1821, Joel C. Frazer was taxed for one town lot and a horse. In 1825, he was only taxed for a horse worth $80, but by 1826 he owned two horses and four slaves (HCTAB: 1821-1826). Tax assessments for 1830 indicate that Joel C. Frazer still resided in town; however, by 1835 he owned 287 acres in Harrison County near Indian Creek (HCTAB: 1830-1835). He was also taxed for 10 slaves, 11 horses, and 50 cattle. His property was assessed at $8,115 (HCTAB: 1835). Historical accounts state that he briefly relocated to Paris, Kentucky in 1833 in an attempt to improve his medical practice, but he returned to Cynthiana within a year (Perrin 1882:309; Boyd 1894:309). By 1840, he resided on a 40 acre farmstead near Sycamore Creek in northern Harrison County (HCTAB: 1840). He also owned 315 acres near Flat Run in Harrison County, and was guardian of his father's 40 acre property on the South Fork of the Licking River in nearby Pendleton County (HCTAB: 1819, 1821, 1825, 1830, 1835, 1840). His household included himself and his wife, as well as one male child aged 5-10, and two male children aged 10-15. He also owned 13 slaves, and was taxed for 23 horses, 30 cattle, and one carriage (USCB: 1840; HCTAB: 1840).

On July 5, 1848, Joel C. Frazer purchased the 291 acre plantation and residence, known as Ridgeway, east of the Falmouth Pike that had belonged to Colonel William Brown for the sum of $9,751.52 (HCCO: DB 22:194-195). He also purchased the 226 acre farmstead and residence built by James Finley from Hugh Fraizer on November 13, 1845 (HCCO: DB

20:276-278). Tax assessments indicate that Dr. Frazer resided on his farm near Sycamore Creek as late as 1853 (HCTAB 1846, 1847, 1848, 1849, 1850, 1853). However, tax records for the years 1851 and 1852 could not be located and it is possible that he moved into Col. Brown's former residence as early as 1851. The residence built by Brown in 1816, currently known as the Handy House, remained Dr. Frazer's home until his death in 1863.

Tax assessments indicate that Dr. Joel C. Frazer likely never occupied the former James Finley residence. However, beginning in 1848, his son, Hubbard, was taxed separately, suggesting that he may have been the occupant (HCTAB: 1846, 1847, 1848). From 1848 to 1850, Hubbard W. Frazer was taxed for one horse and a gold watch. The entry for land ownership was left blank by the tax collector. However, both the 1850 and 1860 U. S. Census lists Hubbard Frazer as a member of his father's household (HCTAB: 1848, 1849, 1850; USCB: 1850, 1860). Based on the census data, it is most likely that Hubbard, who by this time had begun his own medical practice, still resided in his father's household rather the residence associated with the Frazer Farmstead.

Hubbard W. Frazer married Eliza Patterson in 1850, and by 1851 owned a 93 acre farm near Wood's Run in Harrison County (HCTAB: 1851; HCGIM: 1794-1893). He was taxed for four slaves, two horses, a piano, and two gold watches (HCTAB: 1851). Hubbard and Eliza Frazer had three children; Susan (Sudie), Joel H. and Nancy (Nannie). Although Hubbard's total value of real estate was assessed at $6,500 at the time of his death in 1860, census records indicate that he probably resided on his father's property (USCB: 1860).

Dr. Joel C. Frazer died in 1863 (Figures 5 and 6). In accordance with his will, his property remained in the possession of his widow, Nancy Frazer (HCCO: WB H:465). Nancy Frazer died intestate on April 10, 1872, and the property was divided among the children of Hubbard and Eliza Frazer (HCCO: WB J:299-302; HCCO: DB 35:454-455, 36:202-203).

Figure 5. Monument parking the Graves of Joel C., Nancy, and Hubbard W. Frazer in the Battle Grove Cemetery, Cynthiana.

Figure 6. Inscription on Frazer Monument, Battle Grove Cemetery, Cynthiana.

CHAPTER 4:
FRAZER FARMSTEAD DURING THE AMERICAN CIVIL WAR

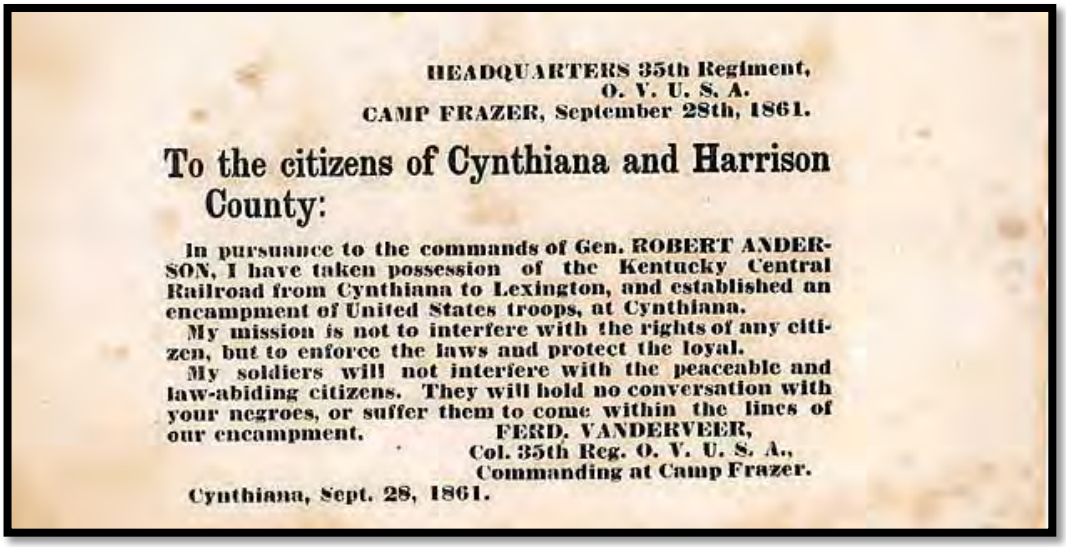
Dr. Joel C. Frazer's farm north of Cynthiana became the site of military activities at the onset of the Civil War. The first known encampment took place from June 13 to 19, 1861. Six regiments of the pro-Confederate Kentucky State Guard under the command of Colonel Roger W. Hanson, including John Hunt Morgan's Lexington Rifles, the Hamilton Guards from Bourbon County, and Dr. Hervey McDowell's Hamilton Rifles from Cynthiana, encamped on the future site of Camp Frazer (Penn 1995:23).

Although a slave owner, Dr. Frazer was a Union supporter. Camp Frazer, named in his honor, was established "on the bluff to the northeast of Cynthiana, on the Frazer plantation" (Keil 1894:7). The site was ideal because, in addition to being on high ground, it was convenient to the local turnpike, water, and the railroad (Penn 1995). Camp Frazer was one of the first Union encampments in the state after Kentucky officially abandoned neutrality on September 18, 1861, and was bounded by the old Falmouth Pike on the east, the Kentucky Central Railroad on the south, and the Licking River on the west (Coulter 1926:114; Penn 1995).

Camp Frazer was established by the 35th Ohio Volunteer Infantry on September 26, 1861, and was used by various Federal units through 1863. However, some references suggest the name of the camp was changed to Camp Tod by August 1862. The 35th Ohio was organized in the city of Hamilton, Ohio, in August and September 1861. Men were recruited from the Ohio counties of Warren (Companies A and F), Montgomery (Company H), and Preble (Companies E and a portion of G), and Butler (the remaining companies) (Reid 1895:229). With a force of nearly 900 troops, they arrived in Cynthiana by train from Covington on September 26, 1861, for a one month deployment, primarily to guard the Kentucky Central Railroad bridges and trestles in the Harrison-Bourbon County area (Penn 1995). On September 28, 1861, Colonel Ferdinand Vanderveer, of the 35th Ohio, issued a broadside under orders of General Robert Anderson proclaiming that he had "taken possession of the Kentucky Central Railroad from Cynthiana to Lexington, and established an encampment of United States troops, at Cynthiana" (Vanderveer 1861) (Figure 7). In an effort to prevent Kentucky from joining the Confederacy, Colonel Vanderveer (Figure 8) assured the citizens of Cynthiana and Harrison County that his "soldiers will not interfere with the peaceable and law abiding citizens. They will hold no conversation with your negroes, or suffer them to come within the lines of our encampment" (Vanderveer 1861).

The 35th Ohio remained in Cynthiana until October 22, 1861, when they were assigned to Paris and encamped on the Bourbon County Fairgrounds. They were replaced at Camp Frazer by the 2nd Ohio Volunteer Infantry; however, it is not known how long this regiment remained on the Frazer farm. Other troops stationed at Camp Frazer included a detachment of the 18th Kentucky Volunteer Infantry, under the command of Lieutenant Colonel John J. Landram. An order issued on June 4, 1862, by Colonel W. H. Warner, commander of the 18th Kentucky, instructed Landram to guard the Lexington and Covington railroad, and that "your headquarters will be established at Cynthiana, KY, where you will

encamp one company" (Regimental Order Book PI-17, Volume 4). The 18th Kentucky remained in Cynthiana from as early as January 1862, until the date of Confederate General John Hunt Morgan's first Cynthiana raid on July 17, 1862 (Penn 1995:54), when the site of Camp Frazer was captured by Confederate forces.



HEADQUARTERS 35th Regiment,
O. V. U. S. A.
CAMP FRAZER, September 28th, 1861.

To the citizens of Cynthiana and Harrison County:

In pursuance to the commands of Gen. ROBERT ANDERSON, I have taken possession of the Kentucky Central Railroad from Cynthiana to Lexington, and established an encampment of United States troops, at Cynthiana.

My mission is not to interfere with the rights of any citizen, but to enforce the laws and protect the loyal.

My soldiers will not interfere with the peaceable and law-abiding citizens. They will hold no conversation with your negroes, or suffer them to come within the lines of our encampment.

FERD. VANDERVEER,
Col. 35th Reg. O. V. U. S. A.,
Commanding at Camp Frazer.

Cynthiana, Sept. 28, 1861.

Figure 7. Broadside Issued to the Citizens of Cynthiana and Harrison County by Col. Vanderveer, 35th Ohio (Kentucky Historical Society).

Figure 8. Col. Ferdinand Vanderveer, 35thO.V.I (L. M. Strayer Collection).

In early July 1862, John Hunt Morgan, then Colonel of the 2nd Kentucky Cavalry of the Confederate States of America, began what came to be known as the First Kentucky Raid. Entering Kentucky through Tennessee, Morgan's raiders advanced north toward Lexington, pausing briefly at Georgetown before moving on to Cynthiana on July 17, 1862 (Duke 1906; Penn 1995). Fighting ensued at the covered bridge entering town (Figure 9), and before sunset, Morgan (Figure 10), with a command of approximately 875 troops, defeated the approximately 345 Union soldiers under the command of Lieutenant Colonel John J. Landram, which included the 18th Kentucky Volunteers, Home Guards, and several Cincinnati firefighters (Penn 1995).

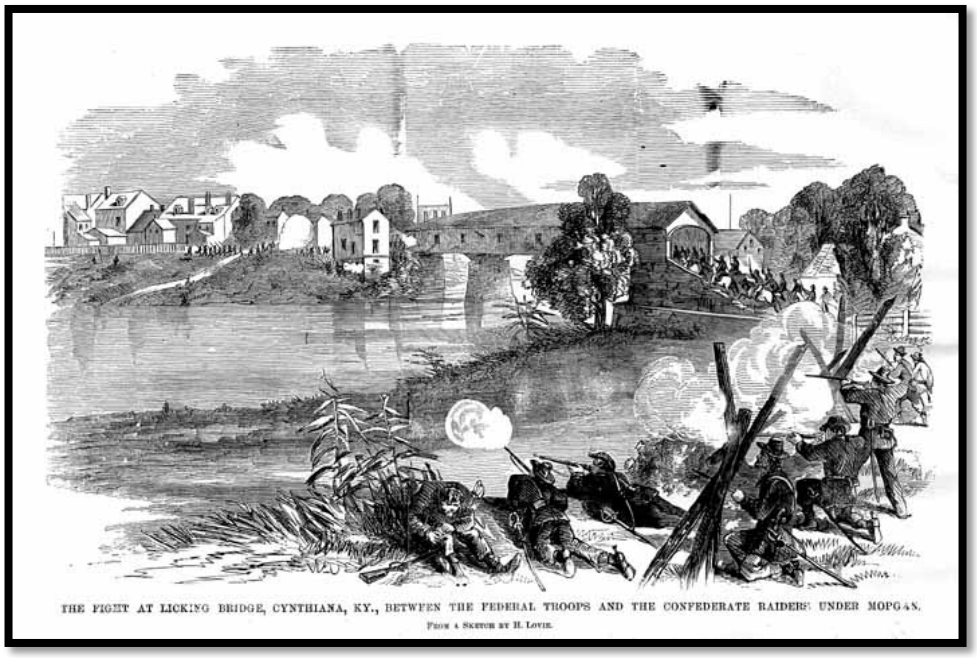


Figure 9. Illustration by H. Lovie of the First Battle of Cynthiana (from Frank Leslie's Illustrated Newspaper, August 16, 1862).

Morgan's official report of the events at Cynthiana lists the capture of cavalry horses, small arms, and the destruction of commissary and medical stores. According to Morgan:

> We captured a very fine 12-pounder brass piece of artillery, together with a large number of small arms and about 300 Government horses. I found a very large supply of commissary and medical stores, tents, guns, and ammunition at this place, which I destroyed (Morgan, Official Records, Chapter 28:769).

Shortly after Morgan's capture of Cynthiana, an article in the July 23, 1862 edition of the Louisville Daily Journal reported, "The party stole all the best horses in Harrison County, and several carriages and in Cynthiana they broke open the trunks of boarders at Rankin's Hotel, ridding them of clothing and every other article; and they burned up the brick building at Camp Frazer because it had been used as a commissary depot" (*Louisville Daily Journal*: 1862). Col. Landram's report of the Union defeat at Cynthiana states that the

"relatives of both sides are greatly indebted to […] Dr. J. C. Frazer" and others "for their unremitting attention to the wounded" (Landram 1862).

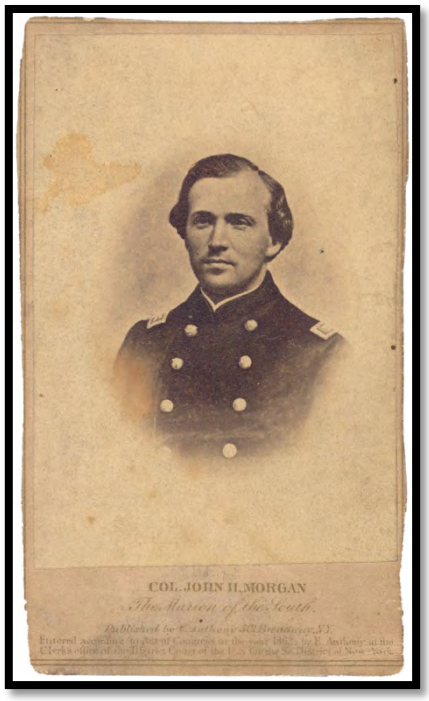


Figure 10. Col. John Hunt Morgan, 2nd Kentucky Cavalry, C.S.A. (Jeffrey Family Photographic Collection).

Following the Union defeat at Cynthiana, the 45th and 99th Ohio Volunteers arrived in late August 1862, and Camp Frazer was rebuilt. Union troops constructed fortifications, and approximately 150 slaves were seized from slave-owners "pointed out as being secesh" to provide the labor (Eliza Desha, August 1862, cited from Penn 1995). The diary of David Humphrey Blair, a soldier in the 45th Ohio, indicates that the regiment arrived in Cynthiana on August 21, and "built a fort near camp (rather stockade)" (Blair, 21 August 1862). Additionally, an entry in the diary of Zelotes Musgrave, also a soldier in the 45th Ohio, dated August 22, places the regiment in Cynthiana during this time (Musgrave, 1862). However, both soldiers refer to the camp as Camp Tod, named for then governor of Ohio, David Tod. Although no location is given for the camp, it was undoubtedly the site of Camp Frazer.

The 45th Ohio, under the command of Colonel B. P. Runkle (Figure 11), evacuated Cynthiana on September 2, 1862, on the approach of Confederate General Kirby Smith's forces. According to Musgrave:

> The 99th O.V.I. came here in a hurry and left Cynthiana with us on the cars. Before we left the Quartermaster burned all of his stores. We lost part of our tents. Reported that the rebs are advancing with a heavy force. We fell back to Falmouth (Musgrave 1862).

A member of the 99th Ohio observed the "Commissary Stores aflame" at "Camp Tod" as he passed through Cynthiana (Penn 1995; Geaslen 1972).

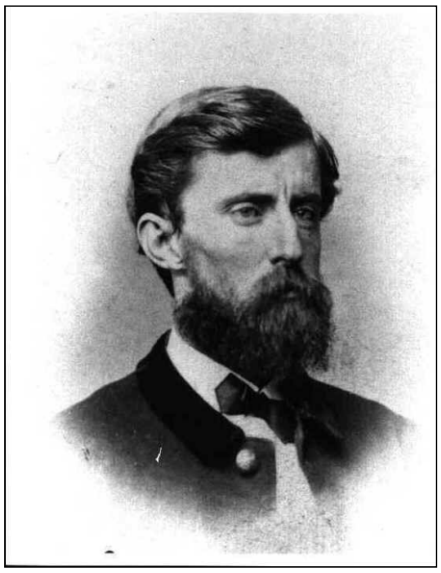


Figure 11. Col. B.P. Runkle, 45th O.V.I. (Roger D. Hunt Collection).

Dr. Joel C. Frazer died in May 1863, before the war ended, and on January 31, 1872, his widow, Nancy, filed a claim against the United States government, specifically the Quartermaster's Department, for property, damages, and use of land by Federal troops during the war (Frazer 1872). The claim was for horses, corn, wood, and rent in the amount of $3,684.10. According to her claim:

> [The] said bluegrass pasture and hospital (cont'g 6 rooms) was occupied by Col. John J. Landram's command from Dec. 2, 1861 to July 17, 1862 when said command was defeated, and the said hospital burned by the rebel John H. Morgan's unit. That on about July 25, 1862 Col. B. P. Runkle with his command the 45th O. Vols, took possession of said 15 acres bluegrass pasture, and occupied it till about Sept. 2, 1862, that he got the corn claimed for and that he evacuated said camp on the approach of the rebel Genl. Kirby Smith's forces (Frazer 1872).

Nancy Frazer died on April 10, 1872, less than two months after filing her claim. Although her husband, Dr. Joel C. Frazer, was "unquestionably loyal during the late rebellion […] his wife Nancy Frazer was disloyal," and the original judgment, issued on January 31, 1874, only awarded rent for use of the house and land in the amount of $135. According to this judgment:

> Colonel Landram […] occupied a house on said farm for a hospital, from February 20 to July 17, 1862, the use of which was reasonably worth the sum of $60. He also occupied as an encampment 15 acres of land on said farm for the same period, worth $15 per month making $75. General Ben. P. Runkle, commanding the Forty-fifth Ohio Volunteer Infantry, encamped on said farm about the 25th of July, 1862, and occupied 15 acres of land for his encampment from that time to September 2, 1862, and the value of that occupation was $18.50 (Frazer 1872).

However, the report was recalled by acting Quartermaster-General Rufus Ingalls, and on January 24, 1878, Quartermaster-General Montgomery C. Meigs declined to re-open the case or reconsider the original judgment. The matter was then referred to Congress, and a bill (H. R. 614) was presented for the relief of the estate of Dr. Joel C. Frazer (Congressional Report 1240, Frazer 1872). The major dispute of the earlier judgment was whether or not Dr. Frazer's estate should be compensated for wood, corn, and horses taken by Federal troops.

According to the claim, the 18th Kentucky Infantry took 56 cords of wood for the use of the troops, and became indebted for hauling seven loads of wood at a cost of $4. However, the Quartermaster's office ruled that this wood was taken while the 18th Kentucky was in the process of organization, and prior to muster into U. S. service. Although this part of the claim was not in dispute, it was determined that the cost of the wood and hauling should be paid by the Adjutant-General's Office instead of the Quartermaster's Department. The claim also stated that corn was taken from a 27 acre field, approximately 1350 bushels, by the 45th Ohio to feed both the soldiers and their horses. The remaining corn was cut down during September 1862, to better enable Federal troops to observe the approach of rebel forces under General Kirby Smith. According to the Quartermaster's office, the amount of corn used by the soldiers, and the amount of corn that was cut down and left to rot was a matter of conjecture. Additionally, since the corn was cut down before it was mature, the purpose of cutting the corn was to view the approach of the enemy, and the corn was either destroyed or consumed by the enemy, no compensation should be paid. The horses mentioned in the claim were taken on June 14, 1864, by Federal troops under General Stephen G. Burbridge following the defeat of Confederate forces under General John Hunt Morgan, which became known as the second battle of Cynthiana. Approximately 30 horses were present on Dr. Frazer's plantation at the time of his death, and his will instructed his wife to select 12 horses for her personal use. The remaining horses were to be sold. The Quartermaster's office questioned Nancy Frazer's loyalty during the war, and ruled that the horses taken by General Burbridge's troops were the property of Nancy Frazer, and not part of her late husband's estate. Therefore, since she was considered to be disloyal, no compensation for these horses was granted (Frazer 1872).

In April 1885, bill H. R. 614 was reviewed by the House of Representatives during the second session of the 46th Congress. Although the committee was unwilling to review the findings of the Quartermaster-General, they recommended an additional payment of $1,908 for 56 cords of wood valued at $2.75 per cord, hauling of seven loads of wood in the amount of $4, and 14 horses valued at $125 per head. The committee deemed the 14 horses to be assets of Joel C. Frazer's estate, and Nancy was simply an administrator of the estate. Therefore, her loyalty or disloyalty was unimportant. However, no compensation was granted for the 1350 bushels of corn (Congressional Report 1240, Frazer 1872). Although Congress recommended the approval of this bill (H. R. 614) in 1885, the judgment of $1,908 was directed to be paid by the 49th Congress in bill H. R. 898, entitled "For the relief of the estate of Joel C. Frazer, deceased," in February 1887. Payment was to be submitted to Caleb W. West, who was the administrator of the estate of Joel C. Frazer. West was the husband of Nancy (Nannie) Frazer, the granddaughter of Joel C. and Nancy Frazer. Caleb West, who fought for the Confederacy and was incarcerated as a prisoner of war during most of the Civil

War, was the territorial governor of Utah during this time. He was appointed to this position by President Grover Cleveland, and his political connections likely assisted in the outcome of this case.

The house associated with the Joel C. Frazer Farmstead was utilized as a hospital by the 18th Kentucky Volunteer Infantry, under the command of Lieutenant Colonel John J. Landram, from either December 2, 1861 or February 20, 1862 until July 17, 1862, when it was burned by Colonel John Hunt Morgan's Confederate troops after the first battle of Cynthiana. Medical supplies were likely captured, and were not burned with the hospital. Following the reoccupation of Cynthiana by the United States Army, the site of the 18th Kentucky's encampment on the Frazer farm was occupied by the 45th Ohio Volunteer Infantry, under the command of Colonel B. P. Runkle, from either July 25 or August 21, 1862 to September 2, 1862, when the 45th Ohio evacuated the camp on the approach of Confederate forces under the command of General Kirby Smith. However, prior to retreating from Cynthiana, the 45th Ohio's Quartermaster burned their supplies, certainly to prevent them from falling into enemy hands. The archaeological investigations suggest that a portion of the former hospital remained standing and was used for storage by the 45th Ohio's Quartermaster, who burned it along with their supplies as they left Cynthiana. Occupation of this site appears to end on September 2, 1862, as there are no references to its use as either a military encampment or a domestic residence beyond this date.

CHAPTER 5:
HISTORICAL ARTIFACT ASSEMBLAGE

A total of 30,014 historical artifacts was recovered during the 2006-2007 archaeological investigations at the Frazer Farmstead in Harrison County, Kentucky. The following chapter describes the historic materials recovered by functional group. (See Appendix A for discussion of the prehistoric materials recovered from this site.)

Historic artifacts were assigned to functional groups to facilitate site interpretation (South 1977). However, slight adjustments were made to South's (1977) framework to account for certain artifact types. Artifacts were assigned to the architecture, arms, activities, clothing, fuel, furniture, kitchen, military, personal, transportation, and miscellaneous groups. Faunal material, which consists of animal bone, will be discussed in Chapter 5. Construction materials, such as nails and window glass, were assigned to the architecture group; however, items such as nails were also used in the construction of furniture and storage boxes. The arms group is comprised of artifacts associated with weapons. Artifacts used in the performance of various activities, such as tools and toys, comprise the activities group. The clothing group consists of garment items such as buttons and buckles. The furniture group consists of objects used in the interior of structures, and includes items such as tacks, escutcheons, and lamp globe and mirror glass. All material types used in food preparation and storage, including ceramics and container glass, were assigned to the kitchen group. The military group is comprised of artifacts associated with military service (with the exception of arms), such as clothing items and accoutrements. Objects that usually belong to just one person, such as smoking pipes and coins, were assigned to the personal group. The transportation group includes any item used in the conveyance of people or goods. The fuel group contains any combustible material, such as coal or charcoal, used to create heat or power. Artifacts that could not be assigned to one of the aforementioned functional groups were assigned to the miscellaneous group.

Container glass and ceramic objects were classified by form, color, decoration, method of manufacture and/or paste type. The minimum number of ceramic or glass vessels (MNV) was calculated by grouping together ceramic sherds with similar paste, decoration, and shape, or glass fragments with similar color, shape, and surface treatment. MNV is used to give a more accurate assessment of the quantity of materials recovered from a site. For example, one broken bottle comprised of 20 sherds should have a value of one rather than 20.

A temporal analysis generally includes using mean ceramic dates (MCD), window glass thickness, and *terminus post quem* (TPQ) techniques to establish chronology. MCD is calculated by multiplying the median manufacture date for a type (d_1) by the number of sherds for each type (f_1); adding these products together; and dividing that sum by the total number of sherds (f_1) (South 1977:217). The end date of 1862 was used for wares with periods of production that extend beyond this date since it is the known year of abandonment of this site.

Mean Ceramic Date	$\frac{\Sigma(d_1 f_1)}{\Sigma f_1}$

Window glass dating was conducted using the formula developed by Moir (1987). Using a sample of window glass from sites with a known occupation range, Moir (1987) developed a regression formula for the chronological dating of window glass based on the thickness of the glass and the rate at which it increased over time. The formula works best on structures built after 1810 and before 1915 (Moir 1987:80). Moir's formula is as follows:

Glass Manufacture Date = 84.22 x (Glass Thickness in Millimeters) + 1712.7

The concept of TPQ suggests that the latest made artifact in a discrete archaeological context represents the earliest date that the context could have been deposited (Noël Hume 1969:11).

ARCHITECTURE GROUP

This category is comprised of items used in the construction and enhancement of buildings. Items in this group primarily consist of brick, window glass, and nails. Other architectural artifacts include construction hardware, door lock parts, and spikes.

Brick

Although a high density of bricks and brick fragments were present at this site, only a small representative sample (n=118) was collected, including two complete handmade bricks that measure 8.5 x 4 x 2 inches (21.5 x 10 x 5.5 cm) in length and width. Based on Gurcke (1987), all of the identifiable bricks (n=98) are handmade. The remaining specimens (n=20) were too fragmentary and are of indeterminate manufacture. However, given the known occupation dates of this site, it is most likely that they are also handmade.

Window Glass

All flat glass specimens measuring less than 3.0 mm in thickness were classified as window glass. All 3,964 window glass specimens are aqua in color. Changes in the manufacturing process of window glass generally resulted in the production of larger and thicker panes through time (Moir 1987). Several methods have been developed to relate window glass thickness with its date of manufacture (Ball 1983; Moir 1987; Roenke 1978), and examination of the distribution of window glass thickness can assist in determining the presence of one or more building episodes. Moir's (1987) formula described above was used to date all of the window glass fragments recovered from the Frazer Farmstead.

The recovered sample size is more than adequate to conduct analysis using Moir's (1987) formula. However, 642 specimens had been melted and were misshapen, and therefore could not be used in this analysis. The window glass from this assemblage ranges from 0.8 to 2.6 mm in thickness, which suggests that structural improvements and possible additions occurred throughout the site's occupation. Moir's (1987) dating methodology yielded a mean occupation date of approximately 1856 (Table 1).

Table 1. Window Glass Analysis*.

Site	N=	Min (mm)	Max (mm)	Mean (mm)	Regression Date (+/- 7 years)
Frazer Farmstead	3,322	0.8	2.6	1.7	1855.874
*Glass Manufacture Date=	84.22 x (Glass Thickness in Millimeters) + 1712.7				

Moir's (1987) regression formula was used to determine the approximate year of manufacture for each flat glass specimen, and the frequency of each specimen was then plotted as a bar graph (Figure 12). The analysis of window glass suggests a construction date between circa 1800 and circa 1820 (Figure 12). This date was established by the sharp increase in the frequency of window glass fragments with a thickness between 1.1 mm (1805) and 1.2 mm (1814). The span of occupation falls predominantly between 1805 and 1862. These dates do not conflict with either the ceramic assemblage or historical documentation of the Frazer Farmstead. However, documentary research suggests the house was likely constructed circa 1817. A small peak in window glass distribution is also noted in circa 1856, suggesting either an expansion of the dwelling or the replacement of windows may have occurred around this time.

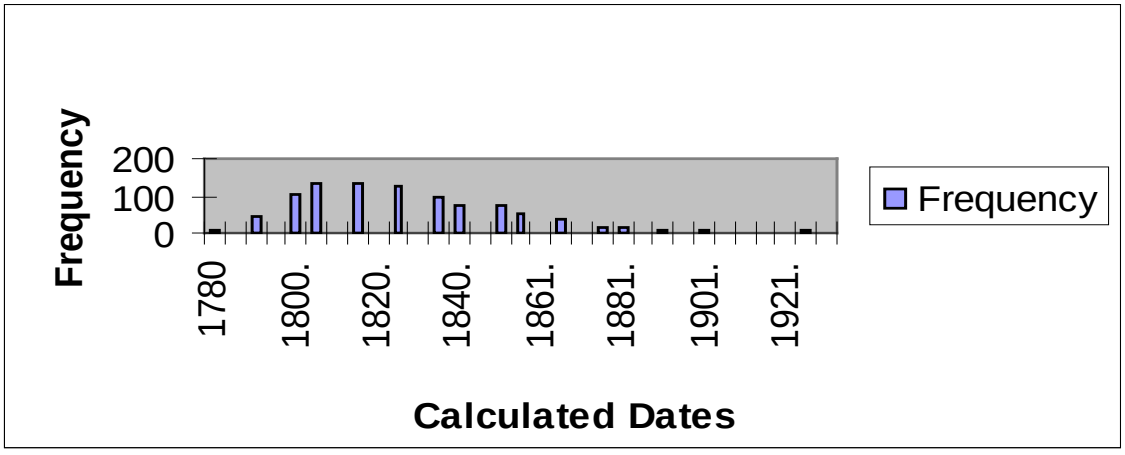


Figure 12. Distribution of Calculated Dates of Window Glass Manufacture.

The method of graphing the calculated dates of manufacture for each individual window glass fragment by frequency proved useful in establishing the period of occupation of this site. The house was constructed circa 1817 and was occupied through 1862. Given the known year of abandonment and destruction of the house, the negligible quantity of glass

fragments with calculated manufacture dates beyond 1862 may represent plate glass fragments that are most likely furniture items, or perhaps later contamination.

Nails

The 9,645 nails (n=4,256) and nail fragments (n=5,389) recovered from the site ranged in pennyweight from 2d to 60d (Table 2). Nails were classified by manufacturing technique where possible. The seven nail types present at this site include hand wrought (n=705), early machine-cut (2,472), late machine-cut (n=2,372), unidentifiable (i.e. early or late) machine-cut (n=3,072), L-head (n=370), wire (n=15), and unidentifiable nails (n=639).

Wrought nails are the earliest form of nails and were manufactured by hand (Nelson 1968). Wrought nails taper on all four sides to a point and have irregularly shaped heads (Figure 13). Generally, hand wrought nails date prior to 1830 (Nelson 1968). Machine-cut nails are square nails cut from a sheet of metal that taper on two sides rather than on all four sides like hand wrought nails. The earliest machine-cut nails were headed by hand and exhibit a pinch below the head, as well as irregularly shaped heads. Early machine-cut nails were manufactured between the late 1700s and the late 1830s (Smith 1975; Cleland 1983:61). Late machine-cut nails were completely manufactured by machine, and lack the pinching and irregular heads of the early machine-cut nails. Late machine-cut nails were largely manufactured from about 1830 until about 1900, and are still used in masonry construction. The unidentifiable machine-cut nails were either medial or distal fragments or so badly corroded that they could not be divided into early or late categories. Although wire nails have been manufactured in the United States since the 1850s, it wasn't until 1879 that they became widely produced (Fontana 1965:89). Wire nails replaced machine-cut nails for most functions between 1880 and 1890, and are still in use to the present day. L-head nails are commonly used as flooring nails, and are not particularly temporally diagnostic. Unidentifiable nails were so badly corroded that their method of manufacture could not be determined.

Table 2. Pennyweight Measurements for Whole Nails.

Functional Type	Small Construction 2-5d	Medium Construction 6-16d	Large Construction 20+d	Total
Nail Type				
Wrought	111	276	1	**388**
Early Machine-Cut	1,307	527	4	**1,838**
Late Machine-Cut	743	677	1	**1,421**
UID Machine-Cut	209	93	-	**302**
L-head	12	276	-	**288**
Wire	-	2	12	**14**
UID	3	2	-	**5**
Total	**2,385**	**1,853**	**18**	**4,256**

Other Architectural Materials

Other architectural artifacts consist of iron bolts (n=4), brads (n=7), daub (n=17), a ceramic door knob (n=1), a door lock plate (n=1), a hasp (n=1), hinges (n=12), a keyhole plate (n=1), latches (n=2), latch bars (n=2), a latch catch (n=1), a lock (n=1), mortar (n=23),

a mortise knob lock (n=1), tumbler padlocks (n=2), pintles (n=4), screws (n=72), a shutter latch (n=1), a hand wrought spike (n=1), tacks (n=46), and a washer (n=1) (Figures 14 and 15). All of these items date from the early- to mid-nineteenth century.

Figure 13. Nails: Left, Hand Wrought; Center, Early Machine-Cut; Right, Late Machine-Cut.

Figure 14. Door Parts: Left, Pintle; Center, Latch Catch; Right, Shutter Latch.

The door knob exhibits a mineral finish with a brown marbled (or tortoise-shell) design that was manufactured using a "flint enamel" process patented in 1849 (Barret 1958:19). Cast iron butt hinges (n=11) and a hand forged strap hinge (n=1) were recovered. Although it is not known when butt hinges were introduced, cast iron examples likely

appeared during the last quarter of the eighteenth century. Cast iron butt hinges appear in various English pattern books dating from the beginning of the nineteenth century, and remained in use throughout the nineteenth and into the twentieth century (Priess 2000:60-61). The strap hinge is a T-strap hinge. Depending on their size, these hinges could be applied to small cupboard doors, gates, larger room doors, or building doors (Priess 2000:58). Based on its size, the example found at the Frazer Farmstead was most likely used on a building or room door. Machine-made strap hinges were introduced in the 1840s (Priess 2000:58), and this hand forged example likely dates to the early nineteenth century.

Figure 15. Additional Door Parts: Left, Door Knob; Center, Keyhole Plate; Right, Padlock.

ARMS GROUP

This category includes items associated with weapons and their maintenance. Percussion caps (n=20), bullets (n=4), cartridges (n=43), a trigger guard (n=1), a cartridge clip (n=1), a gunflint (n=1), a flintlock brush and pick (n=1), a gun cock (n=1), a Smith Carbine tool (n=1), and a dagger blade make up this group.

Percussion caps were patented in 1814. However, they were manufactured from iron or pewter prior to 1816. The percussion caps found at this site were generally musket or rifle musket size and were manufactured from copper and date after 1816 although most undoubtedly date to the Civil War (Logan 1959:3) (Figure 16). Bullet types recovered include a .69-caliber buck and ball, a .22-caliber revolver bullet, a .58-caliber Minié ball, and a lead buckshot pellet. A buck and ball consisted of a full caliber smoothbore lead round ball combined with three buckshot pellets. This specimen is a .69 caliber lead round ball with three indentations caused by the buckshot. Although the buck and ball was more common from the late eighteenth through the early mid-nineteenth centuries, it remained in use during

the early years of the American Civil War (Fuller 1958). The .22-caliber bullet is from a rimfire cartridge probably for a Smith and Wesson revolver. Although the rimfire design was invented in France possibly in 1845, the .22-caliber rimfire cartridge was introduced in 1857 for use in the first Smith and Wesson revolver (Barnes 2006). The Minié ball, named for its inventor, Claude Etienne-Minié, was introduced in France in 1852 (Logan 1959:6). It was improved upon by American manufacturers and became the most widely used small arms ammunition during the American Civil War. The lead buckshot pellet is likely from a buck and ball smoothbore round.

Figure 16. Copper Percussion Caps.

Cartridges found at the Frazer Farmstead consist of rimfire and centerfire varieties. Rimfire cartridges include .22-caliber Smith and Wesson shell casings (n=2), and .32-caliber Smith and Wesson short (n=17) and long (n=17) shell casings (Figure 17). As noted above, rimfire cartridges were in use by 1857, and these examples are likely related to the Civil War-era military activities that occurred at this site. Recovered centerfire cartridges, which were invented during the late-nineteenth century, include two cartridges manufactured by the Union Metallic Cartridge Company. The first is inscribed "U.M.C. 32 S & W," and the second is inscribed "U.M.C. Co. No. 14," the former of which dates to 1878 (Herskovitz 1978:47). Other centerfire cartridges include a shell casing inscribed "No. 10 REM-UMC Shurshot," which was manufactured between 1911 and 1934, as well as a Smith and Wesson shell casing fragment of an unidentified caliber, and a .32-caliber revolver cartridge.

The gunflint recovered is rendered of black chert that exhibits a brown translucency when held to light. It is of English manufacture, and likely dates from the early- to mid-nineteenth century. A flintlock brush and pick also was recovered. This was a common accoutrement for military flintlock muskets such as the U.S. Model 1816 musket, a model still in use during the Civil War, although it was usually altered to percussion.

Other arms related items include a Smith Carbine gun tool, and a trigger guard from a U.S. Model 1816 musket (Figures 18 and 19). A dagger blade, a gun cock, and a cartridge clip also were found. The cartridge clip is a military accoutrement that dates to the military occupation of this site during the American Civil War. Model 1816 rifle muskets were manufactured by the Harpers Ferry and the Springfield Armories from ca. 1816 to 1840, and were converted by private contractors to percussion from ca. 1840 to 1860.

Figure 17. Cartridges: Top, 32-Caliber Smith and Wesson Short; Bottom, Long Rimfire.

ACTIVITIES GROUP

This category consists of items used in the performance of various activities, and is comprised of awls (n=20), a chisel (n=1), files (n=5), a fish hook (n=1), a gaming piece (n=1), various marbles (n=17), mouth harps (n=2), a pencil ferrule (n=1), a slate pencil (n=1), scissors (n=5), slate writing tablet fragments (n=5), and wedges (n=2) (Figures 20 through 22). Additionally, items associated with sewing/knitting are also included in this group. These items consist of straight pins (n=6), thimbles (n=5), a sewing needle (n=1), and bone knitting needle keepers/aglets (n=2) (Figures 23 and 24).

Although most of the artifacts in this category are not particularly temporally sensitive, some of the artifacts provide a nineteenth century date range for this site. Marbles recovered from the Frazer Farmstead are manufactured from clay (n=15) and stone (n=2), and were available throughout the nineteenth century. From the mid-nineteenth to the early twentieth century, pencils cut from solid pieces of softer grades of slate or soapstone were used to write on tablets cut from harder grades of slate. Slate pencils were available unwrapped, wrapped in paper, or encased in wood like a modern lead pencil (Wielandy 1933). A pencil ferrule is a metal eraser clasp mounted on the end of wooden pencils. The first pencil with an attached eraser was patented by Hymen L. Lipman of Philadelphia, Pennsylvania, in 1858 (Petroski 1992).

Sewing/knitting items in the assemblage consist of straight pins (n=6), thimbles (n=5), a sewing needle (n=1), and bone knitting needle keepers/aglets (n=2) (Figure 23). All

six hook and eye fasteners are manufactured of copper-alloy, and were used to fasten clothing when garments were closed in an edge to edge manner (White 2005:74). During the nineteenth century, black flat wire hook and eye clasps similar to those found at the Frazer Farmstead were in common use to fasten women's clothing (White 2005:75). The bone knitting needle keepers/aglets would have used in lacework to keep working needles and works-in-progress together when not in use (Figure 24) (Yamin 1998:81).

Figure 18. Gun Parts: Top, Flintlock Pick and Brush; Bottom, M1816 U.S. Trigger Guard.

Figure 19. Smith Carbine Tool.

Figure 20. Activities: Top Right, Stone Marble; Top Left, Clay Marble; Bottom Left, Mouth Harp; Bottom Right, Fish Hook.

Figure 21. Additional Activities: Left, Awl; Center, Scissors; Right, Chisel.

Figure 22. Writing: Left and Center, Slate Tablets; Right Slate Pencil.

Figure 23. Sewing. Top, Thimbles (n=2); Bottom Row Left to Right, Hook and Eye Clasps (n=2), Copper Aglet, Sewing Needle.

Figure 24. Bone Knitting Needle Keeper/Aglet Used in Lacework.

The items associated with sewing/knitting may suggest the presence of a seamstress at this site. (These items include straight pins (n=6), thimbles (n=5), a sewing needle (n=1), and bone aglets or keepers (n=2) that were used to keep working lace needles and the work-in-progress together when not in use.) Although many of these items are not very good time markers, as they have not changed in design or function through time, each was common throughout the nineteenth century.

CLOTHING GROUP

This category consists of garment items, such as buttons (n=665), suspender buckles (n=7), cufflinks/sleeve buttons (n=3), shoe parts (n=1,175), hook and eye clasps (n=6), glass beads (n=3), and grommets (n=1).

A wide variety of buttons were recovered from the Frazer Farmstead. Buttons were most common on men's clothing, but were also found on women's garments (White 2005:27). Material types consist of bone (n=159), brass (n=5), brass or copper (n=77), shell (n=14), pewter (n=29), iron (n=319), and porcelain (n=60). Buttons associated with military service, which include U.S. Army Eagle buttons (n=84) and a British Royal Navy button (n=1), are discussed below as part of the Military Group. Bone used to manufacture buttons usually came from cattle. The bone was boiled, cleaned, and cut into lengthwise slabs from which disks were cut in varying sizes (Luscomb 1967:25). Most bone buttons were strictly utilitarian, and were used for purposes such as fastening underwear and trousers. However, of the 159 bone buttons recovered, 137 are burned 4-hole buttons that could have been associated with U.S. Army issued tents that were lost when the quartermaster's stores at Camp Frazer were burned in early September 1862 (Figure 25). Shelter tents from this period were patterned after the French *tente d'Abri*, and were first issued in 1862. Early tents measured 5 feet 2 inches by four feet eight inches, and were fastened with bone buttons. After 1864, tents were larger, and were fastened by metal buttons (Woodhead 1998:214).

Figure 25. Selected burned bone buttons.

Likewise, a high density of burned cast-iron four-hole button were recovered (Figure 26). Although these items could have served a variety of functions, given their association with other burned military items as well as the known destruction of quartermaster's stores at the site, it is more likely than not that these buttons are also associated with the Federal military occupation of the Frazer Farmstead in 1862. These iron buttons, like many of the

bone ones above, may have been attached to clothing when they burned, or simply in boxes of buttons stored by the army.

Figure 26. Selected burned iron buttons.

Brass buttons include one gilded "Jacksonian" button, three round "coin" buttons that may have originally been covered with fabric, and one silver-plated decorative men's coat button (Figure 27). Additionally, a button with a brass body and shank with a violet glass insert was found. Jacksonian buttons refer to certain buttons manufactured during the period of Andrew Jackson's fame (Luscomb 1967:108). The button recovered from the Frazer Farmstead is a small solid button with a separate plain rim turned over the edge to form a border. This button features a gold gilt finish and a raised basket design. Jacksonian buttons date from 1840 to the 1850s (Luscomb 1967:108). Based on the size and the shank of the coin buttons, these buttons are most likely coat or waistcoat buttons that date from the eighteenth to the early nineteenth century (Hughes and Lester 1981:221).

An additional 77 buttons that were manufactured from either brass or copper also was recovered, 70 of which are round "coin" buttons that were most likely covered with fabric (Figure 28). Twenty-eight of these buttons exhibit a cone with wire eye shank, indicating that these buttons date from the eighteenth to the early nineteenth century, and 42 buttons are manufactured with an imbedded wire shank that was commonly used from 1800 through the 1830s (Hughes and Lester 1981:221). The size of these buttons indicate that they are either coat or waistcoat buttons. The remaining seven brass or copper buttons are large dome buttons with a flattened back and an omega shank that were likely men's coat buttons. These buttons date after 1800 (Hughes and Lester 1981:221). United States Army brass eagle buttons (n=84) and a British naval button (n=1) were also recovered; however, these items are discussed as part of the military group.

Figure 27. Buttons: Left to Right, Brass Jacksonian Button (1840-1850s); Brass British Royal Navy Button (1774-1860); Brass Button with Glass Insert; Silver-Plated Brass Button.

Figure 28. Additional Buttons. Top Row Left to Right: Dome Button; Brass or Copper "Coin" Button; Pewter "Coin" Button. Middle Row: Bone Buttons (n=2); Iron Button. Bottom Row: White Prosser Button; Blue Prosser Button.

Shell buttons have been manufactured for centuries from many types of shells (Luscomb 1967:177-178). The shell buttons found at the Frazer Farmstead (n=14), are small 4-hole buttons that were most likely used to fasten undergarments. Additionally, the shanks of the silver-plated and violet glass insert buttons indicate that they were manufactured after 1800 (Hughes and Lester 1981:221).

Pewter was commonly used in the late eighteenth and early nineteenth centuries for manufacturing men's buttons (Luscomb 1967:148). The pewter buttons recovered from the Frazer Farmstead (n=29) are round "coin" buttons that feature an embedded wire shank, indicating that they were manufactured between 1800 and the 1830s (Hughes and Lester 1981:221). Based on the size of these buttons, they most likely are coat or waistcoat buttons. The recovered iron buttons (n=319) are machine-pressed, and were most likely used to fasten trousers. Most of the iron buttons had been burned (n=296).

Porcelain buttons have been in use since the eighteenth century, but it was not until Richard Prosser patented machinery in 1840 that they were machine made (Epstein and Safro 2001:74; Sprague 2002:111). The regularity of the buttonholes and their uniform shape indicate that all of the porcelain buttons recovered from the Frazer Farmstead are machine-made Prosser buttons (Figure 29). The majority of the Prosser buttons found at this site are white porcelain buttons (n=59); however one cobalt example was present. Porcelain buttons were fashionable between 1850 and 1920 (Luscomb 1967:156). Most of these buttons were likely used to fasten undergarments or shirts.

Figure 29. Selected White Porcelain Prosser Buttons.

Three complete pairs of cufflinks/sleeve buttons were recovered that provide examples of both fancy and more commonplace sleeve links (Figure 30). Sleeve buttons are composed of two small buttons that are attached by links. The button was inserted into a slit in each side of the cuff, and the tension between the two buttons held the cuff closed (White 2005:61). The recovered fancy sleeve buttons include an intricate round set that consists of cobalt rose-cut glass jewels encased in a pewter shank, as well as an oval copper-alloy set that exhibits an elaborate starburst design etched into the surface of the button. The remaining set is also exhibits an oval copper-alloy design, and is undecorated. Although general trends in sleeve button form exist, it is difficult to accurately date individual examples. Round and oval sleeve buttons replaced the earlier octagonal sleeve links around 1760, and have or are known to have been in use from the late seventeenth to the early nineteenth centuries (White 2005:61).

Figure 30. Sleeve Buttons. Left to Right: Cut Glass and Pewter; Copper Alloy Decorative Starburst Design; Copper-Alloy Undecorated.

Other clothing related items include hooks and eyes, suspender buckles, and shoe parts. All six hook and eye fasteners are manufactured of copper-alloy, and were used to fasten clothing when garments were closed in an edge to edge manner (White 2005:74). During the nineteenth century, flat wire hook and eye clasps like those found at the Frazer Farmstead were commonly used to fasten women's clothing (White 2005:75). A number of suspender buckles (n=7) were also recovered, most of which (n=5) are burned, and two were still attached to fragments of burned textiles (Figure 31).

Figure 31. Burned Suspender Buckles with Attached Textile Fragments.

Shoe parts found at the Frazer Farmstead include tacks (n=35), nails (n=1,139), and a copper aglet (n=1). Although an exact date could not be determined for these items, each was in common use during the early- to mid-nineteenth century. However, the aglet, which is a covering over the tips of laces or string, could date earlier (White 2005:31). Additionally, the shoe heel plate predates 1912, when the cemented heel came into use in shoe construction

(Anderson 1968:62). A high density of these artifacts are burned; including 17 tacks and 260 nails. A few burned shoe nails remained attached to tacks, suggesting they were intact when the shoe burned (Figure 32).

Figure 32. Shoe Nails with Attached Clinched Tacks.

FUEL GROUP

This category includes any combustible material used to create heat or power, and is comprised of coal (n=33), cinders (n=5), and carbonized wood charcoal (n=238). Coal was adopted as a primary source of fuel in the mid- to late-nineteenth century, prior to which firewood and charcoal were used both domestically and commercially as an energy source. Cinders are the fused impurities produced by the burning of coal.

FURNITURE GROUP

This category consists of a variety of items used in the interior of structures, and is associated with furnishings and household fixtures (Figure 33). Items in this category include lamp globe glass (n=15), a lamp finial (n=1), brass furniture tacks (n=7), a draw pull (n=1), a draw handle (n=1), mirror glass (n=13), a ceramic figurine fragment (n=1), fragment of a cast iron stove door (Figure 34), a plain brass or copper oval-shaped escutcheon (n=1), and a decorative oval-shaped brass escutcheon inscribed with concentric rings and central floral pattern (n=1). Lamp globe glass recovered from the Frazer Farmstead was likely used with oil lamps, which were widely adopted during the 1820s and 1830s (McBride and McBride 1990:600). All of these items date from the early- to mid-nineteenth century.

KITCHEN GROUP

The artifacts in this category consist of those which functioned in activities related to the preparation, service, or consumption of foods and liquids. Major categories consist of refined ceramics, coarse ceramics, and container glass. The remaining kitchen group materials are discussed under the category of Other Kitchen. Analysis of temporally sensitive ceramics types yielded a mean date of approximately 1825 for the Frazer Farmstead.

Figure 33. Furniture Group: Top, Escutcheons; Bottom, Draw Pulls (n-2), Lamp Finial.

Figure 34. Decorative Cast Iron Stove Door.

Refined Ceramics

Seven refined ceramic types were recovered, which consist of creamware (n=975), pearlware (n=2,073), whiteware (n=2,392), ironstone (n=234), porcelain (n=764), burned refined (n=384), and unidentifiable refined ceramics (n=1).

Creamware is a non-vitreous white-paste earthenware which has a cream colored glaze. Creamware was initially produced in England ca. 1762, and first exported to the

United States in 1769 (Noël-Hume 1978:125). The majority of creamware recovered from this site is undecorated (n=916); however, decorative treatments on creamware include underglaze painted (n=15), overglaze painted (n=2), green shell-edge (n=29), dipt (n=3), mocha (n=6), and annular banded (n=4). The examples recovered from this site are light-colored creamware, which has a date range of 1775 to 1820 (Noel-Hume 1969:126-128; Miller 1991:5, 1993:4-6; Miller et al. 1994:222-223). The light color is partially a result of refining the iron out of the lead glaze. By 1790, light-colored creamware was referred to as CC ware, and was the cheapest refined earthenware. Creamware decorated with underglaze painted brown or blue lines dates from 1770 to 1825 (Finer and Savage 1965:116-118; Miller 1991:7). Shell-edge decorated creamware has a date range of 1774 to 1800 (Miller and Hunter 1990:202-204; (Hunter and Miller 1990:433-435), and dipt creamware dates from 1790 to 1820 (Noël-Hume 1969:132; Rickard 1993:184). Decorative mocha designs date from 1795 to 1840 (Miller 1991:7; Rickard 1993:184). By the end of the eighteenth century creamware dominated much of the American market, but was replaced by pearlware in popularity by 1810.

Pearlware is a non-vitreous and semi-vitreous, white-paste earthenware which has a light blue-green tint created by the addition of cobalt to a clear lead glaze. Pearlware was initially developed in England ca. 1780 and had become the most common tableware in the United States by ca. 1810. Although pearlware may have been manufactured until the mid-1800s, its popularity had declined by 1840 (Majewski and O'Brien 1987:118-119; Noël-Hume 1978:128-132; Price 1982:10-11). Pearlware was usually decorated in some way, and the undecorated (n=1,206) sherds recovered are likely undecorated fragments of a decorated vessel. Decorative treatments on pearlware include annular banded (n=13), cable (n=1), mocha (n=5), blue shell-edge (n=158), green shell-edge (n=73), sponged (n=8), blue transfer-printed (n=326), underglaze painted blue (n=63), and underglaze painted polychrome (n=220). Annular decorated pearlware dates from 1790 to 1820 (Figures 35 and 36) (South 1977:212). Cable and mocha designs have a date range of 1795 to 1840 (Miller 1991:7; Rickard 1993:184; Sussman 1997). Blue and green shell-edge decorated pearlwares date from 1780 to 1830 (South 1977:212). Underglaze transfer-printed pearlwares date from 1783 to 1830 (Shaw 1829:214), and underglaze painted polychrome pearlwares date from 1795 to 1830 (Miller 1991:8). Pearlware remained popular throughout the early 1800s, but it was quickly supplanted by whiteware by the 1830s.

Whiteware is a non-vitreous and semi-vitreous, white-paste earthenware usually having a clear, colorless glaze. Whitewares were first manufactured in England ca. 1805, but they did not become common in America until after 1820 (des Fontaines 1990:4). Whiteware remained common throughout the 1800s, reaching its greatest popularity in the decades from 1830 through 1890 (Majewski and O'Brien 1987:119-125; Miller 1980:16-17; Noël-Hume 1978:130-131; Price 1982). Whiteware occurs in virtually every decorative type that was available during the nineteenth century. Although most of the whiteware recovered from the Frazer Farmstead was undecorated (n=1063), molded transfer-printed (n=1), blue shell-edge (n=38), green shell-edge (n=8), unpainted shell-edge (n=29), slipped (n=13), sponged (n=45), black transfer-printed (n=5), blue transfer-printed (n=271), brown transfer-printed (n=155), green transfer-printed (n=29), purple transfer-printed (n=173), red transfer-printed

(n=366), red exterior/green interior transfer-printed (n=1), underglaze painted (n=73), and underglaze painted polychrome (n=44) (Figures 37 through 40).

Figure 35. Underglaze Painted Pearlware from Feature 14.

Figure 36. Shell Edged: Top, Green and Blue Shell-Edge Decorated Pearlware; Bottom, Green Shell-Edge Decorated Creamware

Figure 37. Decorated Whiteware. Top: Slipped; Underglaze Painted; Sponged. Bottom: Underglaze Painted; Sponged.

Figure 38. Overglaze Painted Whiteware.

Figure 39. Edge Decorated Whiteware.

Figure 40. Transfer-Printed Whiteware.

Ironstone refers to a semi-vitreous white-paste ware that contains china stone (petunse). Charles Mason began producing "Mason's Ironstone China" in England in 1813. Mason claimed his ware contained iron slag. English ironstone began appearing on American sites during the 1840s, and remained in production from 1842 to 1930 (Miller 1991:10). After 1850, ironstone was predominantly undecorated, or was decorated with molded geometric, floral, or foliate motifs. American manufacturers began producing refined, white-paste wares, including ironstone, during the Civil War. Two varieties of ironstone from the mid- to late-nineteenth century are now recognized: blue-bodied and white bodied. Blue bodied ironstone was manufactured by British, and perhaps by American firms. White-bodied ironstone was primarily manufactured by both British and American, firms, but primarily by British firms. Although the majority of undecorated ironstone recovered from this site is white-bodied ironstone (n=206), a low density of blue-bodied ironstone (n=3) also was present. Decorative treatments on ironstone consist of molding (n=24), and a single underglaze painted fragment (n=1). Additionally, a high density of undecorated burned ironstone (n=384) fragments was also found at this site (Figure 41).

Figure 41. Molded Ironstone: Top and Bottom Left, Plain; Bottom Right, Blue.

Porcelains are generally are characterized by a clay body that when fired is totally vitrified, impervious to liquids and translucent. Although the clay body is vitrified, the majority of porcelains also have a glaze. Porcelains are divided into three main categories: hard-paste, soft-paste, and bone china. Porcelain types found at the Frazer Farmstead consist of European hard-paste porcelain (n=448), Chinese export hard-paste porcelain (n=278), and bone china (n=5). Decorative treatments on European hard-paste porcelain recovered from this site include pattern molded (n=9), and overglaze painted (n=104). Decorative treatments on Chinese export porcelain in this assemblage consist entirely of overglaze painting (n=57) (Figures 42 through 44).

Figure 42. Overglaze Painted Chinese Export Porcelain.

Figure 43. Overglaze Painted European Porcelain.

Hard-paste porcelain is made from kaolin (china clay) and petuntse (china stone) which are clays formed from decomposing granite. These clays, when fired, fuse and become highly vitrified, have glass-like qualities, and are impervious to water. After firing, the glaze on hard-paste porcelain fuses tightly to the clay body creating a durable, smooth and easily cleanable surface. Chinese export porcelain is an example of true hard-paste

porcelain. Chinese porcelains produced for export to the West were most commonly decorated with underglaze blue hand painting, over glaze hand painted enamels, or a combination of both. Chronological dating of Chinese export porcelain is derived from the underglaze and overglaze motifs, many of which have specific named styles and date ranges (Madsen 1995). Vessel forms produced in hard-paste porcelain consisted primarily of tablewares and teawares for food and beverage consumption. Chinese export porcelain was made for the purpose of export to Europe and America during the late eighteenth to mid-nineteenth century (Mudge 1963). Chinese export porcelain recovered from the Frazer Farmstead consists primarily of undecorated examples (n=221). Decorative treatments consist of overglaze enameled sherds (n=57). Chinese trade porcelain dates from 1790 to 1825 (South 1977).

Figure 44. Overglaze Painted European Porcelain Tea Set.

Bone china is an English derived porcelain created in about 1794 (Beazley 1989, Miller 1991:11), with qualities that make it more similar to hard-paste rather than soft-paste porcelain. This ceramic type was produced in both Europe and America. Bone china is manufactured with a high content of bone ash added to the traditional hard-paste porcelain clay. The addition of bone ash imparted a bright white quality to the porcelain, while still keeping the ware translucent. A wider variety of colors were possible for decoration of bone china due to the lower firing temperature. Decorations on bone china included underglaze blue hand painting and printing, polychrome overglaze hand painting, and printing, as well as other treatments (Majewski and O'Brien 1987). Bone china was produced primarily in table and teawares for food and beverage consumption. Archaeologically recovered bone china is often stained as a result of the breakdown of the glaze and consequent absorption of minerals from the surrounding soil.

Other refined ceramic types include burned refined ceramics, which were too badly burned to determine the paste or glaze type. Although most burned refined ceramics were undecorated (n=601), decorative treatments noted include annular banded (n=2), pattern molded (n=1), blue shell-edge (n=3), green shell-edge (n=11), sponged (n=1), blue transfer-printed (n=17), purple transfer-printed (n=2), red transfer-printed (n=2), underglaze painted (n=11), and underglaze painted polychrome (n=15). These specimens are most likely either pearlware or whiteware; however, due to their condition an accurate identification could not be made. A single fragment of unidentifiable refined ceramics (n=1) was recovered, which was not glazed.

Diagnostic manufacturer's marks on whiteware consist of Andrew Stevenson (ca. 1816-1830); Ridgeway, Morley, Wear and Co. (c. 1836-1842); William Ridgeway and Co. (1838-1848); as well as the pattern marks "Millennium," which was manufactured by Ralph Stevenson & Son from 1832 to1835, and "Andalusia," which was manufactured by William Adams & Sons from 1800 to 1864 (Williams 1978; Williams and Weber 1986) (Figure 45). A mean ceramic date (South 1977) of 1824.8 was calculated for the assemblage (Table 3). This date is based on known manufacturing dates for different types of ceramics, and works well for the early and middle nineteenth century.

Figure 45. Whiteware Markers Marks: Top Row Left to Right: Millennium Pattern Mark (1832-1835), William Ridgeway and Co. (1838-1848), Andalusia Pattern Mark (1800-1864), Bottom Row Left to Right: Ridgeway, Morley, Wear and Co. (c. 1836-1842), Andrew Stevenson (ca. 1816-1830).

Table 3. Mean Ceramic Date Calculation for the Frazer Farmstead.

Artifact by Material	N=	Date Range	Mean Date	Product	Source
Creamware, undecorated	916	1775-1820	1797.5	1646510	Noel-Hume 1969
Creamware, annular banded	4	1770-1825	1797.5	7190	Finer & Savage 1965
Creamware, green shell-edge	29	1774-1800	1787	51823	Miller & Hunter 1990
Creamware, dipt	3	1790-1820	1805	5415	Noel-Hume 1969
Creamware, mocha	6	1795-1840	1817.5	10905	Miller 1991
Creamware, overglaze painted	2	1765-1810	1787.5	3575	South 1977
Creamware, underglaze paint	15	1762-1820	1791	26865	South 1977
Pearlware, undecorated	1206	1780-1840	1810	2182860	Noel-Hume 1969
Pearlware, annular banded	11	1790-1820	1805	19855	South 1977
Pearlware, cable	1	1795-1840	1817.5	1817.5	Miller 1991
Pearlware, mocha	5	1795-1840	1817.5	9087.5	Miller 1991
Pearlware, blue shell-edge	158	1780-1830	1805	285190	South 1977
Pearlware, green shell-edge	73	1780-1830	1805	131765	South 1977
Pearlware, transfer-printed	325	1783-1830	1806.5	587112.5	Shaw 1829
Pearlware, painted polychrome	220	1795-1830	1812.5	398750	Miller 1991
Pearlware, sponged	8	1770-1830	1800	14400	Noel-Hume 1969
Pearlware, underglaze painted	63	1780-1840	1810	114030	Noel-Hume 1969
Whiteware, undecorated	1063	1830-1862	1846	1962298	Noel-Hume 1969
Whiteware, painted	125	1830-1862	1846	230750	South 1977
Whiteware, transfer-printed	1005	1830-1862	1846	1855230	South 1977
Whiteware, flow blue	55	1845-1862	1853.5	101942.5	Collard 1984
Whiteware, sponged	45	1830-1862	1846	83070	Noel-Hume 1969
Whiteware, shell-edge	75	1830-1862	1846	138450	South 1977
Ironstone, undecorated	209	1840-1862	1851	386859	Miller 1991
Ironstone, molded	24	1840-1862	1851	44424	Miller 1991
Ironstone, painted	1	1840-1862	1851	1851	Miller 1991
Porcelain, bone china	33	1830-1862	1846	60918	Hughes & Hughes 1960
Porcelain, Chinese export	278	1790-1825	1807.5	502485	South 1977
Yellowware, undecorated	221	1840-1862	1851	409071	South 1977
Yellowware, annular banded	99	1840-1862	1851	183249	South 1977
Yellowware, rockingham	1	1850-1862	1856	1856	Gallo 1985
Stoneware, salt-glazed	49	1705-1862	1783.5	87391.5	Ramsay 1939
Stoneware, Albany	4	1805-1862	1833.5	7334	Ramsay 1939
Stoneware, Albany/Bristol	1	1835-1862	1848.5	1848.5	Oswald 1982
Stoneware, Bristol	1	1835-1862	1848.5	1848.5	Oswald 1982
Total	**6,334**			**11558026.5**	
Mean Ceramic Date			**1824.8**		

Coarse Ceramics

Coarse ceramic types in this assemblage include redware (n=1,806), stoneware (n=63), and yellowware (n=320).

Redwares are non-vitreous wares with red, buff, or brown paste. Although redwares can occur unglazed (such as flower pots), the vessels may have a clear or mottled lead glaze, or a black or brown glaze resulting from iron additions to the lead. Redware was manufactured in Kentucky during the early 1800s, and continued to be commonly used until

about the mid-1800s. All redware fragments recovered from this site are lead glazed (n=1,801); however lead glazed fragments with yellow slip (n=5) were also present. Due to the abundance of redware manufacturers and the lack of distinguishing characteristics that would identify the maker, redware is generally considered to be a poor temporal indicator.

Stonewares are semi-vitreous wares that are usually glazed, and were produced in a wide variety of thick, utilitarian forms. Stoneware paste ranges in color from red to buff to brown, and can turn gray during firing. Stoneware is primarily categorized by exterior surface treatment, with the most common category being salt-glazed. Stonewares were manufactured in Europe by the seventeenth century, in England by the eighteenth century, and were in abundance in the United States (including Kentucky) by the mid-nineteenth century. Stoneware effectively replaced redware as the utilitarian vessel type of choice. Consequently, the proportion of redware as compared to stoneware may be useful as a general temporal indicator (Andrews and Sandefur 2002).

Although American salt-glazed stoneware generally dates from 1705 to 1930 (Mountford 1971; Ketchum 1991:86), due to the abundance of domestic stoneware manufacturers and the difficulty in attributing vessels to a particular potter, stoneware is considered a poor chronological indicator on nineteenth century sites. However, two common slips used as glazes, Bristol and Albany, are useful for dating purposes. Albany slip ranges in color from light brown to black, and was ubiquitous in the Midwest from 1830 to 1900 (Phillippe 1990:80). Generally, Albany slipped stoneware dates from 1805 to 1920 (Ramsay 1939:21-22, 59). Bristol slipped stoneware is a white glaze that was frequently used in combination with Albany slip until about 1920. Although originally developed in Bristol, England, potters from Ohio introduced a form of this glaze into the United States at the New Orleans Exposition of 1884. Bristol slips generally date from 1835 to the present day (Oswald et al. 1982:19). However, after 1920, Bristol slips generally occurred alone (Lebo 1987:132). Salt-glazed stoneware (n=49) is the most abundant stoneware type present at this site. Other surface treatments on stoneware include Albany slip (n=4), exterior Albany slipped/interior Bristol slipped (n=1), Bristol slip (n=1), and lead glazed (n=7).

Yellowwares are semi-vitreous or non-vitreous wares of yellow- or cream-colored paste, which usually have a clear or mottled (Rockingham) lead glaze. The Ohio River Valley is well known for its yellowware potteries (Gates and Omerod 1982). Yellowware vessels include utilitarian forms similar to stonewares and redwares, as well as specialtyitems such as inkwells, footwarmers, etc. Yellowwares were popular from about 1830 until the 1920s (Herskovitz 1978:97). Yellowware recovered from this site include undecorated (n=221), annular banded (n=99) (Figure 46), and Rockingham (n=1) specimens.

Container Glass

A total of 2,795 container glass fragments was recovered from the Frazer Farmstead. All of these fragments are from bottles and tableware. The container glass consisted of amber (n=104), amethyst (n=3), aqua (n=1,188), clear (n=1,023), cobalt (n=7), dark amber (n=59), dark olive (n=187), green (n=9), olive (n=188), milk glass (n=1), and melted container glass (n=27). Diagnostic finishes (or lips) consist of applied (n=11), fire polished (n=6), flared

(n=1), rolled (n=7), rough applied (n=10), and machine-made crown cap (n=3). Diagnostic base fragments include empontilled (n=33), two-piece molded (n=1), and machine-made (n=1) examples. Diagnostic body sherds include scroll flask (n=2) and embossed eagle flask (n=1) fragments. One complete patent medicine bottle that was manufactured in a two-piece mold also was recovered. Other container fragments consist of clear (n=6) and pressed (n=21) glass tableware.

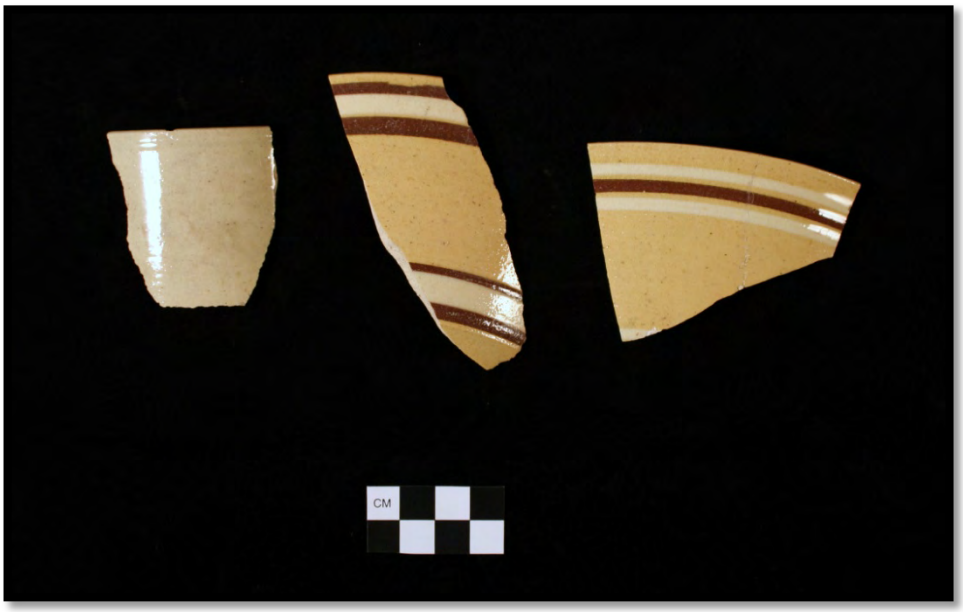


Figure 46. Selected Yellowware Fragments.

Body, base, and lip fragments from a minimum of three diagnostic flasks were recovered. The first is inscribed "Gener[al Washington] in a semi-circle above a bust of George Washington that includes horizontal beading with vertical medial ribbed edging (Figure 47). This flask exhibits a fire polished finish with an empontilled base. This specimen was most likely produced in the Midwest in the Pittsburgh-Monongahela district, and was popular during the 1820s (McKearin and Wilson 1978:450). The second diagnostic flask is a scroll flask, which was manufactured from 1830 to the 1850s (McKearin and Wilson 1978:422-423). The third is an eagle flask. Although the specimen from the Frazer Farmstead is too fragmentary to assign to a specific time period, this type of flask was popular from the 1840s through the 1920s (McKearin and Wilson 1978:441).

Other than the machine-made crown cap finishes, which were recovered from the upper fill zone in Cellar 2 and date from 1895 to the present-day, all finishes found at the Frazer Farmstead date from the early- to mid-nineteenth century (Figure 48). Applied finishes date from 1850 to 1870 (Newman 1970:73). Roughly applied lips consist of an untooled laid on bead of glass and predate 1880. Fire polished finishes are completed by cracking-off/shearing the lip, followed by fire polishing. This method was commonly used during the first half of the nineteenth century and is very rarely found on bottles produced after about 1860 (Deiss 1981). Flared finishes required the use of simple tool(s) to manipulate

the hot glass at the end of the neck to create a relatively thin finish which projects away from the top of the bore at a more or less 90° angle. This method of finishing was most commonly used in the U.S. between the 1820s and about 1870 (Deiss 1981). Rolled finishes are most common on early figured flasks, medicinal, and food bottles dating from or before the 1870s (Deiss 1981).

Figure 47. General Washington Flask.

Base fragments recovered from the Frazer Farmstead include rough and improved empontilled fragments (n=33) (Figure 49), one two-piece molded fragment (n=1), and one machine-made (n=1) fragment. Containers with roughly empontilled bases were manufactured from 1810 to 1870 (Newman 1970:73). Improved empontilled bases consist of a smooth base with iron or graphite residue, and date from 1840 to 1880 (Newman 1970:73). The machine-made fragment was recovered from the upper fill zone Cellar 2 along with the machine-made crown cap finishes. This specimen exhibits the encircled "A" maker's mark of the American Glass Works and was manufactured between 1908 and 1935 (Toulouse 1971:23). Additionally, a complete patent medicine bottle that was manufactured in a two-piece mold, and exhibits a fire polished finish and improved pontil scar also was recovered (Figure 50). Although the two-piece hinge mold was introduced in ca. 1750 (Jones 1983:169), this bottle was likely manufactured between 1840 and 1880 based on the improved pontil scar (Newman 1970:73).

Figure 48. Bottle Necks. Top Row from Left to Right: Roughly Applied (n=3) and Flared (n=1) Finishes. Bottom: Left, Fire Polished Finish; right, Applied Finish.

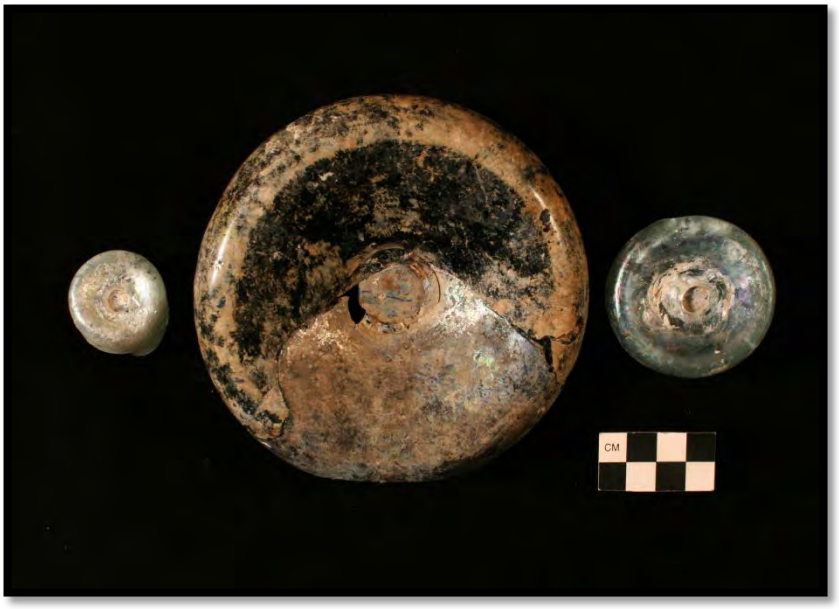


Figure 49. Empontilled Base Fragments.

Figure 50. Metal Vial and Improved Pontil Patent Medicine Bottle.

Other diagnostic container artifacts consist of amethyst glass (n=3).The amethyst color is derived from manganese oxide used in the manufacturing process to overcome the yellow or light green tint of iron oxide in the glass; however, glass with manganese turns purplish after extended exposure to the ultraviolet rays of the sun (Jones and Sullivan 1989:13). The end of amethyst glass is generally associated with the change to selenium, which began by 1915 and was almost exclusively used as a decolorizing agent after German imports of manganese were suspended in 1918 (Deiss 1981:82-83).

The glass tableware assemblage consists of pressed (n=21) and clear (n=6) specimens (Figure 51). Press molding was first introduced in England during the late-seventeenth century as a means to manufacture small solid objects, such as watch faces and imitation precious stones (Jones and Sullivan 1989). However, by the end of the eighteenth century, decanter stoppers and glass feet for objects were being produced (Jones and Sullivan 1985). Not until innovations in press molding techniques occurred in the United States during the late 1820s, did the production of complete hollowware glass objects become possible (Watkins 1930). Mass production of press molded glassware was well established by the 1830s (Watkins 1930).

The earlier press molded glass objects were predominantly made of colorless lead glass (Jones and Sullivan 1985). All press molded specimens recovered from the Frazer Farmstead are manufactured of colorless lead glass, and likely date from the early- to mid-nineteenth century. Other glass tableware consists of six fragments of a minimum of four

optic molded clear tumblers. Optic molded tablewares have been produced from the eighteenth century to present-day (Jones and Sullivan 1985:33) (Figure 52).

Figure 51. Tableware: Clockwise: Molded Handle, Press Molded Tableware (n=3), Glass Stopper.

Figure 52. Glasses. Left to Right: Optic Molded Tumblers (n=2); Drinking.

Other Kitchen Materials

The remaining items in the kitchen group consist of cast iron kettle fragments (n=20), a cast iron kettle lid (n=1), a cast iron stove fragment (n=1), metal crown cap bottle closures

(n=2), two-tyned (n=6) and three-tyned (n=2) forks, a gridiron fragment (n=1), bone (n=7) and metal (n=5) utensil handles, an iron container closure (n=1), knives (n=5), knife blades (n=8), a metal vial (n=1), spoons (n=1), a spoon bowl (n=1), a glass stopper (n=1), tin can fragments (n=53), and a stamped tin can lid (n=1). All of these items date from the nineteenth century, with the exception of the two crown cap bottle closures that also were recovered from the upper fill zone of Cellar 2 along with the aforementioned crown cap bottle lips and date from 1895 to the present day (Newman 1970:75).

Additional items include a a lid from a stamped tin can. Tin cans with stamped lids ceased production in ca. 1847 (Rock 2000:278). Both two-tined and three-tined forks were present in the assemblage, as well as spoon bowl fragments, that are also indicative of the early- to mid-nineteenth century (Figures 53 and 54). Additionally, a spoon was recovered that exhibits a pointed bowl and flared handle, and is similar to those issued as part of U.S. Army mess utensils during the American Civil War (Woodhead 1998:225).

Figure 53. Forks. Left to Right: Two-Tyned (n=5) and Three-Tined (n=2).

Among the eight knife blades recovered, three are temporally sensitive. Two blades were recovered that feature a bulbous, upturned blade and were manufactured between 1770 and 1820 (Dunning 2000:35) (Figure 55, top two). The third blade is manufactured from sheet steel and dates from 1850 to 1870 (Figure 55, third from top) (Dunning 2000:38). A number of carved bone utensil handles were also recovered (Figure 56). All of these items support an early- to mid-nineteenth century date range for this site.

Figure 54. Selected Spoons (Spoon in Center is likely a U.S. Army Mess Utensil).

Figure 55. Selected Knife Blades.

Figure 56. Selected Carved Bone Utensil Handles.

MILITARY GROUP

This category is comprised of objects associated with military service (Figures 57 and 58). These artifacts indicate that the structure associated with this site was incorporated into the military camp. Artifacts in this category include uniform items, which consists of eagle buttons (n=84), a British Royal Navy button (n=1), mess equipment (which consists of a folding knife, and a spoon, and fork combination), U.S. belt plate fragments (n=2), a main spring vice manufactured for the U.S. Model 1855 Springfield musket, a decorative brass tip from a socket bayonet scabbard, and an unidentified accoutrement (n=1). Other military related items include canteen stoppers (n=3), rivets from packs or haversacks (n=420), a shoe heel plate (n=1), iron buckles (n=77), and a copper sutler's token (n=1).

With the exception of the British Royal Navy button, all of these items date to the American Civil War. The presence of the Royal Navy button on this site is interesting. This button is manufactured from brass with an iron backing, and exhibits a fouled anchor design with rope edging. Small horizontal lines are also etched into the background, which appear to have been reserved for officer's uniforms. After 1748, British Naval buttons were decorated with a rose-like device in the center. However, in 1774, with a plain edge or rope edging replaced the rose design. Buttons similar to the type found at the Frazer Farmstead were in use by the British Navy from 1774 to 1860 (Burt 2008).

Figure 57. Military. Clockwise: Canteen Stoppers, Spur, U.S. Belt Plate Fragments, Shoe Heel Plate.

Figure 58. Additional Military: Left, Spoon and Fork Combination); Center, Socket Bayonet Scabbard Tip; Right, M1855 Springfield Main Spring Vice.

Brass eagle buttons were used by the United States Army from 1850 to the 1900s (Luscomb 1967:11). Both General Service and Infantry officer's types (in two sizes: 14.5 and 19.5 mm) were present. A total of 14 large (19.5 mm) and 13 small (14.5 mm) Infantry officer's, and 22 large (19.5 mm) and 17 small (14.5) General Service buttons was recovered (Figures 59 and 60). The remaining eagle buttons consist of six large and 5 small buttons that were too badly burned to determine rank. All but one small Infantry button was burned.

Figure 59. Brass Eagle Buttons: Top, General Service (small); Center and Bottom, Infantry Officer (large).

Figure 60. Burned Brass Eagle Buttons Recovered from Base of Cellar 1.

The sutler's token is manufactured from copper, and is inscribed "*McBeth & Aull OVI 45th Regiment 5 cents in goods*" on the reverse (Figure 61). Sutlers were itinerant merchants who sold food and other commodities to the troops. They operated under government contract, usually to a specific regiment (Lord 1969).

Figure 61. Sutler's Token Inscribed "McBeth & Aull O.V.I. 45' REG 5 cts. in goods".

A large quantity of buckles (n=77) were recovered. Buckles served a variety of purposes. They were used to fasten shoes, breeches, stocks, hats, swords, collars, girdles, gloves, gallus, and any other type of clothing or item that may need fastening (White 2005:31). Although the precise function of the buckles recovered from the Frazer Farmstead could not be determined, the vast majority (n=61) are burned, and based on size, were likely used to fasten knapsacks or haversacks. It is interesting to note that some specimens were still attached to rivets (Figure 62).

Figure 62. Buckles and Rivets.

A large quantity of rivets (n=215) also were found at this site. A rivet is a metal pin that is passed through holes in two or more plates or pieces in order to hold them together. They are usually made with a head at one end, and the other end being hammered into a head after insertion. A grommet is a metal eyelet through which a fastener may be passed. Although these items are not particularly temporally sensitive, most are burned, including 197 rivets. These items were most likely parts of haversacks or knapsacks, and were burned with the house when it was razed.

PERSONAL GROUP

This category includes objects typically reserved for one person's exclusive use, which often could be carried in a pocket or purse. Items in this category consist of coins (n=6), a key (n=1), a lice comb (n=1), smoking pipe bowls (n=32), clay smoking pipe stems (n=2), pocket knives (n=5), a pocket watch fob chain (n=1), shaving razor blades (n=4), a glass pocket watch lense (n=1), and beads (n=3).

Coins recovered from the Frazer Farmstead include two cut silver Spanish coins that date to the eighteenth century (Figure 63). The first is inscribed "[Car]olus" on the obverse and "[…]rum" on the reverse. The second is inscribed "Ca[rolus]" on the obverse and "[...]REX 17[??]" on the reverse. Both of these specimens are part of Spanish coins that had been quartered. A Spanish silver coin depicting Carolus III and dated 1774 also was recovered. Spanish silver remained legal tender currency in the United States until 1859 (Yeoman 2007:11). Other coins recovered include a copper half-cent dated 1800, and two copper Liberty head one-cent pieces dated 1816 and 1817, respectively (Figure 64). Both one-cent pieces were recovered from within the foundation of the structure, suggesting it was constructed around this time.

Figure 63. Late-Eighteenth Century Spanish Silver.

Figure 64. Coins. Left to Right: 1774 Spanish Real; 1800 Half-Cent, 1816 Matron Head Cent; 1817 Matron Head Cent.

Thirty-five fragments of smoking pipes were recovered during the excavations (Figure 65). Five are Indian effigy pipe bowls. Effigy smoking pipes had become popular during the first half of the nineteenth century (Bradley 2000), and these fragments likely date to that period. The other fragments are stoneware (=9), redware (n=18), and refined earthenware (n=1) pipe bowls, all of which were mold-made. Additionally, two kaolin clay pipe stem fragments were recovered. None of the smoking pipes in this assemblage exhibit maker's marks, so further identification is not possible. Many local redware manufactories also produced smoking pipes in the early to mid-19th century. It is possible that some of these items are related to the presence of the Army sutler during the Civil War-era occupation of the site (Curto and Schwartz 1962).

Figure 65. Selected Smoking Pipe Fragments.

Additional items in this category consist of a small pocket knife (Figure 66), an iron straight razor blade fragment (Figure 67), and a portion of a bone lice comb. Although no maker's mark was visible on the pocket knife, it correlates temporally with the early- to mid-nineteenth century occupation of this site. The iron straight razor blade is fragmentary, and exhibits the tang. The lice comb fragment is double-sided, and manufactured of bone. It is typical of those found on sites dating from 1600 through the first quarter of the nineteenth century (Chan 2007:188). Each of these items are associated with the early- to mid-nineteenth century occupation of the Frazer Farmstead.

Figure 66. Pocket Knife.

Figure 67. Grooming: Top, Shaving Razor; Bottom, Bone Lice Comb Fragment.

Beads recovered from the Frazer Farmstead consist of light aqua blue (n=1), maple (n=1), and dark palm green (n=1) glass beads (Figure 68). The glass beads were coded and

described according to Kidd and Kidd's (1970) typology, as well as Karklins' (1985) analytical design. Using this combined format, these beads were examined for manufacturing techniques (drawn, wound, molded, etc.), size (very small - <2 mm diameter, small – 2-4 mm diameter, large - 6-10 mm diameter, very large – 10-17 mm diameter, and very, very large - >17 mm diameter), diaphaneity (opaque, transparent, translucent, burned, etc.), and color (Kidd and Kidd's color chart was used to match the color for consistency). These beads also were assessed as to compound or simple construction, and surface decoration.

Kidd and Kidd (1970) developed a classification scheme for beads based on their process of manufacture and physical characteristics. The glass beads recovered from the Frazer Farmstead are wire wound beads. Wire wound beads, also termed wound and mandrel wound, were formed by winding a viscid rod or strand of glass around a rotating metal mandrel one or more times until the desired size and shape was achieved (Karkilns 1983:96). However, "[b]ecause they are handcrafted, it is impossible to reduce wire wound beads to a neat classification" (Kidd and Kidd 1970:53). The beads recovered consist of one large, translucent, monochrome light aqua blue bead of faceted tubular shape, one large, opaque, monochrome dark palm green bead of faceted tubular shape, and a very, very large, opaque, monochrome tubular maple colored bead (Kidd and Kidd 1970). Although no specific date range could be assigned to these beads, they are temporally consistent with the known occupation of the site, and their occurrence suggests the presence of women.

Figure 68. Glass Wire Wound Beads.

TRANSPORTATION GROUP

Artifacts in this category include items associated with any form of wheeled transport, as well as items associated with horse, mule, or ox shoeing. Most of the artifacts in this group of metal items associated with animal powered transportation vehicle. This group is comprised of bits (n=5), a carriage knob (n=1), harness rings (n=4), harness rivets (n=2), horse shoes (n=7), horseshoe nails (n=25), a lariat swivel (n=1), a snaffle bit (n=1), a

spur (n=1), a stirrup (n=1), a currycomb (n=1), wagon staples (n=3), and railroad spikes (n=5) (Figures 69 and 70). All of these items were in use throughout the nineteenth century. However, the spur is similar to regulation U.S. Army spurs (Woodhead 1998:193), and many of the horse tack items may date to the 1861-1862 Civil War-era military occupation of this site.

Figure 69. Riding: Top, Stirrup and Horseshoe Fragment; Bottom, Harness Ring and Bit Fragment.

Figure 70. Currycomb.

MISCELLANEOUS GROUP

This category includes miscellaneous hardware, as well as objects that could not be clearly identified as to function, could serve multiple functions, or were simply unidentifiable (e.g., corroded metal artifacts). Items in this category include, iron strap/band fragments (n=25), bar stock (n=2), barbed wire (n=1), bolts (n=2), metal braces (n=5), brackets (n=11), a brass drive hook (n=1), hand carved bone (n=1), chain links (n=3), fence staples (n=3), slag (n=5), ferrules (n=2), finials (n=2), a metal gear (n=1), handles (n=4), a hinge (n=1), hooks (n=3), an iron bar fragment (n=1), an iron clip (n=1), an iron ring (n=1), a latch (n=1), limestone (n=1), plate glass (n=1), spikes (n=3), a washer (n=1), a wedge (n=1), wire (n=56), unidentifiable wrought hardware (n=1), unidentifiable hardware (n=8), an unidentifiable smithy piece (n=1), and unidentifiable brass or copper (n=27), iron (n=316), lead (n=19), and unidentifiable metal (n=1).

DISCUSSION

The goal when analyzing artifact assemblages is multi-fold. The first goal is to determine the age of the site and the length of occupation. The second is to determine site function, meaning what activities took place at the site. Other goals include the comparative analysis of various research topics such as socio-economic status, or trade networks.

Archival and architectural materials suggest that the house was constructed in ca. 1817 by James Finley. This date is supported by the presence of two coins found within the house foundation, the latest of which is dated 1817. Window glass analysis, as well as the presence of hand wrought and early machine-cut nails, supports the assertion of an early nineteenth century date of construction for this structure. Window glass analysis also suggests than either an expansion or the replacement of windows may have occurred during the mid-nineteenth century. An expansion or architectural enhancement of this dwelling is also supported by the presence of late machine-cut nails in the artifact assemblage; primarily on the northern end of the house as identified in Excavation Blocks 1 and 4. Wire nails recovered from Cellar 2 and other portions of the site are likely post-occupation contamination. The house consisted of a limestone foundation, and was likely constructed of brick. At least three hearths were present inside the structure.

James Finley was among the earliest merchants in Cynthiana, where he operated a retail store from 1805 until 1819. Since the location of his store is unknown, it is possible that part of his house also functioned as the store and some of the items recovered may be remnants of his inventory. Finley occupied this structure until 1823, when the house and the 300 acre tract upon which it was located was sold at public auction in order to repay debts owed to the Bank of the United States. Although the property was sold at this time, it was not the primary residence of the purchasers. It is possible that Finley was allowed to remain in his home until his death in circa 1825. Following Finley's death, the property appears to have likely been occupied by tenants until it was purchased by James J. Allen in two parcels in 1834 and 1841. However, by the late 1820s, it was referred to as Fairley Farm.

James J. Allen was a racehorce dealer, and appears to have occupied this residence from the late 1830s through 1844. However, he obtained a tavern license in 1839, and it is possible that this structure functioned briefly as a tavern. The relatively high density of smoking pipe bowls in the artifact assemblage may be evidence of this assertion. Although it is not possible to assign an exact date to transportation items recovered from this site, the presence of items related to horse husbandry may be related to Allen's racehorse business. Evidence of domestic activities at this site includes the possible presence of a seamstress. Artifacts such as straight pins, sewing needles, thimbles, scissors, and bone knitting needle keepers/aglets used in lacework provide support for this assertion.

The property was acquired by Dr. Joel C. Frazer in 1845, and he also owned a 40-acre tract further north near Sycamore Creek. Dr. Frazer likely only briefly resided in the house at the Frazer Farmstead prior to purchasing the much fancier Ridgeway residence (known today as the Handy House) formerly owned by Col. Willliam Brown in 1848. Although the Frazer house may have been occupied between 1848 and its utilization by the Union Army, which had constructed Camp Frazer on the property in late 1861, the identity of any potential resident(s) is not known.

Archival research indicates that the 18th Kentucky Volunteer Infantry utilized this structure as a hospital from late 1861 until it was burned by Confederate troops under General John Hunt Morgan on July 17, 1862. The presence of burned architectural materials such as nails and window glass indicates that this structure was destroyed by fire. Although very few medicinal related artifacts were recovered, General Morgan reported the capture of a large supply of medical stores. Medical artifacts recovered from the destruction zone within the house include a metal vial and a patent medicine bottle, both of which are burned. The majority of medical supplies present when the house was destroyed were likely captured by Confederate forces.

Although Confederate troops burned the hospital at Camp Frazer, a portion of the house appears to have remained intact. Archival research indicates that the property upon which this structure was located was occupied by the 45th Ohio Volunteer Infantry from late July 1862 until September 2, 1862. A sutler's token inscribed "45' O.V.I" recovered beneath the house rubble places this regiment at this location. A diary entry of a soldier in this regiment indicates that as they evacuated the camp their Quartermaster burned his stores, and they lost many tents. The high density of burned Civil War-era military artifacts, including eagle buttons and accoutrements, recovered from the destruction zone provides evidence that supplies were stored here. Additionally, early tents issued by the Union Army in 1862 were fastened by bone buttons (Woodhead 1998:214). The high density of burned bone buttons recovered from the Frazer Farmstead may be remnants of some of these tents.

The Frazer Farmstead was occupied as a domestic residence from ca. 1817 to ca. 1860. Analyses of ceramics resulted in a mean ceramic date of approximately 1825 (Table 3), and analyses of window glass provided a median date of approximately 1856, which is clearly too late and, as noted above, probably relates to a later expansion of the house. The construction of the Covington and Lexington Railroad (also known as the Kentucky Central Railroad) in 1854 was likely a factor in the abandonment of the house.

The house later functioned as the Union Army hospital at Camp Frazer from late 1861 until it was burned by Confederate forces on July 17, 1862. According to Dr. Frazer's widow, Nancy, this same land was later occupied by the 45th Ohio, and an entry in the diary of a soldier in this regiment confirms her claim. Although the sutler's token may have simply been dropped, it places the 45th Ohio at this location. A portion of the house appears to have remained standing following Morgan's Raid, and was used for storage by the 45th Ohio's Quartermaster, who burned their supplies as they evacuated Camp Frazer on September 2, 1862. Many of the artifacts recovered are typical of what would be expected in a Quartermaster's store, and the presence of Infantry officer's uniform buttons indicates that it was occupied by United States Infantry. Dr. Joel C. Frazer died in 1863, and the property was briefly held by Caleb West, who later served two terms as territorial governor of Utah.

Arms related items recovered from this site indicates that the troops were equipped with a variety of small arms, including .32 caliber revolvers and possibly Model 1816 muskets that may have been modified for percussion. The presence of a British Royal Navy button is a mystery. Buttons of the type recovered from this site have a long period of use. It is possible that Finley, who served in the Army during the War of 1812, collected it as a souvenir, but this is merely speculation.

Materials dating to the twentieth century were likely deposited due to farming practices and are not related to the domestic occupation of this site. These items were recovered from the plowzone and the upper fill zone in Cellar 2 (Feature 98). Items such as crown cap closures and a machine-made bottle base with the manufacturer's mark of the American Glass Works found in the upper fill within the cellar indicate that it was filled in sometime between 1908 and 1935. However, materials recovered from the burned destruction zone at the base of the cellar suggest that it was burned during the Civil War.

Artifacts recovered from the Frazer Farmstead provide a glimpse into the material culture of upper middle class households in antebellum Kentucky. Moreover, the Civil War component of this site sheds light on one of the early battles of the war. The Frazer Farmstead is an excellent example of how the archival and archaeological record can work together to further our understanding of historical archaeological sites.

CHAPTER 6:
FAUNAL REMAINS

By
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INTRODUCTION

The faunal assemblage consists of 4,173 individual bone specimens (NISP; weight=11,512.98g), and 725 shell (weight=2001.45g) (Table 4). Based primarily on association with temporally diagnostic artifacts, 91.51% of the combined vertebrate and shell faunal materials were separated into two dated collections: early nineteenth century and mid-nineteenth century. The remaining 416 specimens were recovered from indeterminate contexts and were not considered in the examination of subsistence patterns at this site. Although some of the recovered faunal remains may be associated with the late 1861 to September 1862 Union Army occupation of the farmstead, these specimens were either found in mixed contexts with later materials or in contexts that could not clearly be attributed to the Civil War-era military occupation of the site. The faunal remains recovered from the two occupation episodes are the major focus of zooarchaeological analyses presented in this chapter.

Table 4. Remains by Animal Class.

Class	NISP	Weight
Mammal	3,620	11,219.50
Bird	314	217.08
Reptile	17	27.20
Amphibian	2	0.60
Fish	42	5.90
UID Vertebrate	178	42.70
Subtotal	**4,173**	**11,512.98**
Bivalve	723	2,001.05
Snail	2	0.40
Subtotal	**725**	**2,001.45**
Total	**4,898**	**13,514.43**
NISP=Number of Individual Specimens		

METHODS

The faunal remains recovered from the Frazer Farmstead were identified to their lowest possible taxonomic level based on direct comparison to study specimens housed at the Archaeology Facility of the University of Kentucky's William S. Webb Museum of Anthropology. Additional aid came from diagnostic information available within the relevant zooarchaeological literature (e.g., Olsen 1964; Reitz and Wing 1999; Schmid 1972, Steadman 1980). Quantification is based on the weights and NISP of recognizable species or animal size class (e.g., large, medium, and small mammal), element, side, and portion, plus if possible age and sex of taxon. The fragmentation of specimens particularly if they appeared to be sub adult or within the size of sheep, goat, deer, or pig prevented species classification.

Some fragmented specimens could only be assigned to a broad taxonomic category of unidentifiable (UID) mammal, bird, or vertebrate.

A broad approach was also taken for similarly-sized taxa, such as sheep, goat, deer, and pig. If specimens could not be specifically identified they were grouped into classifications such as sheep/pig, sheep/goat/pig, and sheep/goat/deer/pig. When applicable, some specimens were recorded as tentatively a close fit (cf.) to a particular species. Calculation of minimum number of individuals (MNI) for species was based on the largest number of individual diagnostic bone elements by side and portion recovered for a particular species associated to specific occupation periods recognized at the site. For most of the cf. identified taxa, MNI was not given unless it was an exclusive classification for a particular context, for example cf. mink or cf. passenger pigeon.

All specimens were examined and recorded for cultural and natural modifications. Cultural modifications consist of marks on the bone attributed to butchering and consumption activity most commonly identified as knife, chop, and saw cuts. Specimens with saw cuts are generally represented by either one end saw cut or with both ends saw cut in a parallel orientation separated by various bone lengths. Parallel orientated saw cut bone are viewed here to result from an effort to increase butchering efficiency toward a greater number of meat portions per animal and is believed to reflect a connection to a market economy. When apparent, hand sawed bone was noted (Reitz and Wing 1999:132) although it is believed that the site variation in such marks is more the result of the saw types used rather than with the power source (hand or machine) employed. Specifically, "a fine toothed meat saw [results in] virtually smooth cut surfaces [while] a coarse toothed saw produces very distinct striae or saw tooth marks on the surface" (Lyman 1977:67-69). Given such patterning, records in this report of hand saw are viewed as resulting from a coarse toothed meat saw. Unspecified saw cuts are believed to be the result of fine toothed saws being used.

Bone modifications by animals were also recorded. In particular, gnaw marks from rodents (most likely Old World mice and rats) and carnivores such as raccoon, skunk but mainly dogs (Lyman 1994) were recorded as slight, moderate, or heavy. If present, ingested bone called scat, recognized from pitting, polished edges, and eroded surface characteristics typical of corrosion from digestion (Binford 1981:55; Schmitt and Lupo 1995:499) likely from dogs, was also noted. The frequency of animal modifications can offer several insights specific to human behavior at sites. Among these are if bone was disposed upon the surface or quickly buried, and if humans allowed bone gnawing animals, namely dogs and rodents, to "cohabitate" the site.

High frequencies of gnawed bone suggest that these animals had greater access to bone than at sites where such frequencies are marginal or absent. The frequency of dog gnawed bone in particular is a relative measure of bone preservation at a site (Binford 1981). Also, high frequencies of rodent gnawed bone may suggest a human tolerance for these animals. It may also indicate periods when humans abandon the site or at least limited activity within site portions with bone on the surface.

Burnt bone modification was recorded as black or calcined (Shipman et al. 1984). Burnt black bone results from relatively low heat that carbonized the organic components while burnt calcined is from more intense heat generally over a prolong time that oxidized the carbon turning it a white or light blue color (Reitz and Wing 1999:133). Assemblages with high frequencies of calcined bone may possibly reflect human efforts to purposely dispose of bone. The last recorded bone modification is for characteristics of weathering such as cracked and exfoliated surfaces. When present, weathered bone was noted as slight, moderate, or heavy. Overall, the condition of bone preservation at the Frazer Farmstead is moderate to excellent and appears to reflect the limited time at which specimens were exposed on the ground surface. In contrast, the preservation of shell is moderate to poor with 93.1% of the recovered bivalve specimens from dated context being too small and fragmented for identification.

Calculation of biomass amounts, or soft tissue weight were generated exclusively for cow and pig bone specimen weight following the allometric formula discussed in Reitz and Wing (1999: 224). The formula is $Y = aX^b$ or $\log_{10} Y = a + b (\log_{10} X)$ where:

> Y = estimated sample biomass (in kg converted from gm)
> contributed by the archaeological specimen for a taxon X =
> specimen weight (kg) of the archaeological specimen for a taxon
> a = the Y-intercept of the linear regression line
> b = slope of the regression line

The biomass amounts were only generated for cow and pig in part because they are believed to represent the most essential domestic species utilized for meat during the Historic periods recognized at the Frazer Farmstead.

Food Utility Index (FUI) values were generated following Metcalfe and Jones (1988) and modified by Purdue et al. (1989) to assess the economic value of different cuts of cow and pig (Lyman 1987; Schulz and Gust 1983). The FUI values reflect the "combined weight of the meat, marrow, and grease attached to each of the body parts" (Metcalfe and Jones 1988: Table 1). Purdue et al. (1989:150) grouped the values of these body parts into three utility/weight categories rounded to the nearest gram; Low Utility <1000, Medium Utility >1000 < 3000, and High Utility >3000.

Use of FUI values for cow and pig recognizes that factors of differential preservation based on skeletal age and element as well as methods of cooking and of bone disposal may have greatly altered such frequencies in archaeological sites (Landon 2005; Lyman 1985,). To help control for preservation, cow and pig FUI derived for this study include shafts and long bone ends as suggested by Marean and Frey (1997).

EARLY NINETEENTH CENTURY FAUNAL REMAINS

The early nineteenth century faunal remains from the Frazer Farmstead consisted of 3,711 elements by NISP (MNI=63) and weighed 10,069.87g (Tables 5 and 6). Most (3,259 NISP) were animal bone with the remainder being classified as invertebrate shell (671 NISP). Specimens identified to order, family, genus, or species accounted for 37.56% of the

materials (Table 6). The remaining 62.43% were identified to only class or higher (Table 5). Mammal specimens comprise the majority of the collection (NISP=2706). Birds are represented by 167 NISP. The NISP for reptile is 15 and for amphibian is one. The NISP for fish is 30 and for UID vertebrate it is 120.

Table 5. Unidentified (UID) Faunal Remains.

Unidentified (UID)	Early 19th		Mid 19th		Other		Total	
	Freq	Perc	Freq	Perc	Freq	Perc	Freq	Perc
Large mammal	1187	51.23	278	57.32	81	57.44	1,546	52.53
Medium mammal	1	0.04	1	0.21	-		2	0.07
Small mammal	1	0.04	-		-		1	0.03
UID mammal	246	10.62	36	7.42	24	17.02	306	10.40
Large bird	10	0.43	18	3.71	-		27	0.95
Small bird	1	0.04	1	0.21	-		2	0.07
UID bird	83	3.58	69	14.22	2	1.42	154	5.23
UID turtle	2	0.08	-		-		2	0.07
UID fish	20	0.86	7	1.44	-		27	0.92
UID vertebrate	120	5.18	43	8.87	13	9.22	176	5.98
UID Invertebrate	646	27.88	32	6.59	21	14.89	699	23.75
Bone Total	**2317**	**100.0**	**485**	**100.0**	**141**	**100.0**	**2,943**	**100.0**

The two most numerous species are pig (NISP=804; 3,214.9g) and cow (NISP=276; 2362.8g) with an MNI of six and five, respectively. Based on these frequencies, both species represent the major sources of meat for the early nineteenth century inhabitants of the Frazer Farmstead. Additional identified domestic species were horse, sheep, goat, chicken, and turkey. Most of these species are represented by an NISP of one or two and an MNI of one. For chicken, however, the NISP is 24 with an MNI of three. This makes it the third most common domestic species eaten by residents at the Frazer Farmstead. The association of individual sheep and goat specimens with this occupation demonstrates that these domestic species were utilized at the farmstead.

Specimens of domestic species considered food resources except horse frequently exhibit butchering marks (burning, knife marks). The lack of such characteristics on the horse specimen possibly excludes it from being considered as a source of meat used by site inhabitants. This view is tempered by the fact that horse meat consumption, while very small, in known to have taken place in the United States during the nineteenth century (Ziegler 1952:139). Additional zooarchaeological research has the potential to increase our understanding of historic horse consumption patterns.

Forty-nine specimens with a combined weight of 123.5g represent the recovered bone identified as sheep/goat, sheep/pig, sheep/goat/pig, sheep/goat/deer, and sheep/goat/deer/pig (Table 6). As mentioned above the fragmented condition and relative similar diagnostic characteristics of such species made identification beyond these general groups difficult. The presence of these animal groups, however, only adds to the Pre-Civil War use pattern of animals in this size category.

A total of 22 specimens was grouped into galliformes, which is the taxonomic order for grouse, chicken, and turkey. An MNI was not calculated for this order because it could

Table 6. Faunal Remains from Early Nineteenth Century Contexts.

Species	NISP	MNI	Wt (g)	Gnawed*	Burned*	Cut*
Cottontail Rabbit (*Sylvilagus floridanus*.)	12	1	7.4	1R, 1D	-	-
cf. Cottontail Rabbit (cf. *Sylvilagus floridanus*.)	2	-	0.3	-	-	-
Groundhog (*Marmota monax*)	3	1	6.0	-	2B	1K
Eastern Chipmunk (*Tamias striatus*)	1	1	0.1	-	-	-
Squirrel (*Sciurus* sp.)	72	9 rt. humerus	41.9	1D	2B, 1C	3K
cf. Squirrel (*cf. Sciurus* sp.)	2	-	1.0	-	-	-
Rat (*Rattus* sp.)	15	3 rt. tibia	7.5	1R	1C	-
UID Rodent	5	-	1.0	1R	1C	-
Raccoon (*Procyon lotor*)	1	1	0.3	-	1B	-
Horse (*Equus* sp.)	1	1	43.0	1D	-	-
Pig (*Sus scrofa*)	804	6 rt. ulna	3,214.9	11R, 56D	18B, 39C	9CH, 29K, 2S
cf. Pig (cf. *Sus scrofa*)	17	-	42.0	-	11C	1K
Cow (*Bos taurus*)	276	5 rt. pelvis	2362.8	5R, 22D	1C	10CH, 11K, 11S
cf. Cow (cf. *Bos taurus*)	6	-	59.0	-	-	-
Sheep (*Ovis* sp.)	2	1	33.0	1D	-	1K
cf. Sheep (cf. *Ovis* sp.)	1	-	10.0	-	-	1K, 1S
Sheep/Pig (*Ovis/Sus* sp)	1	-	10.0	-	-	1S
Goat (*Capra* sp)	1	1	4.0	-	1C	-
Sheep/Goat (*Ovis/Capra* sp)	6	-	25.0	1R, 1D	-	1CH
Sheep/Goat/Pig (*Ovis/Capra/Sus* sp)	34	-	70.0	6D	6C	1CH, 3K
Sheep/Goat/Deer (*Ovis/Capra/Odocoileus* sp)	4	-	11.5	1R	-	-
Sheep/Goat/Deer/Pig (*Ovis/Capra/Odocoileus/Sus* sp)	4	-	7.0	1R, 1D	1C	-
Large Mammal	1187	-	1,924.1	14R, 86D	24B, 280C	33CH, 56K, 15S
Small Mammal	1	-	0.5	1R	-	-
UID Mammal	246	-	86.8	2R	2B, 105C	1K
Total Mammal	**2704**	**30**	**7,969.1**	**39R, 175D**	**49B, 447C**	**54CH, 106K, 30S**
Duck (Anatinae)	2	1	3.0	1D	-	-
cf. Duck (cf. Anatinae)	1	-	1.0	1R	-	**-7,970.50**
Canada goose (*Branta canadensis*)	1	1	3.0	1D	-	-
cf. goose (cf. Anserinae)	1	-	1.0	-	1C	-
Bobwhite (*Colinus virginianus*)	2	1	3.5	-	-	-
cf. Bobwhite (cf. *Colinus virginianus*)	1	-	0.2	-	1C	-
cf. Ruffed Grouse (cf. *Bonasa umbellus*)	4	1	0.7	1R	-	-
Chicken (*Gallus gallus*)	24	3 left coracoid	29.9	3D	-	3K
cf. Chicken (cf. *Gallus gallus*)	13	-	11.2	1R	-	-
Turkey (*Meleagris gallopavo*)	2	1	5.0	-	-	1K
cf. Turkey (cf. *Meleagris gallopavo*)	1	-	4.0	-	-	1K
Grouse, Chicken, Turkey (Galliformes)	22	-	18.2	4R, 1D	-	-
cf. Passenger Pigeon (cf. *Ectopistes migratorius*)	1	1	0.2	-	-	-
Large Bird	10	-	9.2	-	1C	1K
Small Bird	1	-	0.5	-	-	-
UID Bird	83	-	19.69	5R	8C	-
Total Bird	**169**	**9**	**110.49**	**12R, 6D**	**11C**	**6K**
Snapping turtle (*Chelydra serpentina*)	1	1	2.0	-	-	-
Eastern Box turtle (*Terrapene c. carolina*)	2	1	1.4	-	-	-
cf. Eastern Box turtle (*Terrapene c. carolina*)	1	-	2.0	-	-	-
Soft shell turtle (*Trionyx* sp.)	9	1	16.6	-	-	-
UID Turtle (Emydidae)	2	-	0.2	-	-	-
Total Reptile	**15**	**3**	**22.2**	**-**	**-**	**-**

Table 6. Continued.

Species	NISP	MNI	Wt (g)	Gnawed*	Burned*	Cut*
Eastern Spade foot toad (*Scaphiopus holbrooki*)	1	1	0.3	-	-	-
Total Amphibian	**1**	**1**	**0.3**	**-**	**-**	**-**
Gar (*Lepisosteus* sp.)	3	1	0.4	-	-	-
Redhorse (*Moxostoma* sp.)	2	1	0.4	-	-	1K
Suckers (Catostomidae)	3	1	0.5	-	-	-
Basses, Sunfishes (Perciformes)	2	1	0.2	-	-	-
UID Fish	20	-	2.0	-	1C	-
Total Fish	**30**	**4**	**3.5**	**1**	**1C**	**1K**
UID Vertebrate	120	-	27.5	1D	1B, 42C	2K
Total Bone	**3,040**	**47**	**8,134.1**	**51R, 182D**	**50B, 501C**	**54CH, 115K, 30S**
Mucket (*Actinonaias ligamentina*)	2	1	114.6	-	-	-
cf. Mucket (cf. *Actinonaias ligamentina*)	2	-	99.3	-	-	-
Threeridge (*Amblema plicata*)	3	3	245.4	-	-	-
cf. Threeridge (cf. *Amblema plicata*)	1	-	17.4	-	-	-
Spike (*Elliptio dilatata*)	1	1	12.2	-	-	-
Pocket book (*Lampsilis ovata*)	1	1	90.5	-	-	-
cf. Fatmucket (cf. *Lampsilis siliquoidea*)	1	1	40.0	-	-	-
Fluted Shell (*Lasmigona costata*)	2	1	19.8	-	-	-
cf. Black Sand Shell (cf. *Ligumia recta*)	1	1	31.1	-	-	-
Ohio Pigtoe (*Pleurobema cordatum*)	4	2	62.6	-	1B	-
Round Pigtoe (*Pleurobema sintoxia*)	1	1	58.0	-	-	-
Pleurobema sp.	2	-	18.2	-	-	-
cf. Creeper (cf. *Strophitus undulatus*)	1	1	1.4	-	-	-
cf. Rainbow *(cf. Villosa iris*)	3	1	2.9	-	-	-
UID Freshwater bivalve	645	-	1,074.5	-	1C	
UID Terrestrial gastropod	1	1	0.1	-	-	-
Total Shell	**671**	**15**	**1,935.8**	**-**	**1B, 1C**	
TOTAL	**3,711**	**63**	**10,069.9**	**51R, 182D**	**51B, 502C**	**54CH, 115K, 30S**

*R = Rodent gnawed, D = Dog gnawed, B = Burnt black. C = Burnt calcined, K = Knife cut, CH = Chop cut, S = Saw cut

not be determined if the elements would be from an identified species already counted. Additional bird remains recovered from the residential occupation of the Frazer Farmstead, include eight eggshell fragments (0.08 g). The weight of these eggshells represent less than one whole Grade A chicken eggshell.

Remains of wild mammals from this context, however, may not only represent food resources but also reflect efforts to participate in the fur market (Allgood 2006:36). The recovery of bones from fur bearing animals, such as rabbit (NISP=12, MNI=1), groundhog (NISP=3, MNI=1), squirrel (NISP=72, MNI=9), and raccoon (NISP=1, MNI=1), though small in size imply wild meat and possibly fur as two reasons for their procurement (Table 6). Additionally, bones from duck, Canada goose, snapping and soft shell turtles, and fish indicate the site's early nineteenth century inhabitants utilized nearby aquatic resources available in the South Fork of Licking River, Indian Creek, and nearby wetlands.

Specimens from early nineteenth century contexts identified as representing commensal species or small-bodied animal taxa whose presence may be largely explained by their attraction to the human built environment and refuse discarded by the site's inhabitants (Reitz and Wing 1999:115), include rat, chipmunk, and Eastern spade foot toad.

Both the NISP and MNI count for chipmunk and toad is one. The NISP for rat, however, is 15 with an MNI of three. This makes it the most numerous commensal species represented.

The precence of rat remains is expected from historic sites. The remains may be from the Norway rat (*Rattus norvegicus*). The Norway rat species is closely associated with people and structures, tending to burrow along foundations and under rubbish piles to feed on anything edible (Burt and Grossenheider 1976:195). The other possibility is the Black rat (*Rattus rattus*), that while also associated with people: "lives mostly in tops of buildings; does not require soil to burrow into [and] occasionally [is] found in fields some distance from buildings" (Burt and Grossenheider 1976:195).

Approximately 50% (n=139, 338.0g) of the cow specimens from early nineteenth century contexts at the Frazer Farmstead represent one calf (see Figure 37). Based on teeth and bone growth characteristics, this calf appears to have been not more than three months old at the time of death. The relatively high degree of articulated elements limbs and axial skeleton indicates the calf was not butchered into pieces as expected if the animal's meat was consumed but rather buried whole at the site (see Figure 37). The left calcaneum has a possible knife cut on the medial side and is the only element recorded for this skeleton that suggests butchering. The mark location on the calcaneum suggests the calf was hung up by the hocks possibly to remove the skin. The relative lack of knife cut marks on the bones hints that meat was still on the calf at burial. These two observations along with the lack of rodent or carnivore gnaw marks on the bones implies the calf was buried soon after death and placed deep enough in the ground to not be disturbed by scavenging dogs and raccoons. These findings prevent this calf from being considered in the analysis of subsistence remains from the Frazer Farmstead. Without this calf skeleton, the quantity of cow is as follows: NISP=137, weight=2,024.8g, and MNI=4.

The estimated biomass for cow from the early nineteenth century context using bone weight and excluding the calf is 12.46 kg (Table 7). The estimated biomass of pig from this context is 18.89 kg or slightly over sixty percent of the combined estimated biomass of 31.35 kg (69.1 lbs) for both domestic species.

Table 7. Estimated Allometric Biomass on Cow and Pig Bone Weights.

Time Period	Species	Bone Weight	gm	kg	Percent
Early nineteenth century	cow	2024.8	12466.48	12.46	39.7
Early nineteenth century	pig	3214.8	18898.99	18.89	60.3
Subtotal			**31365.47**	**31.35**	**100.0**
Mid-nineteenth century	cow	222.0	1704.74	1.70	33.1
Mid-nineteenth century	pig	484.6	3442.27	3.44	66.9
Subtotal			**5147.01**	**5.14**	**100.0**
Total			**36512.48**	**36.49**	

The FUI for pig and cow specimens from the early nineteenth century occupation show key distinctions in the portions utilized between these two domestic species (Table 8). Pig is represented by only 1.2% high FUI (nine femurs and one fibula). Medium FUI cuts (scapula, humerus, radius, ulna, vertebra, pelvis, fibula, rib, tibia, astragalus, and calcaneus)

represent 10.8% of the pig remains. Most (88.1%) of the remaining pig specimens are low FUI specimens (head and feet made up of carpal/tarsals, metapodal, and phalanx bones). The sizeable recovery of low utility specimens viewed as less economically valuable animal portions (Lyman 1977:69, 1987:59; Metcalfe and Jones 1988:492) suggests a relatively low economic standing for the site's residents.

Though five (3.6%) cow specimens (three femurs and two tibiae) are high FUI portions (Table 8), most (73.7%) of the cow specimens were medium FUI portions (humerus, ulna, vertebra, rib, pelvis, tibia, and astragalus). Cow remains (22.6%) considered to be low FUI portions, include heads and feet (carpal/tarsals, metapodal, and phalanx). The large number of medium cow FUI portions contrasts sharply with pigs, which were mostly represented by low FUI portions. This difference is believed to represent the variations in the manner pork and beef was processed for consumption by the early nineteenth century inhabitants of the site.

The recovery of a single bird remain identified as most closely resembling passenger pigeon offers a chance to briefly examine the natural history of this extinct species and its place in the subsistence early nineteenth century Kentuckians. Passenger pigeons were a seasonally available wild game bird. The amazingly large population of passenger pigeons along with the relative ease in seasonally obtaining the bird made it a noteworthy food resource for some Kentuckians in the mid-1800s. A Kentucky account by James Audubon (2005) around the 1830s offers a perspective on the abundance of this bird:

Table 8. Food Utility Indices (FUI) for Early Nineteenth Century Pig and Cow.

Species	Low Utility (%)	Medium Utility (%)	High Utility (%)	Total (%)
Pig (n=804, 3,214.9 g)				
Head	586 (72.9)	-	-	586 (72.9)
Axial	2 (0.2)	14 (1.7)	-	16 (1.9)
Fore quarter	-	31 (3.9)	-	31 (3.9)
Hind quarter	-	41 (5.1)	10 (1.2)	51 (6.3)
Feet	120 (14.9)	-	-	120 (14.9)
Subtotal	**708 (88.1)**	**86 (10.7)**	**10 (1.2)**	**804 (100.0)**
Cow (n=137, 2024.8 g)				
Head	14 (10.2)	-	-	14 (10.2)
Axial	3 (2.2)	92 (67.1)	-	95 (69.3)
Fore quarter	-	3 (2.2)	-	3 (2.2)
Hind quarter	-	6 (4.4)	5 (3.6)	11 (8.0)
Feet	14 (10.2)	-	-	14 (10.2)
Subtotal	**31 (22.6)**	**101 (73.7)**	**5 (3.6)**	**137 (100.0)**
Total	**739 (78.5)**	**187 (19.9)**	**15 (1.6)**	**941 (100.0)**

	Element		
	Low Utility <1000	**Medium Utility >1000 < 3000)**	**High Utility >3000**
Head	Skull, mandible, teeth		
Axial	Atlas, axis	Vertebra, rib,	Sternum
Fore quarter		Scapula, humerus, radius, ulna	
Hind quarter		Pelvis, distal tibia, fibula, astragalus, calcaneus	Femur, proximal tibia
Feet	Metacarpal, distal metatarsal, phalange	Proximal metatarsal	

> Before sunset I reached Louisville, distant from Hardensburgh fifty-five miles. The Pigeons were still passing in undiminished numbers, and continued to do so for three days in succession. The people were all in arms. The banks of the Ohio were crowded with men and boys, incessantly shooting at the pilgrims, which there flew lower as they passed the river. Multitudes were thus destroyed. For a week or more, the population fed on no other flesh than that of Pigeons, and talked of nothing but Pigeons.

Given this depiction, it is believed that at least some of the Pre-Civil War inhabitants of the Frazer Farmstead hunted passenger pigeons when it was abundant and easily procured.

Shell Remains

Nearly all of the recovered shell (671 NISP weighing 1,935.8g) was classified as freshwater bivalves. Most (n=645, 99.8%) were UID freshwater bivalve fragments. Of the remaining 26 shell specimens, 11 were identified to or close fit a species resulting in the MNI of 14 bivalves plus one UID terrestrial gastropod (Table 6). The bivalve species recovered from the site would have been found within the nearby South Fork of the Licking River and represent more than half of the 25 species recorded historically to have inhabited this drainage system prior to the twentieth century (Dolloff et al. 2001:34).

Based on the small number of bivalves, it is doubtful that the early nineteenth century inhabitants at the Frazer Farmstead used these species as a human food resource. Freshwater bivalves were extensively used as a food resource in Kentucky and other regions of the country during the prehistoric period (Parmalee and Klippel 1974). In contrast, during the historic period, freshwater mussels were generally not used as food, but were more often collected to "acquire…shells as raw material for shell buttons or in hopes of obtaining freshwater pearls" (Branstner and Martin 1987:313). Flesh from bivalves could also have been used for fish bait, as a food source for pigs, and the shells as crop grinding stones for chickens or turkeys. The one terrestrial gastropod represents a commensal species.

Modified Faunal Remains

The early nineteenth century faunal collection from the Frazer Farmstead includes 235 (7.7%) bone specimens that have gnaw marks. Of these, 51 have rodent gnaw and 184 carnivore gnaw marks. Carnivore-gnawed bone is thought to have mainly resulted from dogs although occasionally other carnivores, such as raccoons may have contributed to the amount. The low frequency of rodent gnawed bone relative to carnivore gnawed bone for this period at the site suggests that rodents had less access to bone than did dogs.

Of the 550 (18.1%) bone specimens identified as burnt, most (n=500) are burnt calcined while only 50 are burnt black. The greater frequency of calcined bone compared to burnt black bone is believed to be the result of burning bone as a method of disposal.

Bone exhibiting butcher marks (n=179, 5.9%) consist of specimens with cuts produced by knife (n=125), saw (n=31), and cleaver or ax (n=52). Knife marks are most

frequently (n=59) found perpendicular to the shaft of long bones. These cuts are believed to have resulted from the method of carving meat from the bone (Ziegler 1952:425-427). Four out of the 31 saw-cut specimens fit within the category of being cut with a coarse toothed meat saw. The saw type of the remaining 27 saw cut bone could not be determined. Chop cuts (cleaver or ax) are found mostly on UID large vertebra and long bones.

MID-NINETEENTH CENTURY FAUNAL REMAINS

The Union Army's use of the house for several months from 1861 to 1862, first as a hospital and second as a storage facility, would leave one to believe that some of the recovered faunal remains represent meals consumed by the soldiers who occupied the site. Unfortunately none of the recovered faunal materials were recovered from contexts that could definitively be dated to the Civil War-era military occupation of the site.

The mid-nineteenth century faunal remains from the Frazer Farmstead consisted of 771 by NISP (MNI=34) and weighed 1519.2g (Table 9). Most (95.72%) are animal bones with only a small amount of shell (33 NISP) being present. Specimens identified to order, family, genus, or species account for 37.1% of the remains. The remainder were identified to only class or higher (Table 5). As with the early nineteenth century faunal remains, mammal specimens comprise most of the mid-nineteenth century collection (NISP=538). Birds are represented by 145 NISP, amphibians by just one specimen, and fish by 11 NISP. The NISP for UID vertebrate is 43, and no reptiles were recovered from mid-nineteenth century contexts.

The most numerous specimens are from pig (NISP=121; weight 484.6g) with an MNI of two. In contrast, the frequency of cow specimens falls far below that of pig at six NISP with an MNI of 1. Additional identified domestic species are sheep/goat, cat, chicken, and turkey. All but chicken and turkey are represented with an NISP and the MNI of one (Table 9).

Chicken is represented with 16 NISP and an MNI of three, and turkey with seven NISP and an MNI of two. A total of 22 specimens was classified as galliformes, which is the taxonomic order for grouse, chicken, and turkey. As with the early nineteenth century remains, an MNI was not calculated for this order because it could not be determined if elements would be from an identified species already counted. The frequency of these remains strongly suggests that galliformes comprise the major order of birds utilized during both site occupation. The mid-nineteenth century faunal remains also contained 29 bird eggshell fragments although with a slightly less compiled weight (0.28 g). The weight of these eggshells represent less than one whole Grade A chicken eggshell.

A combined NISP of 18 (weight 48.0g) represent the recovered bone identified as sheep/goat, sheep/goat/pig, and sheep/goat/deer/pig (Table 9). The identification of one specimen as sheep/goat indicates that such animals were utilized infrequently by the site's mid-nineteenth century occupants. This combined NISP is relatively small and suggests that few animals in this size category other than pig were utilized during this occupation.

A combined NISP of 18 (weight 48.0g) represent the recovered bone identified as sheep/goat, sheep/goat/pig, and sheep/goat/deer/pig (Table 9). The identification of one

Table 9. Faunal Remains from Mid-Nineteenth Century Contexts.

Species	NISP	MNI	Wt (g)	Gnawed*	Burned*	Cut*
Cottontail Rabbit (*Sylvilagus floridanus*.)	11	2 rt. pelvis	12.1	2R, 1D	1B	1K
Squirrel (*Sciurus* sp.)	22	3 rt. femur	11.8	2D	1B, 1C	2K
Rat (*Rattus* sp.)	29	7 left femur	15.5	1R	1B, 1C	2K
UID Rodent	5	-	1.1	1R	1C	-
cf. Rodent	1	-	0.1	-	-	-
cf. Raccoon (cf. *Procyon lotor*)	1	1	2.0	-	-	-
cf. Mink (cf. *Mustela vision*)	1	1	0.3	-	-	-
Cat (*Felis catus*)	1	1	1.0	1R	-	-
Pig (*Sus scrofa*)	121	2 rt. Femur	484.6	12R, 5D	2B, 6C	8CH, 10K, 2S
cf. Pig (cf. *Sus scrofa*)	4	-	2.3	-	2B, 1C	-
Cow (*Bos taurus*)	6	1	222.0	1R	-	1CH, 3K, 3S
cf. Cow (cf. *Bos taurus*)	3	-	30.0	-	-	1S
Sheep/Goat (*Ovis/Capra* sp)	1	1	0.5	-	-	-
Sheep/Goat/Pig (*Ovis/Capra/Sus* sp)	15	-	43.5	2R	-	3K, 2S
Sheep/Goat/Deer/Pig (*Ovis/Capra/Odocoileus/Sus* sp)	2	-	4.0	-	2C	1S
Large Mammal	278	-	515.7	13R, 5D	35B,54C	7CH, 20K, 10S
Medium Mammal	1	-	1.0	-	-	-
UID Mammal	36	-	16.0	4R	4B, 7C	-
Total Mammal	**538**	**19**	**1,363.5**	**37R, 13D**	**46B, 72C**	**16CH,39K, 19S**
Duck (Anatinae)	3	1	2.8	2R	-	
cf. Canada goose (cf. *Branta canadensis*)	1	1	1.0	1R, 1D	-	1K
Ruffed Grouse (*Bonasa umbellus*)	1	1	0.4	-	-	1K
Chicken (*Gallus gallus*)	16	3 rt. tibiotarsus	37.3	4R, 1D	-	1C, 3K
cf. Chicken (cf. *Gallus gallus*)	5	-	5.2	1R, 1D	-	-
Turkey (*Meleagris gallopavo*)	7	2 left carpometacarpus	19.0	4R, 1D	-	1K
cf. Turkey (cf. *Meleagris gallopavo*)	1	-	0.4	-	-	-
Grouse, Chicken, Turkey (Galliformes)	22	-	16.4	9R, 1D	-	2K
Barred Owl (*Srix varia*)	1	1	1.0	-	-	-
Large Bird	18	-	12.5	2R	-	-
Small Bird	1	-	0.5	-	-	-
UID Bird	69	-	11.48	4R	1B, 1C	-
Total Bird	**145**	**9**	**107.98**	**27R, 5D**	**1B, 1C**	**1CH, 8K**
Eastern Spade foot toad (*Scaphiopus holbrooki*)	1	1	0.3	-	-	-
Total Amphibian	**1**	**1**	**0.3**	-	-	-
Catfish (Ictaluridae)	1	1	0.2	-	-	1K
cf. catfish (cf. Ictaluridae)	1	-	0.2	-	-	-
Redhorse (*Moxostoma* sp.)	1	1	0.2	-	-	-
Suckers (Catostomidae)	1	1	0.1	-	-	-
UID Fish	7	-	0.7	-	-	-
Total Fish	**11**	**3**	**1.4**	**-**	**-**	**1K**
UID Vertebrate	43	-	10.8	2R	4B, 4C	1K
Total Bone	**738**	**32**	**1,483.98**	**66R, 18D**	**51B, 97C**	**17CH, 49K, 19S**
Pink heel-splitter(*Potamilus alatus*)	1	1	17.4	-	-	-
UID Freshwater bivalve	31	-	17.5	-	-	-
UID Terrestrial gastropods	1	1	0.3	-	-	-
Total Shell	**33**	**2**	**35.2**	**-**	**-**	**-**
Total	**771**	**34**	**1,519.2**	**66R, 18D**	**51B, 97C**	**17CH, 49K, 19S**

*R = Rodent gnawed, D = Dog gnawed, B = Burnt black. C = Burnt calcined, K = Knife cut, CH = Chop cut, S = Saw cu

specimen as sheep/goat indicates that such animals were utilized infrequently by the site's mid-nineteenth century occupants. This combined NISP is relatively small and suggests that few animals in this size category other than pig were utilized during this occupation.

Wild animal remains considered as representing food resources, include rabbit, squirrel, duck, grouse, and fish consisting of catfish and suckers (Table 9). The NISP for these resources is one except for duck which has an NISP of three, rabbit an NISP of 11, and squirrel an NISP of 22. All have an MNI of one except rabbit and squirrel which have an MNI of two and three, respectively. Additionally, one specimen each identified as a close fit (cf.) to raccoon and Canada goose were recovered. Each had an MNI of one that was counted as wild animal species associated with wild food procurement.

Table 10. Food Utility Indices (FUI) for Mid-Nineteenth Century Cow and Pig Remains.

Species	Low Utility (%)	Medium Utility (%)	High Utility (%)	Total (%)
Pig (N-121, 484.6 g)				
Head	48 (39.7)	-	-	48 (39.7)
Axial	-	14 (11.6)	-	14 (11.6)
Fore quarter	-	4 (3.3)	1 (0.8)	5 (4.1)
Hind quarter	-	8 (6.6)	6 (5.0)	14 (11.6)
Feet	40 (33.1)	-	-	40 (33.1)
Subtotal	**88 (72.7)**	**26 (21.5)**	**7 (5.8)**	**121 (100.0)**
Cow (N-6, 222.0 g)				
Head	-	-	-	-
Axial	-	3 (50.0)	-	3 (50.0)
Fore quarter	-	-	-	-
Hind quarter	-	1 (16.6)	-	1 (16.6)
Feet	2 (33.3)	-	-	2 (33.3)
Subtotal	**2 (33.3)**	**4 (66.6)**	**-**	**6 (100.0)**
Total	**90 (70.9)**	**30 (23.6)**	**7 (5.5)**	**127 (100.0)**

	Element		
	Low Utility <1000	**Medium Utility >1000 < 3000)**	**High Utility >3000**
Head	Skull, mandible, teeth		
Axial	Atlas, axis	Vertebra, rib,	Sternum
Fore quarter		Scapula, humerus, radius, ulna	
Hind quarter		Pelvis, distal tibia, fibula, astragalus, calcaneus	Femur, proximal tibia
Feet	Metacarpal, distal metatarsal, phalange	Proximal metatarsal	

One pelvis specimen identified as cf. mink and one tarsometatarsus (lower leg) specimen of a barred owl represent two animals recovered from this context that may not have been utilized as a food resource. Neither bone is burnt nor exhibits butchering marks to definitely conclude they were a byproduct of human consumption.

Specimens identified as representing commensal species from the mid-nineteenth century context, include rat and Eastern spade foot toad. The NISP and MNI count for the toad is one. The NISP for rat is 29 with seven as the MNI. All appear to be Norway rat (*Rattus norvegicus*) and suggest the animal is the major commensal species represented at the site. Interestingly, one of these specimens is burnt black and may be from the Civil War burning of the house

The allometric biomass for cow from the mid-nineteenth century context is 1.70 kg while the value for pig is 3.44 kg (Table 7). Combined, the amount comes to 5.14 kg (11.3 lbs) of biomass "meat." Interestingly, this biomass breakdown by percentage is somewhat similar to the approximate amounts generated for the early nineteenth century context.

With a majority (72.7%) of the recovered pig remains representing low utility portions, meals served at the farmstead during the mid-nineteenth century were comprised of inferior quality cuts rather than cuts made from medium and high utility value portions. The frequency of pig specimens from medium and high utility portions, however, are proportionally greater than was the case for the early nineteenth century residential occupation. This suggests that the mid-nineteenth century occupants utilized higher valued pork cuts than the site's early nineteenth century inhabitants. But still the majority of cuts they consumed were of low quality.

Of the six cow specimens associated with the mid-nineteenth century of the site none are considered to represent a high FUI portion (Table 10). Medium FUI portions consist of three ribs specimens and one distal tibia. Two phalanges or toe bones make up the low FUI portions from this context. While the sample size for the cow remains is too small for substantive conclusions, the FUI pattern suggests that low and medium portions were primarily utilized.

Shell Remains

Only 33 shell specimens were recovered from the mid-nineteenth century context at the Frazer Farmstead (Table 9). One is a terrestrial gastropod that represents a commensal species. The remaining 32 shells are freshwater bivalve specimens. Of these 31 (17.5g) are UID bivalve fragments. Only one was complete enough to be identified as the right valve (17.4g) of a pink heel splinter, *Potamilus alatus*.

Modified Faunal Remains

The mid-nineteenth century faunal remains from the Frazer Farmstead includes natural and cultural modified bone. Of the 83 (11.2%) specimens that have gnawed marks, 65 have rodent gnaw and 18 carnivore gnawed marks. The higher frequency of rodent gnawed relative to carnivore gnawed specimens suggests that rats had more access to bone than the dogs or raccoons. The relatively low frequency of carnivore gnawed bone suggests dogs were not common at the site or that bone was disposed of at an off-site location.

Of the 128 (17.3%) burnt bones, almost two-thirds (n=77) are burnt calcined and one-third are burnt black. The greater frequency of calcined bone compared to burnt black bone may reflect the two occurrences of burning of the house and adjacent area during the Civil War. Butcher marks are present on 82 (11.1%) specimens, with cuts produced by a knife (n=50) being the most prevalent, followed by saw (n=19), and cleaver or ax (n=13). As noted for remains from the early nineteenth century occupation, specimens from mid-nineteenth century dated contexts exhibit knife cuts believed to be the result of removing meat transverse to the bone length (Ziegler 1952:425-427). None of the saw-cut specimens

appear to have been produced from coarse toothed saws. Specimens with chop cuts (cleaver or ax) occurred mostly on pig (n=5) and UID mammal specimens (n=6). Also counted is one chicken leg bone, a tibiotarsus, with a chop cut across the proximal end.

SITE INTERPRETATIONS

The connection between species diversity and collection size (see Reitz 1987) makes it important to address whether the larger early nineteenth century collection contains greater species diversity than the smaller mid-nineteenth century collection. Concentrating only on the bone remains to eliminate number inflation from fragments of invertebrate shells, the early nineteenth century collection is much larger than the mid-nineteenth century collection. Species richness for the early nineteenth century remains is almost twice the value of the mid-nineteenth century remains. This suggests that comparison between these two faunal collections is subject to potential biases relating to sample size. Without adequate sample sizes the comparison of these two collections must largely be descriptive (Reitz and Wing 1999:107). As a result, this report relies primarily on counts and percentages in the following discussion, rather than statistically based comparisons.

The faunal remains from the Frazer Farmstead indicate that pig comprised the most common source of meat consumed, based on specimen count and weight, throughout the site's occupation. As a result for both time periods the biomass calculated for pig is greater than for cow (Table 7). Based on the bone weight alone, cow was the second most common source of meat consumed. The remains of other animals used (presumably) as food sources and comparison of wild versus domestic species, as well as the extent of recovered remains from commensal animals, shed light on the relative economic standing of the site's inhabitants during the early nineteenth century and perhaps during the mid-nineteenth century as well (Table 11). In general, the heavy reliance on pig supplemented with other domestic and wild animals documented at the Frazer Farmstead is consistent with the Upland South diet (O'Brien and Majewski 1989; Peres 2003, 2008, Tuma 2002).

Table 11. Early- and Mid-Nineteenth Century Vertebrate Faunal Groups.

Fauna Type	Early 19th Century				Mid-19th Century			
	NISP		MNI		NISP		MNI	
	Freq	Perc	Freq	Perc	Freq	Perc	Freq	Perc
Wild	121	9.7	24	53.3	44	19.5	14	43.8
Domestic	1112	89.1	17	37.8	152	67.2	10	31.2
Commensal	15	1.2	4	8.9	30	13.3	8	25.0
Total	**1248**	**100.0**	**45**	**100.0**	**226**	**100.0**	**32**	**100.0**

Only species with an MNI of one or greater were used in these calculations. Although small birds were recovered from both contexts, their MNI was not calculated. The commensal animals identified for both contexts are European rat and spade foot toad. With a setting overlooking a floodplain, the recovery of spade foot toads is expected. Focusing only on rat, proportionally by NISP there are more commensal species within the mid-nineteenth century collection relative to the early nineteenth century remains. This pattern correlates with the greater frequency of rodent gnawed bone (8.8%) in the mid-nineteenth century occupation relative to the early nineteenth century (1.6%) occupation.

In addition to the domestic remains of pig and cow, additional domestic species consumed during both occupations consist of sheep or goat, chicken, and turkey. For the purpose of this chapter, turkey is classified as domestic largely because of its wide use during the nineteenth century (Schorger 1966:481). The relatively low numbers of sheep and or goat remains suggests that these two domestic animal resources did not play a significant role in the diet of the site's inhabitants. Use of sheep or goat for reasons other than meat, such as milk and wool production, could explain the low frequency of their remains in the mid-nineteenth century faunal collection (Peres 2003b:24). Additionally, the greater upkeep requirements of sheep and goats compared to the relative ease in maintenance of pigs may also have selected against their use as a food resource on Kentucky farms (Peres 2003b:24). Although site occupants may have consumed white-tailed deer, this could not be substantiated from the fragmented specimens and general similarity between elements of other hoofed animals in their size category.

Excluding commensal species, both faunal collections contain a somewhat similar proportion of wild to domestic animals by MNI and Taxa represented (Table 12). This similarity suggests that occupants from both periods supplemented their consumption of domestic meat with wild resources. By NISP, however, the early nineteenth century residents appear to have consumed less wild game. If this difference is not a product of sample size, it may indicate a greater effort on the part of the mid-nineteenth century occupants to obtain wild animals.

Table 12. Proportions of Wild and Domestic Vertebrate Faunal Groups by Context.

	Early Nineteenth Century						Mid-Nineteenth Century					
Fauna Type*	**NISP**	**Perc**	**MNI**	**Perc**	**Taxa**	**Perc**	**NISP**	**Perc**	**MNI**	**Perc**	**Taxa**	**Perc**
Wild	121	10.0	23	57.5	16	69.6	44	22.4	14	58.3	11	64.7
Domestic	1112	90.0	17	42.5	7	30.4	152	77.6	10	41.6	6	35.3
Total	**1233**	**100.0**	**40**	**100.0**	**23**	**100.0**	**196**	**100.0**	**24**	**100.0**	**17**	**100.0**
*Excludes commensal taxa.												

A comparison of the FUI values for pig and cow elements suggest that for both time periods low and medium portions of both animals tended to be utilized more frequently than high utility portions. Some variation was noted in pork and cow portions consumed (Tables 8 and 10). For pig remains, during the early- and mid-nineteenth centuries a greater frequency of low FUI portions relative to medium and high utility portions was noted. The pig biomass weights also follow this frequency pattern.

For cow remains, during the early- and mid-nineteenth century a greater frequency of medium FUI portions relative to low and high utility portions was noted. However, no high FUI portions were recovered from the mid-nineteenth century occupation. For cow biomass weights the early- and mid-nineteenth centuries are greater for the medium FUI portions relative to high and low portions.

No doubt the site inhabitants raised and butchered pig and cow on the farmstead. This is supported by the various cranial and foot bones contained in the collections that are considered "waste" from on-site butchering. These low FUI portions also were most likely used by these households to produce foods such as headcheese and foot jelly (Mansberger 1988:84-87).

The relative low recovery of higher valued pig and cow portions suggests that the site's inhabitants participated in the local market economy in which high valued portions

tended to be bartered off or sold. Such market activity may have led to an increased reliance on locally available wild animals as a means to supplement their diet (see Peres 2008).

COMPARISON WITH OTHER KENTUCKY SITES

In this section, early to mid-nineteenth century consumption of wild animals at the Frazer Farmstead is compared to that of four contemporary sites in Kentucky (Table 13). Wild taxon at the five sites ranges from 4.7% at the Vardeman House to 27.8% at the Duckworth site, reflecting variation in the consumption of wild animals within the Upland South diet (Table 13) (Peres 2008). Frazer Farm's early nineteenth century inhabitants consumption of wild animals is most similar to that documented for the inhabitants of the William Whitely House, which may reflect the similar socioeconomic status of the sites inhabitants. This does not appear to be the case for Frazer Farm's mid-nineteenth century animal consumption, which is most similar to that of the middling class planters who resided at the Cowan Farmstead (Table 13). In general, intersite differences in the consumption of wild animals reflects the increasing recognition among archaeologists of the variation in the Upland South diet in Kentucky and elsewhere (Peres 2008:97).

Table 13. Intersite Comparison of Domestic vs. Wild Taxon.

Site/Reference	Domestic NISP	Wild NISP	Economic Status	Date Rage
Frazer Farmstead Early	90.0%	10.0%	Slave Owning Merchant	Early 19th
Frazer Farmstead Middle	78.8%	21.3%	Slave Owning Physican	Mid-19th
Cowan Farmstead (15Pu234)*	79.4%	19.6%	Middling Class Planters	Early-Mid-19th
Duckworth (15Bh212)*	70.2%	27.8%	Slaves House	Late 18th-Mid-19th
Vardeman House (15Li88)*	91.7%	4.7%	Slaves Owning Wealthy Planters	Early 19th
William Whitely (15Li55)*	87.6%	12.4%	Slaves Owning Wealthy Planters	Early 19th
*Peres 2008:Table 2				

CONCLUSIONS

Faunal remains from the early and mid-nineteenth century occupations of the Frazer Farmstead consisted primarily of pig and cow. Additional domestic species that were consumed, include sheep, goat, chicken, and turkey. Meat sources from wild species consisted mainly of squirrel, rabbit, ducks, geese, bobwhite, grouse, turtles, and fish. This use of primarily pig and other domestic meat resources supplemented with wild animals overall, is consistent with the Upland South Diet. Calculations of pig and cow biomass weights and FUI portions points to the consumption of low to moderate valued meat portions and the likely selling of high valued portions. Overall, interpretations of the nineteenth century faunal remains recovered from the Frazer Farmstead indicate the site's occupants were of modest economic status. These finding are not consistent with that of the archival record or the ceramic price index values that indicate the occupants exhibited a greater degree of wealth (see Page 198).

CHAPTER 7:
BOTANICAL ANALYSIS

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INTRODUCTION AND BACKGROUND

Archaeobotanical studies have become more common in historical archaeology (Holt 1991). These studies are instrumental in understanding foodways, agricultural systems, market trade, and local environments, to give but a few examples. Historical archaeobotany is essentially an adaptation of methods used in prehistoric archaeology to more recent materials. Much like prehistoric archaeobotany, the analysis of historical plant remains depends on the systematic and opportunistic field collection of soil samples and their processing by water flotation.

The earliest historical archaeobotanical collection in Kentucky comes from the John Arnold Farmstead site (15Lo168) in Logan County (Andrews et al. 2004). The site includes a 1790s component, probably representing one of the first European-American families in the region. The site assemblage is a combination of plants directly adopted from Native Americans with little morphological change (e.g., corn and beans.) and introduced Old World grains (e.g., barley, rye, oats, and wheat). By the 1840s, adopted native plants like corn had been heavily hybridized, and the Old World grains were well-established. Several good collections from this era, include the Baber Hotel, McLean County (15McL137) (Rossen 2007); the History Center site, Frankfort (Rossen n.d.a.); and the Louisville Convention Center site (Rossen n.d.b.). Other key nineteenth century collections, include the Lextran site (Rossen 1992), and two sites near Bardstown in Nelson County (Thomas Gwynn House [15Ne57] and Site 15Ne58) (Davis et al. 1997). Larger collections, such as the Louisville Convention Center site, have produced more than one-half million plant specimens. The pervasiveness of Old World grains at early to mid-nineteenty century Kentucky sites was unexpected and generally uncorroborated in historical documents. Recent studies in neighboring states have produced similar large collections and results (Cummings 1993; Cummings and Puseman 1994; Roberts 1993). Barley, wheat, oats, rye, and buckwheat are common in flotation samples, and plants such as lentils and alfalfa appear in contexts that predate their previously supposed dates of introduction.

Post-Civil War Kentucky is represented in several plant collections listed above. Following the war, agriculture based on the Old World grains dwindled, and in time, virtually disappeared. New plants, such as tomatoes became staples, while others, such as the purple-flowered groundcherry (*Physalis lobata*), experienced a period of temporary popularity (Heiser 1987; Rossen n.d.a., n.d.b.; Rupp 1987; Scarry 1993).

The details of this plant history outline are complex. Each plant has its own history and trajectory of use, and some of these are significant in their own right. For example, coffee, an imported plant that represents the interior southeastern United States connection to national and international markets, appears by the 1840s in riverine, high status urban sites. Yet the

individual plant trajectories must be ultimately integrated to produce a picture of developing agriculture, commerce, trade, and diet in nineteenth century Kentucky.

Within this context, the historical archaeobotanical record of the Frazer Farmstead site is a welcome addition. The 33 analyzed samples (242 soil liters) represent both early nineteenth century and mid-nineteenth century components (Table 14). The results reflect the varied agricultural economy of the era, including a variety of cultigens with Native American and Eurasian origins, and various nut varieties (Tables 15 to 18). The collection also reflects the use of wild plants and indicators of the weedy flora of that time, as well as wood use preferences (Tables 19 to 21). This chapter describes and discusses the archaeobotanical analysis and its results.

Table 14. Analyzed flotation samples by component and literage.

Component	# Samples	Liters	Pct Liters
Early Nineteenth century	19	145.5	60.1
Mid-Nineteenth century	13	92.5	38.2
Spans both components	1	4.0	1.7
Total	**33**	**242.0**	**100.0**

Table 15. Frequencies and gram weights of general categories of plant remains.

Category	Freq	Pct	Gm Wt	Pct
Wood charcoal	17,086	93.6	96.3	92.1
Cultigens	539	3.0	3.9	3.7
Nutshell	350	1.9	3.9	3.7
Wild plant seeds	180	1.0	---	---
Miscellaneous (unidentified/fungus)	98	0.5	0.5	0.5
Total	**18,253**	**100.0**	**104.6**	**100.0**

METHODS

Botanical remains are produced from archaeological sites using a method known as water flotation. Soil samples from the site are placed in a tank with agitated water, and the lighter charcoal and roots float to the surface and are collected separately. Portions of the sample that sink are caught below in fine screen.

The dried flotation samples were received in Ithaca, New York following flotation. The samples were passed through a 2 mm geological sieve, before sorting charcoal from uncarbonized contaminants such as roots. In historic archaeological sites, plant remains may be either carbonized or uncarbonized (desiccated). Plant material such as wood and nutshell from the larger than 2 mm sample were identified, counted, and weighed. Sievings smaller than 2 mm were carefully scanned for seeds. This procedure is followed because fragments of wood and nutshell smaller than 2 mm are difficult to reliably identify. Charcoal specimens larger than 2 mm are representative of smaller specimens, with a few possible exceptions such as acorn nutshell and squash and gourd rind (Asch and Asch 1975). Laboratory sieving thus saves considerable sorting time without a loss of information.

The samples were analyzed under a light microscope at magnifications of 10 to 30x. Identification of materials was aided by a comparative collection of both archaeological and modern specimens, along with standard catalogs (Martin and Barkley 1973). Specimens were sorted by species, counted and weighed to the nearest tenth of a gram. Macroscopic wood characteristics were observed from specimen cross-sections (Panshin and deZeeuw 1970). Changes in the visibility of macroscopic characteristics that occur during carbonization were also accounted for, to insure maximum accuracy of identification (Rossen and Olson 1985; Smart and Hoffman 1988). Very small wood specimens or specimens that were badly deformed during the carbonization process were classified as "unidentified." Similarly, non-wood specimens that are badly deformed were classified as "unidentified-general" and deformed, fragmented, or unknown seeds were classified as "unidentified-seeds."

Frequencies for seed or wood lots containing more than 400 specimens represent carefully constructed estimates and not exact figures. Actual frequencies were recorded for lots containing fewer than 400 specimens. Estimates were derived in the following manner. Two hundred specimens were counted, this subsample was weighed, and the weight of the total sample was divided by the subsample. This number was then multiplied by 200. Estimates of the species composition of each sample were derived by identifying between 15 and 50 specimens. An estimate of the relative percentage of each species represented was then used to calculate the estimated frequency of each species in a sample. This is believed to be a reliable and efficient method for handling large lots of wood charcoal (Rossen 1991).

Sampling of different site contexts was fortuitous, because many sample context determinations were not made until after fieldwork and archaeobotanical analysis were completed (Table 14). The largest proportion of the assemblage is comprised of samples from the early nineteenth century component (n=19) samples, 145.5 liters or 60.1% of the collection by soil literage. Most of the remainder of the collection is from the mid-nineteenth century component (n=13) samples, 92.5 liters or 38.2% of the collection by soil literage. One sample spans both components. The higher frequencies and ubiquities of plant remains in the early nineteenth century component probably represent the higher density of all cultural materials in those features, rather than being any indicator of the relative intensity of plant use (Tables 19 and 21).

FIELD CULTIGENS

Corn

The substantial presence of corn at the site is not surprising. By 1880, the U.S. grew over 62 million acres of corn. By 1900, this figure had reached approximately 95 million acres, and by 1910, it was over 100 million acres. The average yield throughout the nineteenth and early twentieth centuries was 40 bushels per acre (Gibson and Benson 2002).

Corn is present in both the early and mid-nineteenth century samples (Tables 17 and 18). The ubiquity is higher in the early component (15 of 19 samples for a ubiquity of 0.79) than in the middle component (7 of 13 sample, ubiquity=0.54). This probably represents the generally better preservation and recovery of plant remains in the early component. All recovered cupules exhibit 45 degree angles that indicate a well-developed 16 row variety.

Table 16. Botanical remains from the Early Nineteenth Century Contexts.

Sample	Species	State	Freq	Gm Wt
Feature 7A, Unit 22 FS 56, 7 liters	wood (unident 90%, white oak 10%)	c	10	.0
Feature 12 Unit 22 FS 55 8 liters	wood (unident 97%, white oak 1%, y poplar 1%, American chestnut 1%)	c	34	.3
	corn – cupule (*Zea mays*)	c	3	.0
	blackberry/raspberry (*Rubus* sp.)	d	1	--
	pokeberry (*Phytolacca americana*)	d	1	--
	unidentified – general (amorphous)	c	1	.0
Feat 12 Unit 31, FS 136 2 liters	wood (unid 40%, maple 20%, Am elm 10%, ash 10%, white oak 10%, hickory 10%)	c	25	.4
	corn – cupule (*Zea mays*)	c	1	.0
Feature 14 Unit 29 FS 83 5 liters	wood (unidt 60%, Am chestnut 15%, maple 10%, white oak 5%, hickory 5%, sycamore 5%)	c	790	9.2 .
	black walnut (*Juglans nigra*)	c	4	1
	corn – kernel fragment (*Zea mays*)	c	5	.0
	corn – cupule	c	6	.1
	peach (*Prunus persica*)	d	1	--
	unidentified – general	c	1	.0
Feature 14 Unit 29 FS 83 (sample 2) 5 liters	wood (unident 55%, w oak 30%, beech 10%, American elm 5%)	c	242	1.5
	hickory (*Carya* sp.)	c	4	.0
	black walnut (*Juglans nigra*)	c	7	.1
	acorn (*Quercus* sp.)	c	1	.0
	hackberry (*Celtis* sp.)	d	12	--
	bean (*Phaseolus vulgaris*)	c		.0
	unidentified – general	c	3	.0
	unidentified – seed	c	1	--
Feature 14 Unit 29 FS 84 4 liters	wood (Am chestnut 55%, white oak 10%, unid 35%)	c	691	7.6
	black walnut (*Juglans nigra*)	c	6	.1
	corn – kernel fragment (*Zea mays*)	c	2	.0
	corn – cupule	c	28	.2
	squash/pumpkin (*Cucurbita pepo*)	c	1	--
	peach (*Prunus persica*)	d	1	--
	gourd – rind (*Lagenaria* sp.)	c	1	.0
	tomato (*Lycopersicon esculenta*)	d	1	--
	unidentified – general (amorphous)	c	5	.0
Feature 14 Unit 35 FS 137 6 liters	wood (*unidentified – twigs*)	c	542	3.8
	black walnut (*Juglans nigra*)	c	5	.0
	corn – kernel fragment (*Zea mays*)	c	5	.0
	corn – cupule	c	12	.1
	bean (*Phaseolus vulgaris*)	c	1	.0
	pokeberry (*Phytolacca americana*)	d	3	--
	hackberry (*Celtis* sp.)	d	1	--
	unidentified – general (amorphous)	c	2	.0
	unidentified – seed	c	1	.1
Feature 14 Unit 36 Area 2 FS 159 7 liters	wood (unident 55%, w oak 20%, ash 10%, beech 10%, maple 5%)	c	842	9.7
	hickory (*Carya* sp.)		2	.0
	black walnut (*Juglans nigra*)	c	15	.3
	corn – kernel fragment (*Zea mays*)	c	23	.2
	corn – cupule	c	27	.2
	bean (*Phaseolus vulgaris*)	c	4	.0
	gourd – rind (*Lagenaria* sp.)	c	1	.0
	hackberry (*Celtis* sp.)	d	1	--
	barley (*Hordeum vulgare*)	c	2	--
	grass (Poaceae)	c	1	--
	unidentified – general	c	4	.0
	unidentified – seed	c	2	--
Feature 14 Unit 36 Area 3 FS 160 8 liters	wood (unident 85%, beech 5%, w oak 5%, bl walnut 5%)	c	178	1.4
	black walnut (*Juglans nigra*)	c	7	.1
	corn – kernel fragment (*Zea mays*)	c	2	.0
	pokeberry (*Phytolacca americana*)	d	6	--
	unidentified – general	c	4	.0

Table 16. Continued.

Sample	Species	State	Freq	Gm Wt
Feature 14	wood (unident 60%, beech 20%, maple 10%, w oak 10%)	C	652	6.2
Unit 42	butternut (*Juglans cinerea*)	c	9	.1
Area B	corn – kernel fragment (*Zea mays*)	c	19	.1
FS 183	corn – cupule	c	15	.2
5 liters	barley (*Hordeum vulgare*)	c	2	--
	unidentified – general	c	2	.0
Feature 14	wood (unident 56%, Am chestnut 8%, ash 8%, maple 8% Am elm 8%, slippery			
north half	elm 4%, beech 4%, white oak 4%)	c	946	12.3
Unit 43	hickory (Carya sp.)	c	6	.0
Zone 2	black walnut (Juglans nigra)	c	38	.4
FS 221	hazelnut (Corylus sp.)	c	3	.0
9.5 liters	corn – kernel fragment (Zea mays)	c	19	.2
	corn – cupule	c	41	.4
	gourd – rind (Lagenaria sp.)	c	5	.0
	peach (Prunus persica)	c	1	--
	hackberry (Celtis sp.)	c	1	--
	ragweed (Ambosia sp.)	d	2	--
	amaranth (Amaranthus sp.)	d	1	--
	small seeded nightshade (Solanum sp.)	d	3	--
	unidentified – seed	c	3	--
Feature 14	wood (unid 66%, Am beech 8%, red oak 6%, Am chest 4%, mulberry 4%, w oak			
Unit 43	2%, bl walnut 2%, maple 2%, yellow poplar 2%, slippery elm 2%, bl locust 2%)	c	2,900	26.1
Zone 3	black walnut (*Juglans nigra*)	c	17	.4
FS 212	corn – kernel fragment (*Zea mays*)	c	28	.2
11 liters	corn – cupule	c	21	.2
	bean (*Phaseolus vulgaris*)	c	4	.0
	wheat (*Triticum aestivum*)	c	2	--
	barley (*Hordeum vulgare*)	c	2	--
	pokeberry (*Phytolacca americana*)	d	7	--
	buffalo burr (*Solanum rostratum*)	d	1	--
	unidentified – general	c	9	.1
Feature 14	wood (unident 60%, maple 14%, beech 10% , hickory 4%,slippery elm 4%, Am			
Unit 43	chestnut 4%, white oak 2%, ash 2%)	c	1,067	14.4
Zone 3	hickory (*Carya* sp.)	c	4	.0
FS 213	black walnut (*Juglans nigra*)	c	21	.4
14 liters	corn – kernel fragment (*Zea mays*)	c	23	.2
	corn – cupule	c	32	.4
	gourd – rind (*Lagenaria* sp.)	c	1	.0
	wheat (*Triticum aestivum*)	c	2	--
	barley (*Hordeum vulgare*)	c	1	--
	hackberry (*Celtis* sp.)	d	3	--
	pokeberry (*Phytolacca americana*)	d	3	--
	small seeded nightshade (*Solanum* sp.)	d	5	--
	unidentified – general	c	12	--
Feature 14	wood (unident 44%, Am holly 20%, Am chestnut 6%, sycamore 6%, w oak 6%,			
north half	beech 6%, slippery elm 4%, black walnut 2%, ash 2%)		3800	36.1
Unit 43	hickory (*Carya* sp.)	c	15	.1
Zone 3	black walnut (*Juglans nigra*)	c	45	.6
FS 222	acorn (*Quercus* sp.)	c	4	.0
16 liters	corn – kernel fragment (*Zea mays*)	c	56	.6
	corn – cupule	c	59	.6
	bean (*Phaseolus vulgaris*)	c	1	.0
	hackberry (*Celtis* sp.)	d	2	--
	barley (*Hordeum vulgare*)	c	2	--
	wheat (*Triticum aestivum*)	c	1	--
	sunflower (*Helianthus* sp.)	d	1	--
	squash – rind (*Cucurbita* sp.)	c	2	.0
	gourd – rind (*Lagenaria* sp.)	c	1	.0
	small seeded nightshade (*Solanum* sp.)	d	3	--
	pokeberry (*Phytolacca americana*)	d	6	--
	unidentified – general	c	4	.0
Feature 15	wood (unident 50%, slippery elm 50%)	c	99	1.5
Unit 29	hickory (*Carya* sp.)	c	11	.3
FS 85	corn – cupule (*Zea mays*)	c	2	.0
6 liters	pokeberry (*Phytolacca americana*) --	c	1	---

Table 16. Continued.

Sample	Species	State	Freq	Gm Wt
Feature 36	wood (unident 65%, white oak 15%, American chestnut 10%, maple 5%, ash 5%)	c	258	2.0
FS 271	hickory (*Carya* sp.)	c	17	.2
10 liters	black walnut (*Juglans nigra*)	c	2	.2
	acorn (*Quercus* sp.)	c	2	.0
	squash/pumpkin (*Cucurbita pepo*)	c	2	--
	bean (*Phasolus vulgaris*)	c	2	--
	corn – cupule (*Zea mays*)	c	2	.0
	small-seeded nightshade (*Solanum* sp.)	d	1	--
	black locust (*Robinia pseudoacacia*)	d	1	--
	unidentified – seed	c	2	--
	unidentified – general	c	3	.0
Feature 90	wood (ash 32%, unident 24%, maple 20%, sycamore 8%, bl walnut 4%, y poplar			
south half	4%, w oak 4%, Am elm 4%, bl walnut 4%)	c	334	11.2
FS 315	black walnut (*Juglans nigra*)	c	7	.0
10 liters	bean (*Phaseolus vulgaris*)	c	1	.0
	gourd – rind (*Lagenaria* sp.)	c	1	.0
	buffalo burr (*Solanum rostratum*)	d	7	--
	grape (*Vitis vinifera*)	d	5	--
	hackberry (*Celtis* sp.)	d	3	--
	hawthorn (*Cretaegus* sp.)	d	5	--
	pokeberry (*Phytolacca americana*)	d	1	--
	small seeded nightshade (*Solanum* sp.)	d	2	--
	ash (*Fraxinus* sp.)	d	1	--
	unidentified – general	d	1	.2
	unidentified – seed	d	1	--
Feature 90	wood (unident 75%, beech 15%, maple 5%, American elm 5%)	c	24	2.0
Bottom	black walnut (*Juglans nigra*)	c	3	.0
FS 325	corn – kernel fragment (*Zea mays*)	c	1	.0
11 liters	buffalo burr (*Solanum rostratum*)	d	45	--
	pokeberry (*Phytolacca americana*)	d	1	--
	unidentified – general	c	2	.0
Feature 91	wood (unidentified, white oak)	c	19	.2
FS 307, 1 litr	,bean (*Phaseolus vulgaris*)	c	2	.0

Corn kernels represent food or storage waste, while cupules, the outer structural layer of the cob, represent the inedible portion of the plant and more probably food preparation debris. Corn remains can thus suggest different activities that result in the deposition of plant remains. The highest frequencies of corn were recovered from Feature 14 (early nineteenth century component). A couple of samples from from this feature (FS#84 and 137) yielded predominately cupules. In contrast, other samples (FS# 159, 183, 212, and 222) from the same feature yielded almost equal amount of cupules and kernels. This suggests that different activities and depositional events occurred in association with this sheet midden.

Common bean (Phaseolus vulgaris)

Beans in historical sites are, like corn, a local holdover from Native American foodways, until, as discussed below, the Civil War intensified their use in new contexts. Kentucky has a long history with *Phaseolus* beans. In central and eastern Kentucky, Late Prehistoric Fort Ancient sites dating from A.D. 1000-1750 (especially after A.D. 1300) contain the greatest concentrations of beans in prehistoric North America (Rossen 1992; Wagner 1987). One of the earliest excavated Euro-American sites in Kentucky, John Arnold House, yielded identical beans in 1790s contexts, indicating a rapid and direct transfer of beans from prehistoric to historic peoples (Rossen 2004).

Table 17. Botanical remains from Mid-Nineteenth Century Contexts.

Sample	Species	State	Freq	Gm Wt
Feature 8	wood (unid 50%, beech 30%, slip elm 5% maple 5%, hickory 5%, Am ches 5%)	c	79	.6
Unit 20 & 22	black walnut (*Juglans nigra*)	c	7	.0
FS 45, 7 lit	gourd – rind (*Lagenaria* sp.)	c	1	.0
Feature 8	wood (unident 80%, white oak 0%)	c	116	.9
Unit 50	hickory (*Carya* sp.)	c	1	.0
FS 244	gourd – rind (*Lagenaria* sp.)	c	1	.0
7 liters	unidentified – general	c	1	.0
Feature 11	wood (unident 50%, sycamore 20%, ash 10%, Am beech 5%, Am chestnut 5%,			
Unit 26	cedar 5%, w oak 5%)	c	456	3.2
Zone 3B	hickory (*Carya* sp.)	c	2	.0
FS 65	black walnut (*Juglans nigra*)	c	1	.0
7 liters	corn – kernel fragment (*Zea mays*)	c	2	.0
	corn – cupule	c	6	.0
	gourd – rind (*Lagenaria* sp.)	c	3	.0
	bean (*Phaseolus vulgaris*)	c	1	.0
	hackberry (*Celtis* sp.)	d	3	--
	unidentified –geeneral	c	2	.0
	unidentified – seed	c	2	--
Feature 16	wood (slippery elm)	c	194	1.9
Unit 26	hickory (*Carya* sp.)	c	3	.0
dark areas	black walnut (*Juglans nigra*)	c	2	.0
FS 79	corn – kernel fragment (*Zea mays*)	c	4	.0
6 liters	gourd – rind (*Lagenaria* sp.)	c	1	.0
	buffalo burr (*Solanum rostratum*)	d	5	--
	unidentified – general	c	6	.0
Feature 16	wood (American beech)	c	342	5.9
Unit 26	hickory (*Carya* sp.)	c	3	0
lower ash feat	pecan (*Carya illinoensis*)	c	1	.0
FS 101 8 lit	hackberry (*Celtis* sp.)	d	2	--
	unidentified – general (amorphous)	c	4	.0
Feat 17 west	wood (unident 50%, beech 25%, slippery elm 10%, Am chest 10%, hickory 5%)	c	57	1.1
U26 FS102 5l	black walnut (*Juglans nigra*)	c	5	.0
Feature 17	wood (uni 45%, Am elm 15%, ash 10%, beech 10%,syca 10%, hick 5%, bl wal	c	97	1.0
Unit 26	5%)	c	7	.0
FS 103	hickory (*Carya* sp.)	c	1	--
5 liters	grass (Poaceae)	d	3	--
	pokeberry (*Phytolacca americana*)			
Feature 17	wood (unident 45%, beech 35%, ash 15%, w oak 5%)	c	92	.8
Unit 37	hickory (*Carya* sp.)	c	8	.0
black layer	black walnut (*Juglans nigra*)	c	3	.0
FS 158	corn – kernel fragment (*Zea mays*)	c	2	.0
6.5 liters	corn – cupule	c	1	.0
	ground cherry (*Physalis* sp.)	c	1	--
	pokeberry (*Phytolacca americana*)	d	1	--
Feature 17A	wood (unident 70%, beech 15%, maple 5%, white oak 5%, American elm 5%)	c	440	4.4
Unit 37	black walnut (*Juglans nigra*)	c	9	.1
FS 196	buffalo burr (*Solanum rostratum*)	d	1	--
9 liters	elderberry (*Sambucus canadensis*)	d	2	--
	blackberry/raspberry (*Rubus* sp.)	d	1	--
	unidentified – general	c	2	.0
Feature 21A	wood (unident 80%, hickory 10%,American chestnut 5%, maple 5%)	c	272	1.6
Unit 45	black walnut (*Juglans nigra*)	c	11	.1
bottom Zone 2	corn – kernel fragment (*Zea mays*)	c	6	.0
FS 211	corn – cupule	c	3	.0
6 liters	gourd – rind (*Lagenaria* sp.)	c	2	.0
	blackberry/raspberry (*Rubus* sp.)	d	2	--
	sunflower (*Helianthus* sp.)	d	1	--
	buffalo burr (*Solanum rostratum*)	d	1	--
Feature 55	wood (unidentified – twigs)	c	21	.3
FS 300	black walnut (*Juglans nigra*)	c	2	.0
10 liters	corn – kernel fragment (*Zea mays*)	c	1	.0
	pokeberry (*Phytolacca americana*)	d	4	--
Unit 28	wood (unidentified 85%, American beech 15%)	c	408	2.7
Zone 3	hickory (*Carya* sp.)	c	8	.1
FS 194	corn – cupule (*Zea mays*)	c	1	.0
8 liters	blackberry/raspberry (*Rubus* sp.)	c	1	--
	unidentified – seed-	c	1	--

Table 17. Continued.

Sample	Species	State	Freq	Gm Wt
Unit 56	wood (unident 60%, maple 20%, ash 10%,white oak 5%, beech 5%)	c	444	6.0
north	hickory (*Carya* sp.)	c	6	.1
extension	black walnut (*Julans nigra*)	c	5	.1
Zone 1 & 2	corn – cupule (*Zea mays*)	c	1	.0
mixed	bean (*Phaseolus vulgaris*)	c	2	.0
FS 362	hackberry (*Celtis* sp.)	d	4	--
8 liters	beechnut (*Fagus grandifolia*)	d	1	--
	pokeberry (*Phytolacca americana*)	d	5	--
	blackberry/raspberry (*Rubus* sp.)	c/d	3	--
	tomato (*Lycopersicon esculenta*)	d	1	--
	strawberry (*Fragaria* sp.)	d	1	--
	small seeded night shade (*Solanum* sp.)	d	3	--

Table 18. Botanical remains spanning Early and Mid-Nineteenth Century Contexts.

Sample	Species	State	Freq	Gm Wt
Feature 26	wood (unidentified – twigs)	c	400	3.0
post mold	hickory (*Carya* sp.)	c	8	.1
base Zone 3	black walnut (*Juglans nigra*)	c	3	.0
FS 247	corn – kernel fragment	c	10	.0
4 liters	barley (*Hordeum vulgare*)	c	3	--
	hackberry (*Celtis* sp.)	d	7	--
	pokeberry (*Phytolacca americana*)	d	2	--
	unidentified – seed fragment	c	1	--

There may have been a connection between beans and lower status foodways in the past. Beans were introduced, perhaps through the Caribbean and were rapidly adopted as a staple by eastern U.S. groups such as the Fort Ancient and Owasco (Hart and Scarry 1999; Riley et al. 1990; Ritchie 1980:276). Unlike higher status prehistoric introduced plants, such as corn, beans did not go through a prolonged local period of acclimatization and probable ritual use prior to its adoption as a dietary staple. That is, beans did not go through the process called *ritualization*, whereby a new plant is given high status through the long-term development of a special ritual (or supernatural) context for the plant (Coursey 1976). Perhaps because of this, some groups such as western Kentucky Mississippian populations, who were contemporary with the Fort Ancient, apparently chose not to use beans (Edging 1995; Rossen 2008;Rossen and Edging 1987). In comparison with high status plants such as corn, beans were probably a low status plant food prehistorically, and this low status may have been transferred to the adopting Euro-Americans, even though the dietary value was undeniable. During the Civil War, the popularity of beans surged, especially among rank and file soldiers, and they were favored by both sides due to their ease of transport and storage (Lord 1969:41; Wiley 1995[1952]:238).

At Frazer Farmstead, beans are present in eleven samples, including nine from the early nineteenth century component (five Feature 14 samples, plus Features 36, 90 and 91) and two from the middle-nineteenth century component (Feature 11 and Unit 56 north extension). Its wide distribution in the early component (8 of 19 samples, ubiquity = 0.42) suggests substantial bean use at the site even before the popularizing influences of the Civil War.

Gourd Rind

Gourds (*Lagenaria* sp.) were widely used by Native Americans as containers and fishing floats, and their nutritious seeds were probably eaten (Hart et al. 2004; Hudson 2004). They also commonly occur in historical sites, particularly in poor or slave households as bowls or spoons (Ferguson 1992:97-98). Low frequencies of minute rind fragments are present in both the early and middle components: ten specimens scattered in six early component samples (five Feature 14 samples and one Feature 90 sample) and eight specimens in five late component samples (two samples from Feature 8 and one each from Features 11, 16 and 21A). Gourd rind is a fragile and underrepresented material in the archaeological record, and thus this substantial ubiquity (though paired with low frequency) suggests substantial use of gourds at the farmstead.

Barley and Wheat

Carbonized specimens of barley (*Hordeum vulgare*) and wheat (*Triticum aestivum*) were recovered in low frequencies from Feature 14 samples of the early nineteenth century component. Barley is present in five samples (FS#159, 183, 212, 213 and 222) and wheat is present in three (FS#212, 213 and 222). These specimens probably represent discarded cooking debris. Barley and wheat originated in the Near Eastern fertile crescent region of Iraq and Iran (Kimber and Sears 1987). Both were introduced early to the New World by both Spanish and English explorers. Barley, in particular, was grown in 1492 in the Caribbean by the colony founded by Christopher Columbus, and was introduced to the Massachusetts Bay Colony by 1602 (Hockett 1991; Wiebe 1979).

Relatively little is known of the chronology, adoption, and use of Old World grains in historic Kentucky, although portions of the story are now emerging. It appears that various Old World grains penetrated into even isolated areas of Kentucky quite early, judging from the recovery of wheat and barley in 1790s deposits at the John Arnold House and in 1830s deposits at the Baber Hotel site in McLean County (Rossen 1995.). It is likely that historic barley in Kentucky was a six-rowed winter variety that originated in the Balkan-Caucasus region of southeastern Europe (Nilan and Ullrich 1993:7). In central Kentucky, barley was recovered at the History Center site, Frankfort and at Site 15NE58, near Bardstown (Davis et al. 1997; Rossen n.d.a.).

It is not known to what extent these grains were grown or imported. Some nineteenth century Kentucky farms were growing Old World grains. For example, the Locust Grove plantation near Louisville, run by a wealthy family of the southern planter class, listed equipment for growing wheat in an 1822 estate inventory (Young 1995). Grains such as wheat and barley, however, are generally cool season crops that prefer dry, alkaline soils and are relatively intolerant of the warm climate and wet, acidic soils of Kentucky (Nilan and Ullrich 1993:4). After the Civil War, grain production declined in Kentucky. In the early twentieth century, coal camps imported bags of grain by rail instead of growing them locally (Rossen n.d.c.).

Squash/Pumpkin

Squash/pumpkin seeds appear in Features 14 (FS84) and 36, while rind fragments are present in Feature 14 (FS#222), all in the early nineteenth century component (Table 19). Squash appears early in the Kentucky prehistoric archaeological record, found sporadically in Archaic period contexts (Cowan et al. 1981; Hart et al. 2004; Kay et al. 1980; Marquardt and Watson 1977; but see Rossen 2000). Allozyme, morphology, and phytogeography studies have convinced some scholars that squash was independently domesticated in the eastern United States from wild populations in Arkansas and Missouri (Decker-Walters 1990; see discussions in Crites 1994:G-15-G-18 and Edging 1995:170). By Woodland and Fort Ancinet times it was a common garden plant throughout Kentucky (Crites 1994:G-76; Davis et al. 1997:184; Pope et al. 2005). As an adaptable plant that readily volunteers, squashes were easily transferred to historic gardens and farms.

Other Cultigens

Other cultigens recovered in trace amounts (n=1 or 2) are grape, tomato, peach, sunflower and strawberry. The grape seeds are *Vitis vinifera*, the introduced European grape and not the American grape that is native to Kentucky and often recovered from prehistoric sites (*Vitis* sp.). All these cultigens, with the exception of sunflower, could be eaten fresh, baked into pies and cobblers (a common practice according to cookbooks of the period) or fermented. Some of the seeds are discolored to a dark brown, suggesting they were cooked. Many historic cookbook recipes recommend including seeds and pits to enhance flavor.

Sunflower was cultivated prehistorically in Kentucky, as evidenced by a steady increase in seed size from the Late Archaic through the Woodland and Late Prehistoric periods (Yarnell 1978:291). Sunflower domestication further intensified during the Late Prehistoric period at Mississippian sites in Kentucky, where mean achene length reached 10 to 12 mm (Yarnell 1978:293). Sunflower transferred to historic populations as both a minor food source and an ornamental flower. The two specimens, one from the early nineteenth century component (Feature 14, FS#222) and one from the middle nineteenth century component (Feature 21), are incomplete but may be estimated to be within the cultivated size range listed by Yarnell.

Peach (*Prunus persica*) trees were introduced by Euro-Americans shortly after contact and were readily adopted by Native groups as far north as New York (Gremillion 1993; Hansen and Rossen 2007). During the nineteenth century, dried peaches were a major staple of Union Civil War forces at Camp Nelson, Jessamine County, Kentucky, and troops regularly “foraged” in local orchards (Rabb 1860-1925; Rossen 2003).

Single tomato (*Lycopersicon esculenta*) seeds are present in one early and one middle nineteenth century sample (Feature 14, FS#84 and Unit 56, FS#362). The early specimen is unusual, because tomatoes were thought to be poisonous in popular nineteenth century folklore (Rupp 1987:13; Schultes 1979). The plant was widely grown as an ornamental, but was not in common food use until the middle or late decades of the century (Cummings and Puseman 1994:5.9; Heiser 1987:53). At the Lextran site, with its well-

stratified privy deposits, tomato seeds appeared only in samples that post-date 1885 (Rossen 1992). Tomato appears in similarly dated deposits in both the Louisville Convention Center and Frankfort History Center sites (Rossen n.d.a., n.d.b.). At Ashland, the Henry Clay Estate, tomato appeared in deposits dating from 1860-1885, and seed counts quadrupled in deposits dating from 1885-1930 (Scarry 1993:106). Tomato seeds recovered from several residential sites in Harper's Ferry, West Virginia also suggest a late nineteenth century introduction and an increase in use early in the twentieth century (Cummings 1993). Also at Harper's Ferry, the recovery of tomatillo (*Physalis* sp.) in conjunction with tomato and hot pepper (*Capsicum* sp.) in early twentieth century deposits led to speculation concerning the historic consumption of Mexican food (Cummings 1993:7, 26).

Strawberries (*Fragaria virginiana*) were commonly cultivated and were available in canned preserves (Symonds 1888:146-148).

NUTSHELL

Nutshell is represented in minor frequency by black walnut (*Juglans nigra*) and hickory (*Carya* sp.), and in trace amounts for butternut (*Juglans cinerea*), acorn (*Quercus* sp.), hazelnut (*Corylus* sp.), pecan (*Carya illinoensis*) and beechnut (*Fagus grandifolia*) (Tables 16 to 20). The historic use of native nuts in nineteenth century Kentucky is a direct borrowing from prehistoric Native American foodways. Euro-American settlers, however, began to cultivate nut trees (Downing 1866, 1881), in contrast to Native Americans, who collected nuts wild and, at most, practiced management or silviculture of the wild tree stands (Munson 1973). Hickory nuts were valuable for their high protein and fat content, and relative ease of collection, preparation, and storage. Though prehistorically less important than hickory, walnuts contain over three times more nutmeat (Styles 1981:82) and approximately 10% more protein and fat than hickory (Lopinot 1982:858-859). Walnuts are, however, more difficult to process and prepare in bulk, and, unlike hickory, the trees do not grow in solid stands.

Butternut is widespread in the eastern United States. archaeological record, but only in small amounts. Its nutritional content, processing and use is very similar to that of black walnut. Butternut trees, however, only produce good harvests every two or three years, so butternut may not have fit into a seasonal collection strategy as well as other nut-bearing species that produce more consistent harvests (U.S. Department of Agriculture 1948:110, 202). The amount and availability of butternut in prehistoric and historic Kentucky is difficult to assess because a blight has drastically reduced its numbers in recent years.

Acorn is usually underrepresented archaeologically (Asch and Asch 1975). It is probably the most abundant and reliable eastern U.S. nut, producing consistent annual masts while other species vary more in annual production. Acorns, however, require special processing to remove the astringent tannic acid of the nutmeat. Furthermore, acorns are nutritionally inferior to other nuts, with only half the protein and one-third the fat of hickory nuts. Despite this, acorn collection may be simpler than collection of other nuts and nutmeat yields are high, so the net energy potential of acorn may be similar to that of other

nuts (Lopinot 1982:726). Acorns were known to have been used as a coffee substitute during the nineteenth century when coffee prices were high (Derby 1980). The hazelnut (either *Corylus americana*, the American hazelnut or *Corylus cornuta*, the beaked hazelnut) is a high protein and easily stored nut (Krochmal and Krochmal 1982:6-8).

Pecan is primarily native to western Kentucky and is found in Mississippian sites in minor amounts, but almost never appears in Fort Ancient sites, though it is occasionally recorded in Ohio Valley Woodland sites (Lopinot 1988). The minute amount of pecan at Frazer Farmstead was either transported there or the result of planted or transplanted pecan trees. Beechnuts only occur occasionally in archaeobotanical collections. They have a moderate tannin content (lower than acorns) and there is often several years between good harvests. For instance, bloggers in eastern Kentucky reported heavy beechnut production in October 2008, the first heavy crop since the fall of 2000 (www.freelists.org/post/birdky/RPT-Beech-nuts-and-grackles).

Table 19. Non-wood plant remains from Early Nineteenth Century Contexts.

Plant Type/Species	Freq	Gm Wt	Ubiquity
Nutshell			
black walnut (*Juglans nigra*)	177	2.6	.68
hickory (*Carya* sp.)	59	.6	.37
butternut (*Juglans cinerea*)	9	.1	**.05**
acorn (*Quercus* sp.)	6	.0	.16
hazelnut (*Corylus* sp.)	3	.0	.05
Cultigens			
corn – cupule (*Zea mays*)	249	2.4	68
corn – kernel fragment	183	1.5	.58
bean (*Phaseolus vulgaris*)	16	--	.42
gourd - rind (*Lagenaria* sp.)	10	--	.32
barley (*Hordeum vulgara*)	9	--	.26
wheat (*Triticum aestivum*)	5	--	.16
grape (*Vitis vinifera*)	5	--	.05
squash/pumpkin (*Cucurbita pepo*)	3	--	.11
squash – rind (*Cucurbita* sp.)	2	--	.05
tomato (*Lycopersicon esculenta*)	1	--	05
peach (*Prunus persica*)	3	--	.16
sunflower (*Helianthus* sp.)	1	--	.05
Wild plant seeds			
buffalo burr (*Solanum rostratum*)	53	---	.16
pokeberry (*Phytolacca americana*)	29	---	.47
hackberry (*Celtis* sp.)	23	---	.37
small seeded nightshade (*Solanum* sp.)	14	---	.26
blackberry/raspberry (*Rubus* sp.)	1	---	.05
grass (Poaceae)	1	---	.05
hawthorn (*Crataegus* sp.)	5	---	.05
black locust (*Robinia pseudoacacia*)	1	---	.05
ragweed (*Ambrosia* sp.)	2	---	.05
amaranth (*Amaranthus* sp.)	1	---	.05
ash (*Fraxinus* sp.)	1	---	.05
Miscellaneous			
unidentified – general	52	.5	
unidentified – seed	10	--	

Table 20. Non-wood plant remains from Mid-Nineteenth Century Contexts.

Plant Type/Species	Freq	Gm Wt	Ubiquity
Nutshell			
black walnut (*Juglans nigra*)	45	.3	.47
hickory (*Carya* sp.)	38	.2	.42
pecan (*Carya illinoensis*)	1	.0	.05
beechnut (*Fagus grandifolia*)	1	.0	.05
Cultigens			
corn – cupule (*Zea mays*)	12	.0	.26
corn – kernel fragment	15	.0	.26
bean (*Phaseolus vulgaris*)	3	.0	.112
gourd - rind (*Lagenaria* sp.)	8	--	.26
tomato (*Lycopersicon esculenta*)	1	--	.05
sunflower (*Helianthus* sp.)	1	--	.05
strawberry (*Fragaria* sp.)	1	--	05
Wild plant seeds			
buffalo burr (*Solanum rostratum*)	7	---	.16
pokeberry (*Phytolacca americana*)	13	---	.21
hackberry (*Celtis* sp.)	9	---	.16
small seeded nightshade (*Solanum* sp.)	3	---	.05
blackberry/raspberry (*Rubus* sp.)	7	---	.21
grass (Poaceae)	1	---	.05
elderberry (*Sambucus canadensis*)	2	---	.05
ground cherry (*Physalis* sp.)	1	---	.05
Miscellaneous			
unidentified – general	14	.0	
unidentified – seed	4	--	

OTHER RECOVERED PLANTS

Other recovered plant seeds represent the local nineteenth century flora, including trees and invasive weeds, along with plants that may have been minor food sources or just fortuitous trace inclusions in the archaeobotanical record. Buffalobur (*Solanum rostratum*) is particularly abundant in historical archaeological sites, but is rare or absent in prehistoric sites. It is usually categorized as an aggressive cultivated field or disturbed land weed that invaded the eastern U.S. from western North America early in the historic period (Cummings 1993:7.14). Pokeweed (*Phytolacca americana*) was a minor economic plants in rural communities. The young shoots and greens of pokeweed are edible, made into "poke sallett" throughout the rural south. Its berries are poisonous but were used to make a purple dye. Despite this, these seeds are probably incidental inclusions that represent the weedy flora of nineteenth century Kentucky.

Fleshy fruits like blackberry/raspberry (*Rubus* sp.), small-seeded nightshade (Solanum sp.), elderberry (*Sambucus canadensis*), ground cherry (*Physalis* sp.) and hawthorn (*Cretaegus* sp.) may have been used in pies and cobblers much like the other fleshy fruits listed above, though their low frequencies in this collection do not suggest evidence of systematic use. Tree seeds from black locust (*Robinia pseudoacacia*),

hackberry (*Celtis* sp.) and ash (*Fraxinus* sp.), along with grass (Poaceae sp.) suggest some plants in the local environment of the farmstead.

WOOD CHARCOAL

Sixteen native species of wood was recovered (Table 21). Extensive archaeological study of wood charcoal from prehistoric sites repeatedly indicates that north-central Kentucky had mixed hardwood forests dominated (70-80%) by oaks and hickories, interspersed with cane breaks (Campbell 1985; Rossen 1991). Important secondary species in the area were hard maple, sycamore, yellow polar, beech, and American chestnut. In contrast, the frequencies and percentages of wood charcoal from Frazer Farmstead indicate patterns of wood preference and use and not environmental patterns. The collection is dominated by American beech (*Fagus grandifolia*), American chestnut (*Castanea dentata*), white oaks (*Quercus* sp.) and maple (*Acer* sp.), all durable and attractive building materials.

Table 21. Wood charcoal from both components.

Species	Freq	Pct*	Gm Wt	Pct*
American beech (*Fagus grandifolia*)	1,482	20.2	17.4	20.9
American chestnut (*Castanea dentata*)	1,034	14.1	10.9	13.1
white oak group (*Quercus* sp.)	916	12.5	9.3	11.2
Maple (*Acer* sp.)	847	11.5	10.8	13.0
American holly (*Ilex opaca*)	760	10.3	7.2	8.6
slippery elm (*Ulmus rubra*)	544	7.4	5.8	7.0
Ash (*Fraxinus* sp.)	493	6.7	7.8	9.4
Sycamore (*Platanus occidentalis*)	396	5.4	4.3	5.2
Red oak group (*Quercus* sp.)	174	2.4	1.6	1.9
Black walnut (*Juglans nigra*)	168	2.3	2.2	2.6
American elm (*Ulmus americana*)	149	2.0	1.9	2.3
Hickory (*Carya* sp.)	123	1.7	1.4	1.7
Mulberry (*Morus rubra*)	116	1.6	1.0	1.2
Yellow poplar (*Liriodendron tulipifera*)	70	1.0	1.0	1.2
Black locust (*Robinia pseudoacacia*)	58	0.8	.5	0.6
Eastern redcedar (*Juniperus virginiana*)	23	0.3	.2	0.6
Total identified wood charcoal	7,353	100.0	83.3	100.0
Unidentified wood charcoal	9,733		96.3	
Total wood charcoal	17,086		179.6	

* calculated to nearest 0.1%

DISCUSSION

Despite over thirty years as a regular component of American prehistoric archaeology, systematic water flotation recovery of plant remains is conducted in only a minority of historical archaeological projects. Historical archaeologists working in Kentucky are among the vanguard in realizing the research potential of these studies, and as a result, several important historic collections have been analyzed and published. In western Kentucky, large historic collection have been analyzed from a 1790's John Arnold site and from the 1840's Baber Hotel site (Rossen 2004). In central Kentucky, important collections include the Louisville Convention Center site, the Frankfort History Center site, Ashland, the Henry Clay Estate, the Lextran site, and Camp Nelson and the adjacent Owens

Tavern site (Rossen 1992, 2003, n.d.c., n.d.d.; Scarry 1993). The large and varied collection from Camp Nelson, Jessamine County, provided detailed information on plant use from the key transitional period of the Civil War (Rossen 2003).

The Frazer Farmstead site collection supports and corroborates the findings of the above-mentioned collections. The site contains cultivated field plants, fruits, berries, nuts, and weedy plants, some of which have possible economic uses. The trace presence of the Old World grains, wheat and barley, corroborate their nineteenth century importance despite being ill-suited to the Kentucky warm dry summers.

Plant remains are more abundant in samples from the early component, especially those from the Feature 14 sheet midden. One of these samples (FS#222) contains 13 plant species, while two contained ten species and three had eight species. In these midden samples, Old and New World grains are mixed with cultivated fruits and wild fruits and weeds. These suggest generalized discard of plant remains, and there is no evidence of specialized or spatially segregated use of particular plants.

Some specific plant issues may be mentioned that are raised but not resolved by this collection. For example, the relative importance of tomatoes in the nineteenth century and its gradual transition to common use is poorly understood. Some nineteenth century sites, such as Louisville Convention Center and Ashland, contain tomatoes during the 1850s transition or discovery period, while some sites, such as Lextran, contain no tomato seeds. Were there social differences in the nineteenth century use of tomatoes that involved beliefs of the edible or poisonous nature of the plant? How did the tomato infiltrate the American conscience and become a garden staple?

An important line of inquiry involves the borrowing, reinterpretation, and development of New World plants, like corn, bean and gourds by Euro-American settlers in Kentucky. There certainly was tension between the use of Native American plants, locally well-adapted but relatively unfamiliar, and Old World grains that were generationally familiar but somewhat poorly adapted to the Kentucky climate and growing conditions.

In summary, the Frazer Farmstead site historic plant collection reiterates various issues that have been raised by other archaeobotanical studies conducted in Kentucky. These issues involve the chronology, adaptataion, development, hybridization and use trajectories of several plants, particularly garden fruits, Old World grains, and the adoption of New World cultigens. The emerging historic plant collections in aggregate will eventually rewrite the Euro-American agricultural history of Kentucky. The Frazer Farmstead collection will thus have greater significance in the future as parallel and more detailed research on other historic plant collections is accumulated.

CHAPTER 8:
RESULTS OF THE EXCAVATION

During the course of the investigation of the Frazer Farmstea, 43 test units (104.75 m^2) and 88 features (Table 22) were excavated (Figures 71 and 72). Each test unit yielded early- to mid-nineteenth century artifacts in stratigraphically sealed contexts. Close interval systematic shovel probing (n=21) helped to discern the distribution of artifacts across the site and guide the placement of test units (Figure 72). Test units were excavated in seven site areas that consisted of Block 1 (Units 38, 45, 46, 54, 55, 57, 58, and 59), Block 2 (Units 20, 22, 30, 31, and 50), Block 3 (Units 24, 27, 32, 34, and 44), Block 4 (Unit 56), Block 5 (Units 19, 20, 23, 26, 28, and 37), Block 6 (Units 29, 33, 35, 36, 39, 40, 41, 42, 43, 51, 52, and 53), and Block 7 (Units 21 and 25). An additional five test units (Units 16, 18, 47, 48, and 49) and one 3 m x 50 cm exploratory trench (Trench 1) was excavated. Of the excavated test units, 26 measured 1 x 2 m, 11 measured 1 x 1 m, three measured 2 x 2 m, one measured 1 x 1.5 m, and one measured 1.65 x 2 m.

Once the hand excavations were completed, one large block (approximately 1,500 m^2) was mechanically excavated. Mechanical stripping of the plowzone exposed 67 additional features; including small midden areas, trash pit/cellars, and scattered posts, as well as two lines of posts that appear to designate the separation of the outer and inner yard, and a turnpike fence. Stripping also further exposed the house foundation, which consisted of six rooms comprised of two larger rooms side-by-side to the east and west and a kitchen to the south, each of which contained the base of a hearth/chimney. Three additional rooms to the north and two large cellars also were present. The results of the archaeological field investigations are described below.

Figure 71. Overview of Site, Facing Southwest.

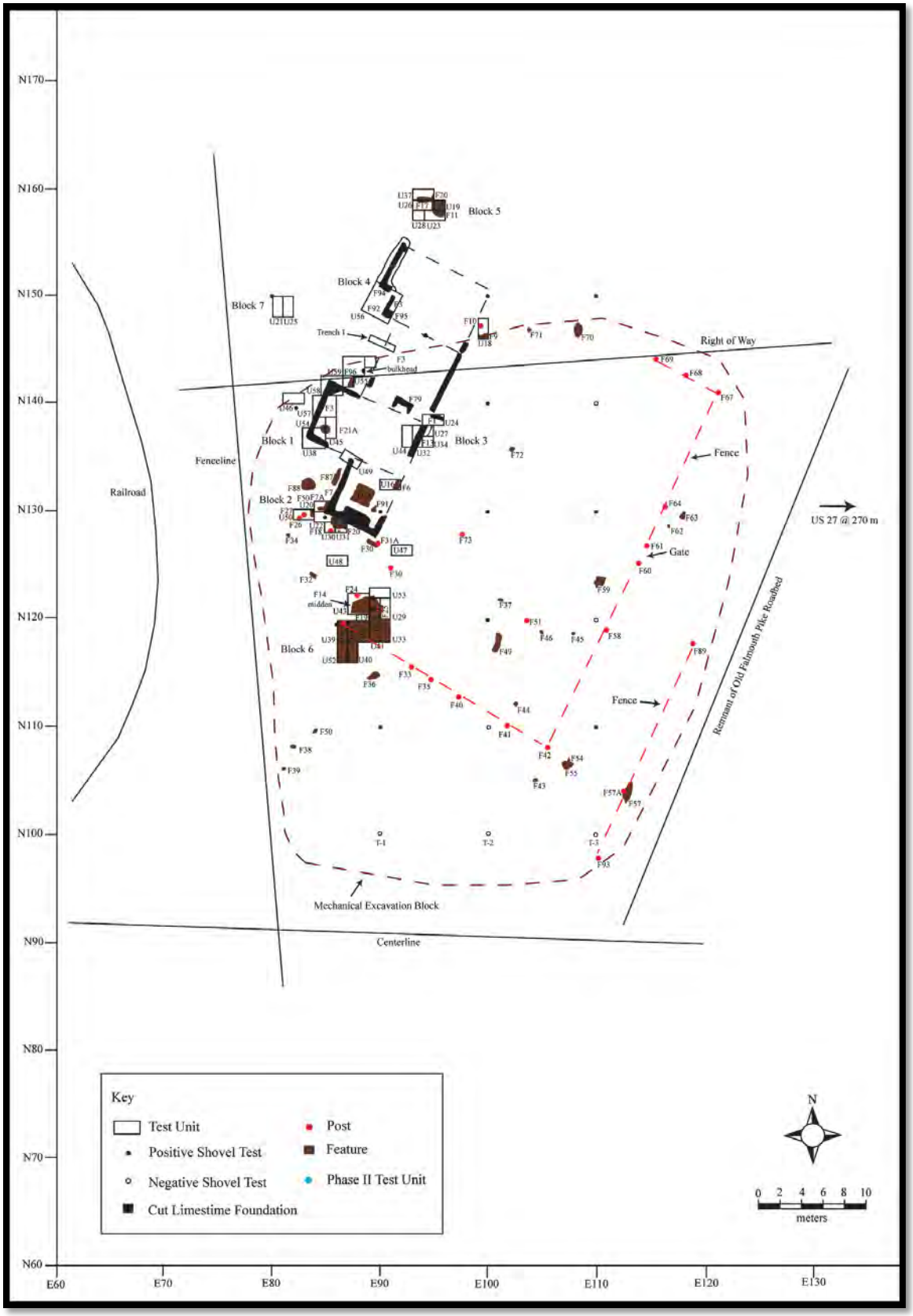

Figure 72. Site Map.

Table 22. List of Features.

No.	Type	Association	Test Units
1	clay fill	Blocks 3 and 6	*1*, *2*, 24, 33, 27, 34
2	post	Identified Phase II	*11*
3	limestone foundation	Blocks 1, 2, 3, 4	*3*, *9*, 24, 32, 38, 44, 49, 54, 55, 56, 57, 59
4	post	Identified Phase II	*4*
5	non-cultural	N/A	N/A
6	builder's trench	N/A	16
7	limestone foundation	Excavation Block 2	20, 22, 31
7A	builder's trench	Excavation Block 2	22, 31
8	ceramic vessel/ash lens	Excavation Block 2	20, 22, 50
9	builder's trench	N/A	18
10	post	N/A	18
11	pit	Excavation Block 5	19, 28, 26
12	pit	Excavation Block 2	22, 30, 31
13	fill above Feature 3	Excavation Block 3	24, 32
14	midden	Excavation Block 6	29, 33, 35, 36, 39, 40, 41, 42, 43, 53
15	same as Feature 14	Excavation Block 6	29
16	ash and brick rubble	Excavation Blocks 5	23, 28, 29, 26, 37
17	calf burial	Excavation Block 5	26, 37
18	post	Excavation Block 2	30
19	2004 Phase II Test Unit 6	Excavation Block 6	29, 36
20	pit	Excavation Block 2	31
21	ashy burned area	Excavation Block 1	38
21A	ash and mortar	Excavation Block 1	38, 45, 54, 55, 58
22	post	Excavation Block 6	39
23	fill	Excavation Block 5	26, 37
24	post	Excavation Block 6	43
25	post	Excavation Block 6	42
26	post	Excavation Block 2	50
27	post	Excavation Block 2	50
28	non-cultural	Mechanical Block 1	N/A
29	non-cultural	Mechanical Block 1	N/A
30	midden	Mechanical Block 1	N/A
31	indeterminate	Mechanical Block 1	N/A
31A	post	Mechanical Block 1	N/A
32	indeterminate	Mechanical Block 1	N/A
33	post	Mechanical Block 1	N/A
34	post	Mechanical Block 1	N/A
35	post	Mechanical Block 1	N/A
36	midden	Mechanical Block 1	N/A
37	non-cultural	Mechanical Block 1	N/A
38	indeterminate	Mechanical Block 1	N/A
39	non-cultural	Mechanical Block 1	N/A
40	post	Mechanical Block 1	N/A
41	non-cultural	Mechanical Block 1	N/A
42	post	Mechanical Block 1	N/A
43	non-cultural	Mechanical Block 1	N/A
44	indeterminate	Mechanical Block 1	N/A
45	indeterminate	Mechanical Block 1	N/A
46	pit	Mechanical Block 1	N/A
47	non-cultural	Mechanical Block 1	N/A
48	non-cultural	Mechanical Block 1	N/A

Table 22. Continued.

No.	Type	Association	Test Units
50	non-cultural	Mechanical Block 1	N/A
51	post	Mechanical Block 1	N/A
52	non-cultural	Mechanical Block 1	N/A
53	non-cultural	Mechanical Block 1	N/A
54	post	Mechanical Block 1	N/A
55	pit	Mechanical Block 1	N/A
56	non-cultural	Mechanical Block 1	N/A
57	plow scar	Mechanical Block 1	N/A
57A	post	Mechanical Block 1	N/A
58	post	Mechanical Block 1	N/A
59	plow scar	Mechanical Block 1	N/A
60	post	Mechanical Block 1	N/A
61	post	Mechanical Block 1	N/A
62	post	Mechanical Block 1	N/A
63	pit	Mechanical Block 1	N/A
64	post	Mechanical Block 1	N/A
65	non-cultural	Mechanical Block 1	N/A
66	non-cultural	Mechanical Block 1	N/A
67	post	Mechanical Block 1	N/A
68	post	Mechanical Block 1	N/A
69	post	Mechanical Block 1	N/A
70	midden	Mechanical Block 1	N/A
71	pit	Mechanical Block 1	N/A
72	pit	Mechanical Block 1	N/A
73	post	Mechanical Block 1	N/A
74	post	Mechanical Block 1	N/A
75-78	non-cultural	Mechanical Block 1	
79	hearth base	Mechanical Block 1	N/A
80	non-cultural	Mechanical Block 1	N/A
81	non-cultural	Mechanical Block 1	N/A
82	indeterminate	Mechanical Block 1	N/A
83-86	unassigned	Mechanical Block 1	
87	midden	Mechanical Block 1	N/A
88	non-cultural	Mechanical Block 1	N/A
89	post	Mechanical Block 1	N/A
90	root cellar	Mechanical Block 1	N/A
91	non-cultural	Mechanical Block 1	N/A
92	collapsed brick wall	Excavation Block 4	56
93	burned area	Excavation Block 1	55, 58
94	house found (east-west)	Excavation Block 4	56
95	possible stone walk	Excavation Block 4	56
96	bulkhead	Excavation Block 1	59
97	brick rubble (cellar 1 fill)	Excavation Block 1	59

Note: Italicized Features and Test Units were initially identified by CRAI during Phase II investigations (Allgood et al. 2004).

SHOVEL PROBES

The current fieldwork was initiated with the excavation of 20 shovel probes spaced at 10 m intervals across the site area in three north-south oriented perpendicular transects

in order to better evaluate the project area and assist in the development of an excavation strategy (Figure 72). One additional shovel probe was excavated at N146.4 E94.1 to confirm the presence of an interior foundation wall. Shovel probing revealed the site boundaries extended further north than previously identitified during the Phase I and II archaeological investigations (Sandefur and Andrews 1997:63; Allgood et al. 2004). Of the 21 shovel probes excavated during the Phase III investigations, 12 were positive for cultural materials (Table 23).

Shovel probing revealed four distinct soil profiles. The general profile across the site was composed of a very dark brown (10YR 2/2) silt loam plowzone (Ap) horizon (Zone 1) that ranged in depth from 4 to 37 cm (1.57 to 4.56 in.) below surfaces, underlain with yellowish brown (10YR 5/4) silty clay subsoil (Zone 2), and is represented by Shovel Probe N130 E110 (Figure 73). However, these shovel probes revealed the immediate vicinity of the house had remained unplowed. Although the site is situated in an agricultural field, the limestone rock associated with the house foundation made plowing difficult; therefore the majority of the site remained undisturbed (Jesse Burrier, personal communication 2007). Shovel probes in Transect 1 on the western edge of the site nearest the railroad were oriented along the fenceline and identified midden areas at N119.6 E86.2 and N139.6 E82.3 (Figure 72).

Shovel Probe N119.6 E86.2 was located south of the house. The soil profile, shown in Figure 74, consisted of very dark grayish brown (10YR 3/2) silt loam (Zone 1) at a depth of 10 to 16 centimeters below surface (cmbs), followed by grayish brown (10YR 5/2) loam with ash and charcoal flecking to a depth of 18 cmbs that was underlain with yellowish brown (10YR 5/4) silty clay subsoil (Zone 2) that was excavated to a depth of 30 centimeters below surface (cmbs). Artifacts included brick (n=5) and mortar (n=2) fragments, machine-cut nails (n=2), creamware (n=1), pearlware (n=1), whiteware (n=1) and redware (n=1) (Table 23). All of these items are consistent with an early- to mid-nineteenth century occupation.

Shovel Probe N139.6 E82.3 (Figure 75) was located immediately west of the house foundation in what was determined to be the backyard (Figure 72). Soil stratigraphy was composed of very dark grayish brown (10YR 3/2) silt loam (Zone 1) to a depth of 15 cm (5.9 in.) below surface, followed by a black (10YR 2/1) midden lens (Zone 2) that measured 8 cm (3.15 in.) thick, followed by a mottled yellowish brown (10YR5/4) silty clay fill (Zone 3) that was underlain by brown (10YR 5/3) silty clay (Zone 4) to a depth of 38 cm (14.9 in.) below surface, underlain by dark yellowish brown (10YR3/6) clay subsoil (Zone 5) that was excavated to a depth of 46 cmbs. The deeper soils below the midden deposit resulted from the excavation of a builder's trench during construction of the house. Recovered artifacts consisted entirely of architectural intems; including brick (n=10) and mortar (n-1), window glass (n=5), and a fragmentary machine-cut nail (n=1) (Table 23).

Shovel Probe N130 E90 (Figure 76) was excavated inside the house foundation in what was determined to be the kitchen. The soil profile was composed of brown (10YR 5/4) clay loam (Zone 1) to a depth of 15 cm (5.9 in.) below surface, followed by dark brown (10YR 3/3) silt loam (Zone 2) to a depth of 29 cm (11.41 in.) below surface, underlain by

pale brown (10YR 6/3) clay loam (Zone 3) to a depth of 36 cm, and yellowish brown (10YR 5/4) clay subsoil that was excavated to 38 cmbs. A single pearlware sherd was recovered (Table 23).

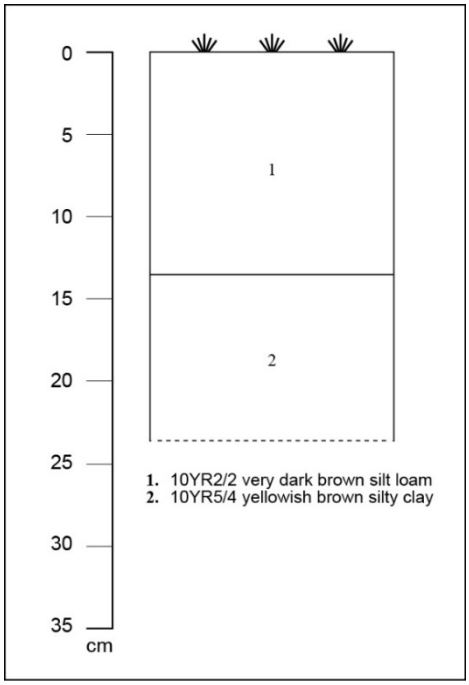

Figure 73. N130 E110 Profile Showing General Site Stratigraphy.

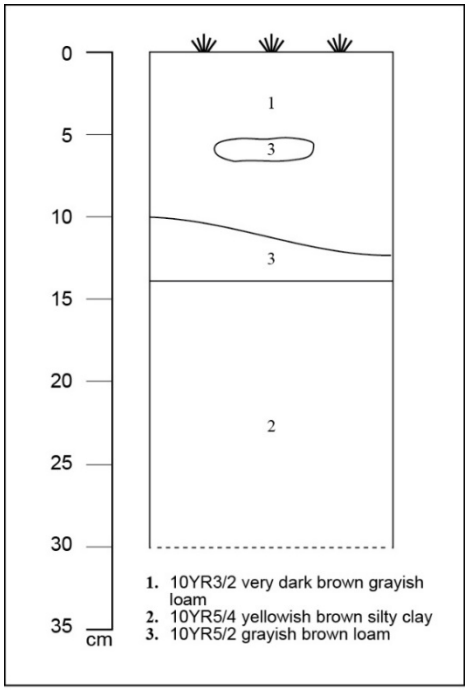

Figure 74. N119.6 E86.2 Profile Showing Midden Deposits.

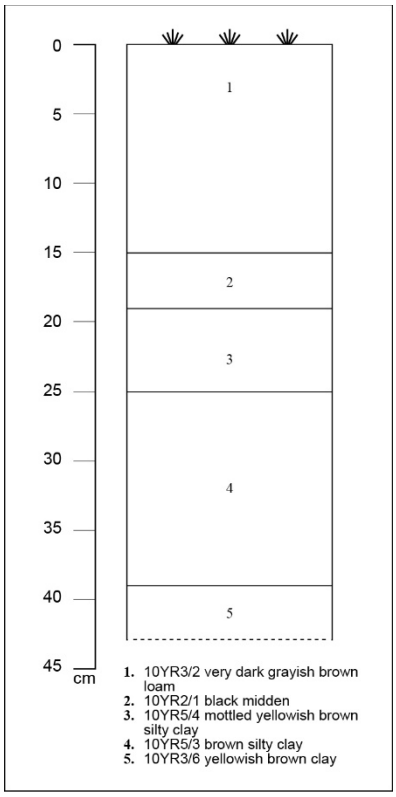

Figure 75. N139.6 E82.3 Profile Showing Midden Deposits.

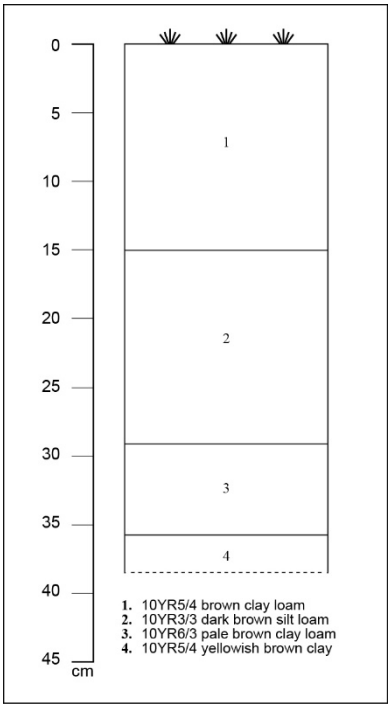

Figure 76. N130 E90 Profile.

HISTORICAL MATERIALS RECOVERED FROM SHOVEL PROBES

A total of 105 artifacts was recovered from shovel probing, including 51 brick fragments (48%), 28 ceramic vessel fragments (27%), 8 pieces of window glass (8%), 5 pieces of container glass (5%), 8 nails (8%), and 5 fragments of mortar (4%) (Figure 77). Not surprisingly, architectural artifacts were the most numerous recovered comprising 70% of the assemblage. The remaining 30% of recovered materials consisted of kitchen-related items (Figure 78). A comprehensive discussion of the recovered historical artifacts is presented in Chapter 4

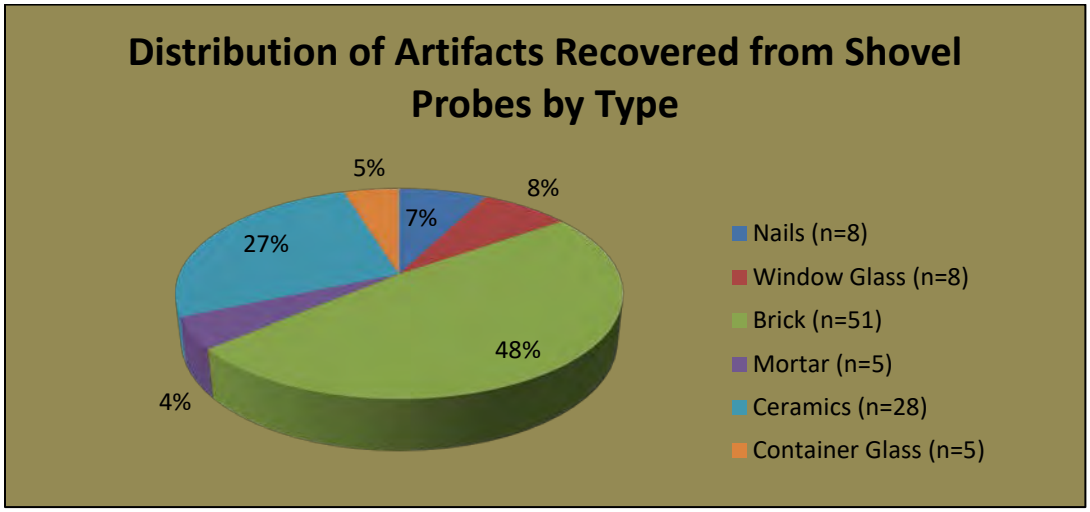

Figure 77. Artifacts from Shovel Probes by Material Type.

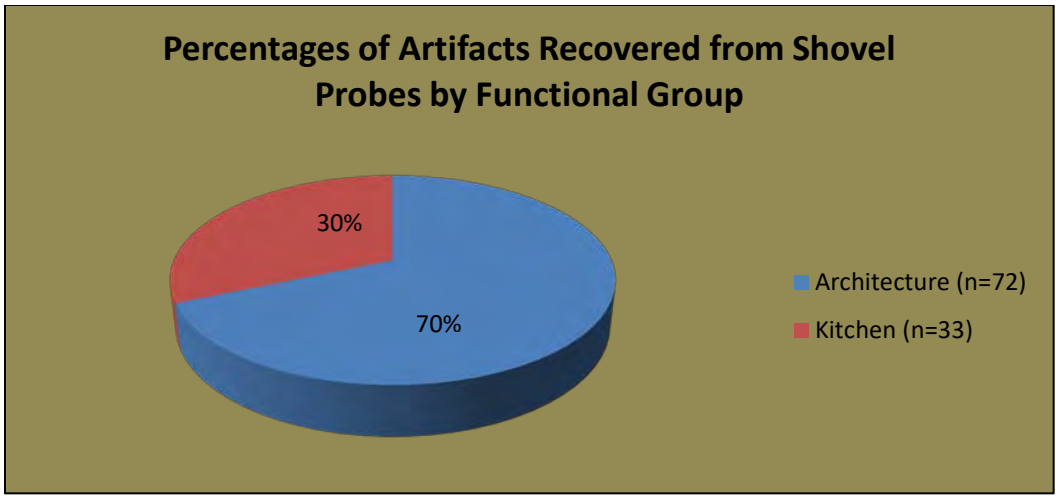

Figure 78. Percentages of Artifacts from Shovel Probes by Functional Group.

Table 23. Artifacts Recovered from Shovel Probes.

Shovel Probe	Artifact Group	Material	N=
N130 E90	Kitchen	Pearlware, undecorated	1
N109.9 E89.2	Architecture	Brick, handmade (1.3 grams)	1
	Kitchen	Yellowware, annular banded	1
	Architecture	Brick, handmade (1.9 grams)	1
		UID Cut Nail	2
		Brick, handmade (15.2 grams)	5
		Mortar (1.6 grams)	2
		Creamware, undecorated	1
		Pearlware, underglaze painted polychrome	1
		Whiteware, underglaze painted polychrome	1
		Redware, lead glazed	1
N120 E100	Kitchen	Creamware, undecorated	1
		Brick, handmade (0.1 grams)	1
		Mortar (0.4 grams)	2
		Window Glass, 1.1 mm	1
		Window Glass, 1.6 mm	1
	Kitchen	Burned refined ceramic, undecorated	1
		Early Cut Nail	2
		Brick, handmade (8.9 grams)	5
		Creamware, undecorated	4
		Pearlware, blue shell-edge	1
		Porcelain, Chinese export	2
		Redware, lead glazed	1
N130 E110	Architecture	Brick, handmade (21.7 grams)	2
		UID Cut Nail	1
		Brick, handmade (322.0 grams)	10
		Mortar (0.1 grams)	1
		Window Glass, 1.1 mm	1
		Window Glass, 1.4 mm	2
		Window Glass, 1.5 mm	2
	Architecture	Brick, handmade (60.4 grams)	14
	Kitchen	Container Glass, clear body sherd	1
		Pearlware, undecorated	1
		Container Glass, clear	1
		UID Cut Nail	1
		Brick, handmade (26.4 grams)	4
		Whiteware, undecorated	2
		Burned refined ceramic, undecorated	1
		Wrought Nail	1
		UID Cut or Wrought Nail	1
		Window Glass, 1.0 mm	1
		Brick, handmade (51.2 grams)	8
		Whiteware, blue transfer-print	1
		Whiteware, undecorated	4
		Redware, lead glazed	2
		Porcelain, European undecorated	1
		Container Glass, aqua	1
Total			**105**

DESCRIPTION OF TEST UNITS AND FEATURES BY SITE AREA

Tests units were excavated in seven blocks, along with six additional units and one exploratory trench. Most of these excavation areas investigated the house foundation (Feature 3), which was composed of rough cut limestone blocks. Excavation Block 1 examined the western wall of the foundation; Block 2 examined the southern wall; Block 3 examined the eastern wall; and Block 4 examined the northwestern wall and corner. Five separate units were also excavated, including the following: Unit 16, which was placed across the east wall; Unit 18, which was located outside the northeast corner of the foundation; Unit 49, which intersected the house foundation at the southwest corner of the ell; and Units 47 and 48, which were situated south of the house (Figure 72). Additionally, Trench 1 was located along the eastern wall of the house between Blocks 1 and 4, and is included in the discussion of Block 1 below. Historic materials recovered from each block are discussed broadly within the context of their function.

Excavation Block 1

Block 1 is located in the northwestern portion of the site, and was positioned along the western wall of the house (Figures 79 and 80). This excavation block is comprised of eight test units (Units 38, 45, 46, 54, 55, 57, 58, and 59) and one trench (Trench 1) (Figure 79). Although Unit 46 is not contiguous with the other units, it lies immediately to the west; it is considered part of Block 1 for analytical purposes due to its close proximity. Likewise, Feature 97 (Cellar 1) was present in both Trench 1 and Block 1; therefore, these excavation areas are discussed together. A total of 23 m^2 was hand excavated, and five features (Features 3, 21, 93, 96, and 97) were encountered. Following the test unit excavations, the area was mechanically stripped to fully expose the structural features. These excavations revealed many intact structural elements including house foundation remains (Feature 3) with the base of a corner hearth, a bulkhead (Feature 96), as well as evidence of burning (Features 21, 21A and 93).

Units 38, 54, 57, and 58 bisected the house foundation. Unit 45 was located inside the main L-shaped house. Units 55 and 59 were located north of the Feature 3 foundation and encountered a celler (Feature 97). Unit 46 was located west of the structure. Three distinct soil profiles were encountered. Soil stratigraphy in the entire Block 1 area revealed disturbances from house construction and subsequent demolition. Unit 38 is representative of the general soil profile, both inside and outside the house foundation, across the site area (Figures 80 and 82). These soils are composed of a dark brown (10YR 3/3) silt loam topsoil (Zone 1) covering the site area. The subsequent stratigraphic profile beneath the topsoil differs slightly by area. Inside the main L-shaped building, the soil profile is composed of strong brown (7.5YR 5/6) silt loam (Zone 2), followed by dark brown (10YR 3/3) silt loam (Zone 3), that is underlain with dark yellowish brown (10YR 5/6) silty clay subsoil (Zone 4). A thin burned feature (first identified as 21A) was present inside the house beneath Zone 2, and is composed of a light gray (10YR 7/1) mortar and ash lens. Outside of the building in Units 38 and 58, the soil profile is composed of dark yellowish brown (10YR 3/4) silt loam (Zone 2), followed by yellowish brown (10YR 5/6) mottled clay lens (Zone 3A). The underlying soils are homogeneous with those documented inside the house foundation and consist of dark yellowish brown (10YR 3/3) silt loam (Zone 3), underlain with dark yellowish brown (10YR 4/6) silty clay subsoil (Zone 4).

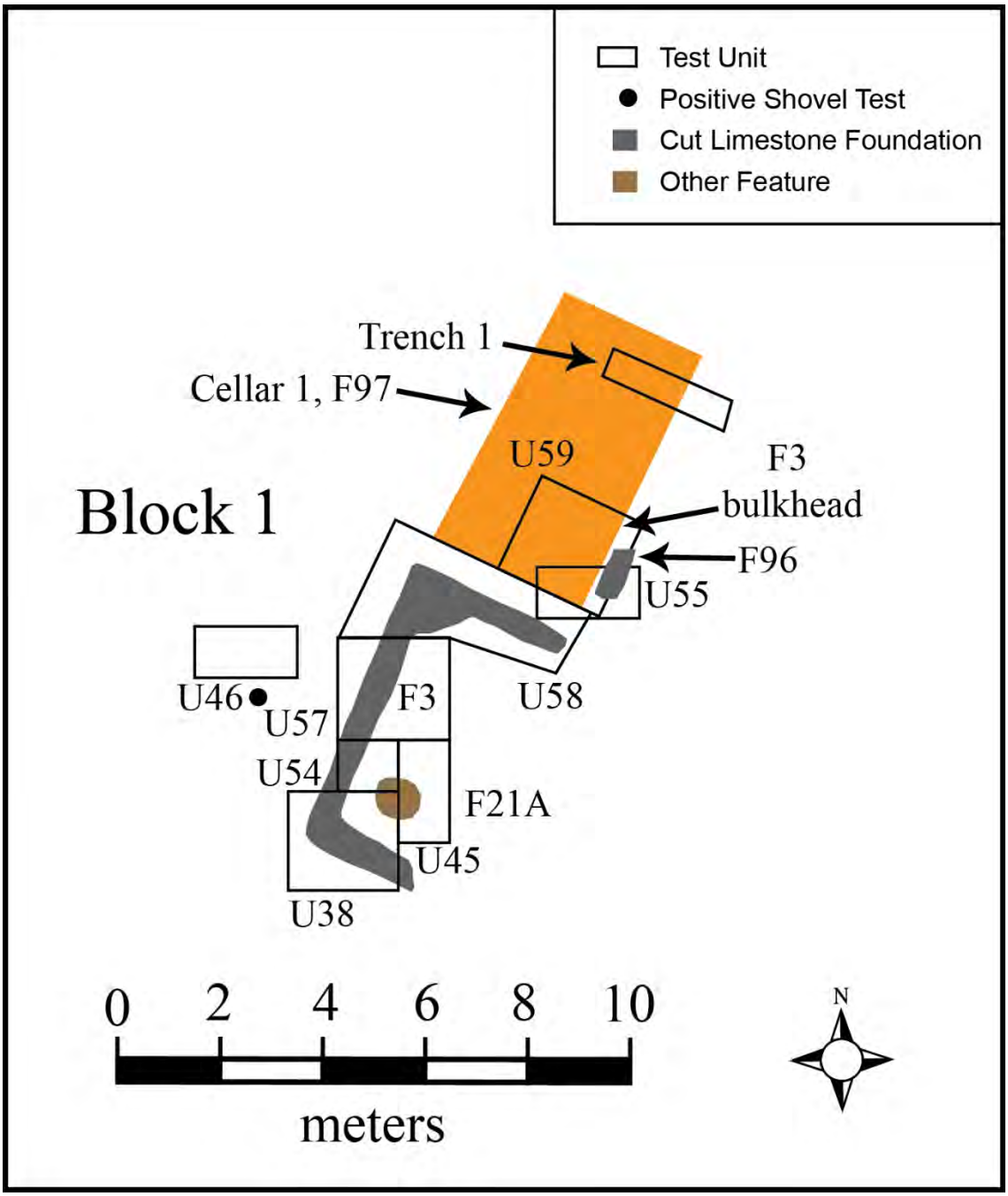

Figure 79. Map of House Foundation Showing Block 1 and Trench 1.

Zone 2, within the house, represents the demolition of the house, while Feature 21A (also excavated as Features 21 and 93) provides evidence that the building was destroyed as the result of a great and destructive fire.

Figure 80. View of Block 1 Area and Feature 3 after Mechanical Stripping, facing south.

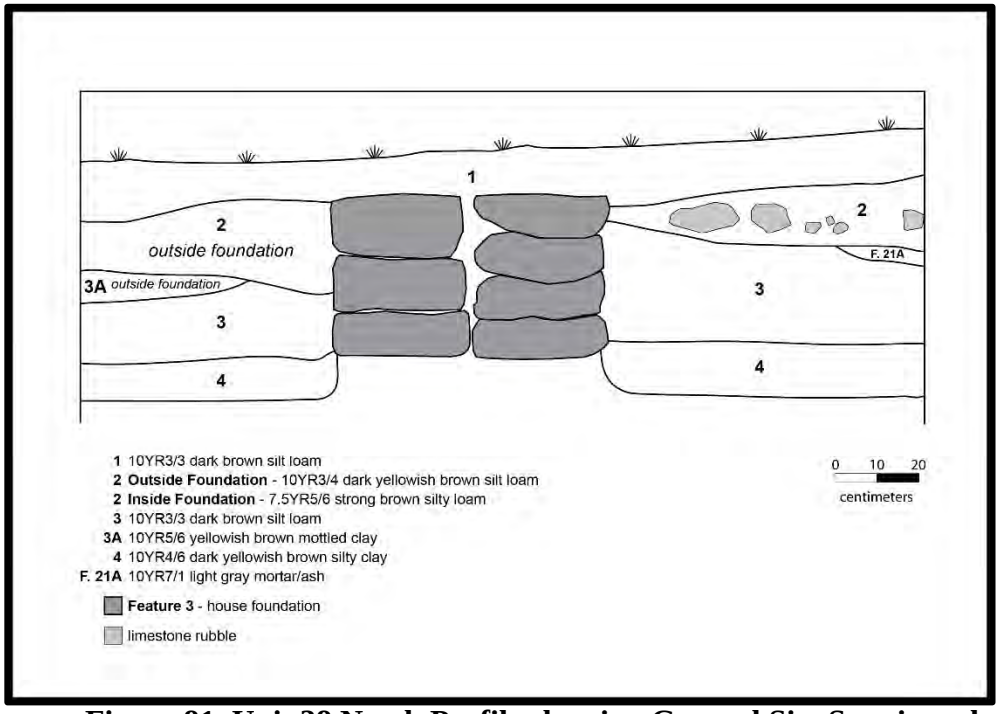

Figure 81. Unit 38 North Profile showing General Site Stratigraphy: Inside (right) and Outside (left) of House Foundation (Feature 3).

Figure 82. Unit 38 Planview facing East: showing Feature 3 and the Interior and Exterior Soil Profiles.

Feature 21 was a layer of ash and burned soil first documented in Unit 38 at the base of Zone 1 (20 to 26 cmbs) east of the foundation wall in what would have been the interior of the house. An extremely high density of buttons was noted in the feature fill. A more heavily burned area was encountered in the northeast corner of Unit 38. This area was designated 21A, and was excavated separately to determine its relationship with Feature 21. This feature extended into Units 45 and 54, and further excavation revealed it to be a slightly darker continuation of Feature 21. Feature 21A became more apparent in Unit 45, which was also located inside the house and exhibited stratified deposits (Figure 83). As with Unit 38, this feature contained a relatively high density of burned artifacts associated with an area of heat-reddened and ashy soil. Feature 21/21A was later determined to be the same context as Feature 93 in Units 55 and 58. This feature was also present in Unit 57 as a layer of charcoal, ash, and rubble (Zone 2) that covered the entire unit east of the foundation (or inside the house).

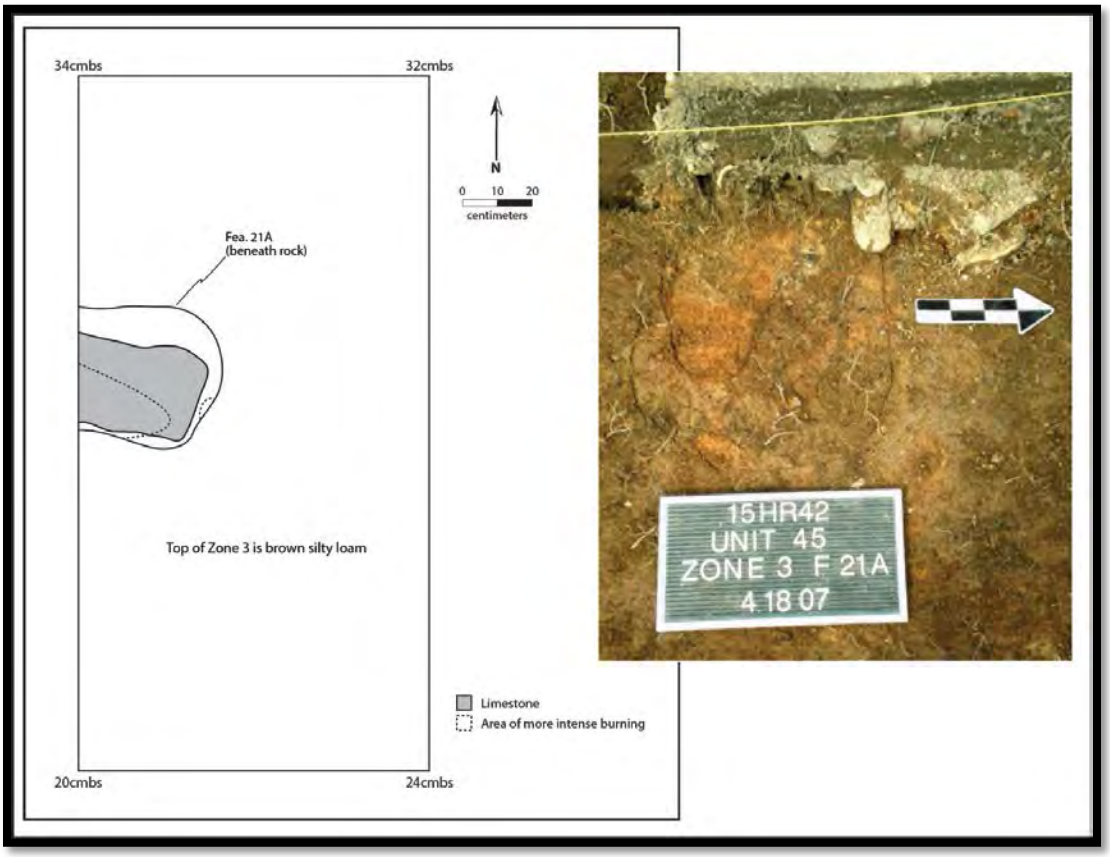

Figure 83. Unit 45 Planview showing Feature 21A.

Units 45, 46, 57, 59, and Trench 1 contained an additional stratum of dark yellowish brown (10YR 4/5) silty clay just beneath the topsoil (Zone 2 in Unit 46 and 59, and Zone 3 in Unit 57) that indicates a portion of the site was capped, most likely to the level the surface grade, after the site was abandoned. The Unit 45 soil profile is indicative of this clay cap, which is thicker and exhibits a more sandy composition above the cellar fill in

Unit 59 and Trench 1. The soil profile in Unit 46 is composed of very dark brown (10YR 2/2) silty clay loam topsoil (Zone 1), followed by dark yellowish brown 10YR 4/6 silty clay fill that caps a dark grayish brown 10YR 4/2 silty loam buried A horizon underlain with dark yellowish brown (10YR 3/6) silty clay subsoil (Figures 84 and 85).

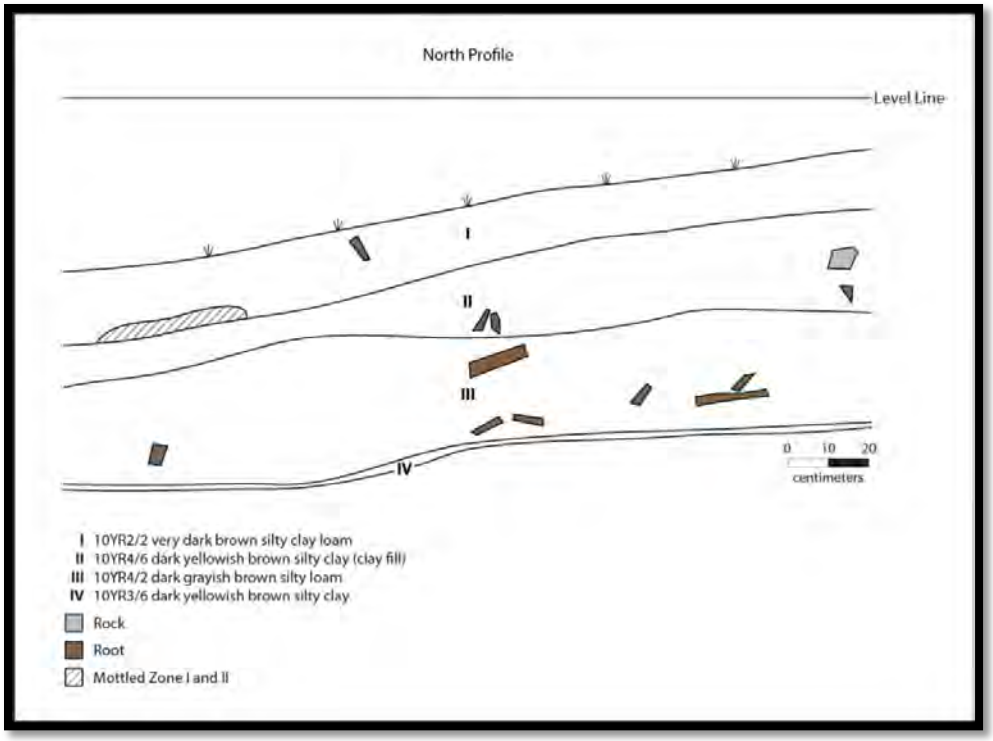

Figure 84. Unit 46 North Profile.

Figure 85. View of Unit 46 North Profile.

Exceptions to the aforementioned stratigraphic profiles are Features 96 and 97, which are the remains of a cellar, (Cellar 1, Feature 97) under an outbuilding or northern extension and associated foundation and/or bulkhead (Feature 96), in Units 55 and 59 and

Trench 1. The soils in Unit 59 and the northwestern part of Unit 55 are composed of a very dark grayish brown (10YR 3/2) silt loam topsoil (Zone 1) that is underlain with brownish yellow (10YR 6/6) sand (Zone 2) (Figures 86 and 87). This sandy soil was also present at the same level in Trench 1, and is contemporaneous with the silty clay cap documented in Units 45, 46, and 57. Beneath this cap, the cellar (Feature 97) fill consists of a thin stratum of very dark gray (10YR 3/1) silt loam with brick rubble (Zone 3), overlying a 55 cm to 80 cm thick layer of red (2.5YR 5/8) whole handmade bricks and brick debris (Zone 4). A thin lens of white (10YR 8/1) ash and black (10YR 2/1) charcoal directly below the brick fill is evidence the structure was destroyed by fire. At the base of the cellar is brownish yellow (10YR 5/6) clay subsoil (Zone 5) (Figures 86, 87, and 88). Feature 96, which is an intact cut-limestone foundation and probable bulkhead, was documented in Unit 55, eastern extension, and the southeastern corner of Unit 59 (Figure 88). The presence of the bulkhead would indicate an entrance to the cellar from the east.

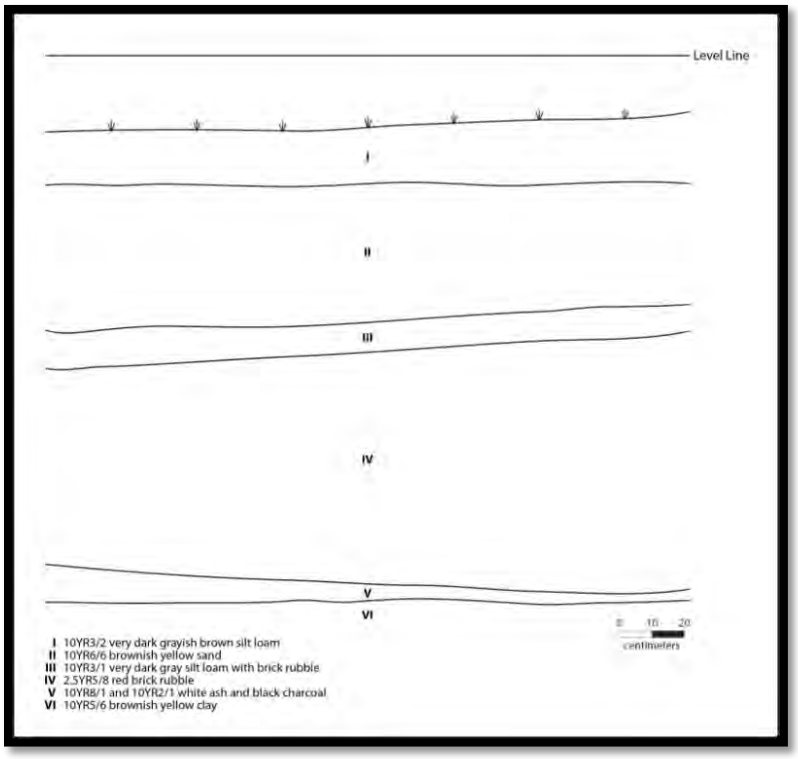

Figure 86. Unit 59 North Profile showing Cellar Fill (Feature 97).

The majority of artifacts recovered from Block 1 are architectural (50%), kitchen (19%), and clothing (27%) related items (Figure 88). Although a low density of hand wrought (n=46) and moderate to high density of early machine-cut (n=814) nails were recovered, the most common identifiable nail type was late machine-cut (n=1,073) (Table 24). It should be noted, however, that a high density of nails were either fragmentary or so badly corroded that they could not be identified by manufacture type. As a result, many specimens could not be classified as either early or late machine-cut (n=896), or more generally as machine-cut or hand wrought (n=15). Additionally, two coins, and 1816 and 1817 penny, were found within the Feature 3 foundation stones.

Figure 87. View of Unit 59 North Profile showing Cellar Fill (Feature 97).

Figure 88. Unit 59 East Profile showing possible Bulkhead (Feature 96) and Cellar Fill (Feature 97).

Table 24. Artifacts Recovered from Block 1 by Functional Group.

Functional Group	Type	N=	%
	Scissors, burned	1	
	Pencil Lead	1	
	Pencil Ferrule	1	
	Wedge	1	
	File	1	
	Marble, clay	1	
	Mouth Harp	1	
	Thimble	1	
	Sewing Needle	1	
	Straight Pin	3	
	Total Activity	**12**	**<1.0**
	Wrought Nail	46	
	Early Cut Nail	814	
	Late Cut Nail	1,073	
	UID Cut Nail	896	
	UID Cut or Wrought Nail	15	
	L-head Nail	240	
	Wire Nail	1	
	Screw, flat-head	38	
	Tack	35	
	Burned Mass of Tacks	1	
	Hasp	1	
	Butt Hinge, 2 burned	5	
	Latch	1	
	Latch Bar	2	
	Mortise Knob Lock	1	
	Window Glass	339	
	Total Architecture	**3,508**	**50.0**
	Percussion cap (unfired; 16 burned)	17	
	Bayonet Scabbard Tip, brass (burned)	1	
	Flintlock Brush and Pick (burned)	1	
	Lead Ball (small; possibly from buck and ball)	1	
	Cartridge, rimfire; .22-caliber Smith & Wesson	1	
	Carttidge, rimfire; .32-caliber Smith & Wesson short (burned)	15	
	Carttidge, rimfire; .32-caliber Smith & Wesson long (burned)	15	
	Cartridge, centerfire; Stamped “No. 10 REM-UMC shurshot” (1911-1934)	1	
	Total Arms	**52**	**<1.0**
	Button, bone	140	
	Button, brass or copper	2	
	Button, iron	306	
	Button, pewter	2	
	Button, Prosser	53	
	Button, shell	10	
	Cufflinks, complete brass or copper w/ embossed floral design	1	
	Grommet	1	
	Hook and Eye	3	
	Shoe Heel Plate	1	
	Shoe Nail	1,060	
	Shoe Tack	34	
	Suspender Buckle	5	
	Total Clothing	**1,618**	**23.0**
	Charcoal (55.44 grams)	64	
	Total Fuel	**64**	
	Draw Handle	1	
	Total Furniture	**1**	**<1.0**
	Creamware, undecorated	127	
	Creamware, underglaze painted	1	
	Creamware, mocha	3	
	Pearlware, undecorated	59	
	Pearlware, underglaze painted	4	
	Pearlware, underglaze painted polychrome	6	
	Pearlware, cabled	1	

Table 24. Continued.

Functional Group	Type	N=	%
	Pearlware, sponged	4	
	Pearlware, blue shell-edge	6	
	Pearlware, blue transfer-print	4	
	Whiteware, undecorated	73	
	Whiteware, underglaze painted	3	
	Whiteware, overglaze painted	1	
	Whiteware, slipped	1	
	Whiteware, sponged	6	
	Whiteware, blue shell-edge	1	
	Whiteware, black transfer-print	3	
	Whiteware, blue transfer-print	11	
	Whiteware, brown transfer-print	3	
	Whiteware, green transfer-print	2	
	Whiteware, purple transfer-print	4	
	Whiteware, red transfer-print	6	
	Ironstone, undecorated	7	
	Ironstone, undecorated (burned)	341	
	Burned refined ceramic	18	
	Porcelain, Chinese export	13	
	Porcelain, European undecorated	21	
	Porcelain, European overglaze painted	2	
	Yellowware, undecorated	9	
	Yellowware, annular banded	4	
	Redware, lead glazed	51	
	Stoneware, salt-glazed	17	
	Stoneware, Bristol slipped	1	
	Container glass, amber (1 crown cap)	28	
	Container glass, amethyst	1	
	Container glass, aqua (2 fused applied and 2 rolled lips; 1 empontilled base)	192	
	Container glass, clear (1 machine-made base)	96	
	Container glass, dark amber	52	
	Container glass, dark olive	34	
	Container glass, green	6	
	Container glass, olive (1 empontilled base)	78	
	Container glass, melted	1	
	Cast Iron Kettle fragment	3	
	Fork (1 two-tine, 1 three-tine)	2	
	Spoon	1	
	Knife Blade	1	
	Utensil Handle (2 metal, 1 scored bone)	3	
	Tin Can fragment	1	
	Total Kitchen	**1,314**	**19.0**
	Eagle Button, burned (31 Infantry officer, 35 general service, 10 UID)	76	
	U.S. Belt Plate fragment, burned	2	
	Canteen Stopper	3	
	Folding Knife, Spoon, Fork Combo	1	
	Buckle	56	
	Burned Leather	3	
	Rivet	214	
	Total Military	**355**	**6.0**
	Band	3	
	Brace	2	
	Bracket	9	
	Fence Staple	1	
	Finial	1	
	Hinge	1	
	Hook	1	
	Iron Ring	1	
	Wire	16	
	UID brass or copper	2	
	UID iron	85	
	UID lead	5	
	UID hardware	1	
	Total Miscellaneous	**128**	**2.0**

Table 24. Continued.

Functional Group	Type	N=	%
	Pocket Knife	1	
	Razor	1	
	Hair Pin	1	
	Pipe Bowl (2 stoneware, 1 lead glazed redware)	3	
	1774 Spanish silver coin "Carolus III"	1	
	1800 U.S. half cent	1	
	1816 U.S. one cent	1	
	1817 U.S. one cent	1	
	Total Personal	**10**	**<1.0**
	Wagon Staple	2	
	Spur	1	
	Horseshoe Nail	3	
	Harness Rivet	1	
	Total Transportation	**7**	
Total		**7,073**	**100.0**

The corner hearth (Feature 3) coupled with a fairly large amount of kitchen-related artifacts (n=1,314 [19%]) suggests that food preparation and/or consumption occurred in this area of the house (Table 24, and Figure 89). However, a surprisingly large number of clothing-related items and accoutrements were also recovered from inside the house in Block 1, indicating they had been stored in this room (Table 24, and Figure 89).

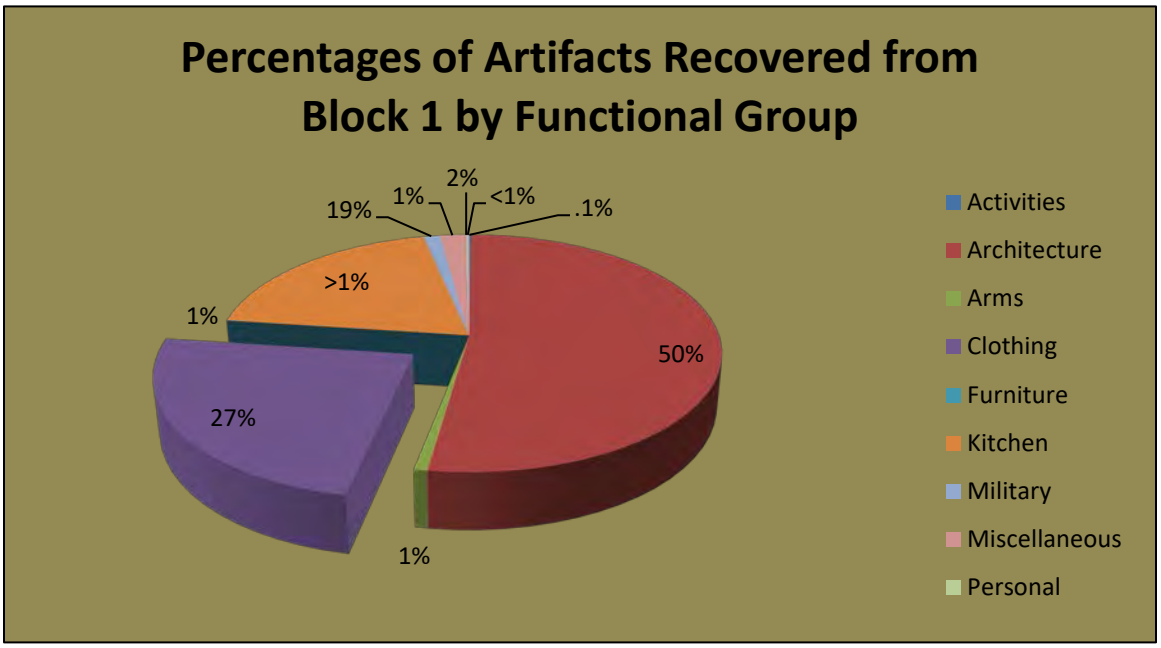

Figure 89. Percentages of Artifacts Recovered from Block 1 by Functional Group.

The vast majority of these items, along with a number of arms and military objects, were associated with the burned feature (Features 21, 21A, and 93, and Unit 57 Zone 2) related to the destruction of the house in 1862 and suggests a Civil War military occupation. This feature was first encountered in Unit 38, and was designated Feature 21. A total of 3,296 artifacts were recovered from this context (Features 21, 21A, 93, and Unit 57/Zone 2), the majority of which were architectural (n=1,456). Surprisingly, the next largest

artifact group was clothing items and accoutrements (n=1,401), followed by kitchen items (n=326). A significant amount of arms (n=28) and military (n=34) items were also present. Additional materials included items classified with the activities (n=4), furniture (n=1), personal (n=4), transportation (n=2), and miscellaneous (n=41) groups (Table 25).

Items within the clothing group included buckles (n=26), hook and eye fasteners (n=3), suspender buckles (n-5), and extremely high densities of buttons (n=343), and shoe nails (n=843) and tacks (n=19). Additional items classified within the activities group includes straight pins (n=2), a sewing needle (n=1) and a complete pair of scissors (n=1). Accoutrements classified within the military group include buckles (n=26), rivets (n=174), grommets (n=3), and burned leather (n=3). It is important to note that all of these items were burned. All of the buckles were small square or half-moon-shaped, and are most likely from packs. Of the suspender buckles, four were found together with textile fragments still attached, and likely represent one pair of suspenders. An inordinate amount of shoe nails were present, some of which remained attached to tacks, suggesting they were intact when the shoe burned. Since the nails and tacks were all that remained, little could be determined about the construction or appearance of the footwear; however, shoes with nails were common during the mid-nineteenth century (Anderson 1968). Interestingly, a few small fragments of leather was also recovered that could have either been remnants of shoes or packs.

The burned area in Block 1 (Features 21/21A/93) was also characterized by an extremely high density of buttons; including buttons manufactured from shell (n=7), bone (n=115), cast-iron (n=192), porcelain (n=28), and brass or copper (n=1). It is likely that the burned 4-hole bone buttons are associated with U.S. Army issued tents that were lost when the quartermaster's stores at Camp Frazer were burned in early September 1862. Shelter tents from this period were fastened with bone buttons (Woodhead 1998:214). A high density of burned cast-iron four-hole button were recovered that are also likely associated with the 1862 Federal military occupation of the Frazer Farmstead. Military and arms-related items recovered from burned area in Block 1 consisted of several uniform brass Eagle buttons (n=30), a brass U.S. belt plate fragment (n=1), canteen stoppers (n=2), a brass bayonet scabbard tip (n=1), rimfire cartridges (n=9), unfired copper percussion caps (n=16), and a military-issued folding knife and fork combo (n-1). Other arms items from this context consisted of a brush and pick for a flintlock firearm (n=1), and lead buckshot (n=1). Cartridge types consisted of .32-caliber Smith & Wesson short (n=4) and long (n=4), and .22-caliber Smith & Wesson varieties. The rimfire cartridge came available in 1857, and was largely used by Federal troops during the Civil War (Barnes and 2003:433). Eagle button types consisted of both Infantry (n=10 [5 small, n=5 large]) and general service (n=12 [8 small, n=4 large]) examples. An additional 8 specimens were so badly burned that their specific rank could not be determined.

Kitchen-related artifacts, specifically ceramic types, recovered from the burned area (Features 21/21A/93) in Block 1 also provide insights into the use and activities that took place in this portion of the house, as well as temporal data regarding its destruction and abandonment. Although earlier refined ceramics such as creamware (n=15) and pearlware (n=12) were present, the majority were whiteware (n= 22) and ironstone (n=36).

Table 25. Artifacts Recovered from Block 1, Burned Area (Features 21/21A and 93)

Group	Material	N=
	Hand Wrought Nail	11
	Cut Nail	474
	Early-Cut Nail	208
	Late-Cut Nail	611
	L-head Nail	30
	Tack	30
	Screw, flat-head	13
	Latch Bar	1
	Mortise Knob Lock	1
	Window Glass	77
	Total Architecture	**1,456**
	Cartridge, rimfire (32-cal. Smith & Wesson – 4 short, 4 long)	8
	Cartridge, rimfire (.22-cal. Smith & Wesson)	1
	Lead buckshot (possibly from buck and ball)	1
	Flintlock brush and pick	1
	Percussion cap, copper (unfired)	16
	Bayonet Scabbard Tip, brass	1
	Total Arms	**28**
	Bone button	115
	Cast-iron button (4-hole)	192
	Prosser button (4-hole), 3w/ printed band	28
	Shell button (4-hole), 1 w/ scored design	7
	Brass or copper button	1
	Hook and eye	3
	Shoe nail	843
	Shoe tack	19
	Suspender buckle	5
	Total Clothing	**1,213**
	Creamware, undecorated	15
	Pearlware, undecorated	8
	Pearlware, blue shell-edge	3
	Pearlware, cable	1
	Pearlware, blue transfer-print	1
	Whiteware, undecorated	9
	Whiteware, overglaze painted	1
	Whiteware, slipped	1
	Whiteware, black transfer-print	3
	Whiteware, blue-transfer-print	4
	Whiteware, brown transfer-print	1
	Whiteware, purple transfer-print	1
	Whiteware, underglaze painted	2
	Burned Ironstone	36
	Burned refined ceramic	7
	Porcelain, European undecorated	6
	Yellowware, undecorated	5
	Yellowware, annular banded	2
	Redware, lead glazed	15
	Container glass, amber	5
	Container glass, aqua	112
	Container glass, clear	13
	Container glass, dark olive	28
	Container glass, olive	46
	Knife blade	1
	Total Kitchen	**326**
	Draw handle	1
	Total Furniture	**1**
	Scissors	1
	Straight pin	2
	Sewing needle	1
	Pencil lead	1
	Mouth Harp	1
	Total Activities	**6**

Table 25. Continued.

Group	Material	N=
	Eagle Button, brass	30
	U.S. Belt Plate fragment	1
	Canteen Stopper	2
	Folding Knife and Fork Combo.	1
	Buckle	26
	Rivet	174
	Burned leather (12.6 grams)	3
	Grommet	1
	Total Military	**238**
	Pocket Knife	1
	Pipe bowl, stoneware	1
	Hair pin	1
	Coin, 1774 Spanish silver half reale "Carolus III"	1
	Total Personal	**4**
	Wagon Staple	1
	Harness rivet	1
	Total Transportation	**2**
	Bracket	2
	Brace	2
	Hinge, small brass	1
	Wire	4
	Iron band	1
	UID iron	30
	UID brass or copper	1
	Total Miscellaneous	**41**
Total		**3,296**

Although creamware and pearlware generally go out of fashion by about 1820 and 1840, respectively, the lower percentage of these items (36.71%) as compared with whiteware and ironstone in the assemblage (68.24%) indicates these vessels were probably heirloom items that had remained in the house at the time of its destruction in 1862. The most common refined ceramic type associated with the burned feature was undecorated ironstone (n=36), the vast majority of which was recovered from Unit 57 (n=32). The ironstone associated with the burned feature in this test unit was stacked *in situ*, indicating a stack of plates. The recovered kitchen-related artifacts are consistent with an 1862 date for the destruction of the house, and the stack of ironstone plates may have been associated with the U.S. Quartermaster stores. Prior to the Civil War-era military occupation of the site, the relatively large kitchen assemblage (n=326) in conjunction the presence of the corner hearth suggests this area of the house likely functioned as a dining area. The large chimney base documented in Block 2, which is discussed below, suggests that area of the house likely functioned as the kitchen.

The remaining artifacts associated with the burned feature in Block 1 include a draw handle (n=1), a hair pin (n=1), pencil lead (n=1), a mouth harp (n=1), a pocket knife (n=1), a smoking pipe bowl (n=1), a Spanish silver half reale (n=1), a wagon staple (n=1) and harness rivet (n=1), along with various miscellaneous hardware fragments (n=40). All of these items support a mid-nineteenth century date for the destruction of the site. Of all of these artifacts, the Spanish half reale is interesting as it is dated 1774. Despite this early date, Spanish silver remained legal tender currency in the United States until 1859 (Yeoman 2007:11). An explanation may be that this coin had fallen beneath the floorboards sometime after the 1816-1817 construction of the house.

A cellar (Feature 97) and its associated cut limestone foundation and probable bulkhead (Feature 96) were excavated in Unit 59 and in part of Unit 55, and were noted in Trench 1. Block 1 excavations show that the cellar (Feature 97) did not extend into the aforementioned rrom with the corner chimney, nor was it present in the northernmost room of the house discussed above as Block 4. So, this cellar is under a room or building between the main L-shpaed house and the most northern room. Soils within the cellar exhibited stratigraphically sealed contexts, with a distinct stratum of sandy fill dating from the first quarter of the twentieth century that capped the destruction debris associated with the razing of the house (Zones 3 through 5). The base of the cellar contained a lens of ash and charcoal (Zone 5) at depths of m (4.82 to 4.98 ft.) below surface, beneath which was the clay subsoil cellar floor (see Figures 86 and 87).

Table 26. Artifacts Recovered from Destruction Debris (Feature 97) in Block 1 Cellar.

Group	Material	N=
	Wrought Nail	17
	Early-Cut Nail	239
	UID Cut Nail	42
	L-Head Nail	125
	Screw, flat-head	1
	Tack	2
	Butt Hinge	1
	Latch Bar	1
	Window Glass	4
	Total Architecture	**432**
	Bone Button, 4-hole	1
	Cast Iron Button, 4-hole	11
	Brass of Copper Button, coin	1
	Pewter Button, coin	1
	Total Clothing	**14**
	Whiteware, undecorated	3
	Whiteware, blue transfer-print	1
	Ironstone, undecorated	1
	Stoneware, salt-glazed	16
	Container glass, aqua	19
	Container glass, olive	6
	Container glass, clear	3
	Total Kitchen	**49**
	Eagle button, brass (15 Infantry, 3 general service)	18
	Buckle	9
	Rivet, brass	5
	Total Military	**32**
	Spur	1
	Total Transportation	**1**
	Bracket, iron	4
	UID iron	11
	Total Miscellaneous	**15**
Total		**543**

Although a total of 915 artifacts was recovered from the Cellar 1 in Block 1, most (n=543) were found within the brick rubble (Zone 4) and ash and charcoal (Zone 5) strata associated with the final occupation and destruction of the house (Table 26). Like the burned area in Block 1 (Features 21, 21A, and 93, and Unit 57 Zone 2), the artifacts recovered from the destruction debris (Zones 4 and 5) largely consisted of architectural items (n=432), including wrought and early-cut nails and no later cut nails that support a

pre 1830 date of construction for a building or room constructed over this cellar (Table 26). The only refined ceramics present were a low density of whiteware (n=4) and ironstone (n=1). Additional artifacts consist of a number of buttons (n=32); including 18 Civil War-era eagle buttons found in the burned ash and charcoal stratum (Zone 5) at the base of the cellar (Table 26). The presence of these military buttons indicates a terminal occupation date of the mid-nineteenth century, and is consistent with a U.S. Army presence. Temporally sensitive materials, particularly ceramics and military buttons, are consistent with the interpretation that the house was razed during the Civil War.

No cultural materials were recovered from the topsoil (Zone 1) above the cellar in Block 1. However, Zone 2 was composed of brownish yellow (10YR 6/6) sand that contained a low density of mixed deposits consisting entirely of an iron file (n=1), a single 4-hole Prosser button (n=1), and a colorless bottle base that exhibited the encircled A maker's mark used by the American Glass Works from 1908 through 1935 (Toulouse 1971:23). This sandy fill soil was also present at the same level in Trench 1, and is contemporaneous with the silty fill documented in Units 38, 45, 46, and 57. Artifacts found within this fill include a centerfire cartridge in Unit 38 marked "No. 10 REM-UNC shurshot" that was manufactured between 1911 and 1934; a crown cap bottle lip in Unit 45 that dated from 1895 to the present-day; and amethyst container glass in Unit 57 that was manufactured from the 1870s and into the 1920s (Lockhart 2006). The presence of these items in the fill indicates it was deposited sometime after Orie Lebus acquired the property on February 17, 1909, and possibly as late as the 1930s.

Excavation Block 2

Block 2 was located in the southern portion of the site, and was positioned along the southwest corner of the house foundation (Figures 90 and 91). This excavation block is comprised of five test units (Units 20, 22, 30, 31, and 50). A total of 9 m^2 was hand excavated, and three post features (Features 18, 26, and 27) and three pit features (7A, 12, and 50) were encountered. Following test unit excavations, the area was mechanically stripped to fully expose the house foundation and any additional features. These excavations revealed many intact structural elements including foundation remnants (Feature 7) and a large hearth (Feature 3), a small root cellar (Feature 90), one post (Feature 31A), and four pit features (Features 7, 7A, 12, and 91).

Units 20, 22, and 31 bisected the southeast corner of the house foundation, and Units 30 and 50 were located outside the structure. With the exception of Unit 50, the soil stratigraphy was homogeneous across the Block 2 site area and was composed of a shallow very dark brown (10YR 2/2) silty loam topsoil (Zone 1a) to a depth of 2 cmbs, underlain by a black (10YR 2/1) sandy silt midden (Zone 1b) to depths of 2 to 9 cmbs. Zone 2 was composed of very dark brown (10YR 2/2) very dark brown silty loam mottled with dark yellowish brown (10YR 3/6) silty clay loam to depths of 19 to 23 cmbs, underlain with dark yellowish brown (10YR 3/6) silty clay loam with gravelly limestone inclusions (Zone 3) at depths of 23 to 28 cmbs, below which was dark yellowish brown (10YR 3/6) silty clay loam mottled with very dark brown (10YR 4/6) silty clay to a depth of 46 cmbs. Subsoil consisted of very dark yellowish brown (10YR 4/6) silty clay (Figure 92). Feature

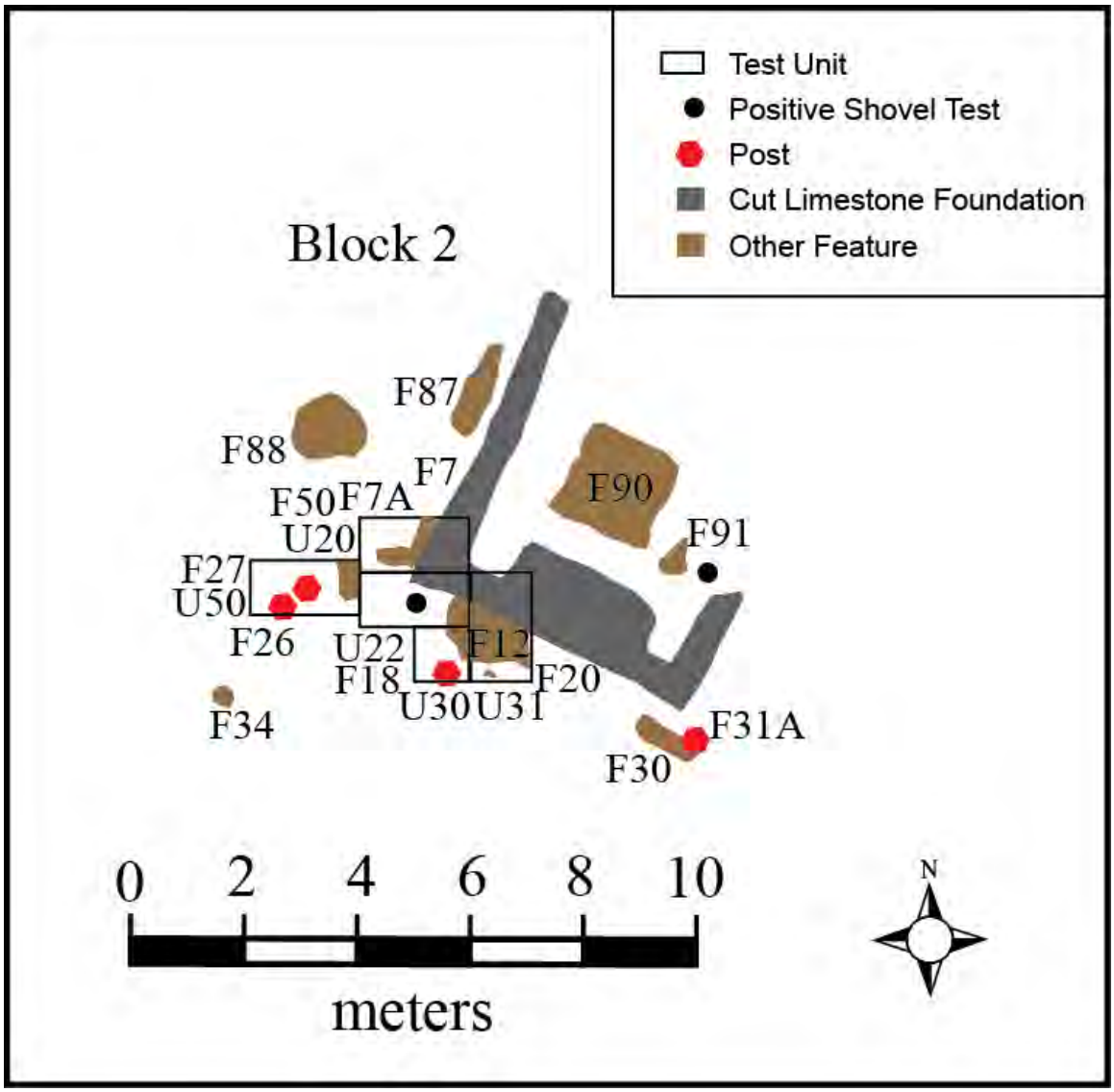

Figure 90. Map of House Foundation Showing the Location of Block 2.

8 was identified in Units 20, 22, and 50, and wascomposed of dark brown (7.5YR 3/3) silty clay (Figure 92). Feature 12 was present in Units 22, 30, and 31, and consisted of a roughly circular pit that measured 93 cm in diameter by 47 cm thick, and abutted the house foundation. Feature 12 fill was composed of dark yellowish brown (10YR 3/6) silty loam (Figures 93 and 94). Test Unit 9, which was previously excavated during Phase II investigations, was partially overlapped by Unit 20 (Figure 92).

Unit 50 was located southeast of the house foundation and exhibited a soil profile composed of black (10YR 2/1) silty loam topsoil (Zone 1) that contained a high concentration of coal dust from the nearby railroad. This stratum extended to a depth of 30 cmbs, and was underlain with dark yellowish brown (10YR 3/6) gravelly silty clay loam

(Zone 2) to depths of 37 to 43 cmbs, below which was dark yellowish brown (10YR3/6) silty clay subsoil (Zone 3) that was excavated to 50 cmbs (Figures 95 and 95).

Figure 91. View of Block 2 Area after Mechanical Excavation, Facing West.

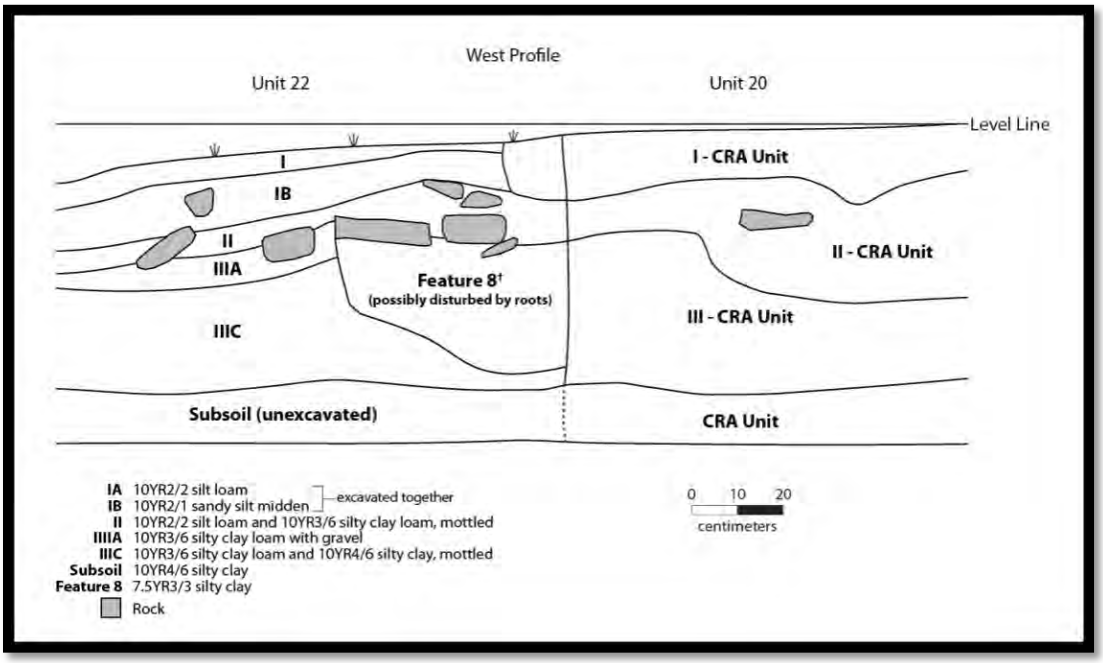

Figure 92. Units 20 and 22 West Profile.

Figure 93. Unit 31 East Profile.

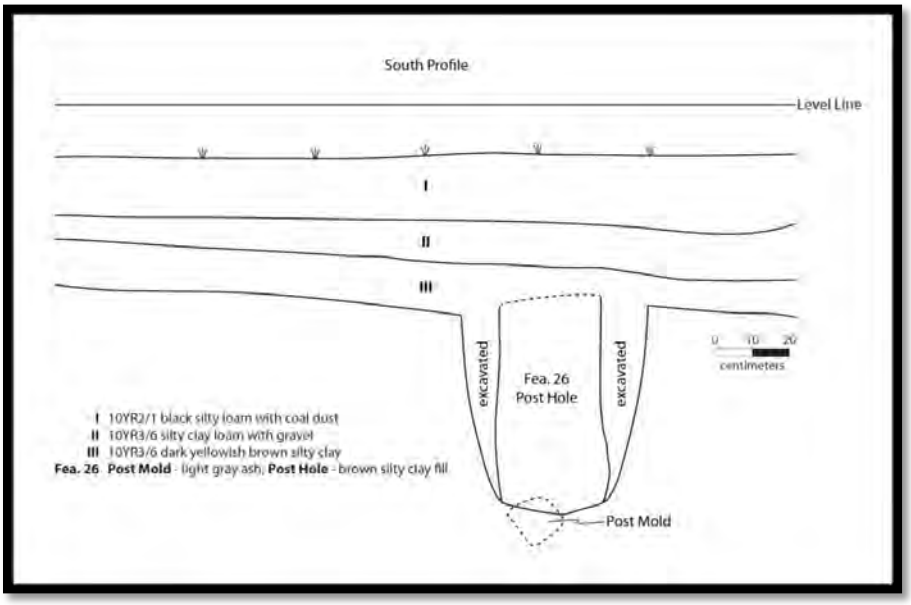

Figure 94. Unit 31 South Profile.

Two postholes (Features 26 and 27) were encountered at a depth of 40 cmbs (Figures 96 and 97). Both posts were roughly square in shape, and were excavated separately from their associated post molds. Both features were composed of a dark yellowish brown (10YR 3/6) post hole with a light gray (10YR 7/1) ashy post mold. No artifacts were present in either Feature 26 or 27; however, both posts exhibited limestone chinking. Although the specific function of these posts is not known, their close proximity to one another suggests that one may have replaced the other at some point during their intended use.

Figure 95. Unit 31 South Profile.

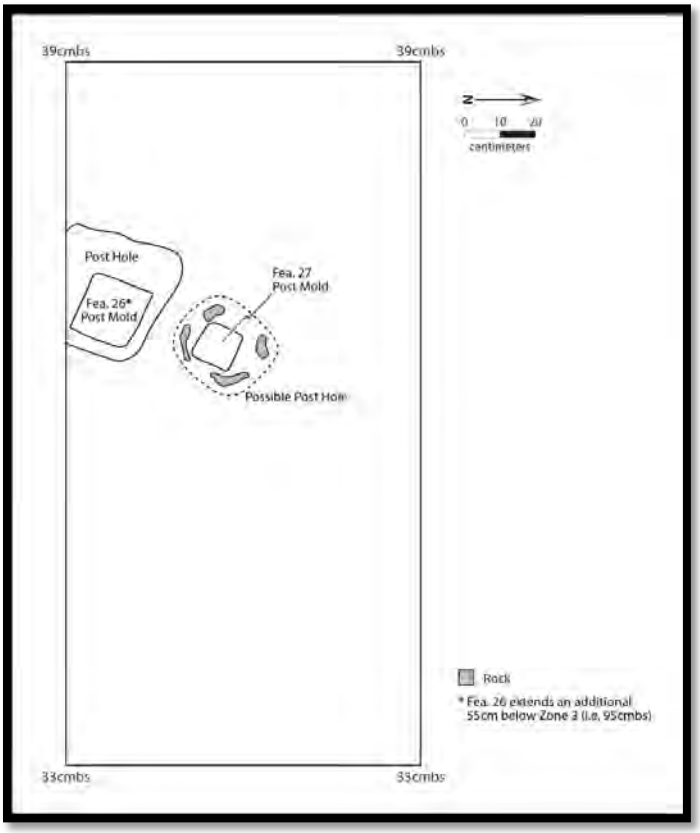

Figure 96. Unit 31 Planview.

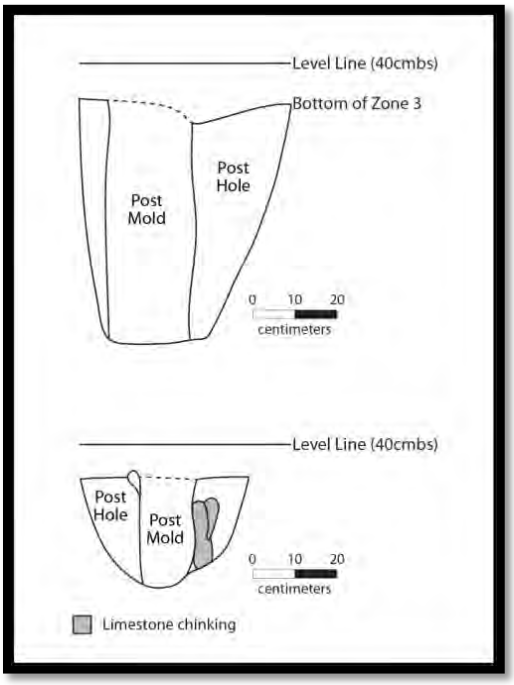

Figure 97. Features 26 and 27 Profiles.

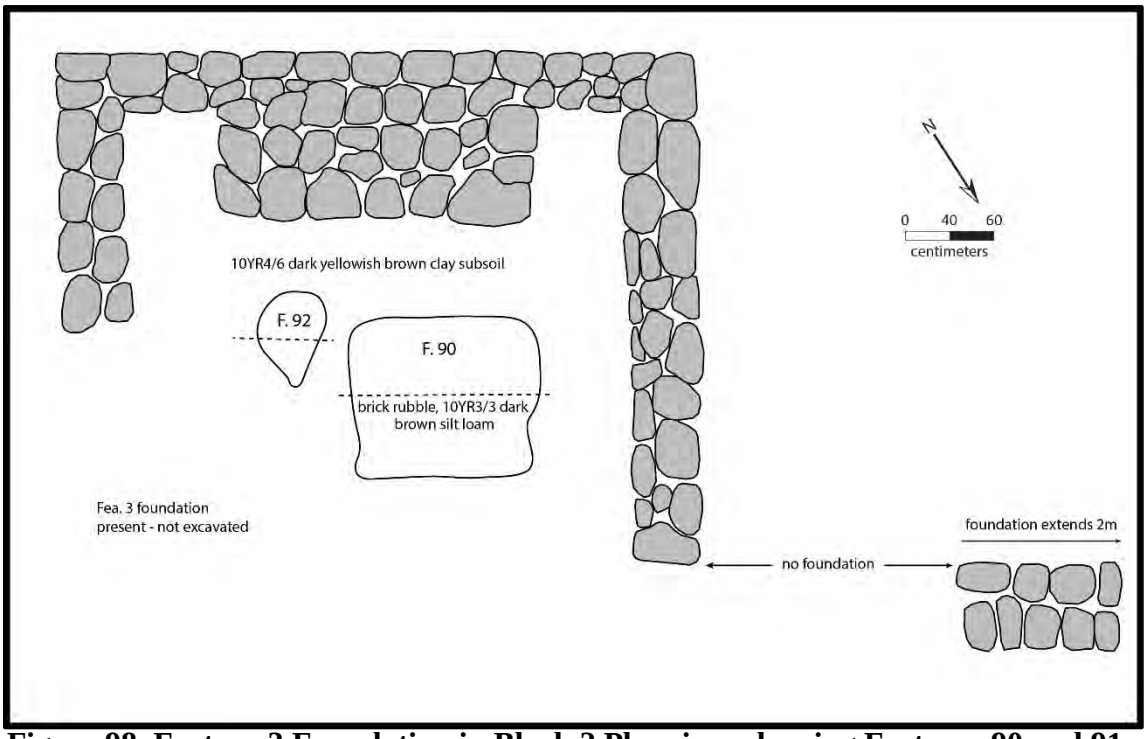

Figure 98. Feature 3 Foundation in Block 2 Planview, showing Features 90 and 91.

Features 90 and 91 were located inside the house, and are the remnants of a small root cellar (Feature 90) and storage pit (Feature 91). Both features are located adjacent from a hearth in what is presumed to be the kitchen area of the house. The hearth in Block 2 measured 2.75 m (9.0 ft.) in length, and was centrally located along the southern wall of the house (Figure 98). The very large size of the chimney base suggests this portion of the house was likely the kitchen. Feature 90 was roughly square in shape and measured 1.8 x 1.4 m (5.9 ft. x 4.5 ft.) in diameter by 51 cm (20 in.) deep (Figures 99 and 100). The soil profile was composed of dark brown (10YR 3/3) silty loam with a high concentration of brick rubble, underlain with dark yellowish brown (10YR 4/6) clay subsoil. Cultural materials within the fill consisted predominately of architectural (n=68) and kitchen (n=31) items, with a low density of clothing-related materials (n=2) (Table 27). All of these materials, particularly the creamware and pearlware, are consistent with an early- to mid-nineteenth century date range for Feature 90.

Figure 99. Feature 90 Planview, Facing West.

Figure 100. Feature 90, North Profile.

Table 27. Artifacts Recovered from Feature 90 Root Cellar.

Group	Material	N=
Activities	Awl	1
	Hand Wrought Nail	1
	Early-Cut Nail	1
	UID Cut Nail	8
	UID Cut or Wrought Nail	5
	Window Glass	52
	Total Architecture	**68**
	Buckle	1
	Button, brass or copper	1
	Total Clothing	**2**
	Creamware	4
	Pearlware	10
	Whiteware	1
	Porcelain, Chinese export	4
	Redware, lead glazed	10
	Container Glass, aqua	2
	Total Kitchen	**31**
Total		**101**

Feature 91 was circular-to-oval in shape and measured 60 x 71 cm (23.6 x 28 in.) in diameter by 50 cm (19.7 in.) deep. This feature is located 20 cm (7.87 in.) east of the southeastern corner of Feature 90. A very low density of cultural materials was present within the fill that consisted of window glass (n=2) and ceramics (n=2) (Table 28). This feature appears to have possibly functioned as a storage pit. Like Feature 90, these materials are consistent with an early- to possibly mid-nineteenth century date range.

Table 28. Artifacts Recovered from Feature 91.

Group	Material	N=
	Window Glass	2
	Total Architecture	**2**
	Creamware	1
	Pearlware	1
	Total Kitchen	**2**
Total		**4**

Neither the ash and charcoal (Features 21, 21A, 93) stratum nor the sandy fill soils noted in Block 1 were present in Block 2; however, many of the recovered architectural materials exhibited evidence of burning. Artifacts recovered from Block 2 consisted predominately of kitchen (n=734) and architectural (n=462) materials (Table 29 and Figure 101), and all recovered materials indicate an early- to mid-nineteenth century occupation. The only exception is a single crown cap bottle lip that was recovered from the topsoil (Zone 1) in Unit 50. This unit was located near the railroad west of the project, area and Zone 1 was composed primarily of coal dust. This specimen was deposited at the site sometime during the twentieth century. The extremely high density of kitchen-related materials recovered from Block 2, as well as the large chimney, indicates that this portion of the residence likely functioned as the kitchen. Two arms-related artifacts, a .22-caliber Smith & Wesson rimfire revolver cartridge and a .58-caliber Minié ball (Figure 102) were also recovered. Both of these munitions types were widely used during the Civil War, and are likely associated with the Union occupation of Camp Frazer.

Excavation Block 3

Block 3 was positioned along the east edge of the house foundation in what was likely the front entrance of the house, and is comprised of five test units (Units 24, 27, 32, 34, and 44) (Figure 103). A total of 8 m^2 was hand excavated, and intact foundation remnants (Feature 3) and a cellar (Cellar 2, Feature 98) were documented. Following test unit excavations, the area was mechanically stripped to fully expose the house foundation and any additional features. Units 24, 27, and 32 bisected the eastern end of the house foundation (Feature 3), and Unit 34 was located outside of the structure. Unit 44 was located inside the house and intersected Cellar 2. With the exception of the cellar fill documented in Units 32 and 44, the general soil profile in Block 3 was composed of very dark brown (10YR 3/1) silt loam (Zone 1), followed by brown (10YR 4.3) silty sandy loam buried A soil horizon (Zone 2) and dark brown (10YR 3/3) silty loam (Zone 3), followed by a yellowish brown clay subsoil (Figure 104).

Feature 1, a clay fill, which was identified during the Phase II investigations (Allgood, et al. 2004), was encountered in Units 24, 27, and 34. This feature was documented as Zone 2 in these test units, and was composed of dark yellowish brown (10YR 3/6) mottled silty clay soils east of the house foundation (Feature 3). This stratum contained a high density of burned nails, melted glass, and limestone and brick rubble associated with the demolition of the house. Additionally, a second fill, designated Feature 13, was encountered above the house foundation (Feature 3), and is characterized by dark grayish brown (10YR 4/2) silty loam mixed with mortar, charcoal, and thermally altered clay. Like Feature 1, Feature 13 contained a high density of burned nails, melted glass, and brick and limestone debris. A row of cut limestone blocks (Figure 105) that had been arranged side-by-side and laid vertically separated Features 1 and 13. Feature 1 was located east of these stones on the exterior of the house foundation, whereas Feature 13 was located to the west and extended across the house foundation into the structure. It is likely that these vertical stones served as a drainage feature outside of the house foundation. Feature 13 also extended into Units 32 and 44, and was documented as Zone 2 in the Cellar 2 fill. Feature 13 (also excavated as Zone 2 in Units 32 and 44) is analogous with the aforementioned early twentieth century fill documented in Block 1.

Table 29. Artifacts Recovered from Block 2 by Functional Group.

Group	Material	N=	%
	Hand Wrought Nail	17	
	Early-Cut Nail	62	
	Late-Cut Nail	100	
	UID Cut Nail	177	
	UID Cut or Wrought Nail	5	
	Tack	3	
	Brick, handmade	4	
	Mortar	4	
	Window Glass	90	
	Total Architecture	**462**	**37.0**
	Awl	7	
	Total Activities	**7**	**<1.0**
	Cartridge, rimfire (.22-caliber Smith & Wesson revolver)	1	
	.58-caliber Minié ball	1	
	Total Arms	**2**	**<1.0**
	Button, iron	1	
	Button, brass or copper	1	
	Buckle, iron	2	
	Total Clothing	**4**	**<1.0**
	Lamp Globe Glass	11	
	Total Furniture	**11**	**<1.0**
	Creamware, undecorated	189	
	Creamware, annular	1	
	Pearlware, undecorated	44	
	Pearlware, annular	1	
	Pearlware, blue shell-edge	4	
	Pearlware, green shell-edge	5	
	Pearlware, blue transfer-print	3	
	Pearlware, underglaze painted	8	
	Whiteware, undecorated	6	
	Whiteware, flow blue transfer-print	1	
	Whiteware, blue transfer-print	2	
	Whiteware, green transfer-print	2	
	Whiteware, red transfer-print	1	
	Whiteware, underglaze painted	2	
	Porcelain, Chinese export	29	
	Porcelain, European undecorated	5	
	Porcelain, European overglaze painted	1	
	Porcelain, European pattern molded	1	
	Porcelain, European bone china	2	
	Burned refined ceramic	6	
	UID refined ceramic, unglazed	2	
	Redware, lead glazed	279	
	Container Glass, aqua	41	
	Container Glass, amber	6	
	Container Glass, clear	41	
	Container Glass, melted	3	
	Milk Glass	1	
	Utensil Handle, bone	2	
	Tin Can fragments (1 w/ stamped rim)	40	
	Total Kitchen	**734**	**60.0**
Personal	Pipe Bowl, redware	1	
	Band, iron	3	
	Brace, iron	1	
	Chain Link	1	
	Wire	3	
	UID iron	5	
	UID brass or copper (threaded bolt)	1	
	Total Miscellaneous	**14**	**<1.0**
Total		**1,278**	

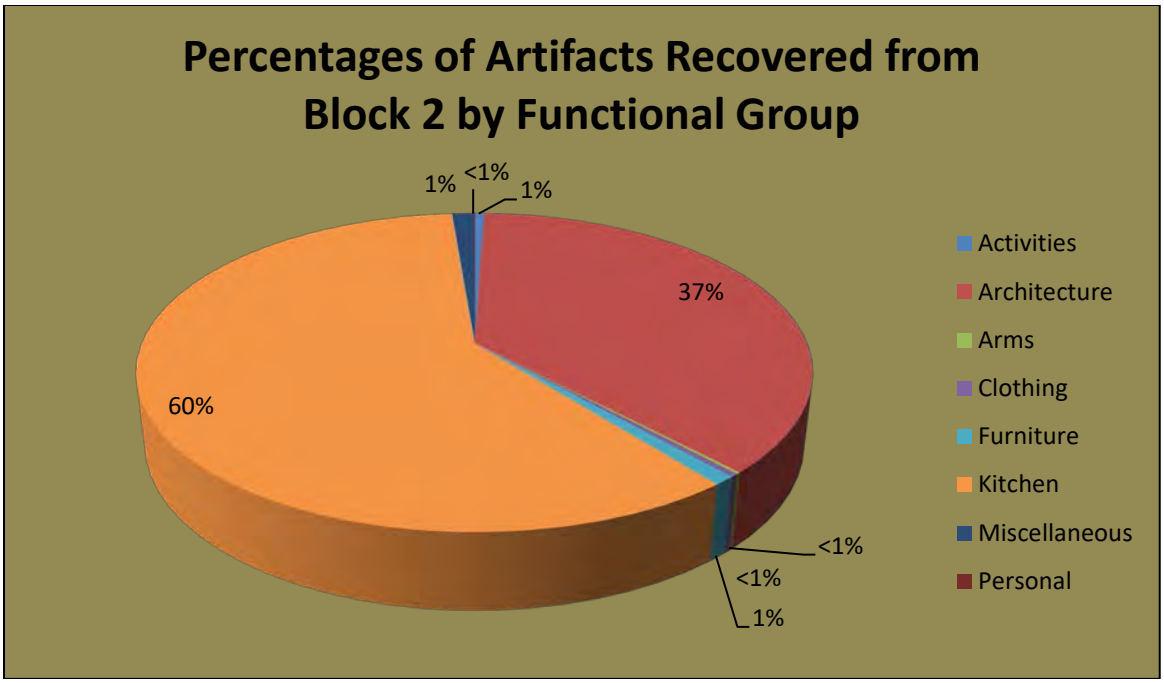

Figure 101. Artifacts Recovered from Block 2 by Functional Group.

Figure 102. View of .58-caliber Minié Ball Recovered from Unit 46 *in situ.*

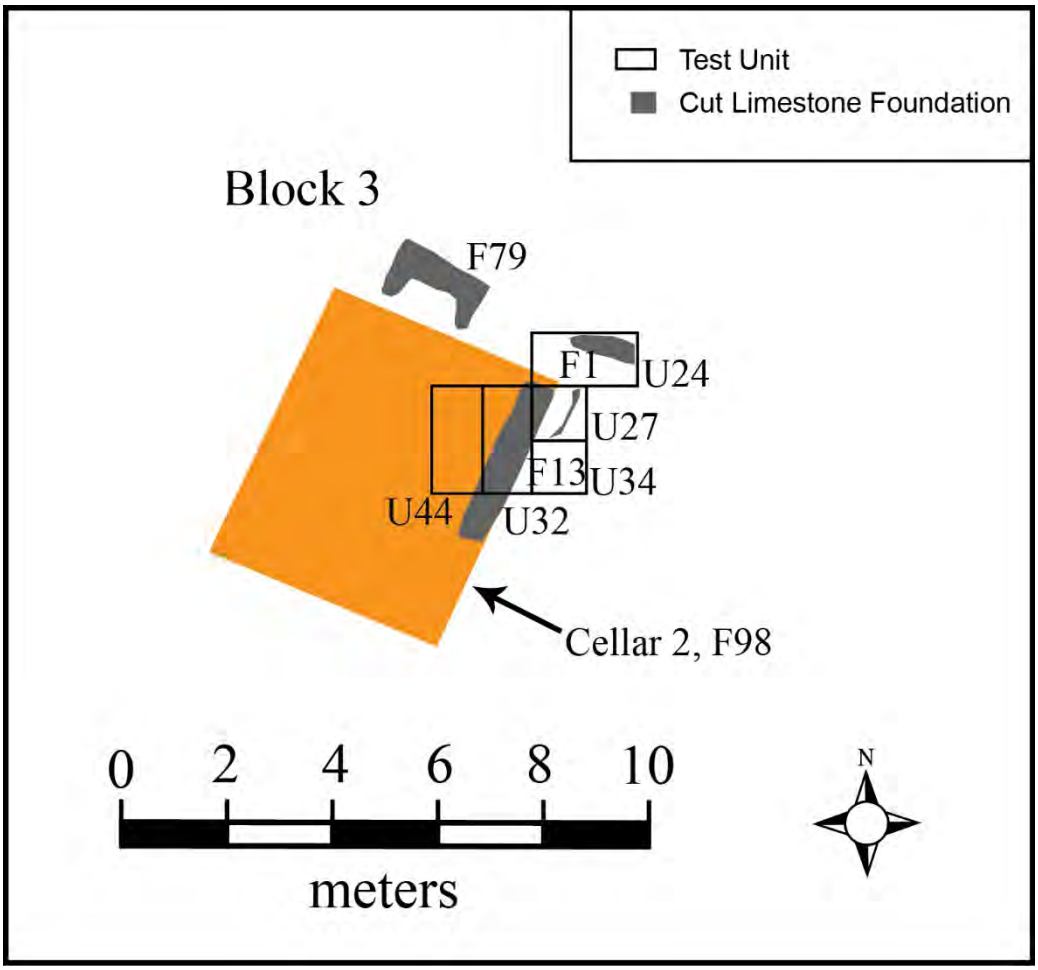

Figure 103. Map of House Foundation Showing the Location of Block 3.

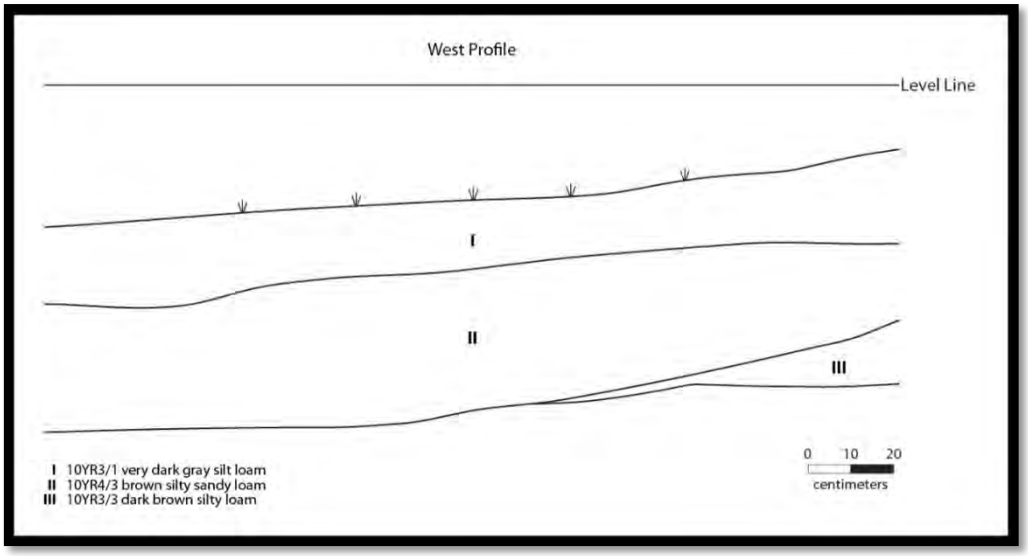

Figure 104. Unit 32, West Profile above Cellar 2.

Cellar 2 (Feature 98) was located inside the western edge of the house foundation (Feature 3) in Block 3, and extended to a depth of 1.35 m (4.43 ft.) below ground surface. Similar to Cellar 1, the base of Cellar 2 contained a lens of charcoal (Zone 5) at depths of 1.20 to 1.27 m (3.93 to 4.16 ft.) below surface, beneath which was the burned clay floor (Figure 101). Excavations revealed the foundation remnants in this excavation block consisted of eight courses of cut limestone that measured 90 cm (2.95 ft.) in height by 70 cm (2.3 ft.) in width (Figures 106 and 107). A layer of solid charcoal was encountered at the base of the cellar, and the floor was composed entirely of burned clay (Figure 106). Cellar 2 was excavated to subsoil (Figure 107) and the stratigraphic profile was composed of a dark gray (10YR 3/1) silty loam topsoil (Zone 1) that contained a pocket of yellowish brown (10YR 5/6) clay (Zone 1A), followed by brown (10YR 3/3) silty sandy loam (Zone 2), and underlain by very dark gray (10YR 3/1) silty loam (Zone 3). The destruction debris below Zone 3 measured 55 to 75 cm (1.8 to 2.46 ft.) in thickness and encompassed Zones 4 through 6. These strata were composed of dark yellowish brown (10YR 4/6) silty clay with an extremely high density of brick and limestone rubble (Zone 4), followed by a lens of white (10YR 8/1) mortar (Zone 4A) and black (10YR 2/1) charcoal (Zone 5), underlain with reddish/yellow burned clay (Zone 6). The subsoil was composed of dark yellowish brown (10YR 3/4) silty clay (Zone 7) (Figures 108 and 109).

Figure 105. Planview of Units 24 and 32: Features 1 and 13, Facing North.

Figure 106. Planview of Units 32 and 44: Burning at Base of Cellar 2, Facing East.

Figure 107. Planview of Units 32 and 44: the Base of Excavations, Facing East.

Figure 108. North Profile of Units 32 and 44: Cellar 2 Fill.

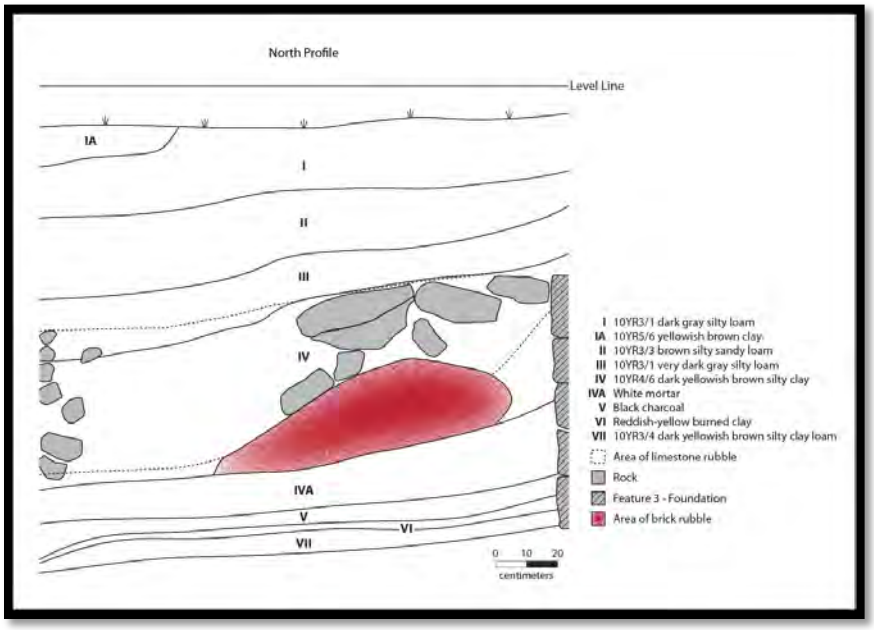

Figure 109. Units 32 and 44, North Profile.

Cultural materials recovered from Block 3 primarily consisted of architectural items, which accounted for 86% of the assemblage (Table 30 and Figure 110). The vast majority of these items are nails (n=1,351) and window glass (n=1,109). Although most of the identifiable nails were early machine-cut (n=830), both hand wrought (n=99) and late machine-cut (n=24) types were also present, as well as a small number of wire drawn nails (n=12) that were recovered from mixed contexts. The presence of three hinges, a latch and latch catch (Table 30) suggests the presence of a doorway in this portion of the house.

Table 30. Artifacts Recovered from Block 3 by Functional Group.

Functional Group	Type	N=	%
	File	2	
	Awl	2	
	Total Activities	**4**	**<1.0**
	Wrought Nail	99	
	Early-Cut Nail	830	
	Late-Cut Nail	24	
	UID Cut Nail	274	
	UID Cut or Wrought Nail	45	
	L-Head Nail	67	
	Wire Nail	12	
	Window Glass	1,109	
	Screw, flat head	17	
	Hinge	3	
	Latch Catch	1	
	Latch	1	
	Total Architecture	**2,486**	**86.0**
	Percussion cap	2	
	Cartridge, centerfire (U.M.C. Co. No. 14)	1	
	Cartridge, centerfire (…[S]&W Club?)	1	
	Cartridge, centerfire (WRA Co. 38 S&W)	1	
	Cartridge, rimfire (.32 caliber long Smith & Wesson)	2	
	Trigger Guard, U.S. Model 1816 musket	1	
	Total Arms	**8**	**<1.0**
	Button, gilt (1830-1850 [Luscomb 1967:78-79]) back mark illegible	1	
	Button, cast-iron (4-hole)	1	
	Button, brass or copper	4	
	Shoe Nail, burned	1	
	Total Clothing	**7**	
	Mirror Glass	1	
	Total Furniture	**1**	**<1.0**
	Creamware, undecorated	9	
	Pearlware, undecorated	10	
	Pearlware, blue shell-edge	2	
	Pearlware, blue transfer-print	1	
	Pearlware, underglaze painted	2	
	Whiteware, undecorated	10	
	Whiteware, blue transfer-print	4	
	Whiteware, brown transfer-print	1	
	Whiteware, sponged	1	
	Ironstone, undecorated	9	
	Ironstone, molded	1	
	Burned refined ceramic, undecorated	3	
	Porcelain, European undecorated	7	
	Porcelain, Chinese export	2	
	Yellowware, undecorated	1	
	Redware, lead glazed	5	
	Stoneware, Albany slip	1	
	Stoneware, Albany exterior, Bristol interior slip	1	
	Container glass, amber	11	
	Container glass, aqua	183	
	Container glass, clear	45	
	Container glass, dark amber	2	
	Container glass, dark olive	1	
	Container glass, melted	4	
	Bottle caps, crown cap	2	
	Metal vial (medicine?)	1	
	Tin can fragments	5	
	Tin can lid	1	
	Total Kitchen	**325**	**11.0**

Table 30. Continued.

Functional Group	Type	N=	%
	UID Accoutrement, brass	1	
	Eagle Button, brass (general service; large)	1	
	Buckle, iron	5	
	Rivet, brass	1	
	Total Military	**8**	**<1.0**
	Plate Glass	1	
	UID Iron	15	
	Tin Handle	1	
	UID Lead	2	
	Barbed Wire	1	
	Wire	8	
	Band, iron	3	
	Bar Stock	2	
	Iron Clip	1	
	Total Miscellaneous	**34**	**<1.0**
	Pipe Bowl, stoneware	1	
	Total Personal	**1**	
	Harness Ring	2	
	Horseshoe Nail	2	
	Bit Loop	1	
	Total Transportation	**5**	
Total		**2,865**	**<1.0**

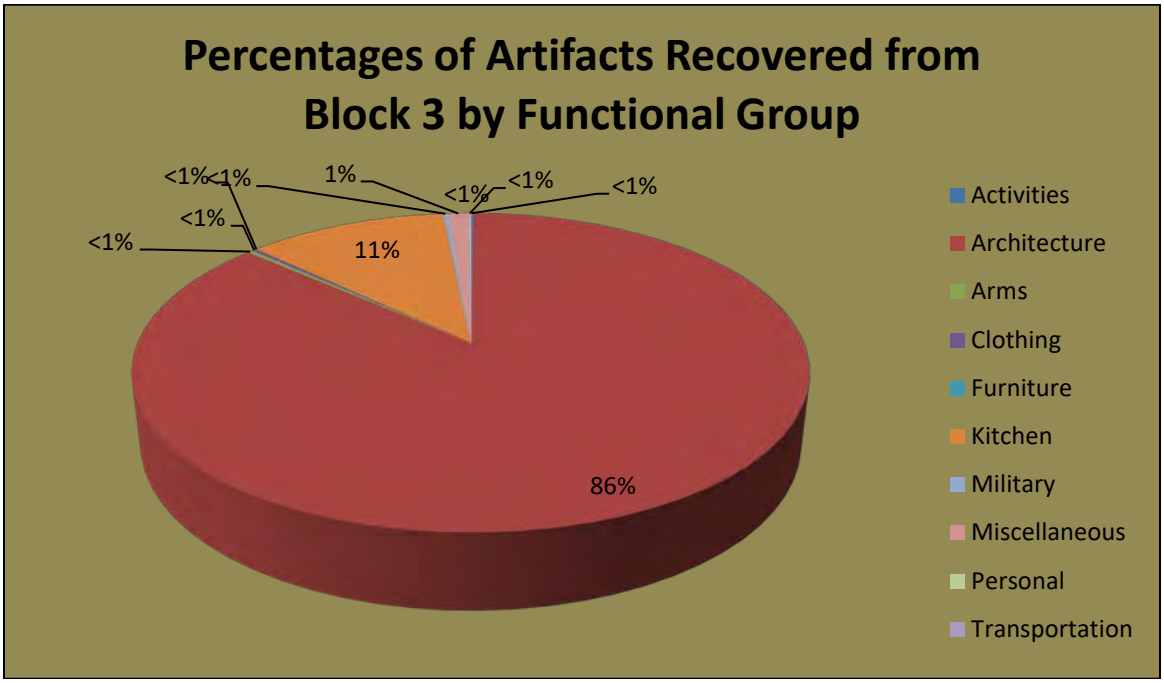

Figure 110. Artifacts Recovered from Block 3 by Functional Group.

Other items that post-date the occupation of this site consist of a single crown cap bottle lip (n=1) and low density of centerfire cartridges (n=3). These items were recovered the topsoil (Zone 1) in Unit 32 (one centerfire cartridge), and the early twentieth century fill capping Cellar 2 (Feature 98) in Units 32 (Zone 2/Feature 13) and 44 (Zone 2) (one crown cap bottle lip and two centerfire cartridges). The remaining diagnostic artifacts include clothing and kitchen-related items that are consistent with the early- to mid-nineteenth century occupation of this site.

Clothing items consisted of a burned shoe nail and six buttons, including one gilt button manufactured between 1830 and 1850 (Luscomb 1967:78-79) (Table 30). Diagnostic kitchen artifacts included creamware (n=9), pearlware (n=15), whiteware (n=16), ironstone (n=10), European porcelain (n=7), Chinese export porcelain (n=2), yellowware (n=1), redware (n=6), stoneware (n=2), and two rolled bottle lips and three empontilled bottle bases (Table 30). A small, burned metal vial was also recovered. Although the function of this item is not known, it may be associated with medicinal use.

Several military and arms items also were recovered that are likely associated with the Union Army occupation of Camp Frazer during the American Civil War. These items consist of two .32-caliber long Smith & Wesson rimfire cartridges, two percussion caps, one burned general service Eagle button, and the burned trigger guard for a Model 1816 musket. Additional accoutrements include a brass rivet and five iron buckles.

Excavation Block 4

Block 4 was positioned at the northwest corner of the structure, and consisted of Unit 56 (Figure 111). Unit 56 and its northern extension trench were hand excavated, exposing a collapsed brick wall (Feature 92) and intact foundation remnants (Features 3 and 94). This portion of the site is located north of the right-of-way, and no mechanical excavations were conducted in this portion of the site. Limited test excavations were carried out with landowner consent to fully investigate and interpret the structure.

The soil profile in Block 4 was composed of a shallow dark brown (10YR 3/3) silt loam topsoil (Zone 1) to depths of 8 to 15 cm (3.15 to 5.9 in.) below surface, followed by brick rubble (Feature 92) and dark grayish brown (10YR 3/2) silt loam (Zone 2). Zone 3 consisted of dark yellowish brown (10YR 4/4) silty clay loam with ash and charcoal (Zone 3) that ranged from 15 to 26 (5.9 to 10.23 in.) in thickness. This stratum is underlain with yellowish brown (10YR 5/6) silty clay subsoil (Zone 4) (Figure 112). Zones 2 and 3 were distinguishable only by the collapsed brick wall (Feature 92). These strata constitute a midden associated with the destruction of the house. An extremely high density of primarily mid-nineteenth century ceramics were present within Zones 2 and 3, particularly beneath the brick debris.

Feature 92, a collapsed brick wall, was encountered just beneath the topsoil at a depth of 15 cm (5.9 in.) below surface, and extended across the entire excavation block (Figure 113). These bricks were laid in a stretcher bond pattern, and appear to have collapsed southward into the structure. A section of two courses of flat cut limestone was located beneath the brick that may be the remains of a floor or walkway (Figure 114).

Two sections of the limestone foundation (Features 3 and 94) also were documented in Block 4 (Figure 115). Feature 3 was located along the eastern end of Unit 56. Feature 3 continued eastward beyond Unit 56; however, this feature terminated in the northeast corner of this test unit, intersecting with Feature 94 to form a corner for the northernmost room of the house (Figures 111 and 115). Feature 94 was located along the northern edge of Unit 56. An extension measuring 1.5 x 5 m (4.92 x 16.4 ft.) was excavated

to fully expose Feature 94. This feature measured 4.7 m (15.42 ft.) in length and terminated at the northwest corner of the house (Figures 111 and 114).

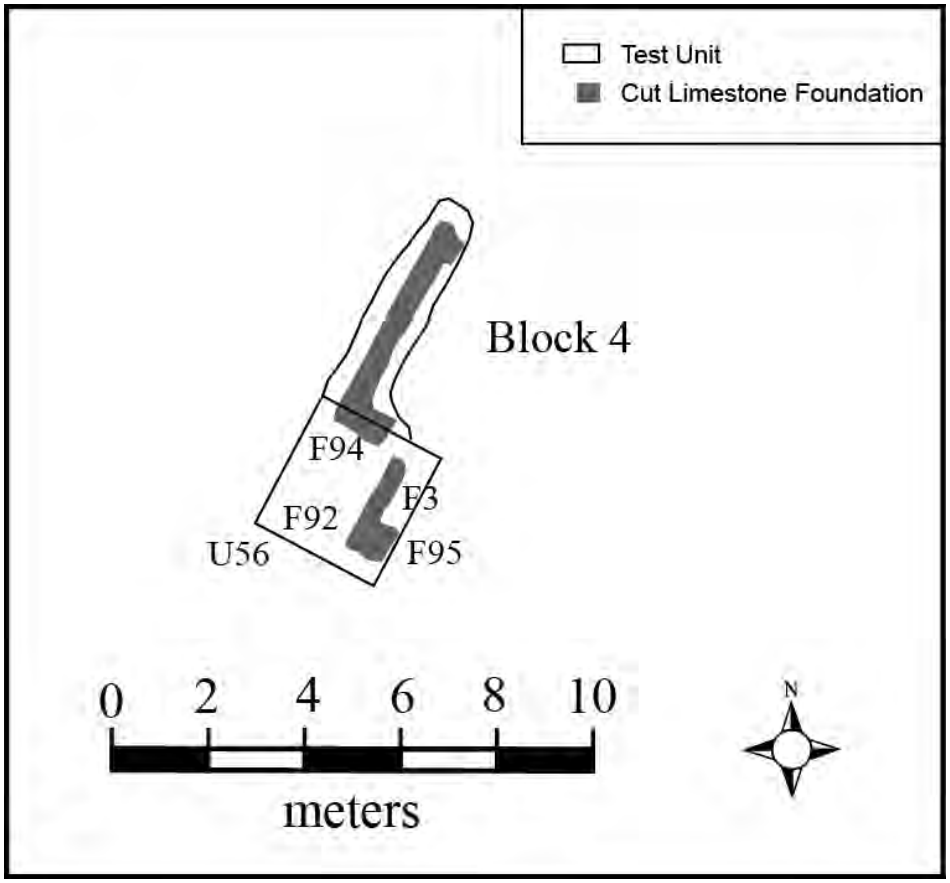

Figure 111. Map of House Foundation Showing the Location of Block 4.

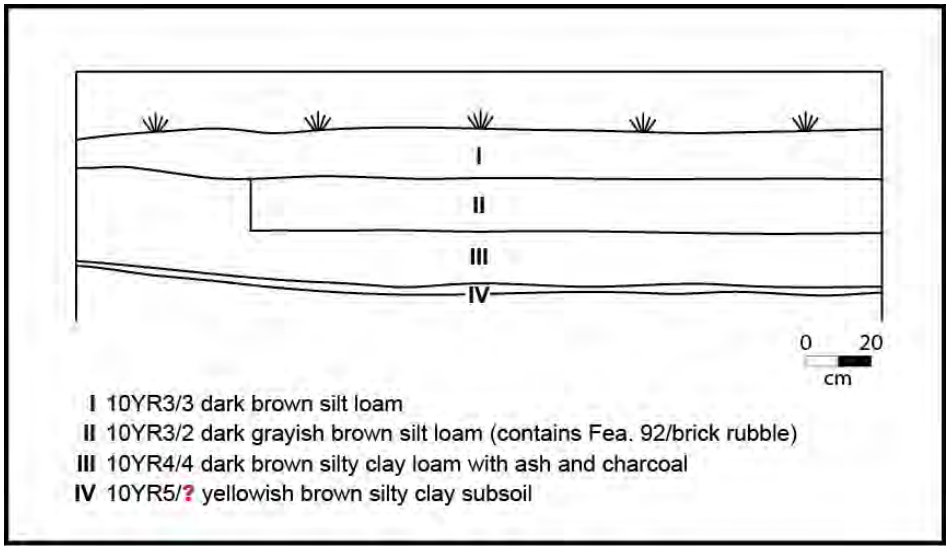

Figure 112. Unit 56, West Profile.

Figure 113. Unit 56 Planview, Facing East.

Figure 114. Unit 56 Planview showing Base of Excavations, Facing East.

Figure 115. Unit 56 Extension: Feature 94 and Northwest Corner of Structure, Facing South.

Although Block 4 is relatively small in comparison with the aforementioned excavation blocks, a comparatively large density of cultural materials (n=6, 322) was recovered. Not surprisingly, architectural items (n=2,079) made up a significant portion (33%) of the assemblage (Table 31 and Figure 116). Many of these items had been burned. However, kitchen-related materials (n=4,018), particularly ceramics, comprised the bulk (64%) of the recovered artifacts (Table 31 and Figure 116). Architectural items largely consisted of burned nails, including hand wrought (n=21), early machine-cut (n=254), and late machine-cut (n=573) varieties (Table 31). Other architectural materials included a high density of window glass (n=874), as well as a hinge (n=1), a pintle (n=1), and a keyhole plate (n=1). These items indicate the presence of glazed windows as well as the possibility of a doorway in this portion of the house. The higher density of late machine-cut nails suggests this room may be a later extension of the structure.

Table 31. Artifacts Recovered from Block 4 by Functional Group.

Functional Group	Material	N=	%
	Awl	8	
	File	2	
	Marble, clay	6	
	Marble, stone	2	
	Slate writing tablet fragment	1	
	Bone knitting needle keeper/aglet (used in lacework)	2	
	Thimble	2	
	Straight pin	2	
	Total Activities	**25**	**<1.0**
	Wrought Nail	21	
	Early Cut Nail	254	
	Late Cut Nail	573	
	UID Cut Nail	314	
	UID Cut or Wrought Nail	12	
	L-head Nail	17	
	Window Glass	874	
	Screw, flat head	10	
	Hinge	1	
	Keyhole plate	1	
	Pintle	1	
	Washer	1	
	Total Architecture	**2,079**	**33.0**
	Bone handle	1	
	Dagger Blade	1	
	Total Arms	**2**	**<1.0**
	Button, bone (1-hole)	1	
	Button, bone (4-hole)	4	
	Button, bone (5-hole)	8	
	Button, brass (round ball)	1	
	Button, brass or copper	6	
	Button, gilt Jacksonian ("Superfine" R. J. & Co.)	1	
	Button, cast iron	2	
	Button, Prosser (4-hole)	1	
	Button, shell	2	
	Hook and Eye	2	
	Shoe nail (burned)	78	
	Shoe tack	1	
	Suspender buckle	1	
	Total Clothing	**108**	**2.0**
	Tack, brass	1	
	Figurine, ironstone	1	
	Finial	2	
	Lamp Globe	1	
	Total Furniture	**5**	**<1.0**
	Pearlware, undecorated	135	
	Pearlware, blue shell-edge	3	
	Pearlware, green shell-edge	2	
	Pearlware, sponged	1	
	Pearlware, blue transfer-print	170	
	Pearlware, underglaze painted	12	
	Pearlware, underglaze painted polychrome	1	
	Whiteware, undecorated	596	
	Whiteware, flow blue transfer-print	36	
	Whiteware, flow blue painted	17	
	Whiteware, marbled	2	
	Whiteware, molded	5	
	Whiteware, relief molded multi-colored transfer-print	1	
	Whiteware, blue shell-edge	21	
	Whiteware, green shell-edge	8	
	Whiteware, unpainted shell-edge	26	
	Whiteware, slipped	3	
	Whiteware, sponged	24	
	Whiteware, black transfer-print	5	

Table 31. Continued.

Functional Group	Material	N=	%
	Whiteware, blue transfer-print	190	
	Whiteware, brown transfer-print	127	
	Whiteware, green transfer-print	19	
	Whiteware, purple transfer-print	145	
	Whiteware, red transfer-print	318	
	Whiteware, underglaze painted	49	
	Whiteware, underglaze painted polychrome	37	
	Ironstone, undecorated	159	
	Ironstone, molded	21	
	Ironstone, underglaze painted	1	
	Burned Ironstone, undecorated	1	
	Burned refined ceramic, undecorated	277	
	Burned refined ceramic, pattern molded	1	
	Burned refined ceramic, blue transfer-print	11	
	Burned refined ceramic, purple transfer-print	1	
	Burned refined ceramic, underglaze painted	1	
	Porcelain, European bone china	15	
	Porcelain, European undecorated	222	
	Porcelain, Chinese export	34	
	Porcelain, European overglaze painted	92	
	Porcelain, European pattern molded	8	
	Yellowware, undecorated	148	
	Yellowware, annular banded	72	
	Redware, lead glazed	158	
	Stoneware, salt-glazed	1	
	Container glass, amber	8	
	Container glass, aqua (including Washington flask and Eagle flask frags.)	240	
	Container glass, clear (including 8 tumblers)	444	
	Container glass, cobalt	4	
	Container glass, dark olive	59	
	Container glass, olive	60	
	Cast Iron Kettle fragment	3	
	Fork	1	
	Utensil handle, bone (1 w/ scored decoration)	3	
	Knife blade	4	
	Spoon	1	
	Tableware	15	
	Total Kitchen	**4,018**	**64.0%**
	Eagle Button. brass (general service; burned)	1	
	Eagle Button. brass (small; burned)	1	
	Eagle Button. brass (Infantry, burned)	1	
	Sutler's Token (McBeth & Aull O.V.I 45 Reg, 5cts in goods)	1	
	Buckle, iron	2	
	Buckle, iron (square; burned w/ attached rivets)	3	
	Buckle. Iron (pack)	1	
	Total Military	**10**	**<1.0**
	Band, iron	3	
	Bracket, iron	1	
	Fence Staple	1	
	Ferrule	2	
	Iron Bar	1	
	Latch, iron	1	
	Spike, hand wrought	1	
	UID brass or copper	8	
	UID iron	36	
	UID lead	6	
	Wedge, hand wrought	1	
	Wire	4	
	Total Miscellaneous	**65**	**<1.0**
	Pocket knife (small w/ shell decoration)	1	
	Pocket Watch Fob Chain	1	
	Lice Comb, bone	1	
	Total Personal	**3**	**<1.0**

Table 31. Continued.

Functional Group	Material	N=	%
	Carriage Knob	1	
	Railroad Spike	2	
	Harness Ring	1	
	Horseshoe Nail	2	
	Total Transportation	**6**	
Total		**6,322**	

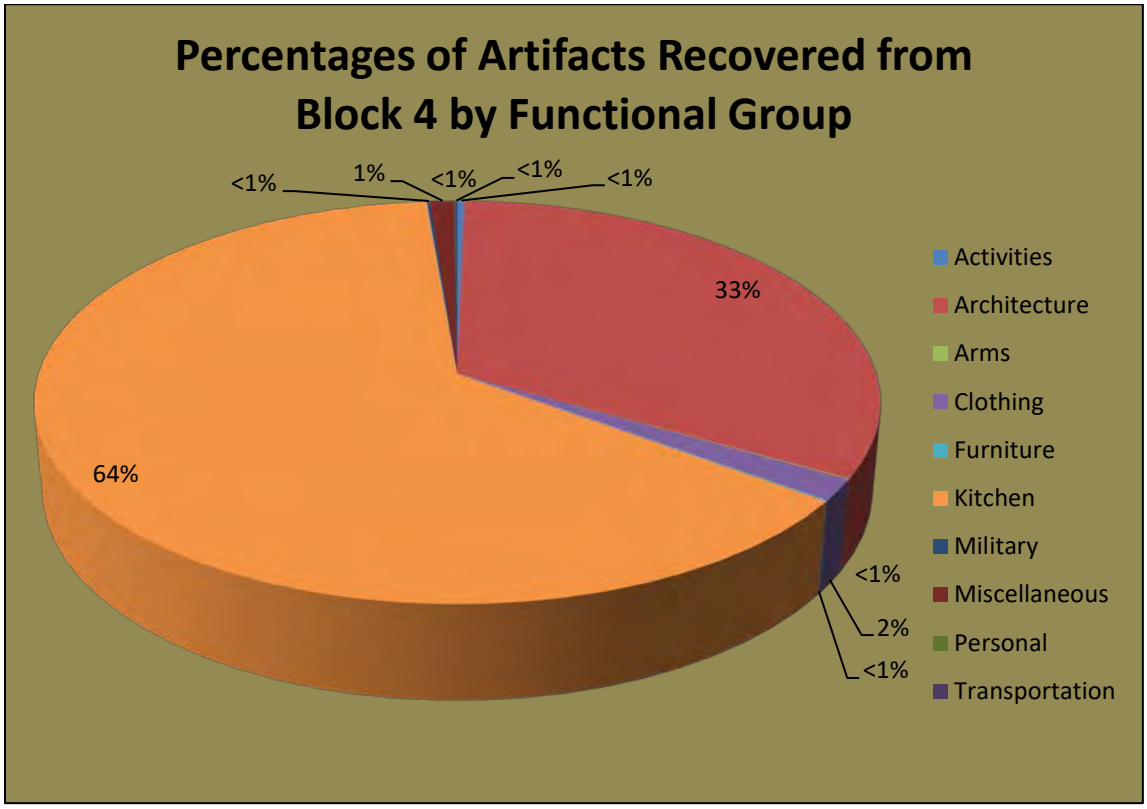

Figure 116. Artifacts Recovered from Block 4 by Functional Group.

An extremely high density of kitchen-related materials was present beneath the brick rubble inside the house foundation. Ceramics comprised the majority of the assemblage, and nearly every type and decorative treatment available during the mid-nineteenth century was present. Manufacturer's and pattern marks on ceramics recovered from Block 4 include the marks of Staffordshire potters Andrew Stevenson (ca. 1816-1830), Ralph Stevenson (1832-1835), Ridgeway, Morley, and Wear (1836-1842), and William Adams and Sons (1800-1864). The diversity of ceramics materials also indicated that several dish sets were present. The large quantity of both refined (3,017) and coarse ceramics (n=159), as well as container glass (n=816), tableware (n=15), and utensils (n=9), suggests that this portion of the house may have served as a dining area. The large quantity, and relatively complete vessels, of refined ceramics may suggest that these dishes were stacked in a cabinet when the house was destroyed.

A moderate amount of clothing items and accoutrements were also present; some of these may be related to the use of the structure as a commissary storehouse during the Civil War. All of these items had been burned, and included buckles (n=6), three of which were fused to rivets, a suspender buckle, and hook and eye fasteners (n=2). Similar to Block 1, a large number of burned shoe nails (n=78) were also present. The remaining clothing materials consisted of buttons, including cast iron (n=8), brass (n=1), brass or copper (n=6), bone (n=13), a gilded "Jacksonian" button manufactured from 1840 to 1850s (Luscomb 1967:108), and a brass British Royal Navy button. The Naval button type has a long period of manufacture, and was used by the British military from 1774 to 1860 (Burt 2008). The most likely explanation for the presence of this button at the site is that it was collected by the original owner of the house, James Finley, who served in Captain William Brown's company during the War of 1812.

In addition to the clothing items recovered from Block 4, numerous military items were present that are related to the Union occupation of Camp Frazer and the use of the house as a commissary depot (Table 31). Military artifacts include three brass Eagle buttons (one Infantry officers button, one general service, and one too burned to identify rank), and a copper sutler's token issued by McBeth & Aull for the 45th Ohio Volunteer Infantry for the sum of 5 cents in goods. The 45th OVI were ordered to Cynthiana on August 20, 1862, and remained at Camp Frazer unit it was evacuated in early September of the same year.

The merchant sutler served an important function on military sites during the Civil War. Regimental sutlers were appointed by the military without rank or pay other than that provided from the profits of their business (Curto and Schwartz 1962). The duty of the sutler was to supplement government issued supplies by keeping on hand all goods required by the soldiers (Curto and Schwartz 1962). Sutler tokens were issued as currency for transactions with the camp sutler, and McBeth & Aull issued tokens for the 45th OVI in both 5 cents and 10 cents denominations (Curto and Schwartz 1962:24). The presence of this token in combination with the documented arrival of the 45th OVI indicates that at least the northern portion of the house associated with the Frazer Farmstead survived Morgan's 1862 raid, and was re-used by the Union Army. The diary of Zelotes Musgrave, a soldier in the 45th OVI, indicates that the regiment's quartermaster burned all of his stores as the Union forces retreated on September 2, 1862 (Musgrave 1862), and a member of the 99th OVI noted the "Commissary Stores aflame" (Penn 1995; Geaslen 1972). The presence of this sutler token beneath the brick rubble indicates that at least this wall of the house was still standing after the July 17, 1862 fire and that the camp quartermaster may have burned this portion of the house on September 2, 1862.

Excavation Block 5

Block 5 was located north of the house, and was comprised of Units 19, 23, 26, 28, and 37 (Figure 117). Within this block 7m^2 was hand excavated, and four features were encountered, including a pit (Feature 11), brick rubble and ash (Feature 16), a calf burial (Feature 17), and a filling episode (Feature 23). No mechanical excavations were

conducted in this portion of the site area. The general soil profile in this portion of the site was composed of very dark grayish brown (10YR 3/2) silt loam (Zone 1), followed by dark brown (10YR 3/3) silt loam with rubble and ash (Zone 2), underlain with yellowish brown (10YR 5/6) silty clay subsoil (Zone 3) (Figures 118 and 119).

Feature 11 was a small pit of unknown function that was first encountered in Unit 19 (Zone 2), and extended into Units 23 and 26 (Figures 118 and 119). Although the full dimensions of Feature 11 are unknown, the northern and western edges were defined, and the excavated portion measured 1.2 m (3.9 ft.) north-south by 1.5 m (4.9 ft.) east-west. This basin-shaped feature was first encountered at a depth of 16 cm (6.3 in.) below surface, and was excavated to a depth of 35 to 40 cm (13.78 to 14.75 in.) below surface. Feature 11 fill was composed of ash and charcoal, and contained a high density of faunal remains, which are discussed in Chapter 6. In addition to numerous early- to mid-nineteenth century materials, Feature 11 also contained one Civil War-era Infantry officer's button, suggesting this feature was filled sometime during or after the 1862 military occupation of the site (Table 32).

Table 32. Artifacts Recovered from Feature 11 by Functional Group.

Functional Group	Material	N=	%
	Nail, Hand Wrought	2	
	Nail, Early Cut	16	
	Nail, Late Cut	1	
	Nail, Unidentifiable Cut	9	
	Screw	1	
	Window Glass	11	
	Mortar, 37.47 grams	2	
	Total Architecture	**42**	**33.0**
	Button, brass or copper	1	
	Total Clothing	**1**	**<1.0**
	Charcoal, 9.85 grams	18	
	Cinders, 4.4 grams	22	
	Total Fuel	**40**	**31.0**
	Mirror glass	1	
	Total Furniture	**1**	**<1.0**
	Creamware, undecorated	3	
	Pearlware, undecorated	3	
	Whiteware, transfer-printed	2	
	Burned refined, UID	1	
	Porcelain, Chinese export	1	
	Porcelain, overglaze painted	2	
	Porcelain, undecorated	4	
	Bone China, transfer-printed	1	
	Bone China, undecorated	1	
	Yellowware, annular	1	
	Yellowware, undecorated	1	
	Redware, lead glazed	9	
	Container Glass, clear	12	
	Total Kitchen	**41**	**32%**
	Eagle Button, brass "Infantry"	1	
	Total Military	**1**	
	Washer	1	
	Wire	1	
	Unidentifiable Iron	1	
	Total Miscellaneous	**3**	**<1.0**
TOTAL		**128**	

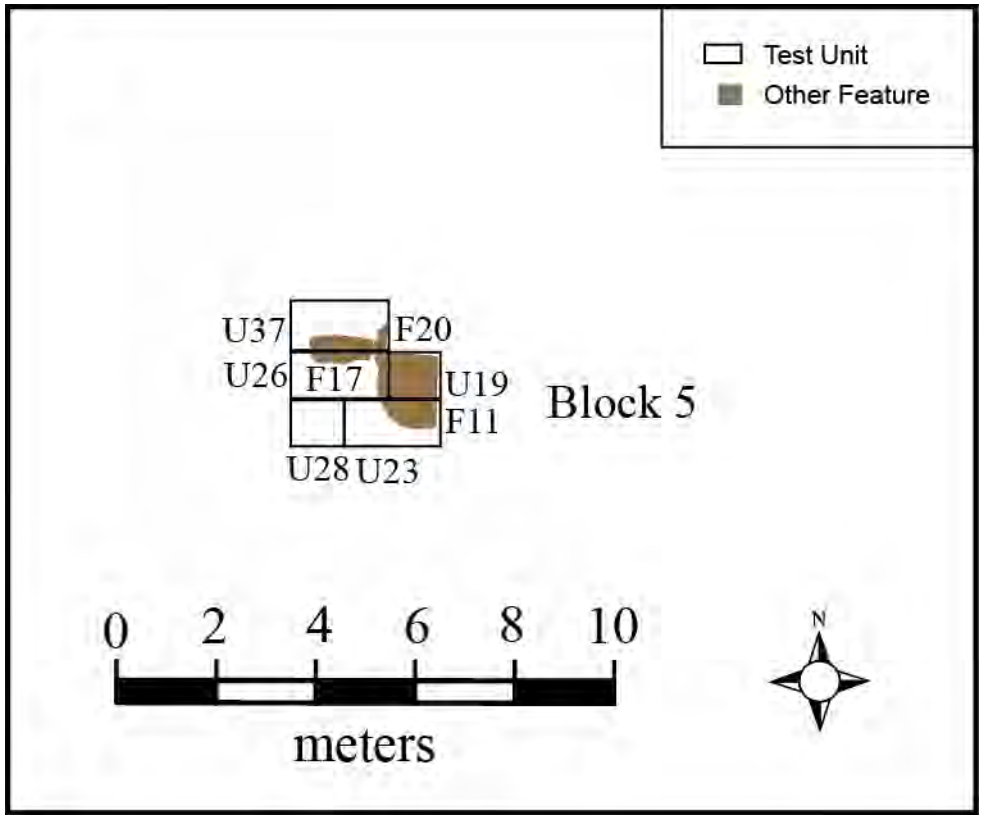

Figure 117. Map of House Foundation Showing the Location of Block 5.

Figure 118. Unit 19, South Profile.

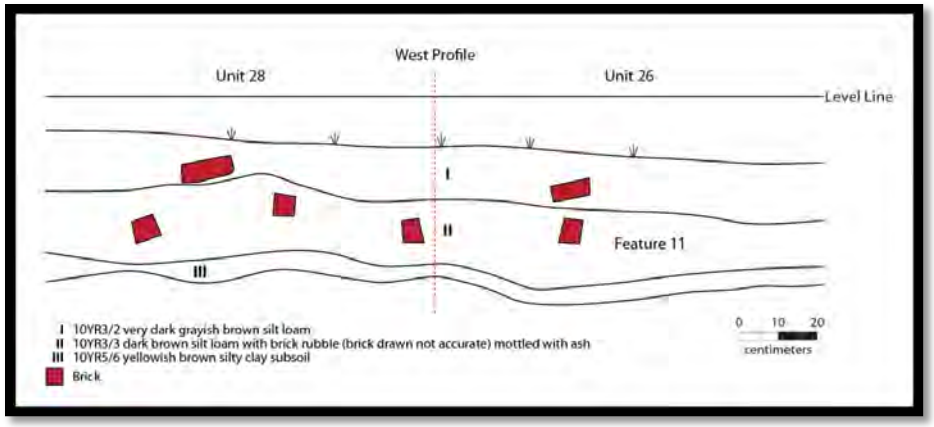

Figure 119. Units 26 and 28, West Profile.

Feature 16 was a concentration of brick rubble and ash in Units 23, 26, 28, and 37. This feature intruded into Feature 17, a calf burial, and Feature 11; indicating it post- dates both features (Figure 120). The full dimensions of Feature 16 was not determined; however, it appeared to be roughly circular in shape. Feature 16 fill was composed of dark grayish brown (10YR 4/2) silty loam, mottled with very dark grayish brown (10YR 10YR 3/2) silty loam, light brownish gray (10YR 6/2) ash, and yellowish brown (10YR 5/6) clay. The eastern edge was defined in Unit 37, and the excavated portion of this feature measured approximately 2 m (6.5 ft.) north-south by 2.8 m (9.18 ft.) east-west. Other than a high density of handmade brick and faunal materials, Feature 16 contained a very low density of cultural materials. Of the 27 artifacts recovered from this feature, 16 were architectural (nails [n=4] and window glass [n=12]), 10 were kitchen-related (ceramic [n=8] and container glass [n=2]), and one was associated with furniture (lamp globe glass [n=1]). All of these items are consistent with an early- to mid-nineteenth century occupation, and are debris from the destruction of the house.

Figure 120. View of Block 5: Features 16 and 23, Facing Northwest.

Feature 17 was encountered at a depth of 40 cm (1.31 ft.) below surface in Units 26 and 37, and was extended to a depth of 73 cm (2.39 ft.) below surface. This feature measured 70 cm (2.29 ft.) north-south by 1.4 m (4.59 ft.) east-west (Figures 121 and 122), and contained the articulated skeletal remains of a calf (Figure 123). Feature 17 intruded into Feature 16, and the fill was composed of very dark grayish brown (10YR 3/2) silt loam, mottled with yellowish brown (10YR 5/8) clay and strong brown (7.5YR 4/6) clay (Figures 121 and 122). Although the primary function of this pit feature was a burial shaft for a calf, a moderate density of additional faunal material, including pig teeth, as well as debris from the destruction of the house, was present in the fill soils. This suggests that like Feature 16, this calf burial feature post-dates the 1862 abandonment of this site.

Figure 121. Unit 26 showing Feature 17, North Profile.

Feature 23 was present along the eastern wall and southeastern corner of Unit 37. This feature was first encountered at a depth of 33 cm (1.08 ft.) below surface, and extended to a depth of 50 cm (1.64 ft.) below surface. Fill soils were composed of brown (10YR 4/3) silty clay, and no clearly discernible break separating Feature 23 from Feature 11 in Units 19, 23, and 26 was observed. Therefore, Feature 23 may actually be a continuation of Feature 11. A small number of artifacts (n=13) were recovered from Feature 23, all of which date from the early- to mid-nineteenth century.

Of the 1,641 cultural materials recovered from Block 5, most were kitchen (n=909 [54%]) and architectural (n=662 [42%]) materials (Table 33 and Figure 124). Other artifacts types consisted of arms (n=3 [<1%]), clothing (n=11 [1%]), furniture (n=6 [<1%]), military (n=1 [<1%]), personal (n=5 [<1%]), transportation (n=8 [1%]), and miscellaneous (n=36 [2%]) items (Table 33 and Figure 124). All of these specimens are consistent with an early- to mid-nineteenth century date range; however, several items were present that are associated with the Civil War-era military occupation of this site. These items consist of a single brass Federal Infantry officer's button, a .69-caliber lead buck and ball projectile, a .32-caliber Smith & Wesson rimfire cartiridge, and a brass cartridge clip (Table 33).

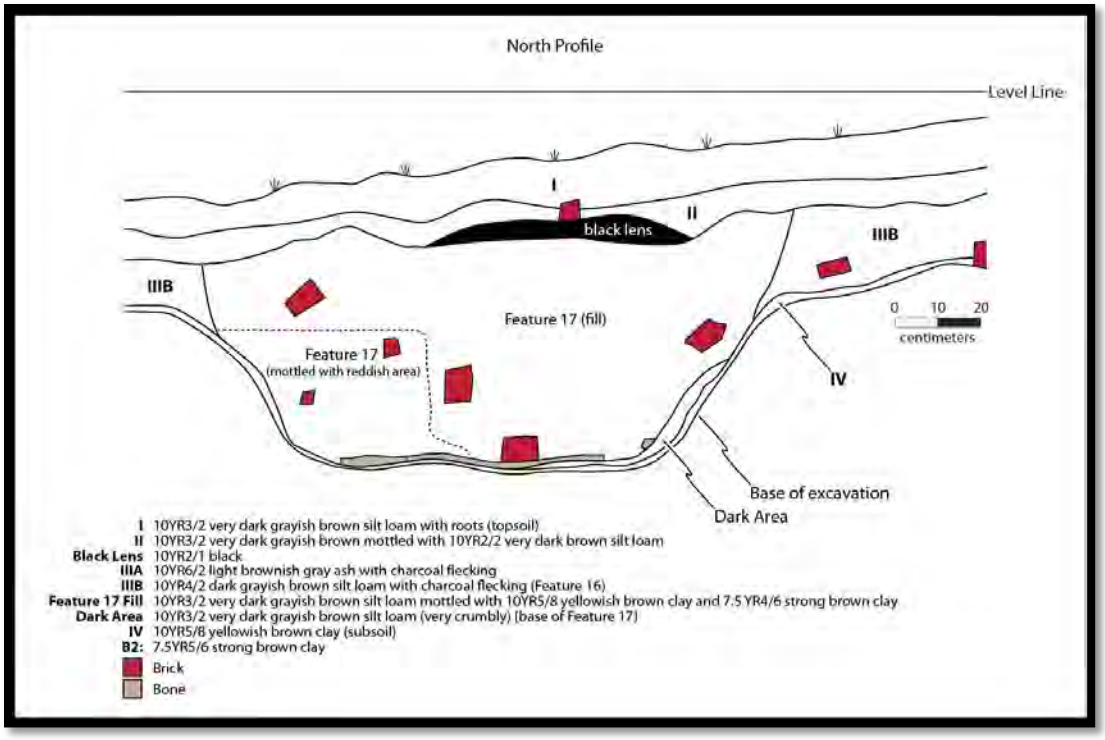

Figure 122. Unit 26, North Profile.

Figure 123. Unit 37 Planview: Feature 17, Facing South.

Excavation Block 6

Block 6 was located south of the house, and was comprised of 13 test units (Units 29, 33, 34, 35, 36, 39, 40, 41, 42, 43, 51, 52, and 53) (Figure 125). Unit 29 overlapped Unit 6 (Feature 19), which was excavated during the Phase II testing (Allgood et al. 2004). A total of 24 m^2 was hand excavated, and the entire area was mechanically excavated. Five additional features were identified that include a clay filling episode (Feature 1), a sheet midden (Feature 14/15), and three posts (Features 22, 24, and 25). The general soil profile throughout Block 6 was composed of very dark brown (10YR 2/2) silt loam (Zone 1), followed by dark brown (10YR 3/3) clay loam (Zone 2) with patches of very dark grayish brown (10YR 3/2) ashy loam (Zone 3), underlain with dark yellowish brown (10YR 4/6) clay subsoil (Zone 4). Feature 1, which was initially defined during the Phase II investigations (Allgood, et al. 2004), was also present in Block 3 (Units 24, 27, and 34). This feature was documented as Feature 2 in Unit 33 in Block 6, and was composed of dark yellowish brown (10YR 3/6) mottled silty clay soil fill. This stratum contained a low density of early- to mid-nineteenth century debris associated with the destruction of the house, including nails, window glass, and kitchen items. Feature 19 was present in the eastern half of Units 29 and 36. This feature was composed of mottled soils (Figure 126), and was determined to be the backfilled Unit 6 excavated during the Phase II investigations (Allgood et al. 2004).

Features 14 and 15 are an expansive sheet midden located south of the house that was present in Units 29, 33, 35, 36, 39, 40, 41, 42, 43, and 53 (Figure 127). Initially, these were thought to be separate features, but upon further investigation were determined to be a single contiguous deposit. This feature was encountered at depths of 5 to 20 cm (1.96 to 7.87 in.) below surface, and extended to a depth of 15 to 35 cm (5.9 to 13.78 in.) below surface (Figures 128 and 129). Mechanical excavations revealed Feature 14/15 measured 6.5 by 7 m (21.32 by 22.96 ft.) in diameter, and was composed of dark grayish brown (10YR 4/2) silt loam with ash and charcoal inclusions (Zones 2 and 3), mottled with areas of very dark grayish brown (10YR 3/2) clayey silty loam (Zone 3A), olive (5Y 4/3) silty clay (Zone 3B), and brown (10YR 5/4) ashy clay (Zone 4), underlain with yellowish brown (10YR 5/6) silty clay subsoil (Zone 5) (Figure 130). An extremely high density of cultural materials was recovered (n=4,234) that provide insights into activities in this area of the site (Table 34).

Not surprisingly, the majority of the artifacts recovered from Feature 14 consisted of architectural (n=1,883 [43%]) and kitchen (n=2,152 [53%) items. However, a variety of activities (n=11 [<1%]), arms (n=1 [<1%]), clothing (n=60 [1%]), furniture (n=1 [<1%]), personal (n=18 [<1%]), transportation (n=9 [<1%], and miscellaneous (n=85 [2%]) materials were also present (Table 34 and Figure 131). Diagnostic architectural materials included hand wrought nails (n=312), early machine-cut nails (n=100), and a very low density of late machine-cut nails (n=21). Kitchen items included an assortment of nineteenth century ceramics, including creamware (n=219), pearlware (n=734), whiteware (n=3), Chinese export porcelain (n=80), European porcelain (n=3), yellowware (n=1), and redware (n=471) (Table 34). The extremely low density of whiteware (n=3) in comparison to creamware (n=219) and pearlware (n=734), as well as the high density of redware

Table 33. Artifacts Recovered from Block 5 by Functional Group.

Functional Group	Material	N=	%
	Wrought Nail	8	
	Early Cut Nail	99	
	Late Cut Nail	132	
	UID Cut Nail	142	
	UID Cut or Wrought	1	
	UID Nail	2	
	L-head Nail	3	
	Window Glass	249	
	Brad	2	
	Brick, handmade	21	
	Mortar	2	
	Screw, flat head	1	
	Total Architecture	**662**	**40.0**
	Bullet, .69-caliber buck and ball	1	
	Cartridge, rimfire (.32 Smith & Wesson short)	1	
	Cartridge clip	1	
	Total Arms	**3**	**<1.0**
	Button, bone	2	
	Button, brass	2	
	Button, brass or copper	1	
	Button, cast iron	3	
	Button, Prosser	3	
	Total Clothing	**11**	**1.0**
	Lamp Globe glass	2	
	Mirror Glass	3	
	Tack	1	
	Total Furniture	**6**	**<1.0**
	Creamware, undecorated	19	
	Creamware, annular banded	1	
	Creamware, mocha	1	
	Pearlware, undecorated	29	
	Pearlware, blue shell-edge	24	
	Pearlware, blue transfer-print	5	
	Pearlware, underglaze painted	1	
	Pearlware, underglaze painted polychrome	1	
	Whiteware, undecorated	187	
	Whiteware, annular banded	1	
	Whiteware, cat's eye	1	
	Whiteware, flow blue printed	1	
	Whiteware, molded	2	
	Whiteware, blue shell-edge	7	
	Whiteware, unpainted shell-edge	2	
	Whiteware, sponged	2	
	Whiteware, blue transfer-print	31	
	Whiteware, brown transfer-print	10	
	Whiteware, green transfer-print	5	
	Whiteware, purple transfer-print	6	
	Whiteware, red transfer-print	20	
	Whiteware, red exterior/green interior transfer-print	1	
	Whiteware, blue underglaze painted	2	
	Whiteware, underglaze painted	8	
	Whiteware, underglaze painted polychrome	5	
	Ironstone, undecorated	6	
	Burned refined ceramic, undecorated	29	
	Porcelain, European bone china	8	
	Porcelain, European bone china brown transfer-print	1	
	Porcelain, European undecorated	35	
	Porcelain, Chinese export	6	
	Porcelain, European overglaze painted	10	
	Yellowware, undecorated	56	
	Yellowware, annular banded	15	
	Redware, lead glazed	193	
	Stoneware, salt-glazed	5	

Table 33. Continued.

Functional Group	Material	N=	%
	Container Glass, amber	3	
	Container Glass, aqua	67	
	Container Glass, clear	97	
	Container Glass, dark amber	1	
	Container Glass, dark olive	4	
	Container Glass, olive	6	
	Container Glass, melted	7	
	Tableware, pressed glass	5	
	Spoon	1	
	Tin can fragments	2	
	Total Kitchen	**909**	**55.0**
	Eagle Button, brass	1	
	Total Military	**1**	**<1.0**
	Pipe bowl	4	
	Razor	1	
	Total Personal	**5**	**<1.0**
	Horseshoe Nail	5	
	Railroad Spike	3	
	Total Transportation	**8**	**<1.0**
	Bolt	1	
	Slag, 21.39 grams	5	
	UID brass or copper	1	
	UID iron	18	
	UID lead	2	
	Washer	1	
	Wire	7	
	Wrought Hardware	1	
	Total Miscellaneous	**36**	**2.0**
Total		**1,635**	

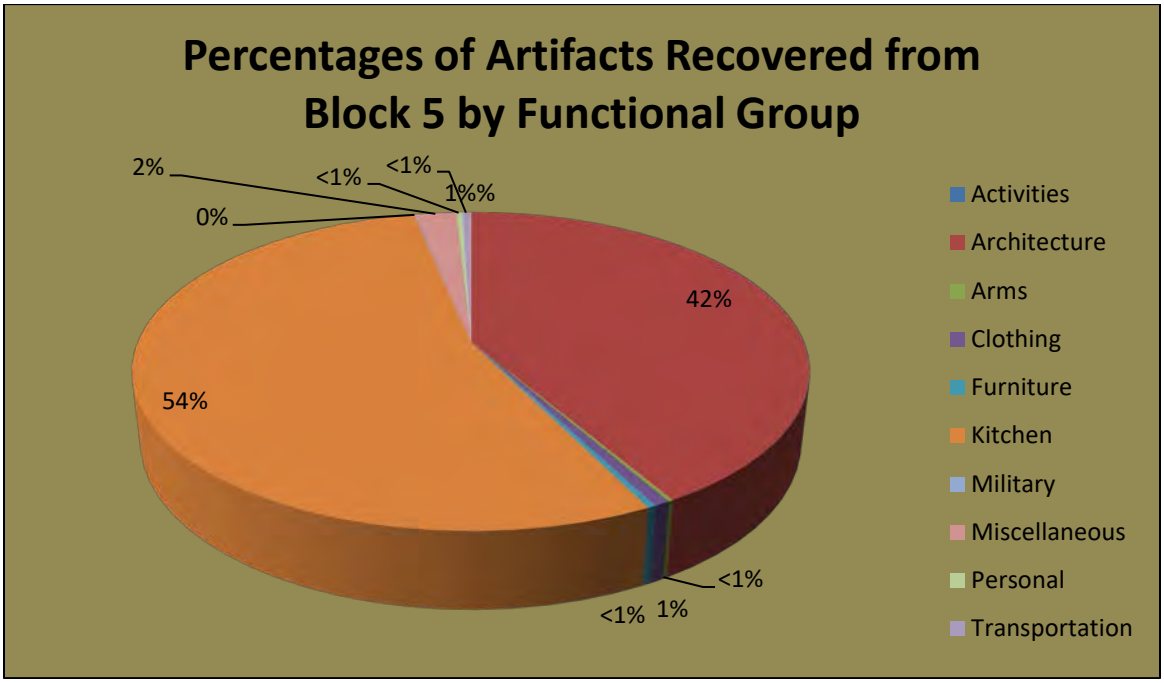

Figure 124. Artifacts Recovered from Block 5 by Functional Group.

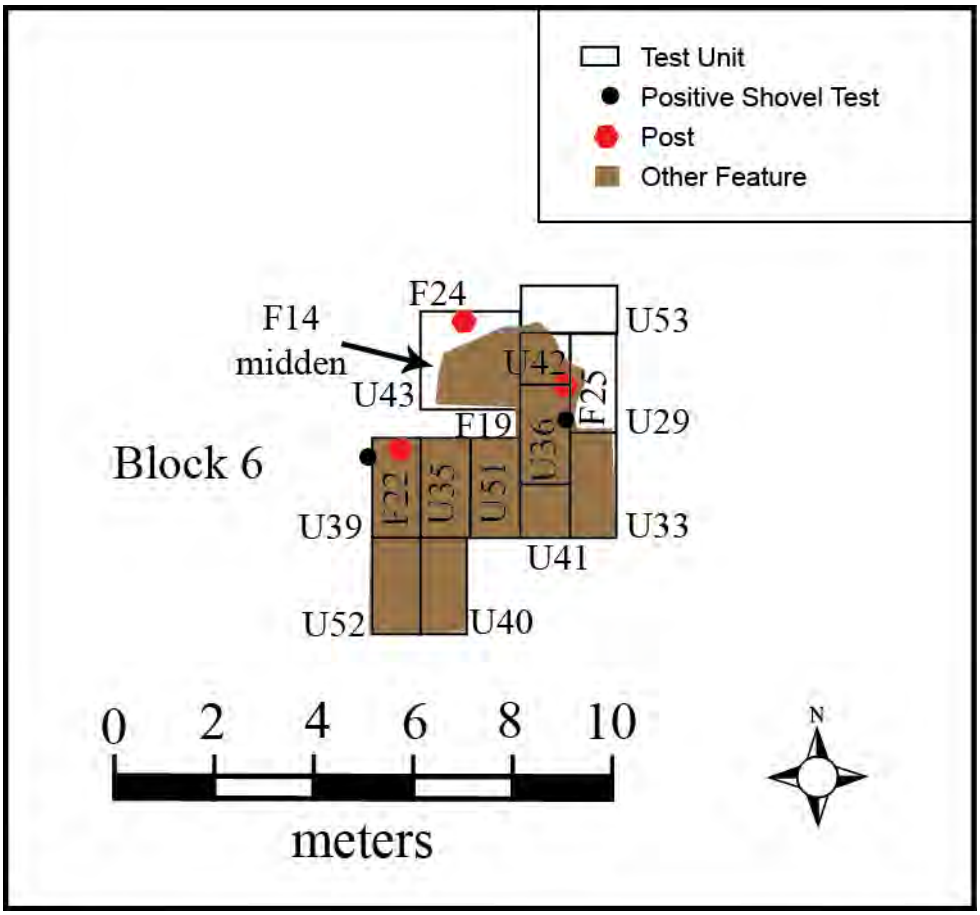

Figure 125. Map of House Foundation Showing the Location of Block 6.

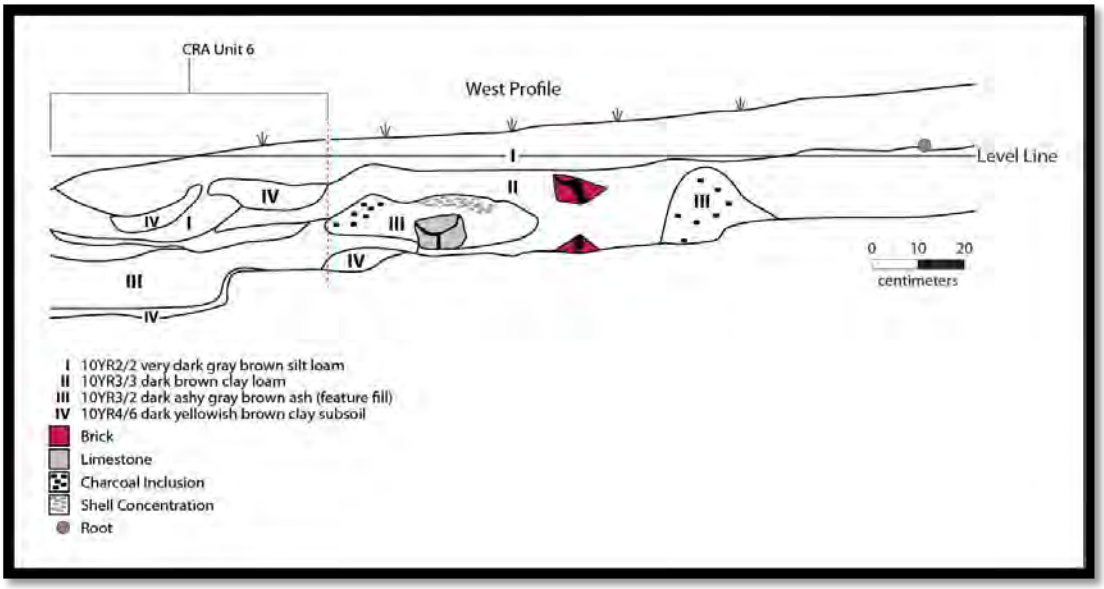

Figure 126. Unit 29, West Profile and Planview.

Figure 127. Unit 29, West Profile.

Figure 128. Unit 43 Planview showing Feature 14, Facing North.

(n=471) and the absence of stoneware, indicates this midden feature dates to the early-nineteenth century. Additionally, personal, arms, activities, and transportation items shed light on activities within the site area (Table 34). Personal items include an eighteenth century quartered Spanish real (n=1), a skeleton key (n=1), a pocket knife (n=1), and smoking pipe fragments (n=13). Arms items consist of a gun cock for a muzzle loading firearm (n=1). Items classified within the activities group consist of slate writing tablet fragments (n=2), clay marbles (n=3), scissors (n=2), a chisel (n=1), a wedge (n=2), and a fish hook (n=1). Transportation items include harness buckles (n=4), a curry comb (n=1), horseshoes (n=2), and horseshoe nails (n=2). All of these items are consistent with an early-nineteenth century date range for Feature 14. Although the Spanish real dates to the eighteenth century, Spanish silver remained legal tender currency in the United States until

1859 (Yeoman 2007:11). The moderate amount of transportation materials is interesting and suggests that equine maintenance activities may have taken place in this portion of the site.

Figure 129. Unit 43 North Profile: Feature 14 Bisection.

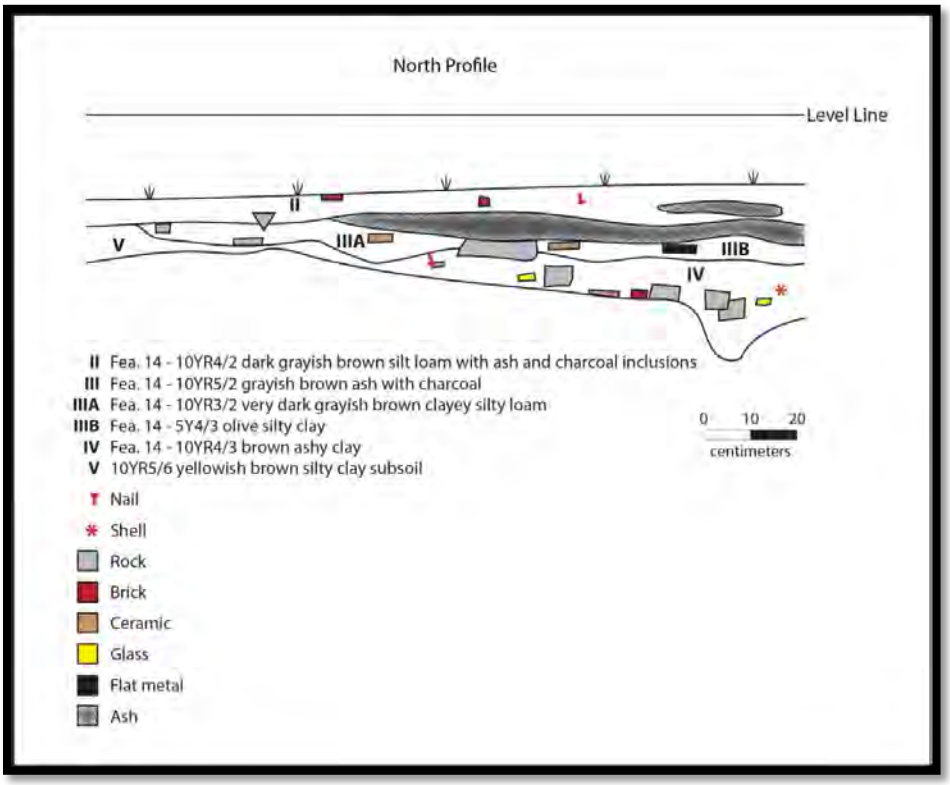

Figure 130. Unit 43 North Profile of Feature 14.

Table 34. Artifacts Recovered from Feature 14/15 by Functional Group.

Functional Group	Material	N=	%
	Slate Writing Tablet Fragment	2	
	Marble, clay	3	
	Thimble	1	
	Scissors	2	
	Chisel	1	
	Wedge	1	
	Fish Hook	1	
	Total Activities	**11**	**<1.0**
	Hand Wrought Nail	312	
	Early-Cut Nail	100	
	Late-Cut Nail	21	
	UID Cut or Wrought Nail	395	
	UID Cut Nail	598	
	UID Nail	71	
	L-head Nail	6	
	Window Glass	369	
	Bolt	1	
	Brad	2	
	Brick	2	
	Hinge	1	
	Padlock	2	
	Screw, flat-head	1	
	Tack (one hand wrought)	2	
	Total Architecture	**1,883**	**43.0**
	Gun Cock, muzzle loader	1	
	Total Arms	**1**	
	Button, bone	3	
	Button, brass	1	
	Button, brass or copper	27	
	Button, cast-iron	2	
	Button, pewter	23	
	Cufflinks, silver or silver-plated	1	
	Total Clothing	**60**	**1.4**
	Escutcheon, brass	2	
	Draw Pull	1	
	Lamp Finial, brass or copper	1	
	Mirror Glass	2	
	Tack	3	
	Total Furniture	**9**	**<1.0**
	Creamware, undecorated	181	
	Creamware, overglaze painted	2	
	Creamware, underglaze painted	11	
	Creamware, green shell-edge	19	
	Pearlware, undecorated	411	
	Pearlware, annular banded	4	
	Pearlware, blue shell-edge	77	
	Pearlware, green shell-edge	32	
	Pearlware, sponged	1	
	Pearlware, blue transfer-print	54	
	Pearlware, underglaze painted	24	
	Pearlware, underglaze painted polychrome	131	
	Whiteware, undecorated	7	
	Whiteware, brown transfer-print	1	
	Whiteware, red transfer-print	1	
	Whiteware, underglaze painted	1	
	Porcelain, European undecorated	3	
	Porcelain, Chinese export	80	
	Burned refined ceramic, undecorated	117	
	Burned refined ceramic, annular banded	1	
	Burned refined ceramic, blue shell-edge	1	
	Burned refined ceramic, green shell-edge	8	
	Burned refined ceramic, sponged	1	

Table 34. Continued.

Functional Group	Material	N=	%
	Burned refined ceramic, blue transfer-print	1	
	Burned refined ceramic, underglaze painted	6	
	Burned refined ceramic, underglaze painted polychrome	9	
	Yellowware, Rockingham	1	
	Redware, lead glazed	467	
	Redware, lead glazed/yellow slipped	4	
	Container Glass, amber	39	
	Container Glass, aqua	243	
	Container Glass, clear	123	
	Container Glass, dark olive	30	
	Container Glass, olive	17	
	Cast iron kettle fragment	11	
	Fork	1	
	Utensil handle (one bone; one metal)	2	
	Knife blade	2	
	Spoon	1	
	Spoon bowl	1	
	Glass stopper	1	
	Total Kitchen	**2,152**	**53.0**
	Coin, Spanish silver, cut (Obverse - Ca..; reverse ..REX 17…)	1	
	Skeleton Key fragment	1	
	Pipe Bowl, stoneware	2	
	Pipe Bowl, lead glazed redware (four effigy Indian head)	10	
	Pipe stem, white ball clay	2	
	Pocket knife	2	
	Total Personal	**18**	**<1.0**
	Bit	2	
	Harness Buckle	4	
	Curry Comb	1	
	Harness Rivet	1	
	Horseshoe	2	
	Horseshoe Nail	2	
	Total Transportation	**9**	**<1.0**
	Iron Band	9	
	Bolt	1	
	Chain Link	1	
	Finial	1	
	Limestone fragment w/ drilled hole	1	
	UID brass or copper	5	
	UID hardware	3	
	UID iron	53	
	UID lead	1	
	UID metal	1	
	Wire	9	
	Total Miscellaneous	**85**	**2.0**
Total		**4,234**	

Additionally, three post features (Features 22, 24, and 25) were present in Block 6 (Figure 132). Together, these three posts form a 90° angle, and were initially thought to be the remains of pier supports for an outbuilding. However, a fourth post was not located. Feature 22 was present in Unit 39, and consisted of a post hole measuring 43 cm (16.93 in.) wide by 48 cm (18.9 in.) deep, with a post hole that measured 30 cm (11.81 in.) wide and tapered at the end. This feature was encountered at the base of Zone 1 in the northern portion of the test unit, and was determined to be part of a fence separating the inner and outer yard of the residence. The feature fill was composed of brown (10YR 4/3) silty loam within the post mold, and yellowish brown (10YR 5/6) silty loam and clay within the post hole. No cultural materials were present in the post hole; however, fragments of handmade brick and a single creamware fragment were recovered from within the post mold.

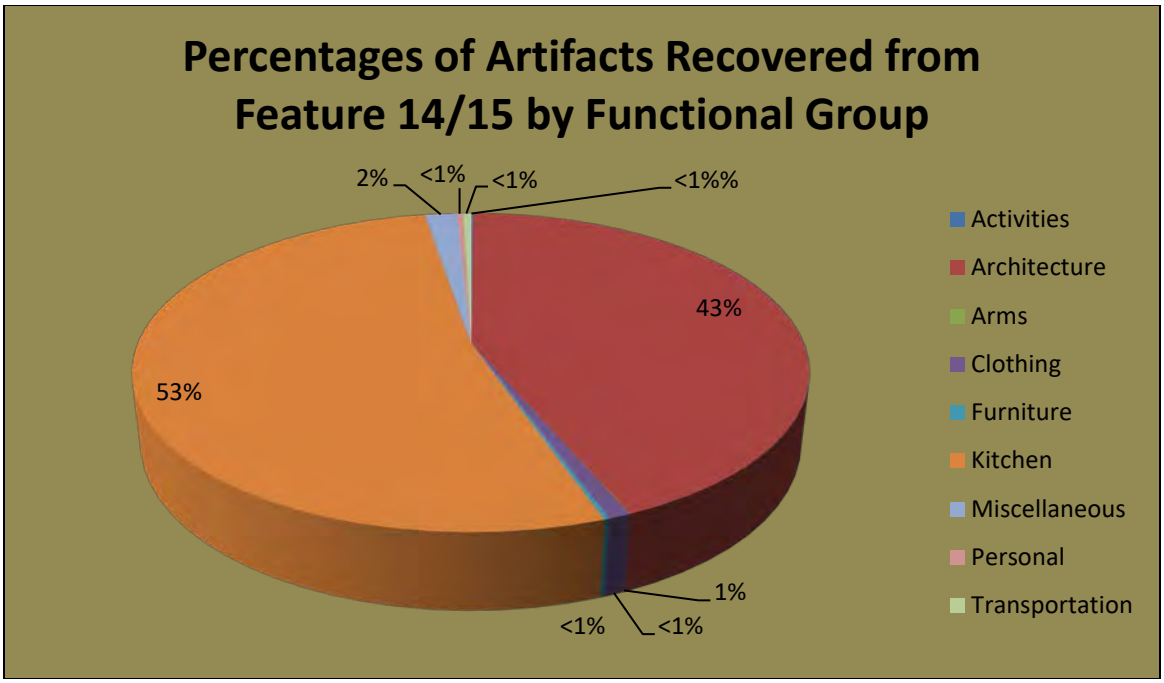

Figure 131. Percentages of Artifacts Recovered from Feature 14/15 by Functional Group.

Similar to Feature 22, Features 24 and 25 were encountered at the base of Zone 1 (24 to 39 cmbs). Feature 24 was present in Unit 43, and Feature 25 was documented in Unit 50. Both features consisted of a post mold and post hole composed of fill soils similar to that of Feature 22. Feature 24 post hole fill contained both hand wrought (n=1) and early machine cut (n=1) nails, window glass (n=1), brick (n=1), creamware (n=1) and redware (n=2) fragments, and a pocket knife (n=1), suggesting an early nineteenth century origin. Cultural materials of Feature 25 post hole fill consisted of unidentifiable nail fragments (n=2), brick (n=2), window glass (n=1), container glass (n=1), creamware (n=1) and redware (n=1) fragments, which suggests a possible early nineteenth century origin. These posts do not appear to be associated with the aforementioned fenceline, and their exact function is not known.

In addition to the previously discussed Feature 14 artifact assemblage, 4,278 cultural materials were recovered from Block 6 (Table 35). These items include architectural (n=1,856 [44%]), kitchen (n=2,254 [51%]), clothing (n=36 [1%]), furniture (n=9 [<1%]), personal (n=13 [<1%]), transportation (n=20 [<1%]), and miscellaneous (n=79 [2%]) (Table 35 and Figure 133). These items are similar to those recovered from Feature 14, and are consistent with an early- to mid-nineteenth century occupation of the site. Interestingly, a moderate density of transportation materials were recovered; including bits (n=2), harness or saddle buckles (n=2), a harness ring (n=1), horseshoes (n=4), horseshoe nails (n=8), a lariat swivel (n=1), a stirrup (n=1), and a wagon staple (n=1). Of the 60 transportation items recovered from the Frazer Farmsead, 30 (50%) are concentrated in Block 6, which seems to suggest that equine maintenance activities may have occurred in this area of the site.

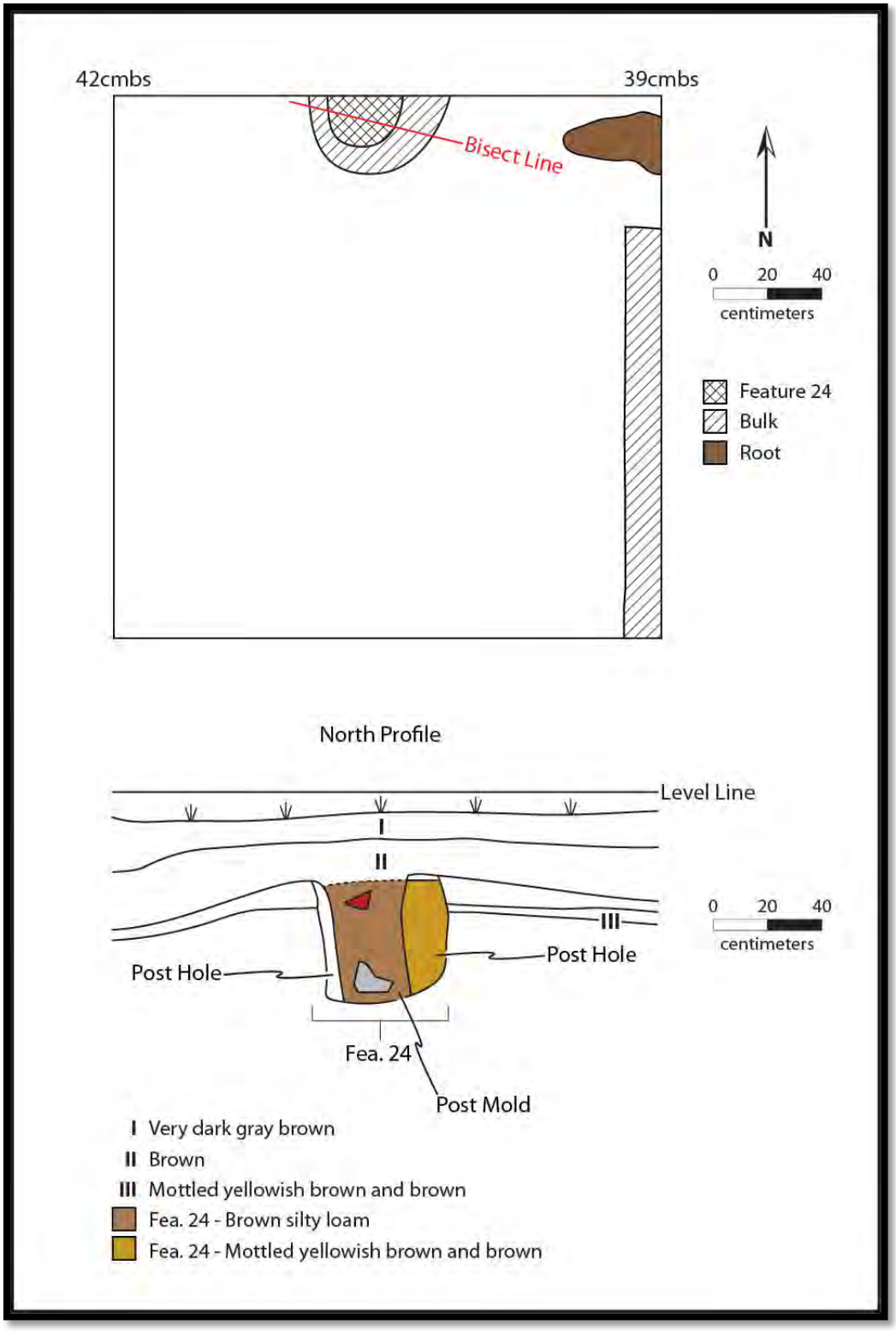

Figure 132. Unit 43 Planview and North Profile showing Feature 24, Facing North.

Table 35. Artifacts Recovered from Block 6 by Functional Group.

Functional Group	Material	N=	%
	Gaming Piece, flat lead disk	1	
	Marble, clay	1	
	Mouth Harp	1	
	Scissors	2	
	Straight Pin	1	
	Total Activities	**6**	**<1.0**
	Hand Wrought Nail	147	
	Early-Cut Nail	135	
	Late-Cut Nail	366	
	UID Cut or Wrought Nail	113	
	UID Cut Nail	510	
	UID Nail	2	
	L-head Nail	23	
	Window Glass	541	
	Brick	8	
	Daub, 0.2 grams	1	
	Door Lock Plate	1	
	Lock	1	
	Pintle	2	
	Screw, flat-head	2	
	Tack	4	
	Total Architecture	**1,856**	**44.0**
	Gunflint, English	1	
	Total Arms	**1**	
	Button, brass or copper	30	
	Button, cast iron	1	
	Button, pewter	1	
	Shoe Heel Plate	1	
	Suspender Buckle	1	
	Total Clothing	**34**	**<1.0**
	Lamp Globe Glass	1	
	Mirror Glass	7	
	Tack	1	
	Total Furniture	**9**	**<1.0**
	Creamware, undecorated	275	
	Creamware, annular banded	3	
	Creamware, dipt	2	
	Creamware, mocha	2	
	Creamware, green shell-edge	10	
	Creamware, underglaze painted	2	
	Pearlware, undecorated	444	
	Pearlware, annular banded	6	
	Pearlware, mocha	1	
	Pearlware, blue shell-edge	47	
	Pearlware, green shell-edge	31	
	Pearlware, sponged	1	
	Pearlware, blue transfer-print	68	
	Pearlware, underglaze painted	12	
	Pearlware, underglaze painted polychrome	62	
	Whiteware, undecorated	98	
	Whiteware, annular banded	3	
	Whiteware, blue shell-edge	4	
	Whiteware, slipped	1	
	Whiteware, sponged	5	
	Whiteware, blue transfer-print	12	
	Whiteware, brown transfer-print	3	
	Whiteware, purple transfer-print	1	
	Whiteware, red transfer-print	1	
	Whiteware, underglaze painted	3	
	Whiteware, underglaze painted polychrome	1	
	Ironstone, undecorated	20	
	Ironstone, molded	1	
	Burned refined ceramic, undecorated	139	
	Burned refined ceramic, annular banded	1	

Table 35. Continued.

Functional Group	Material	N=	%
	Burned refined ceramic, blue shell-edge	1	
	Burned refined ceramic, green shell-edge	3	
	Burned refined ceramic, blue transfer-print	4	
	Burned refined ceramic, purple transfer-print	1	
	Burned refined ceramic, underglaze painted	2	
	Burned refined ceramic, underglaze painted	6	
	Porcelain, European bone china	7	
	Porcelain, European undecorated	12	
	Porcelain, Chinese export	60	
	Yellowware, undecorated	3	
	Yellowware, annular banded	4	
	Redware, lead glazed	501	
	Redware, lead glazed/yellow slip	1	
	Stoneware, salt-glazed	19	
	Container Glass, amber	1	
	Container Glass, aqua	167	
	Container Glass, clear	112	
	Container Glass, dark amber	4	
	Container Glass, dark olive	50	
	Container Glass, green	2	
	Container Glass, olive	9	
	Container Glass, melted	11	
	Fork (2-tine)	3	
	Utensil Handle (two bone; one metal)	3	
	Knife Blade	4	
	Tableware, pressed glass	3	
	Total Kitchen	**2,254**	**51.0**
	Coin, Spanish silver cut reale (Obverse [Car]olus - obverse […]rum	1	
	Pipe Bowl (two stoneware; seven lead glazed redware [one effigy])	9	
	Pocket Knife	1	
	Razor	1	
	Pocket Watch Lens, round glass	1	
	Glass Bead, wire wound	1	
	Total Personal	**14**	**<1.0**
	Bit	2	
	Harness or Saddle Buckle	2	
	Harness Ring	1	
	Horseshoe	4	
	Horseshoe Nail	8	
	Lariat Swivel	1	
	Stirrup	1	
	Wagon Staple	1	
	Total Transportation	**20**	**<1.0**
	Iron Band	2	
	Iron Brace	2	
	Notched Bone	1	
	Chain Link	1	
	Iron Handle	1	
	Iron Hook	2	
	Spike	2	
	UID Brass or Copper	7	
	UID Hardware	4	
	UID Iron	46	
	UID Lead	3	
	UID Smithy Piece	1	
	Wire	7	
	Total Miscellaneous	**79**	**2.0**
Total		**4,278**	

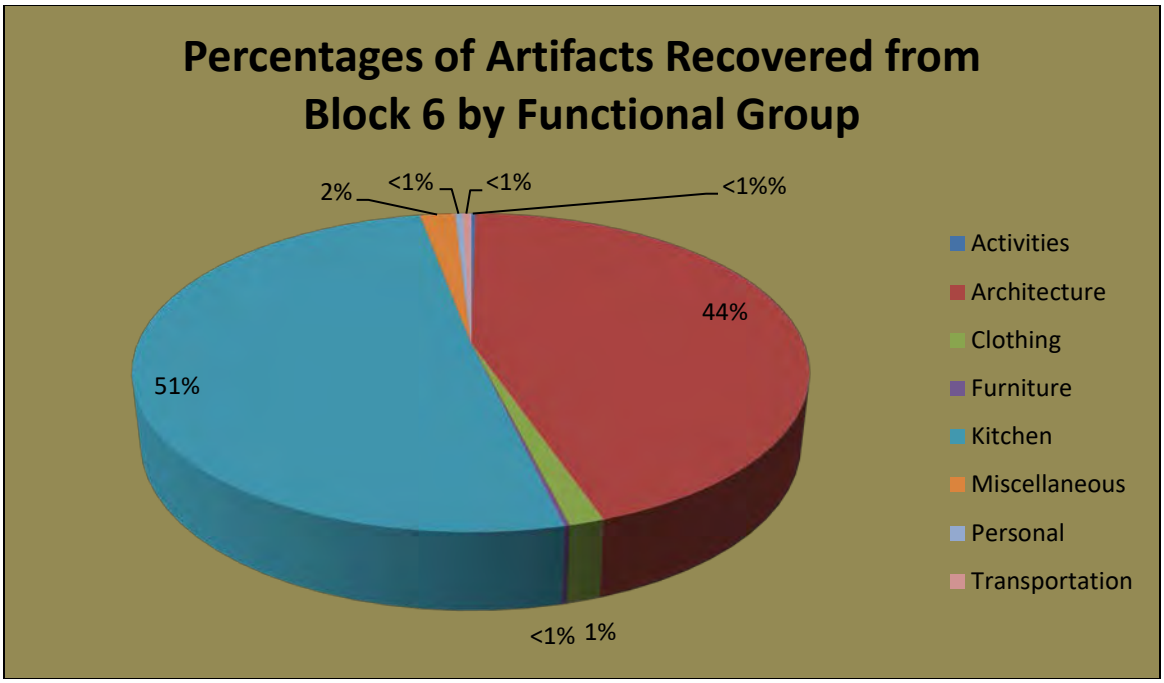

Figure 133. Artifacts Recovered from Block 6 by Functional Group.

Excavation Block 7

Block 7 was located east of the house foundation in what was the backyard, and was comprised of Units 21 and 25 (Figure 134). A total of 4 m^2 was hand excavated. No features were encountered, and no mechanical excavations were conducted in this portion of the site. The soil profile in Block 7 was similar to that identified in Unit 46 (Block 1), and was composed of black (10YR 3/1) silt loam topsoil, followed by dark yellowish brown (10YR 4/6) silty clay, dark grayish brown (10YR 3/2) buried A horizon, underlain with dark yellowish brown (10YR 4/6) clay subsoil (Figures 135 and 136). Zone 2, which was encountered at 15 to 20 cm (5.9 to 7.87 in.) below surface and measured 12 to 16 cm (4.72 to 6.3 in.) thick, is contiguous with the clay cap identified in Unit 46 and Trench 1 in Block 1.

Block 7 was the smallest of the seven excavation blocks. Of the 500 artifacts recovered from Block 7, most were assigned to kitchen (71%) and architecture (26%) groups (Figure 137). Architectural items consisted primarily of window glass (n=81) and nails; including hand wrought (n=11), early machine-cut (n=9), and late machine-cut (n=12) types (Table 36). Kitchen-related items included both refined and coarse ceramics (n=310), container glass (n=42), tableware (n=1), and utensils (n=2). Refined ceramic types consisted of creamware (n=75), pearlware (n=58), whiteware (n=80), ironstone (n=1), and European (n=18) and Chinese export (n=28) porcelain. Coarse wares consisted of lead glazed redware (n=42) and yellowware (n=5).

Other materials included activities (n=3), clothing (n=4), furniture (n=1), personal (n=3), transportation (n=1), and miscellaneous items (n=5) (Table 36). All of these artifacts date from the early- to mid-nineteenth century.

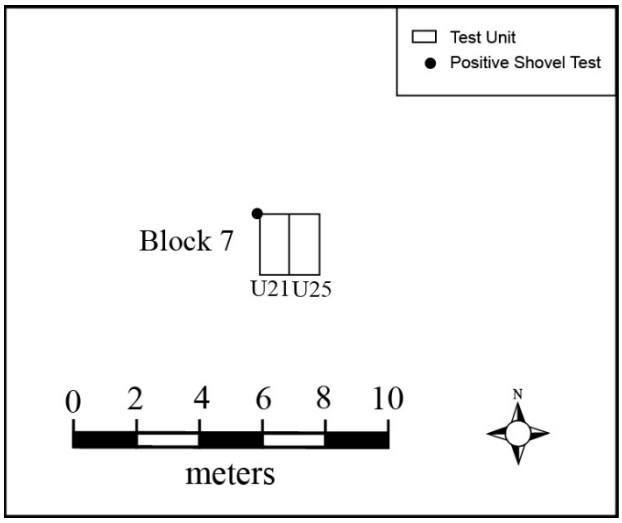

Figure 134. Map of House Foundation Showing the Location of Block 7.

Figure 135. Unit 25, East Profile.

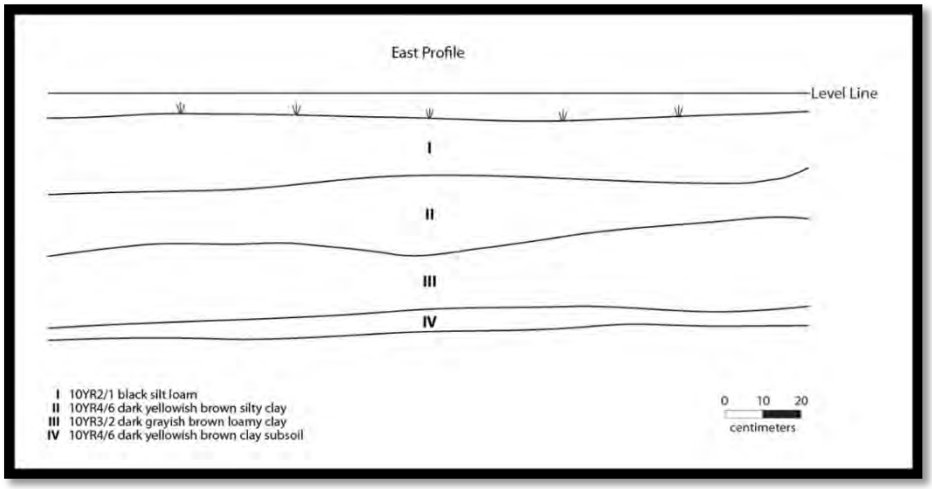

Figure 136. Unit 25, East Profile.

Table 36. Summary of Artifacts Recovered from Block 7 by Functional Group.

Functional Group	Material	N=	%
	Slate writing tablet fragment	1	
	Awl	1	
	Thimble	1	
	Total Activities	**3**	**<1.0**
	Hand Wrought Nail	11	
	Early-Cut Nail	9	
	Late Cut Nail	12	
	UID Cut Nail	13	
	L-Head Nail	1	
	Window Glass	81	
	Bolt	1	
	Total Architecture	**128**	**26.0**
	Button, iron	1	
	Button, brass or copper	1	
	Cufflinks, complete w/ rose-cut glass jewels	1	
	Total Clothing	**3**	**<1.0**
	Tack	1	
	Total Furniture	**1**	**<1.0**
	Creamware, undecorated	74	
	Creamware, dipt	1	
	Pearlware, undecorated	37	
	Pearlware, mocha	1	
	Pearlware, blue shell-edge	3	
	Pearlware, blue transfer-print	6	
	Pearlware, underglaze painted	2	
	Pearlware, underglaze painted polychrome	9	
	Whiteware, undecorated	44	
	Whiteware, sponged	1	
	Whiteware, blue transfer-print	4	
	Whiteware, brown transfer-print	6	
	Whiteware, purple transfer-print	12	
	Whiteware, red transfer-print	11	
	Whiteware, underglaze painted	2	
	Ironstone, undecorated	1	
	Burned refined ceramic, undecorated	3	
	Porcelain, European undecorated	17	
	Porcelain, Chinese export	28	
	Porcelain, European overglaze painted	1	
	Yellowware, undecorated	3	
	Yellowware, annular banded	2	
	Redware, lead glazed	42	
	Container Glass, amber	1	
	Container Glass, amethyst	1	
	Container Glass, aqua	6	
	Container Glass, clear	20	
	Container Glass, cobalt	3	
	Container Glass, light olive	1	
	Container Glass, olive	9	
	Container Glass, melted	1	
	Tableware, pressed glass	1	
	Fork (one 2-tine; one 3-tine)	2	
	Total Kitchen	**355**	**71.0**
	Pipe Bowl, redware	2	
	Razor	1	
	Bead, glass	1	
	Total Personal	**4**	**<1.0**
	Snaffle Bit	1	
	Total Transportation	**1**	**<1.0**
	UID Iron	5	
	Total Miscellaneous	**5**	**1.0**
Total		**500**	

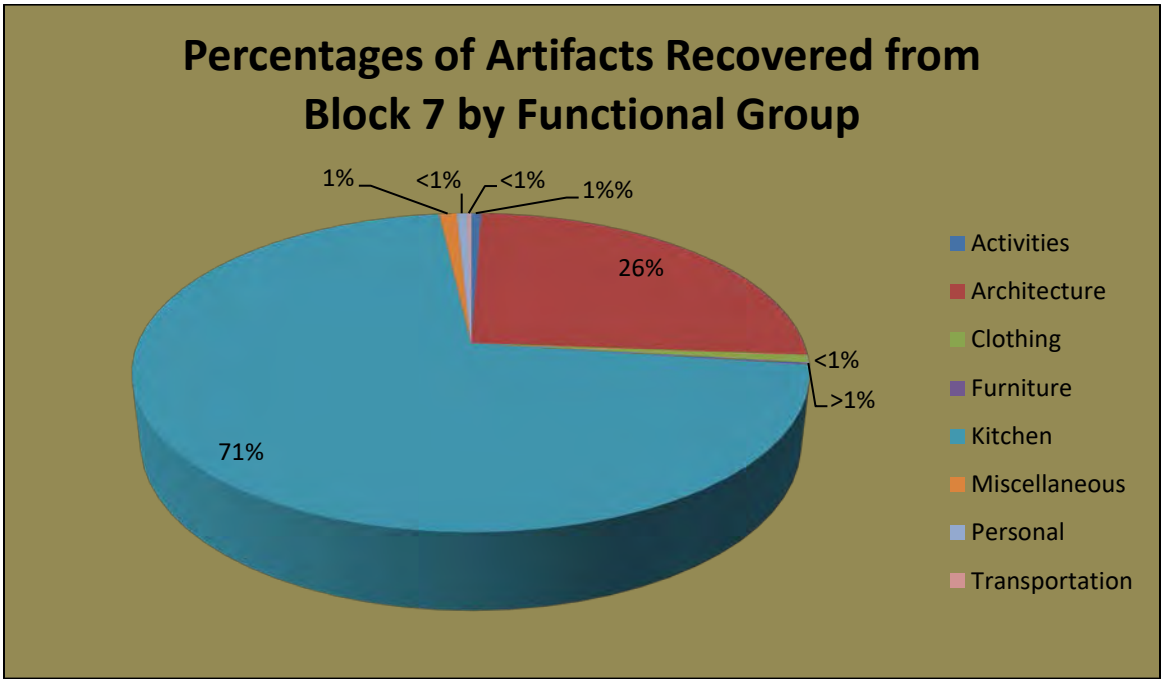

Figure 137. Artifacts Recovered from Block 7 by Functional Group.

Tests Units 16, 18, 47, 48, And 49

Five additional 1 x 2 m test units (Units 16, 18, 47, 48, and 49) were excavated that are not included in any of the aforementioned excavation blocks (Figure 138). These units were placed to further investigate the house foundation (Units 16, 18, and 49) and the south yard (Units 47 and 48). Unit 16 was placed along the eastern wall of the house in an attempt to locate any evidence of foundation remains (Figure 139). Although the limestone foundation was no longer extant, the builder's trench (Feature 6) was encountered at the base of Zone 1, at depths of 19 to 22 cm (7.48 to 8.66 in.) below surface. The soil stratigraphy in Unit 16 was composed of very dark gray (10YR 3/1) silt loam (Zone 1), followed by a grayish brown (10YR 5/2) ashy lens (Zone 2), dark brown (10YR 3/3) silty clay loam (Zone 3), underlain with dark yellowish brown (10YR 3/4) loamy clay subsoil (Zone 4). Feature 6 extended into the eastern wall of the unit, and was composed of very dark grayish brown (10YR 3/2) loam with brick rubble and limestone debris (Figures 140 and 141).

A moderate density of cultural materials was recovered from Unit 16 (n=160), including architectural (n=120), arms (n=2), furniture (n=1), kitchen (n=35), and miscellaneous (n=2) items (Table 37). All of these items are consistent with an early- to mid-nineteenth century occupation. Arms-related materials consisted of a single .32-caliber Smith & Wesson short rimfire cartridge and one percussion cap (Table 37). These items are likely associated with the Civil War-era occupation of the site.

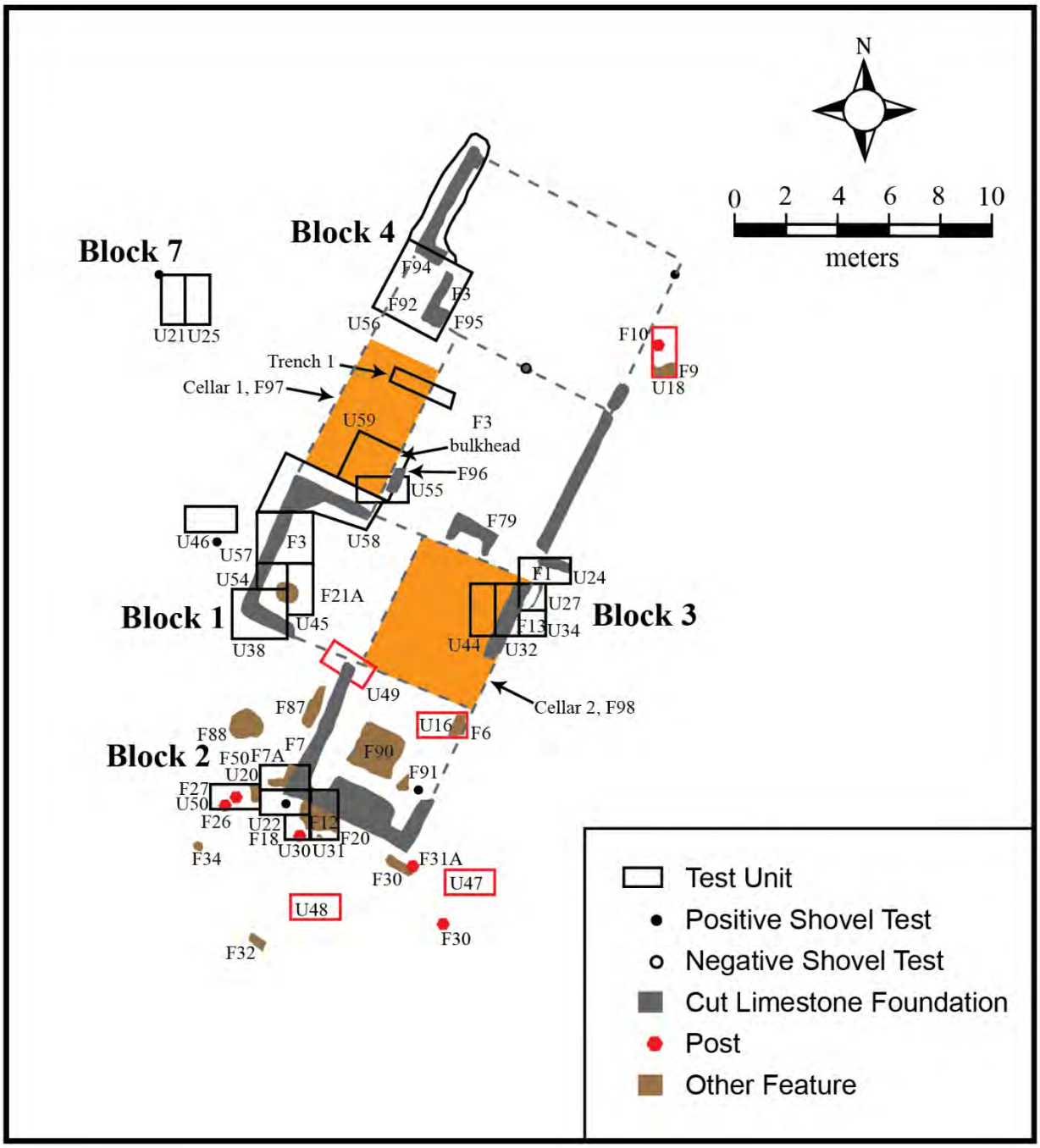

Figure 138. Map of House Foundation Showing the Location of Miscellaneous Test Units (Units 16, 18, 47, 48, and 49) (Outlined in Red).

Unit 18 was located just outside the northeast portion of the house foundation (see Figure 138). Although the foundation itself was not present in this unit, the builder's trench (Feature 9), and a post (Feature 10) were documented. Soils in Unit 18 were composed of very dark brown (10YR 2/2) silt loam (Zone 1), followed by dark yellowish brown (10YR 3/4) silt loam (Zone 2), and underlain by dark brown (7.5YR 4/3) silty clay subsoil (Zone

3) (Figure 141). Feature 9, the builder's trench for the house foundation, was oriented east-west, and extended the length of the unit. This feature measured 60 cm (23.62 in.) in width, and was encountered at the base of Zone 1, at a depth of 27 cm (10.63 in.) below surface. Feature 9 extended to a depth of 89 cm (2.92 ft.) below surface, and was composed of mottled dark yellowish brown (10YR 3/4) silty loam, mottled with brown (7.5YR 4/3) silty clay (Zone 3) and dark brown (10YR 3/3) silty clay loam (Figure 141). A low to moderate density of early- to mid-nineteenth century artifacts was recovered (Table 37), including architectural (n=57), arms (n=2), clothing (n=1), kitchen (n=57), transportation (n=1), and miscellaneous (n=6) items (Table 37). The only exception was a single centerfire cartridge recovered from the plowzone (Zone 1) that was deposited sometime during the twentieth century (Table 37).

Figure 139. Unit 16, South Profile.

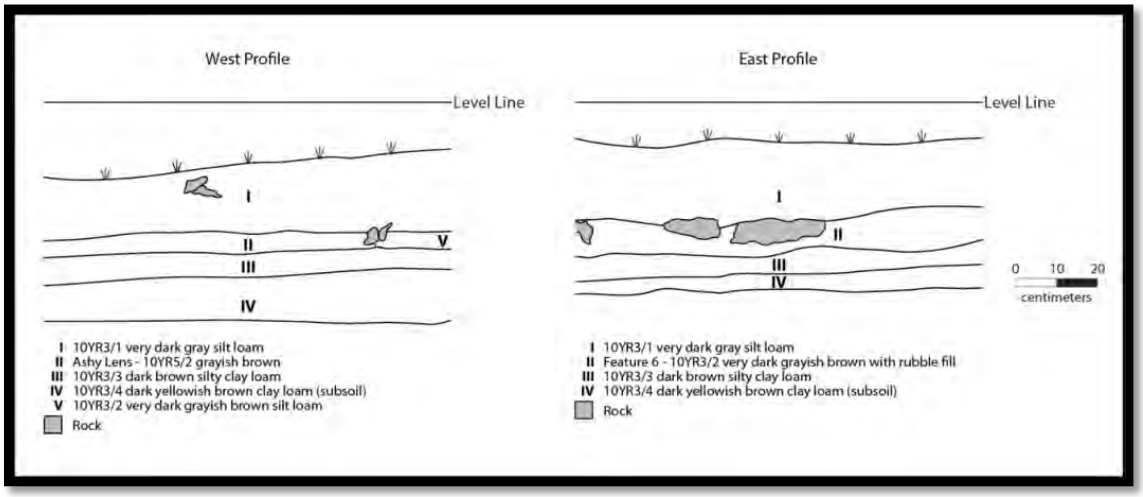

Figure 140. Unit 16, West and East Profiles.

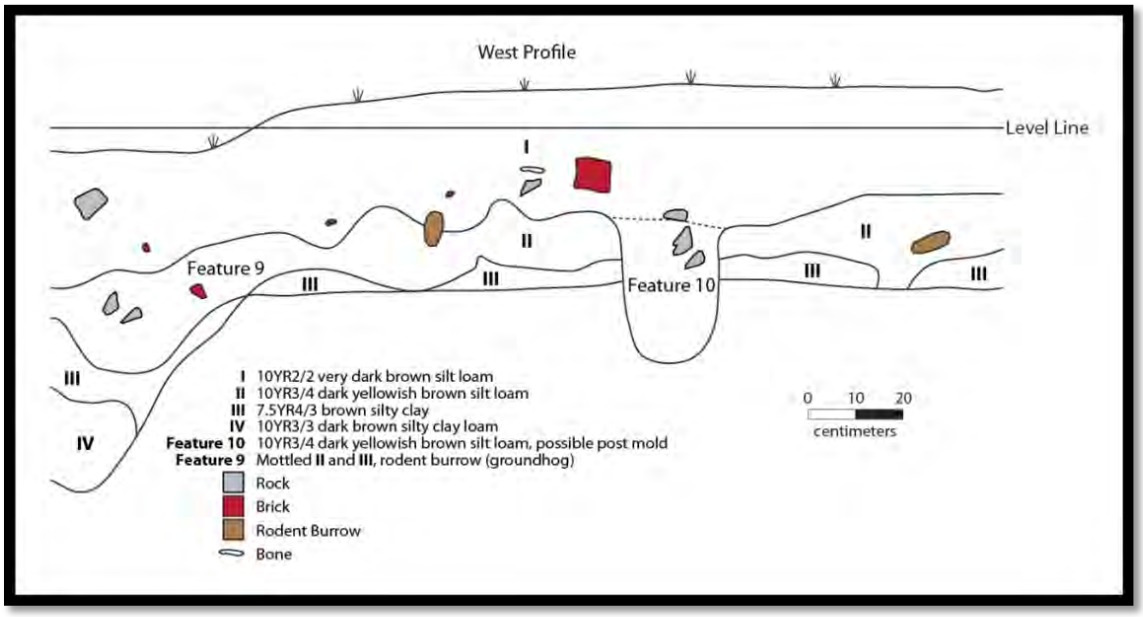

Figure 141. Unit 18, West Profile.

Unit 47 was positioned in the inner yard, east of the southeast corner of the house foundation (Figure 142). The soil profile was composed of very dark grayish brown (10YR 3/2) silt loam mottled with dark yellowish brown (10YR 4/5) silty clay topsoil (Zone 1) to depths of 7 to 10 cm (2.75 to 3.93 in.) below surface, followed by dark yellowish brown (10YR 4/6) silty clay (Zone 2) to depths of 26 to 30 cm (10.23 to 11.81 in.) below surface, underlain with yellowish brown (10YR 5/6) clay subsoil (Zone 3) (Figure 143). A very low density of early- to mid-nineteenth century materials was recovered (n=146) that consisted primarily of architectural (n=62) and kitchen (n=76) items (Table 37). A single .32-caliber Smith & Wesson rimfire revolver cartridge that is likely associated with the Civil War-era military occupation of the site was recovered (Table 37) from Zone 2.

Unit 48 was located in the inner yard south of the house foundation between Blocks 2 and 6 (see Figure 138). The soil stratigraphy was similar to that documented in Unit 47, and was composed of very dark brown (10YR 2/1) silty clay loam topsoil (Zone 1) at depths of 16 to 18 cm (6.3 to 7.0 in.) below surface, underlain by dark yellowish brown (10YR 4/6) silty clay (Zone 2) to depths of 40 to 45 cm (1.31 to 1.47 ft.) below surface (Figure 143). No features were present, and a low density of early- to mid-nineteenth century materials was recovered (Table 37).

Artifacts recovered from Unit 48 consisted mainly of architectural (n=35) and kitchen (n=44) items (Table 37). Diagnostic architectural materials include hand wrought (n=3), early machine-cut (n=2), and late machine-cut (n=2) nails. Temporally sensitive items classified within the kitchen group included both refined and coarse ceramics, which consisted of creamware (n=1), pearlware (n=5), whiteware (n=3), Chinese export porcelain (n=4), and lead glazed redware (n=23) (Table 37). Other artifacts consisted of a single horseshoe nail (n=1) and unidentified iron (n=1).

Figure 142. Unit 47, West Profile.

Figure 143. Unit 48, North Profile.

Unit 49 was placed inside the house at the intersection of the foundation (Feature 3) between Blocks 1 and 2 (Figure 144). It was anticipated that an exterior corner of the house would be located in this test unit. Although a corner was confirmed, most of the foundation stones had been removed. Only a small section of extant foundation (Feature 3) was present in the south half of this unit. Similar to the aforementioned Unit 38 in Block 1, the soil profile differed inside and outside of the house foundation. The soil profile outside the structure was composed of very dark grayish brown (10YR 3/2) silty loam (Zone 1), followed by mottled dark grayish brown (10YR 4/3) and yellowish brown (10YR 5/4) silt loam and charcoal, and a stratum of yellowish brown (10YR 5/6) silty clay (Zone 3), underlain by brown (10YR 4/3) silt (Zone 4). Subsoil was composed of yellowish brown (10YR 5/8) silty clay (Zone 5). The soil stratigraphy inside the house was homogeneous with the aforementioned exterior profile, except for the absence of Zone 3. No cultural materials were recovered from Unit 49.

Table 37. Summary of Artifacts Recovered from Units 16, 18, 47, 48, and 49 by Functional Group.

Unit	Artifact Group	Material	N=
		Hand Wrought Nail	17
		Early Cut Nail	38
		Late Cut Nail	1
		UID Cut or Wrought Nail	26
		UID Cut Nail	17
		Window Glass	21
		Total Architecture	**120**
		Cartridge, rimfire (.32 cal short Smith and Wesson)	1
		Percussion cap, copper	1
		Total Arms	**2**
		Lamp Globe glass	1
		Total Furniture	**1**
		Creamware, undecorated	1
		Pearlware, undecorated	1
		Whiteware, undecorated	2
		Whiteware, annular banded	1
		Whiteware, blue transfer-print	2
		Whiteware, underglaze painted	1
		Burned refined ceramic, undecorated	1
		Redware, lead glazed	4
		Container glass, amber	4
		Container glass, aqua	6
		Container glass, clear	12
		Total Kitchen	**35**
		Wire	1
		UID Iron	1
		Total Miscellaneous	**2**
Total Unit 16			**160**
		Hand Wrought Nail	2
		Early Cut Nail	2
		Late Cut Nail	15
		UID Cut or Wrought Nail	1
		UID Cut Nail	8
		Wire Nail	2
		Window Glass	22
		Tack	2
		Brad	3
		Total Architecture	**57**
		Cartridge, centerfire (U.M.C. 32-caliber S&W)	1
		Cartridge, rimfire (.22-caliber Smith and Wesson)	1
		Total Arms	**2**
		Button, bone	1
		Total Clothing	**1**
		Creamware, undecorated	4
		Pearlware, undecorated	3
		Whiteware, undecorated	10
		Whiteware, annular banded	1
		Whiteware, blue shell-edge	2
		Whiteware, sponged	1
		Whiteware, blue transfer-print	4
		Whiteware, underglaze painted	2
		Porcelain, Chinese export	1
		Porcelain, undecorated	1
		Burned refined ceramic	2
		Container glass, aqua	7
		Container glass, clear	14
		Container glass, dark olive	4
		Container glass, green	1
		Container glass, light amber	1
		Total Kitchen	**57**

Table 37. Continued.

Unit	Artifact Group	Material	N=
		Horseshoe Nail	1
		Total Transportation	**1**
		Fence Staple	1
		Iron Gear	1
		Wire	1
		UID Iron	3
		Total Miscellaneous	**6**
Total Unit 18			**124**
		Hand Wrought Nail	3
		Early Cut Nail	1
		UID Cut or Wrought Nail	9
		UID Cut Nail	5
		L-head Nail	2
		Window Glass	42
		Total Architecture	**62**
		Cartridge, rimfire (.32 short Smith & Wesson revolver)	1
		Total Arms	**1**
		Hook and Eye fastener	1
		Button, brass or copper	1
		Bead, glass (wire wound)	1
		Total Clothing	**3**
		Creamware, undecorated	12
		Pearlware, undecorated	4
		Pearlware, mocha	1
		Pearlware, blue shell-edge	2
		Pearlware, blue transfer-print	1
		Whiteware, undecorated	2
		Whiteware, sponged	2
		Whiteware, black transfer-print	1
		Whiteware, brown transfer-print	1
		Whiteware, purple transfer-print	1
		Porcelain, Chinese export	3
		Burned refined ceramic, undecorated	2
		Yellowware, undecorated	1
		Redware, lead glazed	29
		Container Glass, amethyst	1
		Container Glass, aqua	5
		Container Glass, clear	4
		Container Glass, dark olive	4
		Total Kitchen	**76**
		UID brass or copper	1
		UID iron	3
		Total Miscellaneous	**4**
Total Unit 47			**146**
		Hand Wrought Nail	3
		Early Cut Nail	2
		Late Cut Nail	2
		UID Cut or Wrought Nail	5
		UID Cut Nail	18
		Window Glass	5
		Total Architecture	**35**
		Creamware, undecorated	1
		Pearlware, undecorated	3
		Pearlware, blue transfer-print	1
		Pearlware, underglaze painted polychrome	1
		Whiteware, undecorated	3
		Porcelain, Chinese export	4
		Redware, lead glazed	23
		Container Glass, aqua	4
		Container Glass, clear	2
		Container Glass, dark olive	1
		Total Architecture	**44**
		Horseshoe Nail	1
		Total Transportation	**1**

Table 37. Continued.

Unit	Artifact Group	Material	N=
		UID iron	1
		Total Miscellaneous	**1**
Total Unit 48			**81**

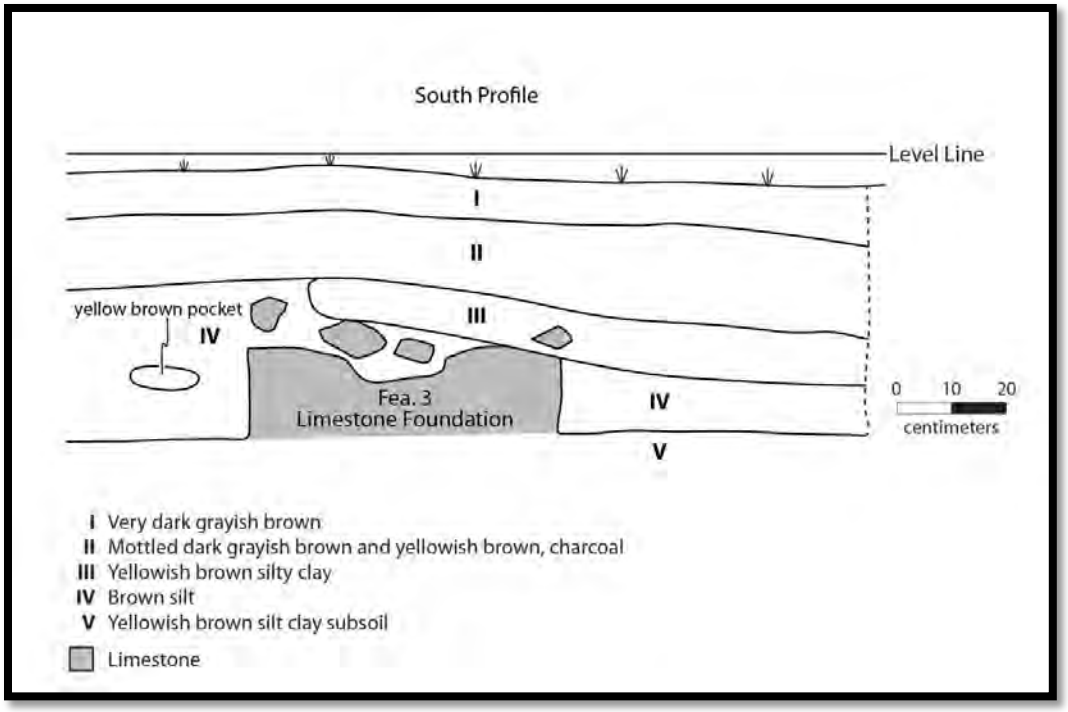

Figure 144. Unit 49, South Profile.

MECHANICAL EXCAVATIONS

Following the aforementioned hand excavations, approximately 1,500 m^2 of the site area was mechanically excavated (Mechanical Block 1) using a backhoe to remove the topsoil and reveal features at the interface of the plowzone and subsoil. Mechanical excavations exposed 67 features, including 30 additional cultural features that are not discussed with any of the aforementioned excavation blocks (Table 38). These features include a hearth base (n=1), posts (n=21), pits (n=5), and middens (n=3) (Table 38), and are discussed below.

The hearth base (Feature 79) was located in the center of the house, west of Block 3, within or under what was likely the front room (see Figure 138). Given its position opposite the southern chimney (Feature 3) and at the north end of the second room, it is likely that this was the north end chimney before the third room was added. This c-shaped feature was manufactured of cut limestone, and measured 1.4 by 2.42 m (4.59 by 7.94 ft.) at its longest dimensions (Figure 145). Including Feature 79, three fireplaces were documented at Frazer Farmstead.

Table 38 Cultural Features Not Associated With Excavation Blocks.

Type	Feature No.	N-S Width	E-W Width	Planview Shape	Profile Shape	Depth
hearth base	79	1.4 m	2.42 m	c-shaped	N/A	N/A
post	33	33 cm	35 cm	circular	basin	28 cm
post	31A	26 cm	22 cm	circular	basin	29 cm
post	34	47 cm	38 cm	circular	basin	55 cm
post	35	32 cm	35 cm	circular	basin	29 cm
post	40	38 cm	30 cm	circular	basin	40 cm
Post	41	36 cm	34 cm	circular	basin	38 cm
post	42	30 cm	26 cm	square	basin	5 cm
post	51	25 cm	25 cm	circular	basin	12 cm
post	54	18 cm	20 cm	square	rectangular	5 cm
post	57A	30 cm	30 cm	circular	basin	26 cm
post	58	23 cm	27 cm	circular	basin	30 cm
post	60	20 cm	28 cm	circular	basin	25 cm
post	61	30 cm	30 cm	circular	basin	28 cm
post	62	30 cm	40 cm	oval	basin	40 cm
post	64	47 cm	50 cm	circular	rectangular	48 cm
post	67	35 cm	30 cm	circular	basin	27 cm
post	68	28 cm	30 cm	circular	basin	22 cm
post	69	37 cm	37 cm	circular	square	38 cm
post	73	30 cm	30 cm	square	rectangular	7 cm
post	74	28 cm	30 cm	circular	basin	10 cm
post	89	34 cm	35 cm	circular	basin	10 cm
pit	46	34 cm	42 cm	circular	bowl	6 cm
pit	55	70 cm	90 cm	circular	bowl	8 cm
pit	63	50 cm	80 cm	amorphous	bowl	35 cm
pit	71	80 cm	60 cm	circular	bowl	27 cm
pit	72	75 cm	74 cm	amorphous	Bowl	20 cm
midden	30	45 cm	1.14 m	amorphous	bowl	10 cm
midden	36	52 cm	93 cm	amorphous	bowl	4 cm
midden	70	2.65 m	1.0 m	oval	bowl	24 cm

The mechanical removal of the plowzone east of the house also revealed 21 additional posts located along the western edge of the old Falmouth Pike roadbed that appear to be the footprint of a boundary fence separating the house yard from this transportation route. The old Falmouth Pike was located east of the Frazer Farmstead, and originally became Main Street as it entered downtown Cynthiana. This early transportation corridor has been bypassed by US 27. The section of the road that crosses through the project area is characterized by a prominent cut in the natural topography (Figure 146). The posts that make up the boundary fence consist of Features 33, 35, 40, 41, 42, 58, 60, 61, 64, 67, 68, and 69, as well as the aforementioned Feature 22 in Block 6 (see Figure 138). These posts were all circular in shape, and ranged in diameter from 25 to 50 cm (9.84 to 19.68 in.), with a thickness of 7 to 55 cm (2.75 to 21.65 in.) (Table 38). These features form a rectangular boundary around the eastern portion of the house that is within the project area, with Features 42 and 67 as the southeast and northeast corner posts, respectively. Features 60 and 61 are located in the center of the eastern line of posts, and are placed at a closer interval than the others. It is likely that these features represent a gate (see Figure 138). Additionally, Features 57A, 89, and 89 may be the remnants of a turnpike fence along the old Falmouth Pike. Like the boundary fence around the house yard, these three posts form a line on the same orientation as the old roadbed that extends the length of the mechanically excavated block in this portion of the project area.

Figure 145. View of Feature 79, Facing North.

Figure 146. View of Old Falmouth Pike Roadbed, Facing North.

Three small midden features (Features 30, 36, and 70) were also documented during the mechanical excavations. Feature 30 was located 55 cm (1.8 ft.) outside the southeast corner of the house. This feature measured 1.4 m (4.59 ft.) wide by 42 cm (1.47 ft.) long, with a thickness of 10 cm (3.93 in.) (Table 38). The seven artifacts recovered from Feature 30 consisted of creamware (n=1), pearlware (n=1), lead glazed redware (n=1), Chinese export porcelain (n=2), window glass (n=1), and a clay marble (n=1). All of these items are consistent with an early- to mid-nineteenth century occupation. Feature 36 was located south of Block 6, outside the proposed boundary fence. This feature measured 52 by 93 cm (1.7 by 3.05 ft.) in diameter, and was 4 cm (1.57 in.) thick (Table 38). This feature contained a moderate density of cultural materials (n=41). The recovered artifacts consisted of late machine-cut nails (n=9), window glass (n=8), two buttons (one cast iron and one brass or copper), pearlware (n=5), lead glazed redware (n=2), European porcelain (n=1), indeterminate burned refined ceramics (n=2), four fragments of container glass (one aqua, one amber, and one clear), four fragments of handmade brick, and one brass drive hook. The drive hook was associated with a horse drawn wagon or carriage (Russell and Erwin Manufacturing Company 1865:152). Its close proximity to Block 6 supports the interpretation of transportation or equine maintenance activities in this portion of the site area. Lastly, Feature 70 was located in the northern portion of the project area along the edge of the mechanically excavated block. This feature measured 1.0 m by 2.65 m (3.28 by 8.69 ft.) in diameter. Feature 70 is characterized by thermally altered red clay, and contained creamware (n=5), pearlware (n=1), and a brass or copper button (n=1).

Additionally, five small pit features were documented following the mechanical excavations (Features 46, 55, 63, 71, and 72). Feature 46, 71, 72 was located within the inner yard, while Features 55 and 63 were located between the fenceline and the roadbed. These features measured between 34 and 90 cm (1.11 to 2.95 ft.) in diameter, and ranged from 6 to 27 cm (2.36 to 10.63 in.) in thickness (Table 38). Although the exact function of these pit features is not known, each contained a low density of early- to mid-nineteenth century materials. No prehistoric artifacts were present in any of these pits. Finally, 29 features were documented in the mechanically excavated area that were determined to be either plow scars (n=2) or otherwise non-cultural (n=19), or were of indeterminate function (n=8) (see Table 22).

CHAPTER 9:
ARCHITECTURAL EVALUATION OF THE FRAZER FARMSTEAD

By
Janie-Rice Brother, M.A.

The architecture of the Bluegrass did not evolve in a vacuum, but was influenced by topography, geography and cultural traditions. As the frontier, the Bluegrass Region was difficult to access, but offered "considerable rewards to the enterprising members of the middle classes who were anxious to rise in the world, and the spirit of speculation was strong among them."[1] The domestic architecture of the Bluegrass reflects the cultural hearths of the people who settled in the region.

A review of the foundation of the Frazer Farmstead suggests many things, all of which are based on fieldwork of extant houses of the same period, and a working knowledge of the patterns of domestic architecture in central Kentucky. During the European-American settlement period (approximately 1785-1824) in Kentucky, houses were most commonly of log construction. Prior to the Civil War, evidence points to a "majority, perhaps as much as 80 percent or more, of the buildings constructed in the state were log."[2] These houses were either square or rectangular in plan, and the most common plan was a single pen (or single room). This type of house would have a gable end chimney, either exterior or interior (Figure 147).

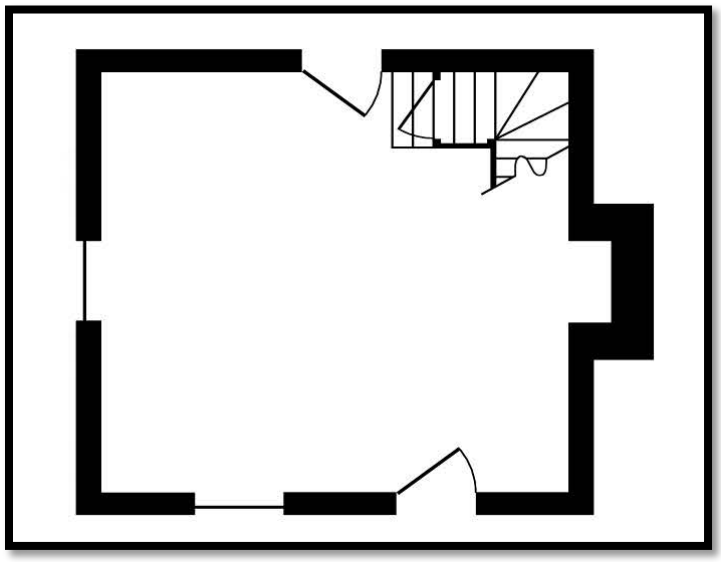

Figure 147. Single-pen plan, drawn by William Macintire.

[1] Thomas Perkins Abernethy, "Frontier in Perspective," in *The Southern Frontier: An Interpretation* Eds. Walter D. Wyman and Clifton B. Kroeber (Madison: The University of Wisconsin Press, 1957), 136.
[2] William Macintire. *A Survey of Historic Sites in Rural Marion and Washington Counties, Kentucky.* (Frankfort: The Kentucky Heritage Council, 2009), 24.

One of the most common house plans, beside the single pen, is the hall-parlor house, which is one of the earliest European derived house plans. The most common arrangement of hall-parlor plans is that of two rooms aligned end to end, with fireplaces at one or both gable ends (Figure 148). The high end examples had a fireplace in each room; other early structures had only one heated room. The hall was an all-purpose room; usually the larger of the two rooms, while the parlor, usually with a higher level of finish, was reserved for entertainment, sleeping or display of the family's finer possessions, such as portraits or silver. After the 1830s, hall-parlor plans became associated with household of less affluence and stature. [3]

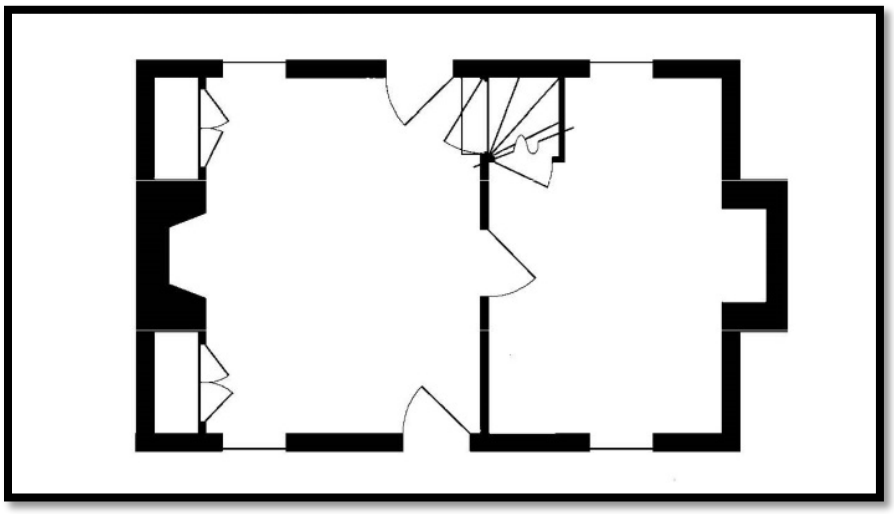

Figure 148. Hall-parlor plan, drawn by William Macintire.

During Kentucky's settlement period, houses with passages were also being constructed. Central passages found wide favor in both urban and rural areas of the state. The introduction of the central hall was an evolution in the idea of space. Central hall plans connected all of the rooms in a dwelling through a centrally placed stair passage (Figure 149). The central passage affected accessibility, visibility and rearranged the domestic spatial hierarchy. Most central passage houses are only one room, or one pile, deep. Double pile houses (two rooms deep) are less common.

There are 23 houses in the Kentucky Heritage Council's Historic Sites Database built between 1800 and 1825 in Harrison County. The most common building material was brick (eight houses), followed by log (seven houses), then stone (four houses) and finally, frame (two houses). This should not be taken as proof that most of the Federal-era dwellings in Harrison County were masonry, but rather that the brick examples survived while many of their log and frame brethren were destroyed or demolished. Additionally, county-wide surveys during the 1970s (when the Harrison County survey was conducted) did not succeed in recording every historic structure.

[3] Gabrielle M. Lanier and Bernard L. Herman, *Everyday Architecture of the Mid-Atlantic: Looking at Buildings and Landscapes* (Baltimore: Johns Hopkins University Press, 1997), 16.

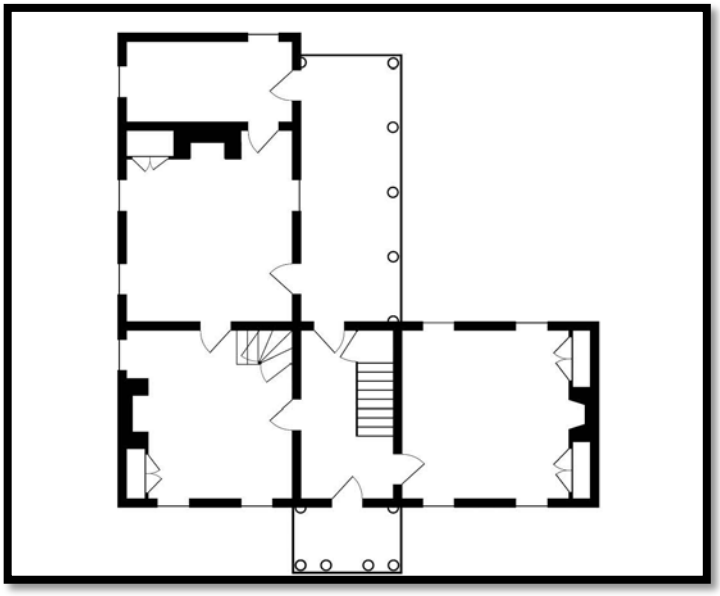

Figure 149. Single pile central passage plan (with rear ell), drawn by William Macintire.

According to the survey files, most of the brick houses were central passage plan, with façades of three to five bays. Many of these houses had ells extending to the rear of the main block of the house. The Frazer Farmstead could be read several ways. Based on the measurements alone, the southeast side (the probable façade, as it was the location of the old Falmouth Road) was enormous. It is unlikely that it was constructed in one building campaign. Much of the conjecture surrounding the evolution of the house depends on the construction material. If the house was log, with later frame or even brick additions, then is evolution is more straightforward, and in keeping with many of its contemporaries. In the case of log or frame construction, then the sequence of building could have gone something like Figure 150, with "A" being the first phase of construction, a single log pen. A second pen would have been added at "B" with the house then functioning as a double pen. This would have been a good size house, at 40 feet long, and one pile deep (around 18 feet in depth). The next phase of development would have added "C" on as a one-room ell addition. At some point after the property left Finley's ownership, rooms labeled as "D" and "E" were probably added to the house, resulting in a very long façade of a little over 80 feet.

If the house was all brick, and constructed so originally, then some of the clues revealed by the foundation make less sense. The most puzzling aspect of the Finley House is the one-sided, or single, corner hearth, which is most definitely not typical of an early Kentucky house. The typical heating arrangement of that time is that of a gable end (either an interior or exterior stack) or a central chimney.

Corner chimneys that heated two rooms were usually placed on the gable end and the firebox was then angled to serve both rooms. The placement of a chimney with one angled firebox on the corner of a domestic building is fairly unusual. Corner chimneystacks are not unknown, but the placement is usually toward the interior of a dwelling, not isolated

on an exterior wall like the excavation work shows, with only one firebox opening. Corner fireplaces tend to be used to heat two rooms at once, and are most commonly used in dwellings with a three-room (also known as the "Penn" or "Quaker") plan. The Penn plan consists of one large room, either a hall or common room that runs the depth of a house, and two smaller rooms on the other side of the hall (Figure 151). The corner chimney shows up in Swedish, German and English vernacular architecture.

Figure 150. Probable plan of the Frazer Farmstead.

Figure 151 shows the typical arrangement of the three-room plan; the most elaborate of these houses in the Delaware valley region were "often associated with millers or millowners and were used as taverns."[4] Interestingly, there is a pattern of corner chimneys in mill buildings in Kentucky. The Coulthard Mill in Bourbon County had a brick chimneystack situated on the corner of the building (Figure 152). A historic photograph of King's Mill in Boyle County shows a corner flue, which may have vented a stove rather than a fireplace. Higbee Mill in Fayette County also had a brick chimneystack near the corner of the mill. Research into the design decisions leading to the corner stack has not, as far as is known, been conducted, but it was likely a space-saving measure.

[4] Ibid, 23.

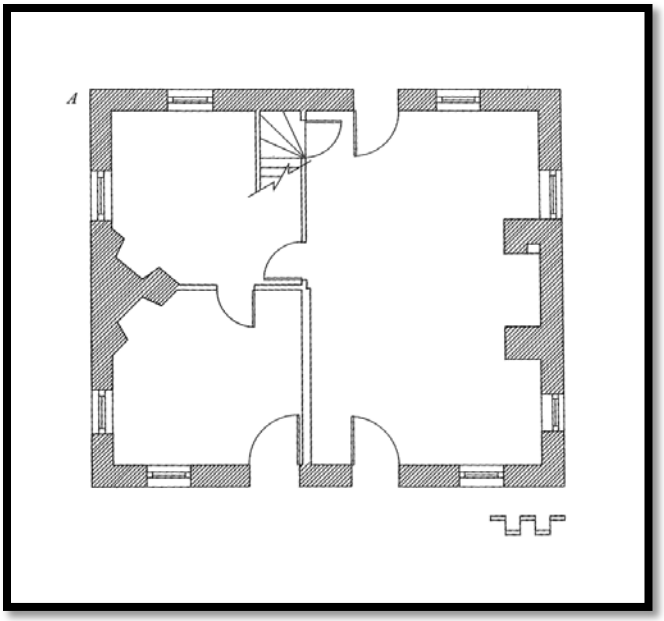

Figure 151. Three-room plan.[5]

Figure 152 The Coulthard Mill in Bourbon County, no longer extant. Photo courtesy Nancy O'Malley.

It is not known where James Finley, the presumed builder of the house, was born or lived before he was recorded in Kentucky's 1810 census. The paths of diffusion for Central Kentucky typically lead from Pennsylvania and Virginia; in either cultural hearth, Finley would have been exposed to the corner hearth. Settlers "brought with them various but overlapping architectural memories and traditions."[6] It is not impossible that Finley,

[5] Gabrielle M. Lanier and Bernard L. Herman. *Everyday Architecture of the Mid-Atlantic*. (Baltimore: The John Hopkins University Press, 1997), 22.
[6] Patricia Irvin Cooper, "A Quaker-Plan House in Georgia," in Pioneer America. Volume 10, No. 1 (June 1, 1979), 16.

familiar with the three-room plan, constructed his own version in Harrison County, albeit with a corner fireplace serving only one room. Figures 153 through 155 show some of the various ways the Finley House could have evolved.

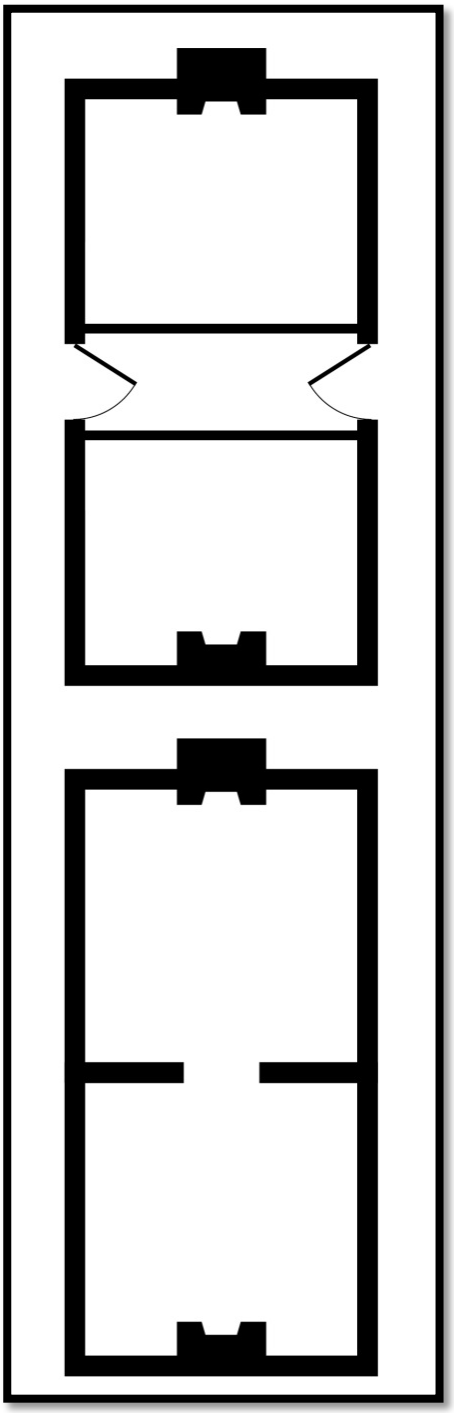

Figure 153. Possible Floor Plan. Focusing on the two southeastern rooms (A and B in Figure 150); the plan could have been two pens, one with an interior stacks, the other with an exterior stack, with a double pen or hall-parlor plan. Conversely, the house could have started as a central passage plan, as is shown in the top plan. The central passage plan was well-known and utilized in Harrison County in the first quarter of the nineteenth century.

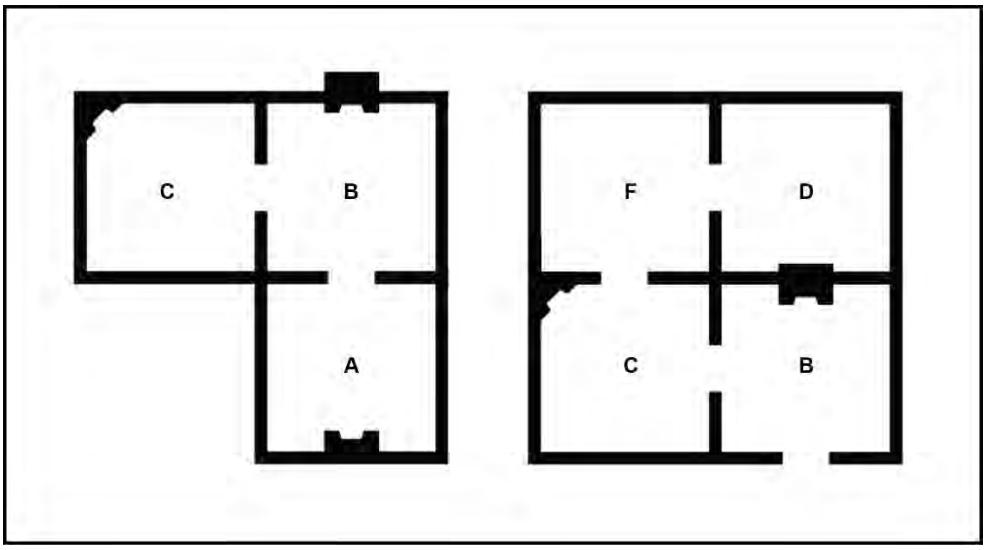

Figure 154. Second Possibile Floor Plain. Another possible starting point for the Finley House, or an expansion, would be a modified version of a three-room plan (on left), with the room with the angled stack ("C") joining A and B as a one-room ell. Although the archaeological evidence is inconclusive, another possibility (on right) is that an additional room flanked C (on the northeast) and room "A" with its large (likely for cooking) stack was not connected to the house, but rooms B and D were.

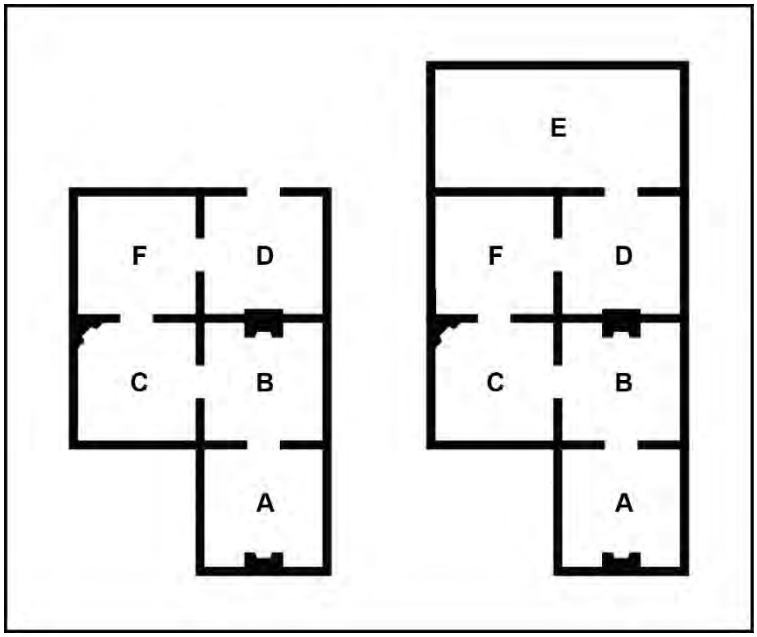

Figure 155. Third Possilbe Floor Plain. The footprint of the Finley House with room "A" connected on the plan on the left, and in the plan on the right, a final addition made with room "E" (at top of plan) and F.

Angled fireplaces are not unknown in Kentucky domestic architecture. A late-nineteenth century house in Crittenden County, Kentucky, displays two interesting vernacular influences: the two-front door façade (typically called the “Cumberland plan” in Kentucky) and a centrally placed corner chimney that heated the two front rooms and one room of the two room ell (Figure 156). This small, one-story frame house, built on stone piers, has little in common with the Frazer Farmstead site except for its atypical heating arrangement.

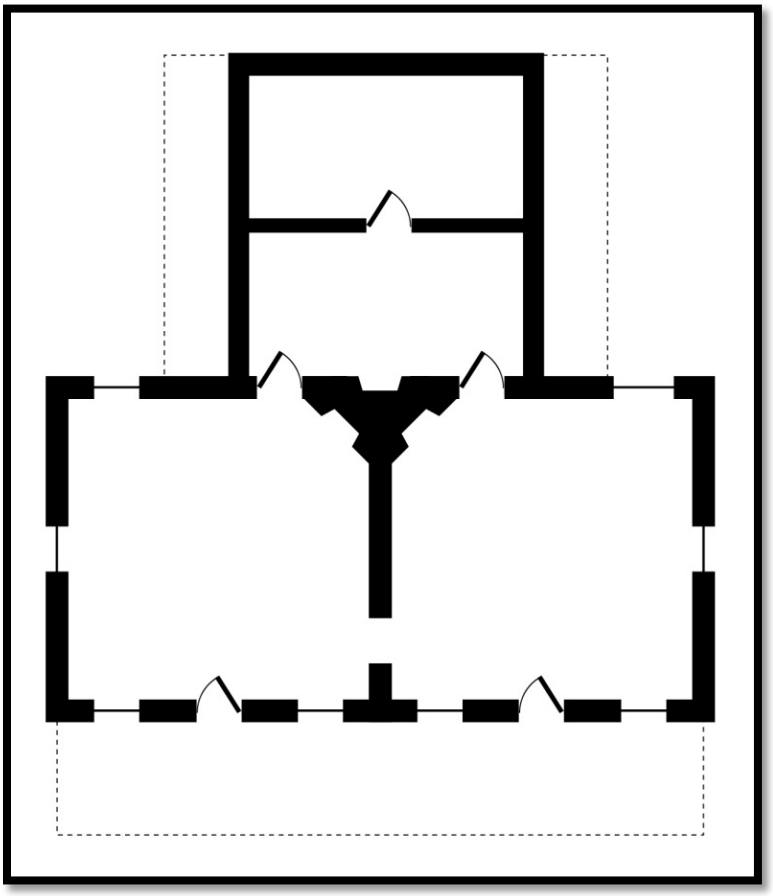

Figure 156. CN-30, in rural Crittenden County, Kentucky. Documented by Janie-Rice Brother.

CHAPTER 10:
SITE INTERPRETATION AND ANALYSIS

The archaeological investigations of the Frazer Farmstead in Harrison County, Kentucky indicate that the domestic site was occupied from ca. 1817 to approximately 1860. The house foundation, which consisted of five or six rooms comprised of a three room L-shaped dwelling to the south, each of which contained the base of a hearth/chimney, and two to three additional rooms to the north. This structure measured approximately 25 m (82 ft.) along its front face Archival and archaeological research also revealed that this site was later incorporated into Camp Frazer (also known as Camp Tod) during the American Civil War, and was used as a hospital and for storage by the Union Army until it was destroyed by fire in 1862.

Intact remains of the limestone foundation of a five to six room brick house, with two large and one small cellar, and surrounding midden deposits were documented. The soil profile across the site revealed intact deposits beneath the plowzone, and that much of the site near the house had experienced little to no agricultural disturbance. A large density of early- to mid-nineteenth century cultural materials was recovered in secure contexts; however, portions of the site, particularly areas in which deep cellars were present, had been capped off sometime during the early twentieth century. This filling episode occurred shortly after the construction of the extant brick Italianate house on the hill north of the Frazer Farmstead by John K. Lake during the late-nineteenth century. Large gaps were also documented in the foundation remains, and it is likely that many of these limestone blocks were repurposed for use in the construction of the Lake residence or other nearby buildings.

The historical artifact assemblage attests to the relatively short period of occupation of the site from ca. 1817 to 1862. The residence was constructed by James Finley in ca. 1817. The occupation of the house ceased in 1862 after it was burned during the Civil War; first by Confederate raiders led by John Hunt Morgan on July 17, and a second time by the quartermaster of the 45th Ohio Volunteer Infantry on September 2. Because the overall site assemblage has been previously discussed in Chapter 5, this analysis will focus on issues related to spatial layout, consumerism, and the Civil War-era Federal occupation of the site. Specific issues will be addressed are as follows: (1) whether or not this farmstead site conforms to the Upland South model of farm organization; (2) whether or not the relationships between the consumption of material goods (i.e. refined ceramics) and socioeconomic status or class can be determined from the artifact assemblage; and (3) what was the extent of the Union occupation of the project area, as seen in the artifact assemblage.

SPATIAL LAYOUT

The notion of the Upland (Upper) South Tradition has been used by scholars working across the South, Midsouth, and Southeast to explain a particular lifestyle and farming pattern in this region during the eighteenth and nineteenth centuries (Andrews 1992a, 1992b, 1997; Andrews and Sandefur 2002; Blanton 1989; Fiegel 1989; Glassie 1968; Gray 1933; Kniffen 1965; Mitchell 1972; Majewski and O'Brien 1989; Mason 1984;

McCorvie 1987; Moir and Jurney 1987; Newton 1974; O'Malley 1987; Otto 1989; Rotenizer 1992; Wagner et al. 1992). The Upland South, sometimes referred to as the Trans-Appalachian South, comprises an area south of the Ohio and Missouri Rivers that has a six-month growing season and is characterized by uplands, highlands, and intermontaine valleys where mixed hardwood and pine forests dominated a landscape interspersed with grasslands and cane breaks (Otto 1989).

The Upland South model developed out of the interplay between two "hearth areas": southeastern Pennsylvania with its emphasis on corn, wheat, and livestock; and the Chesapeake region with its focus on tobacco, hemp, and slavery. This interplay had occurred in western Virginia by 1750 and spread rapidly into central Kentucky (Majewski and O'Brien 1989; Mitchell 1972). The initial settlement of the Upland South reflected a highly adaptive pattern of agricultural practice termed woodlands agriculture, which is characterized by clearing fields from upland forests and grazing livestock in the unfenced woodlands (Glassie 1968; Kniffen 1965; Otto 1989). As settlers moved westward in search of better or less exhausted land, this method of farming traveled with them.

Since the Upland South model is embodied within a household economy/self-sufficiency ideal of farm output, differences in spatial organization may be present at the Frazer Farmstead. According to the Upland South model, by the nineteenth century the dwelling should face the main approach. Although not exclusively a trait of Upland South farmsteads, this concept can oftentimes aid in determining activity and dumping areas around the main house. The front yard, which was visible from the road and to visitors, would have been kept clean, especially after the mid-nineteenth century when issues of cleanliness and class coalesced. Consequently, few artifacts should be recovered in this area. Activities typically associated with females during this period, such as household chores or discard, would have occurred in the back or side yards of the dwelling. At eighteenth and nineteenth century farmsteads, one side yard was often used as the dominant work or activity area (Andrews 1992; Andrews and Sandefur 2002; Keeler 1978; King 1990; Pogue 1988).

Activities typically associated with males, such as agriculture, farm maintenance, and livestock tending, would have occurred in areas farther from the house. Fewer artifacts would be expected to be recovered from these outer yard areas. The domestic area and the agricultural area were often separated by a natural feature (such as a creek), which might in turn dictate the arrangement of fields. Commercial agriculture, especially in areas of mixed farming, would have required good management and coordination of equipment, labor, and processing to produce surplus products for market. To this end one may expect a centralized houselot that contained the main dwelling and numerous functionally specific outbuildings. Specifically, outbuildings used for processing and storing food, along with other more typically female-oriented activities, would be present on the houselot in close proximity to the main dwelling.

The archaeological excavations revealed the footprint of the residence, as well as post molds that indicate the presence of a boundary fence around the house yard. Although no structural evidence of any outbuildings (such as privies, sheds, barns, etc.) were located,

these structures were most likely destroyed by the construction of the railroad between 1848 and 1854. The railroad runs through what would have been the rear yard of the house, and a tremendous amound of earth was moved to make way for its construction.

The dwelling was positioned to the west of the old Falmouth Pike just north of downtown Cynthiana, and remnants of the roadbed are still observable on the ground surface. The old Falmouth Pike was the main approach to the houselot, and the house faces this transportation route. The mechanical removal of the plowzone east of the house revealed 21 posts located along the western edge of the old Falmouth Pike roadbed that appear to be the footprint of a boundary fence separating the house yard. The old Falmouth Pike was located east of the Frazer Farmstead, and originally became Main Street as it entered downtown Cynthiana. This early transportation corridor has been bypassed by US 27. The section of the road that crosses through the project area is characterized by a prominent cut in the natural topography (see Figure 146). The posts that make up the boundary fence consist of Features 33, 35, 40, 41, 42, 58, 60, 61, 64, 67, 68, and 69, as well as the aforementioned Feature 22 in Block 6 (see Figure 125). These posts were all circular in shape, and ranged in diameter from 25 to 50 cm (9.84 to 19.68 in.), with a thickness of 7 to 55 cm (2.75 to 21.65 in.). These features form a rectangular boundary around the eastern portion of the house that is within the project area, with Features 42 and 67 as the southeast and northeast cornerposts, respectively. Features 60 and 61 are located in the center of the eastern line of posts, and are placed at a closer interval than the others. It is likely that these features represent a gate (see Figure 123). Additionally, Features 57A, 89, and 89 may be the remnants of a turnpike fence along the old Falmouth Pike. Like the boundary fence around the house yard, these three posts form a line on the same orientation as the old roadbed that extends the length of the mechanically excavated block in this portion of the project area.

Analysis of the distribution of identifiable nail types across the site area provides insight into the construction phases of the house, as well as its original layout. Blocks 1, 2, 3, and 4 were placed along the house or house addition foundations, with Block 1 on the west side of the structure, Block 2 to the south, Block 3 on the east, and Block 4 to the north. Of 5,075 identifiable nail types recovered from these contexts, 189 were hand wrought, 2,058 were early machine-cut, 2,247 were late machine-cut, and 14 were wire drawn. A relatively low density of hand wrought nails were spread out across the site, with the highest densities in Block 3 (n=105) and Block 1 (n=46), but the highest percentages being in Block 3 (9.9%), Block 2 (9.4%), and Feature 97 (Cellar 1) of Block 1 (6.6%) (Table 39). Architectural features in this portion of the house consist of the central portion of the house (shown as Sections B, C, and D on Figure 150). The foundation in this portion of the dwelling measures approximately 10 by 6.5 m (33 by 21.3 ft.) and contains two hearths (corner hearth and Feature 79) and two large cellars. Very few hand wrought nails were present in Block 2 (n=17), although they are a relatively high percentage, or in Block 4 (n=21) (Figure 149). Early and late machine-cut nails comprise most of the assemblage. The highest densities of early machine-cut nails are also located in Blocks 3 (n=928) and 1 (n=814) (Figure 149). When the early cut nails are examined by percentage, one can see that early cut nails are 87.8% of the non-wire nails in Block 3 and 93.4% of the non-wire nails in Feature 97 of Block 1 (Table 39). The rest of Block 1 has only 34.3% of its nails

being early cut. A moderate density of early machine-cut nails were recovered in Block 4 (n=254), and the lowest density was found in Block 2 (n=62) and with early cut nails accounting for 29.9% and 34.4%, respectively, of the non-wire nails in these two blocks.

Late machine-cut nails comprised the most common nail type found at the site, with the highest density recovered from Block 1 (n=1,073). A moderate density of late machine-cut nails was recovered from Block 4 (n=573), and lowest densities were found in Block 2 (n=101) and 3 (n=24). Additionally, a low density of wire drawn nails was recovered from Blocks 1 (n=2) and 3 (n=12) (Figure 149). When the percentage of late cut nails per non-wire nails is examined, it is clear that Block 3 (2.3%) and Feature 97 of Block 1 (0%) stand out among the rest, which each having a majority of late cut nails (Table 39; Figure 157).

These results suggest that Block 3 (Room B), Block 1 (excluding Feature 97) (Room C), and the structure over Feature 97 were probably the earliest constructed (ca. 1817), with Room B and the Feature 97 building receiving little later modification. Room C, on the other hand, appears to have received much modification after 1830 given the high number and percentage of late cut nails. The number and percentage of early versus late cut nails in Block 4 suggests that it was probably constructed later than the above sections, perhaps in the late 1820s or 1830s. Block 2 is more difficult to assess because of the low frequency of nails, but if the percentages are reliable, this room/building was likely constructed after rooms B and C, or severely modified, but constructed before Room E.

Table 39. Frequency and Percentage of Non-Wire Nails.

Context	Wrought		Early Cut		Late Cut	
	N=	%	N=	%	N=	%
Block 1 (excluding Feature 97	29	1.7	575	34.3	1073	64.0
Feature 97	17	6.6	239	93.4	0	0.0
Block 2	17	9.4	62	34.4	101	56.1
Block 3	105	9.9	928	87.8	24	2.3
Block 4	21	2.5	254	29.9	573	67.6

This assertion that the house was expanded as well as repaired over time is consistent with the window glass analysis that showed a peak of construction around ca. 1817 to 1820, and a second peak in ca. 1856 (Figure 12).

Based on the distribution of temporally sentitive architectural materials, as well as an architectural evaluation of the house plan, the Frazer Farmstead dwelling was likely constructed in multiple phases (see Figure 150). The first phase of construction was likely a single room (Room B, Block 3) with a rear outbuilding (indicated by Cellar 1, Feature 97) pen during the mid-1810s, followed very shortly by the addition of the Room C (Block 1) pen and the Room A (Block 2) pen with the house then functioning as a double pen with ell. This would have been a good size house, at 40 feet long, and one pile deep (around 18 feet in depth) on the south and two on the north (with ell). At some point after the property left Finley's ownership, two to three additional rooms were added to the northern end of the house, resulting in a very long façade of a little over 80 feet.

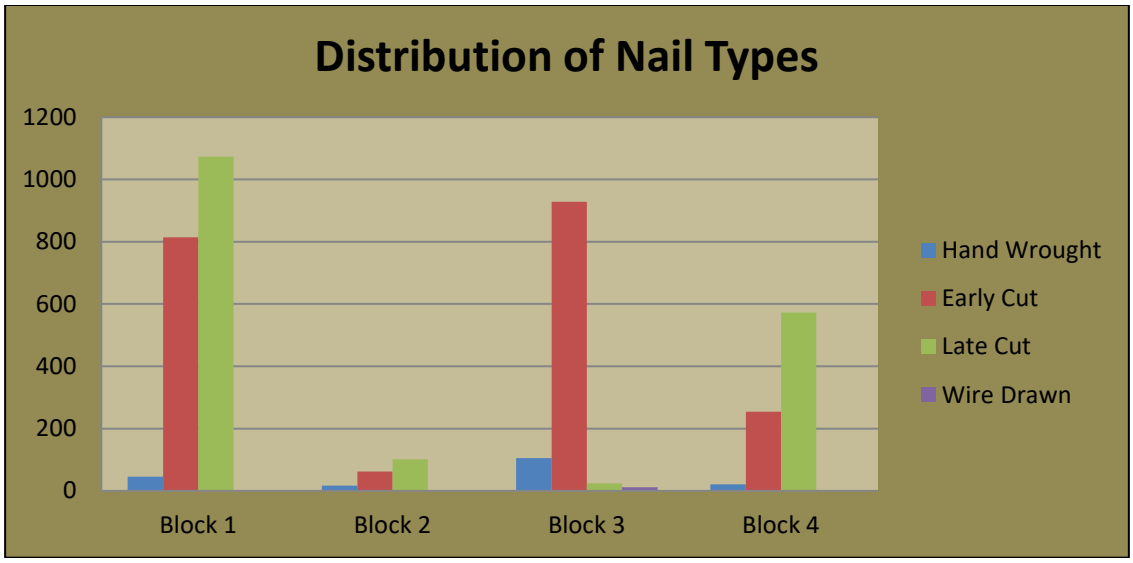

Figure 157. Distribution of Nail Types.

The large amount of early machine-cut nails in the Block 1 assemblage suggests that this portion of the house was initially constructed during the first quarter of the nineteenth century, which is supported by the presence of two coins recovered from within the foundation wall (Feature 3). Interestingly, an 1816 and an 1817 copper Liberty head one-cent piece were found *in situ* within the limestone foundation in Units 38 and 57. These coins provide an excellent TPQ for the construction of at least this portion of the house and interestingly corresponds with a substantial increase in the property value of James Finley, who owned the tract. The value of Finley's land holdings more than doubled; an increase from $25,007.50 in 1814 to $58,164 in 1817 (HCTAB 1814, 1817). Taken together, the evidence is very strong that much of the house was initially constructed between 1816 and 1817. The presence of these coins inside the foundation wall is interesting. According to George W. Speth's 1893 publication *Builders' Rites and Ceremonies* offers an intriguing passage:

> Many of us have seen a foundation stone laid, and more have read an account of the proceedings usual on such an occasion. When conducted by Freemasons the ceremony includes such beautiful symbolism, such as trying and pronouncing the stone well laid, pouring out of wine and oil over it, and other similar rites; but in most all cases, whether the ancient Craft be concerned in the operation or not, there are placed in a cavity beneath the stone several object of a peculiar nature, such as a list of contributors to the funds, a copy of the newspaper of the day, and above all, one or more coins of the realm (Speth 1898:1).

Speth, who was a founding member of the Masonic Quatour Coronadi Lodge in London, England, in 1884, was the author of several Masonic texts and compilations until his death in 1901 (Baxter 1918). An article published in the February 13, 1904, edition of *The Star* in New Zealand, and reprinted in the May 18, 1904, edition of *The Pittsburgh Press* in Pennsylvania (with a citation as originally appearing in an earlier edition of the *Saint Louis*

Glove-Democrat in Missouri), addressed the "sinister significance [of] the custom of putting coins under the foundation stone of buildings about to be erected." It has been suggested that coins and other items replaced a more ancient custom that was not specifically tied to freemasonry involving the immuring of living victims (either animal or human) in the foundation to ensure the stability of the building (Baring-Gould 1892; Speth 1893). This rite of placing items such as coins within the foundation of buildings to mark the construction (similar to the placement of a cornerstone), and possibly to alleviate superstitions, was commonly practiced by Freemasons (Mackey and Haywood 1946). According to Speth, the purpose of placing these objects was not for "future witness and reference" should the stone be removed, but the intention was "that the foundation stone never be removed" (Speth 1893:1).

Although the Masonic connection with the coins recovered from within the foundation at the Frazer Farmstead is somewhat speculative, it is interesting to note that in 1810, James Finley, along with Richard Henderson and George W. Timberlake, was a founding member of the Freemasons Grand Lodge of Kentucky in Cynthiana (Perrin 1882). The opening of the lodge on September 4, 1810, marked the first official meeting of Freemasons in Cynthiana, and Finley served as Junior Warden, while Henderson assumed the role of Master and Timberlake acted as Senior Warden. During their second meeting, which took place on September 7, 1810, the organization assumed the name Saint Andrews Lodge No. 18 (Perrin 1882). According to Harrison County historian William H. Perrin, the Masons did not have an established meeting place during their first year of existence in Cynthiana; however, in 1817, they purchased the upper story of the Harrison Academy building where they continued to meet for more than 50 years, which by 1882 had become the site of the City School (Perrin 1882:273).

The nail assemblage, especially the high density of late machine-cut nails in Block 1 (n=1,073) and Block 4 (n=573), also suggests that improvements or additions to these portions of the house occurred sometime after the initial 1816-1817 construction; most likely this was sometime after 1830, when entirely machine-made nails replaced the earlier hand-headed machine-cut nails, and prior to the 1862 conflagration that destroyed the residence. Further, the relatively high amount of L-head nails (n=240) commonly used in flooring indicates the house was constructed with plank floors.

The hearth base (Feature 79) was located in the center of the final house, west of Block 3, within or under what was likely a later room. Given its position opposite the southern chimney (Feature 3) and at the north end of the L-shaped house, it is likely that this was the north end chimney before the two, or more, northern rooms were added. This c-shaped feature was manufactured of cut limestone, and measured 1.4 by 2.42 m (4.59 by 7.94 ft.) at its longest dimensions (Figure 140). Including Feature 79, three fireplaces were documented at the Frazer Farmstead. Although no outbuildings were located, several horse tack itmes, as well as a drive hook from a horse-drawn wagon or carriage (Russell and Erwin Manufacturing Company 1865:152) was found in the southern side yard in and around Block 6. These items suggest that transportation and/or equine maintenance activities occurred in this portion of the site area.

Summary

Based on the results of archaeological investigations, the Frazer Farmstead appears to reflect the Upland South model, which can be summarized into the following two elements: (1) the orientation of the dwelling toward a path of human approach; and (2) recognition of an inner yard. The front of the house faced the old Falmouth Pike to the east, and a line of posts delineate the house front yard. Because no associated outbuildings were located, little else can be said about the farmstead layout; however, the southern side yard appears to have used for transportation/equine maintenance activities.

STATUS AND CONSUMPTION

Archaeological studies of historic sites have long indicated a close connection between a household's socioeconomic status or class, and their consumption patterns, particularly their consumption of non-necessities (Spencer-Wood 1987; Wall 1999). Other factors, such as ethnicity, popular trends, personal taste and product availability, can also affect consumption patterns, but if time and space are held constant, socioeconomic status or class is often the most powerful factor. People will purchase items of a certain value not simply because they can afford them, but because they symbolize their status and communicate the purchaser's membership within a status group or class.

Various types of material culture are suitable for examining consumption patterns at historic sites, but refined ceramics are the most commonly used by archaeologists. The reason for this are multi-fold, and include variability in decoration, vessel form, and paste that are not related to subsistence function, known ceramic prices through time, and relative abundance on historic sites. Other artifacts or refuse, including table glass, animal bone, furnishings, and clothing items are sometimes used in consumption and status studies, but since their purchase price is not well known and most are not as abundant as ceramics, they are not as commonly used.

The most common method of analyzing ceramic consumption patterns is the ceramic price index method created by archaeologist George Miller (1980, 1991). This method is based on the price difference between plain white earthenware and more elaborately decorated earthenware, ironstone, and porcelain, such as hand-painted wares or transfer-printed wares. Miller based these index values on extensive research in period historical documents, especially merchant records. Plain ware is called "CC" following the designation given it by potters, who used CC to stand for cream-colored. CC ware has an index value of 1.00 and all other types are set relative to this, depending on their price. For instance, a decoration type that is twice as expensive as CC ware would have an index value of 2.00, while a ware that was one and a half times as expensive would have a value of 1.5.

Miller (1980, 1991) created price indices for different years from the eighteenth to the late-nineteenth centuries, based on his research in documentary records. Since absolute and relative prices changed over time, it is important to utilize index values from dates that match as closely as possible to the date of the intact assemblage being studied. In the case

of the Frazer Farmstead analysis, the mean ceramic dates of each assemblage were utilized to select the most appropriate sets of index values.

Ceramic index analysis works best when utilizing assemblages from multiple discrete, intact, and datable deposits (i.e. features and middens) that can attributed to a specific period of a site's occupation history. This allows for interpretations regarding changes in wealth, status, and consumption of goods over time. As such, Features 14/15 and the Unit 56 Zones 2/3 midden were selected for this analysis because of their robust sample size, as well as their distinctive early- and mid-nineteenth century contexts. Because these contexts represent discrete, intact deposits associated with the early and later occupation of the site, they provide a good comparison of the consumption of goods through time.

Another issue relative to utilizing Miller's ceramic scaling is that the index values are calculated for different vessel forms (plates, tea wares, serving vessels, and bowls), since the relative expense of the different decorative types varied according to the ware forms. Thus it is important to try to take the small excavated sherds and identify the vessel form and group them according to the minimum number of vessels (MNV) of each form (plates, bowls, etc.) that the sherds represent. This analysis was completed for Features 14/15 and Unit 56 Zones 2/3 ceramic assemblages, utilizing rims, bases, and uniquely decorated body sherds. A minimum vessel count was created with the idea that if multiple sherds could have come from the same vessel, then they are counted as one vessel.

Assigning the ceramic index value involved calculating the date (year) of each deposit, then selecting index values for ceramic type (by vessel form, paste, and decoration) represented in the assemblage for that year, or the year closest to it. Since absolute and relative ceramic prices change over time, it is important to choose the appropriate year. Again, the mean ceramic date for a given provenience is used as the ceramic price year. To calculate the assemblage ceramic index value, the mean from all ceramic vessel types in that assemblage are calculated.

The calculation of the ceramic index value proceeds much as the mean ceramic date calculation discussed above. Instead of using the mean date of manufacture in the calculation, the ceramic index value for each particular vessel form is used. These index values are selected from the tables provided by Miller (1991) to match as closely as possible to the mean ceramic date of that particular feature. For this analysis, ceramics were selected from two middens (Feature 14/15 and Units 56 Zones 2-3) that represent the earliest and latest periods of occupation of the site. These are the two most tightly dated contexts that have a large number of refined ceramics.

Feature 14/15 is a sheet midden located in Block 6 on the southern end of the site that contained exclusively early nineteenth century ceramics. This area had not been plowed and exhibited excellent stratigraphic integrity. Refined ceramics recovered from Feature 14 consisted of creamware, pearlware, and Chinese export porcelain. Decorative treatments include shell edge on creamware, shell edge and handpainted pearlware, and handpainted Chinese export porcelain. A mean ceramic date (MCD) of approximately 1810

was calculated for this assemblage. Although this slightly earlier date might suggest that the site could have been occupied prior to ca. 1817, it is more likely that some of the ceramics in this assemblage were owned by the Finley household prior to their occupation of this site.

Zones 2 and 3 of Unit 56 are a mid-ninteenth century midden beneath a collapsed brick wall in Block 4 on the northern portion of the site that contained primarily mid-nineteenth century artifacts. The zones were excavated separately, but later lumped because there was no temporal separation in their deposition. Although a small amount of pearlware was present, 64% of the refined ceramics consisted of whiteware. Decorative treatments on whiteware include transfer-printed, sponged, shell edged, slip banded, underglaze painted, and flow blue. Other refined ceramics include ironstone (5.7%), English bone china (18.3%), English soft paste porcelain (0.2%), and a small amount of Chinese export porcelain (1.5%). Although index values for yellowware have not been worked out, yellowware (7.5%) was used in mean ceramic date calculation. An MCD of approximately 1844 was calculated for this assemblage. This middle nineteenth century date is supported by manufacturer's marks of Andrew Stevenson (c. 1816-1830), Ridgeway, Morley, Wear and Co. (c. 1836-1842), William Ridgeway and Co. (1838-1848), as well as the pattern marks "Millennium," which was manufactured by Ralph Stevenson & Son from 1832-1835, and "Andalusia," which was manufactured by William Adams & Sons from 1800-1864 (Williams 1978; Williams and Weber 1986).

Comparison between refined ceramics recovered from Feature 14/15 and Zones 2 and 3 in Unit 56 reveal an increase in the consumption of more expensive wares over the site's approximately 40-year period. Fifty-five vessels were recovered from the early nineteenth century midden associated with the earlier James Finley occupation. Ceramics recovered from Feature 14/15 primarily consist of less expensive wares, such as undecorated CC ware. Most of the vessels in this assemblage were shell-edge decorated, which was the cheapest decorative tableware for most of the nineteenth century (Miller 1991; Samford 1997). An index value of 1.63 was calculated for this assemblage (Table 40).

By contrast, 164 vessels were recovered from the mid-nineteenth century midden associated with Frazer's ownership of the property. Although, it is not entirely clear who occupied the house at this time, Frazer's tax records were utilized in the analysis since he was landowner. However, it seems likely that Dr. Joel Frazer (1845-1848) and later as renter or perhaps family member lived in the house during this time. Ceramics recovered from Zones 2 and 3 in Unit 56 yielded an index value of 3.0 (nearly twice that of Feature 14/15). Besides an overall increase in vessels and vessel forms, this assemblage also contained more expensive wares, such as matched sets of overglaze painted English porcelain teawares and tablewares (Table 41).

Tax assessments for James Finley in 1820 valued his property at $26,680.00. By comparison, Frazer's property value was assessed at $80,000 in 1860. Comparison of the consumption of ceramics from the earliest occupation to those from the end of its use as a domestic residence illustrates a steady increase in the socioeconomic status and display of

wealth of its occupants through time. This analysis shows that all three variables (Miller Index Values, MNV, and Total Value of Property) nearly doubled from the early- to mid-nineteenth century (Figure 158). Comparison of ceramic price index values from both the earliest and latest periods of the site to those of other antebellum period sites further illustrates the increased status from that of a merchant during the early nineteenth century to the elevated level of a planter and physician or wealthy tenant by the late 1840s (Figure 158 and Table 42).

Table 40. Feature 14/15 Forms, MNV, & Percentages of Vessels.

Vessel Type	Form	MNV	Percentage
Tea Ware	Cups & Saucers	13	23.6
	Coffees	-	-
	Bowls & Saucers	8	14.5
	Teapots	-	-
Table Ware	Platters	2	3.7
	Plates & Twifflers	20	36.4
	Muffins	2	3.7
	Bakers & Nappies	-	-
Kitchen Ware	Bowls	1	1.8
	Mugs	-	-
	Pitchers	-	-
Toilet Ware	Chambers	-	-
	Ewers & Basins	-	-
	Other Types of Vessels	9	16.3
	Total	**55**	**100.0**

Table 41. Unit 56, Zones 2 and 3 Forms, MNV, & Percentages of Vessels.

Vessel Type	Form	MNV	Percentage
Tea Ware	Cups & Saucers	64	39.0
	Coffees	-	-
	Bowls & Saucers	17	10.4
	Teapots	-	-
Table Ware	Platters	7	43.0
	Plates & Twifflers	49	29.9
	Muffins	-	-
	Bakers & Nappies	-	-
Kitchen Ware	Bowls	17	10.4
	Mugs	-	-
	Pitchers	-	-
Toilet Ware	Chambers	-	-
	Ewers & Basins	-	-
	Other Types of Vessels	10	6.0
	Total	**164**	**100.0**

The domestic occupation appears to end sometime around the late-1840s to the early-1850s when Dr. Joel C. Frazer purchased and relocated to the former Col. William Brown house (present-day Handy house) east of US 27. The residence likely remained unoccupied for a short period of time prior to the Civil War; however, the identity of any tenants is unknown. By the beginning of the Civil War, the site does not appear to have been occupied again until 1861 to 1862, when Camp Frazer was established by the Union Army.

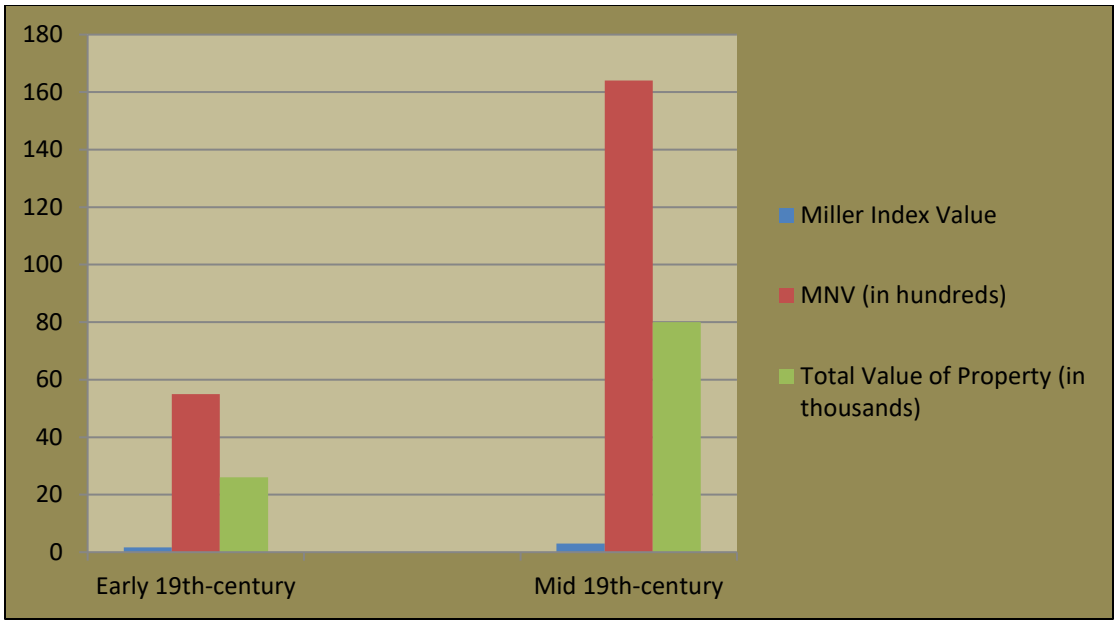

Figure 158. Status and Consumption Analysis.

Table 42. Comparison Frazer Farmstead Ceramic Index Values with Other Sites.

Site (Reference)	Occupation	Ceramic Index	Year	Vessels
J. Frazer, KY (15Hr42)	Physician	3.00	1844	164
Cannon's Point, GA (Otto 1984)	Planter	2.63	1824	211
P. Warren, MS (McBride 1991)	Merchant	2.16	1838	225
Cannon's Point, GA (Otto 1984)	Overseer	1.94	1824	105
J. Arnold, KY (Andrews and Stetar 1995)	Farmer	1.85	1836	69
Kings Bay Plantation, GA (Adams and Boling 1989)	Planter	1.81	1815	274
James King, GA (Adams and Boling 1989)	Small planter	1.74	1796	83
Thomas Hanlin, NJ (Adams and Boling 1989)	Farmer	1.68	1796	32
L. Drake, IL (Philippe 1990)	Farmer	1.67	1824	62
John King, GA (Adams and Boling 1989)	Sawyer	1.64	1796	74
J. Finley, KY (Mabelitini 2008)	Merchant	1.63	1814	55
Harmony Hall, GA (Adams and Boling 1989)	Small planter	1.60	1814	129
Black Lucy, MA (Baker 1978)	Freed slave	1.53	1833	58
John Harris, GA (Adams and Boling 1989)	Farmer	1.45	1814	18

CIVIL WAR-ERA MILITARY OCCUPATION

As previously discussed, the house associated with the Frazer Farmstead was incorporated into Camp Frazer by the Union Army during the American Civil War. The dwelling was used as a hospital by the 18th Kentucky Volunteer Infantry, under the command of Lieutenant Colonel John J. Landram, from either December 2, 1861 or February 20, 1862 until July 17, 1862, when it was burned by Colonel John Hunt Morgan's Confederate troops during the first battle of Cynthiana. These investigavtions indicate that a portion of the house remained standing after the July 17 battle, and was burned a second time by the camp quartermaster on September 2, 1862. Archaeological excavations uncovered numerous military artifacts *in situ* within the destruction debris inside the house; including several arms-related items, as well as Civil War-era military equipment and other accoutrements.

Arms-related items include percussion caps, bullets, rimfire cartridges, a trigger guard, a cartridge clip, a gunflint, a flintlock brush and pick, a gun cock, a Smith carbine tool, a main spring vice manufactured for the U.S. Model 1855 Springfield musket, and a dagger blade. Other military equipment and accoutrements consist of brass eagle buttons, mess equipment (which consists of a folding knife/spoon/fork combination), U.S. belt plate fragments, a decorative brass tip from a socket bayonet scabbard, an unidentified accoutrement, canteen stoppers, rivets from packs or haversacks, a shoe heel plate, iron buckles, and a copper sutler's token.

A number of likely battle-related items were found in and around the house, including fired .32-caliber rimfire cartridges, percussion caps, a dropped Miniè ball, and a Model 1816 U.S. trigger guard. Rimfire cartridges found at the Frazer Farmstead consist of fired .22-caliber Smith and Wesson (n=2) and .32-caliber Smith and Wesson short (n=17) and long (n=17) shell casings (see Figure 17). Other arms related items include a Smith Carbine gun tool, a Springfield main spring vise, and a musket brush and pick (see Figures 18 and 19). A brush and pick was a common accoutrement for military flintlock muskets such as the U.S. Model 1816 musket, a model still in use during the Civil War, although it was usually altered to percussion. Although Model 1816 rifle muskets were manufactured by the Harpers Ferry and the Springfield Armories from ca. 1816 to 1840, many were converted to percussion by private contractors from ca. 1840 to 1860. A dagger blade, a gun cock, and a cartridge clip also were found.

Additionally, a high density of burned military items were found inside the house that are likely the remains of supplies burned by the 45th O.V.I.'s quartermaster. These include eagle buttons (many of which were found together suggesting they were attached to a burned garment); pack buckles and rivets; large quantities of shoe nails; suspender buckles with attached fabric; cast iron and Prosser buttons; and a large quantity of burned bone buttons that are likely remnants of the burned tents mentioned by Private Musgrave. Early tents issued by the Union Army in 1862 were fastened by bone buttons. The presence of the single sutler**'s** token beneath the brick rubble indicates that a portion of the house remained standing after the July 17 battle, and was burned a second time by the camp quartermaster on September 2, 1862. Although Confederate troops burned the house/hospital at Camp Frazer on July 17, 1862, a portion of the house appears to have remained intact based on the presence of the sutler's token beneath a collapsed brick wall at the northwest corner of the house. The 45th Ohio Volunteer Infantry didn't arrive at Camp Frazer until August1862, nearly a month after the battle. A diary entry of a soldier in this regiment indicates that as they evacuated the camp on September 2, 1862 their Quartermaster burned his stores (Musgrave 1862).

The sutler's token was issued by McBeth & Aull, and inscribed *"O.V.I 45th Reg[iment] – 5 cents in goods"* (see Figure 61). The merchant sutler served an important function on military sites during the Civil War. Regimental sutlers were appointed by the military without rank or pay other than that provided from the profits of their business (Curto and Schwartz 1962). The duty of the sutler was to supplement government issued supplies by keeping on hand all goods required by the soldiers (Curto and Schwartz 1962). Sutler tokens were issued as currency for transactions with the camp sutler, and McBeth &

Aull issued tokens for the 45th OVI in both 5 cents and 10 cents denominations (Curto and Schwartz 1967:24). The presence of this token in combination with the documented arrival of the 45th OVI indicates that at least the northern portion of the house associated with the Frazer Farmstead survived Morgan's 1862 raid, and was re-used by the Union Army.

Although a wide variety of buttons were recovered from the Frazer Farmstead, several are likely associated with the use of the house for storage by the camp's quartermaster. Buttons associated with military service, which include U.S. Army Eagle buttons (n=84). Both General Service and Infantry officer's types (in two sizes: 14.5 and 19.5 mm) were present. Witin the Frizer Farmsetad assemblage, 14 large (19.5 mm) and 13 small (14.5 mm) Infantry officer's, and 22 large (19.5 mm) and 17 small (14.5) General Service buttons were identified (see Figures 59 and 60). The remaining eagle buttons consist of six large and 5 small buttons that were too badly burned to determine rank. All but one small Infantry button was burned.

A large quantity of bone buttons also was recovered. Of the 159 bone buttons recovered, 137 are burned 4-hole buttons that could have been associated with U.S. Army issued tents that were lost when the quartermaster's stores at Camp Frazer were burned in early September 1862 (see Figure 25). Shelter tents from this period were patterned after the French *tente d'Abri*, and were first issued in 1862. Early tents measured 5 feet 2 inches by four feet eight inches, and were fastened with bone buttons. After 1864, tents were larger, and were fastened by metal buttons (Woodhead 1998:214).

Likewise, a high density of burned cast-iron four-hole button were recovered (see Figure 26). Although these items could have served a variety of functions, given their association with other burned military items as well as the known destruction of quartermaster's stores at the site, it is more likely than not that these buttons are also associated with the Federal military occupation of the Frazer Farmstead in 1862. These iron buttons, like many of the bone ones above, may have been attached to clothing when they burned, or simply in boxes of buttons stored by the army.

A large quantity of buckles (n=77) were recovered. Buckles served a variety of purposes. They were used to fasten shoes, breeches, stocks, hats, swords, collars, girdles, gloves, gallus, and any other type of clothing or item that may need fastening (White 2005:31). Although the precise function of the buckles recovered from the Frazer Farmstead could not be determined, the vast majority (n=61) are burned, and based on size, were likely used to fasten knapsacks or haversacks. It is interesting to note that some specimens were still attached to rivets (see Figure 62). All of the 197 rivets recovered from the site had been burned. These items were most likely parts of haversacks or knapsacks, and were burned with the house when it was razed. Several suspender buckles (n=7) also were recovered, most of which are burned (n=5), and two were still attached to fragments of burned textiles (Figure 31).

Shoe parts found at the Frazer Farmstead that are likely associated with the military occupation include tacks (n=35), nails (n=1,139), and a heel plate. A high density of these artifacts are burned, including 17 tacks and 260 nails. A few burned shoe nails remained

attached to tacks, suggesting they were intact when the shoe burned (see Figure 32). Other items likely associated with the military occupation of the site include a spoon that exhibits a pointed bowl and flared handle that is similar to those issued as part of U.S. Army mess utensils during the American Civil War, as well as a combination folding fork/spook/knife (Woodhead 1998).

Several horse tack materials also were present that may be associated with the Civil War-era military activities at this site. These items include bits (n=5), a carriage knob (n=1), harness rings (n=4), harness rivets (n=2), horse shoes (n=7), horseshoe nails (n=25), a lariat swivel (n=1), a snaffle bit (n=1), a spur (n=1), a stirrup (n=1), a currycomb (n=1), wagon staples (n=3), and railroad spikes (n=5) (Figures 69 and 70). Although all of these items were in use throughout the nineteenth century, the spur is similar to regulation U.S. Army spurs (Woodhead 1998:193), and many of the horse tack items may date to the 1861-1862 Civil War-era military occupation of this site.

SPATIAL DISTRIBUTION OF CIVIL WAR MATERIALS

Military-related items found at the Frazer Farmstead are associated with the Union occupation of Camp Frazer during the American Civil War, and indicates that the structure associated with this site was incorporated into the camp. The highest densities of these materials were found in Blocks 2 and 4, which correspond to rooms C and E on Figure 150. Civil War-related materials were also found in Blocks 2, 3, 5, and Unit 47.

An extremely high density of buttons were found ni the burned area in Block 1 (Features 21/21A/93), including buttons manufactured from shell (n=7), bone (n=115), cast-iron (n=192), porcelain (n=28), and brass or copper (n=1). It is likely that the burned 4-hole bone buttons are associated with U.S. Army issued tents that were lost when the quartermaster's stores at Camp Frazer were burned in early September 1862. Shelter tents from this period were fastened with bone buttons (Woodhead 1998:214). A high density of burned cast-iron four-hole button were recovered that are also likely associated with the 1862 Federal military occupation of the Frazer Farmstead. It is possible that boxes of these items were stored in this room when it was burned, either by Confederate forces on July 17, or by the Union quartermaster on September 2, 1982. However, given documentary evidence that the house was used as a hospital at the time it was burned by Confederates, it is most likely that these articles are evidence of the later buring by the quartermaster.

Numerous military and arms-related items were also recovered from burned area in Block 1 (Features 21/21A/93). These items consist of several uniform brass Eagle buttons (n=30), a brass U.S. belt plate fragment (n=1), canteen stoppers (n=2), a brass bayonet scabbard tip (n=1), rimfire cartridges (n=9), unfired copper percussion caps (n=16), and a military-issued folding knife and fork combo (n-1). Other arms items from this context consisted of a brush and pick for a flintlock firearm (n=1), and lead buckshot (n=1). Rimfire cartridge types consisted of .32-caliber Smith & Wesson short (n=4) and long (n=4), and .22-caliber Smith & Wesson varieties. Eagle button types consisted of both Infantry (n=10 [5 small, n=5 large]) and general service (n=12 [8 small, n=4 large]) examples. An

additional 8 specimens were so badly burned that their specific rank could not be determined.

A moderate amount of clothing items and accoutrements were present in Block 4; some of which may be related to the use of the structure as a commissary storehouse during the Civil War. All of these items had been burned, and included buckles (n=6), three of which were fused to rivets, and a suspender buckle. Similar to Block 1, a large number of burned shoe nails (n=78) were also present. The remaining clothing materials consisted of buttons, including cast iron (n=8), brass (n=1), brass or copper (n=6), bone (n=13).

Two arms-related artifacts were recovered in Block 2 on the southeast end of the house (room B on Figure 150); including a .22-caliber Smith & Wesson rimfire revolver cartridge and a dropped .58-caliber Minié ball (see Figure 102). Both of these munitions types were widely used during the Civil War, and are likely associated with the Union occupation of Camp Frazer. Block 3 contained a small, burned metal vial. Although the function of this item is not known, it may be associated with medicinal use, possibly when the house was used an Army hospital prior to the July 17 battle. Several military and arms items also were recovered in Block 2 that are likely associated with the Union Army occupation of Camp Frazer. These items consist of two .32-caliber long Smith & Wesson rimfire cartridges, two percussion caps, one burned general service Eagle button, and the burned trigger guard for a Model 1816 musket. Additional accoutrements include a brass rivet and five iron buckles.

Additonal Civil War-related materials were found outside of the structure in Block 5 (to the north) and Unit 47 (to the southeast). One Infantry officer's button, a .69-caliber lead buck and ball projectile, a .32-caliber Smith & Wesson rimfire cartiridge, and a brass cartridge clip were recovered from Block 5. Unit 47 was placed in the inner yard, east of the southeast corner of the house foundation. A single .32-caliber Smith & Wesson rimfire revolver cartridge was recovered from this area.

CHAPTER 11:
SUMMARY AND CONCLUSIONS

The 2006-20007 archaeological investigations of the Frazer Farmstead in Harrison County consisted of excavation of 21 shovel probes, 43 test units, 88 features, and mechanical stripping of a large block area. The excavations documented intact remains of the foundation and chimneys of a five to six room brick house, two large and one small cellar, post and pit features, and midden deposits, as well as two lines of posts that appear to designate the separation of the outer and inner yard, and a turnpike fence.

By combining archival records and archaeological data, including the structural remains and the artifacts recovered, the analysis sheds light on the domestic life, and social status of the occupants, and spatial organization of the Frazer Farmstead. The study also provides valuable new insights into the Civil War history of the Bluegrass Region of Kentucky and the First Battle of Cynthiana.

The focus of the investigations was the historic occupation of the site, but excavations and analysis also documented a moderate prehistoric occupation (Appendix A). Based on the recovery of a varied assemblage of projectile points, it appears that the contains Early Archaic, Late Archaic, Early Woodland, Late Woodland, and Late Prehistoric (Fort Ancient) components. The recovery of bifaces/fragments in differing stages of production and several cores indicates that both bifacial and core reduction was carried out by the prehistoric inhabitants of this site. The presence of chert hammerstones further indicates that early and late stage reduction activities took place.

The debitage profile indicates that the full range of lithic reduction, which included the production of formal and informal stone tools, also took place at this locale. The overwhelming majority of cortex observed within the debitage assemblage consisted of smoothed, pitted, and sometimes polished cortex, indicating that stream cobbles were transported to the site and knapped into their finished form. Mississippian-age Paoli and Middle Devonian-age Boyle cherts appear to have been the preferred lithic raw materials. Both material types could have been procured from the nearby Licking River and its tributary streams.

The presence of bifacial drills/perforators indicates that activities centered around the boring of materials, such as bone, wood, or stone and piercing leather hides, were carried out at this locale. The presence of edge modified (retouched) flakes, utilized flakes, and unifacial endscrapers points to repeated activities aimed at processing both plant and animal materials, including the preparation of animal hides.

HISTORIC DOMESTIC OCCUPATION

Although Phase II research suggested that the Frazer Farmstead was constructed ca. 1835 and demolished sometime during the 1870s (Allgood et al. 2004:132), these additional investigations found that the house was originally constructed by James Finley (a merchant) in ca. 1817. Finley occupied the structure until 1823 when it was sold at public

auction. The property changed ownership several times until it was purchased by Dr. Joel C. Frazer in 1845. Dr. Frazer lived in the house until approximately 1848 when he purchased the much fancier Ridgeway residence (the present-day Handy House) on the eastern side of US 27 built by Colonel William Brown. It is likely that renters or other yet unknown Frazer relatives occupied the former Finley residence (Site 15Hr 42) from 1848 to 1860, but no record of the identity of who may have lived there could be located. The distribution of nail types and window glass indicates that structural improvements or alterations occurred during this time.

These investigations confirmed the layout of the house identified during the Phase II research (Allgood et al. 2004). However, the structure was found to be larger than originally interpreted. The archaeological footprint of the L-shaped portion of the house identified by Allgood et al. (2004) was constructed ca. 1817 as a front facing structure with three fireplaces (McAlester and McAlester 2004:23). The floorplan consisted of three units (rooms) with six corners and a front entrance that faced the old Falmouth Pike. A two to three room northern addition was likely constructed sometime after the 1830s that changed the layout of the house to a 12-cornered structure with five to six units (rooms). No fireplaces were documented within this portion of the house; however, this addition lies mostly outside of the right-of-way and limited investigations were only conducted with landowner consent to locate and confirm the corners of the house foundation. It was not possible to determine from the archaeological remains whether the house consisted of one-story or two. No privies or other outbuildings were located during the course of the investigations. The outbuildings were most likely destroyed by the construction of the railroad between 1848 and 1854.

Based on the results of archaeological investigations, the Frazer Farmstead appears to reflect the Upland South spatial model, which can be summarized into the following two elements: (1) the orientation of the dwelling toward a path of human approach; and (2) recognition of an inner yard. The dwelling was positioned to the west of the old Falmouth Pike just north of downtown Cynthiana, and remnants of the roadbed are still observable on the ground surface. The old Falmouth Pike was the main approach to the houselot, and the house faces this transportation route.

A wide range of domestic artifacts were recovered, dating primarly from the earlay to middle nineteenth century. Based on changes in ceramic the ceramics assemblage, the fortunes of the site's occupants improved from the early- to mid-nineteenth century. The earlier deposits associated with the occupation of James Finley contained less expensive wares, such as undecorated creamware. Most of the vessels were shell-edge decorated wares, which were the cheapest decorative tableware for most of the nineteenth century. However, the mid-nineteenth century assemblage related to Dr. Frazer's ownership of the house exhibited an overall increase in vessel forms. This assemblage also contained more expensive wares, such as matched sets of overglaze painted English porcelain teawares and tablewares. Analysis of ceramics from these two contexts helped to date the initial and final periods of the domestic occupation. Combined with census and tax documents, ceramic materials help illustrate the accumulation of wealth and increased status of the site's occupants from the early- to mid-nineteenth century.

The interpretations of the early nineteenth century faunal remains from the Frazer Farmstead suggest a more modest economic standing, and that the occupants followed the Upland South dietary tradition. Domestic animals (pigs, cows, and chicken) comprised the greater part of the meat resources used by the inhabitants, supplemented by wild species consisting mostly of squirrel, rabbit, ducks, but also geese, bobwhite, grouse, (possibly passenger pigeon), turtles, and fish. Additional perspectives on foodways is provided by the plant remains, which include cultivated field plants (corn, beans, squash/pumpkin, tomato, sunflower), fruits (grapes, peaches), berries, nuts, and weedy plants, some of which have possible economic uses. The trace presence of the Old World grains, wheat and barley, corroborate their nineteenth century importance despite being ill-suited to the Kentucky warm dry summers.

CIVIL WAR OCCUPATION

A variety of military artifacts, including eagle buttons and accoutrements, a sutler's token from the 45th Ohio Volunteer Infantry, bone buttons that may have been sewn onto tents, and arms-related artifacts, document the Civil War era occupation. Documentary evidence indicates Infantry companies of the 35th Ohio, 45th Ohio, and 99th Ohio were stationed on the Frazer property during 1862. Archival research also indicates that the 18th Kentucky Volunteer Infantry utilized the house associated with the Frazer Farmstead as a hospital from late 1861 until it was burned by Confederate troops under General John Hunt Morgan on July 17, 1862. The presence of burned architectural materials such as nails and window glass indicates that this structure was destroyed by fire. Although very few medicinal related artifacts were recovered, General Morgan reported the capture of a large supply of medical stores. Medical artifacts recovered from the destruction zone within the house include a metal vial and a patent medicine bottle, both of which are burned. The majority of medical supplies were likely captured, and were not burned with the hospital.

Following the reoccupation of Cynthiana by the United States Army, the site of the 18th Kentucky's encampment on the Frazer farm was occupied by the 45th Ohio Volunteer Infantry, under the command of Colonel B. P. Runkle, from either July, 25 or August 21, 1862 to September 2, 1862, when the 45th Ohio evacuated the camp on the approach of Confederate forces under the command of General Kirby Smith. However, prior to retreating from Cynthiana, the 45th Ohio's Quartermaster burned their supplies, certainly to prevent them from falling into enemy hands. The archaeological investigations suggest that a portion of the former hospital remained standing and was used for storage by the 45th Ohio's Quartermaster, who burned it along with their supplies as they left Cynthiana. Occupation of this site appears to end on September 2, 1862, as there are no references to its use as either a military encampment or a domestic residence beyond this date. Many of the artifacts recovered are typical of what would be expected in a Quartermaster's store, and the presence of Infantry officer's uniform buttons indicates that it was occupied by United States Infantry. Arms-related items recovered from this site indicates that the troops were equipped with a variety of small arms, including .32 caliber revolvers and possibly Model 1816 muskets that may have been modified for percussion.

A claim filed by Dr. Frazer's widow (see Chapter 5) indicates the 45th Ohio arrived after the structure was burned by Confederate forces. Following the Union defeat at Cynthiana, the 45th and 99th Ohio Volunteers both arrived in late August 1862, and Camp Frazer was rebuilt. Union troops constructed fortifications, and approximately 150 slaves were seized from slave-owners identified as being sympathetic of the Confederacy to provide the labor. The diary of David Humphrey Blair, a private in the 45th Ohio, indicates that the regiment arrived in Cynthiana on August 21, a little over one month after the battle, and "built a fort near camp (rather stockade)" (Blair 1862). An August 22nd entry in the diary of Zelotes Musgrave, who was also enlisted in the 45th Ohio, also places the arrival of the regiment in Cynthiana at this time. Musgrave's diary corroborates Mrs. Frazer's claim that the 45th left Cynthiana on September 2nd, 1862. According to Musgrave, reports that General Kirby Smith's forces were advancing toward Cynthiana after a successful engagement with Union troops at Richmond, Kentucky on August 30th led the Camp Frazer garrison to retreat northward to Falmouth, Kentucky. Musgrave wrote: "The 99th O.V.I. came here in a hurry and left Cynthiana with us on the cars. Before we left the Quartermaster burned all of his stores. We lost part of our tents. Reported that the rebs are advancing with a heavy force" (Musgrave 1862). The presence of the single sutler's token in combination with the documented arrival of the 45th O.V.I. indicates that at least a portion of the house survived Morgan's 1862 raid, and was utilized by the Union Army. In addition to Musgrave's report that the regiment's quartermaster burned all of their stores as the Union forces retreated on September 2, a member of the 99th O.V.I. noted the "Commissary Stores aflame" (Musgrave 1862).

The high density of burned Civil War-era military artifacts, including eagle buttons and accoutrements, recovered from the destruction zone provides evidence that supplies were stored here. Although the sutler's token may have simply been dropped, it places the 45th Ohio at this location. A portion of the house appears to have remained standing following Morgan's Raid, and was used for storage by the 45th Ohio's Quartermaster, who burned their supplies as they evacuated Camp Frazer on September 2, 1862. Many of the artifacts recovered are typical of what would be expected in a Quartermaster's store, and the presence of Infantry officer's uniform buttons indicates Infantry supplies were stored here. Although at least three Infantry regiments were stationed at Camp Frazer, without the presence of the sutler's token belonging to the 45th O.V.I. beneath the destruction debris, it would not have be possible to determine the use of this house for quartermaster storage, or that part of it had remained standing and utilized after it was initially burned by Confederates a little over a month prior to being burned a second time by the 45th Ohio's quartermaster.

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APPENDIX A:
PREHISTORIC MATERIALS: CHIPPED STONE

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Of the 2,154 chipped stone artifacts recovered from the Frazer Farmstead, most were classified as flakes and flake fragments (n=2,000). The remaining artifacts consisted of points and point fragments (n=89), edge modified/retouched flakes (n=10), utilized flakes (n=12), bifaces/biface fragments (n=21), cores/core fragments (n=6), drills/perforators (n=4), unifacial endscrapers/fragments (n=4), tested chunks/cobbles (n=4), and chert hammerstones/ fragments (n=3).

ANALYTICAL METHODS

Current approaches to the analysis of lithic artifacts include a study of the step-by-step procedures utilized by prehistoric knappers to make tools. The term used to describe this process is referred to as *chaine operatoire* or reduction strategy (Grace 1989, 1993, 1997; Tixier and Roche 1980). The analysis of stone tool assemblages provides insights into the processes by which prehistoric flintknappers produced their implements. It also enables archaeologists to characterize the technical traditions of specific prehistoric cultural groups (Grace 1997).

The production of any class of stone tools involves a process that begins with the selection of a suitable raw material. The basic requirements of any raw material to make flaked stone artifacts include the following: 1) it can be easily worked into a describable shape; and 2) sharp, durable edges can be produced as a result of flaking (Grace 1997). Once an adequate source is located and a raw material is selected, the process of tool manufacture begins. Two different strategies can be utilized. One involves the reduction of a material block directly into a tool form, like a biface, or the production of a core. The second involves the preparation of a block of raw material so that flakes or blanks of a suitable shape and size can be detached. These blanks are then flaked by percussion or pressure flaking into a variety of tool types, including scrapers, bifacial knives, and projectile points.

Experimental work has shown that the former manufacturing strategy, involving a raw material block, begins with the detachment of flakes with cortical or natural surfaces. This is accomplished by direct percussion, usually involving a hard hammer (stone) that more effectively transmits the force of the blow through the outer surface. Having removed a series of flakes and thus creating suitable striking platforms, the knapper begins the thinning and shaping stage. The majority of the knapping is conducted with a soft hammer (antler billet). The pieces detached tend to be invasive, extending into the mid-section of the biface. A later stage of thinning may follow, which consists of further platform preparation and the detachment of invasive flakes with progressively straighter profiles in order to obtain a flattened cross-section. By the end of this stage, the biface has achieved a lenticular or bi-convex cross-section. Finally, the tool's edge is prepared by a combination of fine pressure work and pressure flaking if desired. It should be noted that flakes derived from biface reduction are sometimes selected for bifacial, unifacial, and expedient tool manufacture.

The second type of manufacturing trajectory, utilizing a flake or blank, begins with core reduction and the manufacture of a suitable flake blank. The advantages of employing

a flake blank for biface reduction include the following: 1) flakes are generally light-weight and can be more easily transported in large numbers than blocks of material; and 2) producing flakes to be used for later biface reduction allows the knapper to assess the quality of the material, avoiding transport of poorer-grade chert.

The initial series of flakes detached from the flake blank may or may not bear cortex. However, they will display portions of the original dorsal or ventral surfaces of the flake from which they were struck. It should be noted that primary reduction flakes from this manufacturing sequence could be entirely noncortical. Therefore, the presence of cortex alone to define initial reduction is of limited value. Biface reduction on a flake involves the preparation of the edges of the piece in order to create platforms for the thinning and shaping stages that follow. In most other respects, the reduction stages are similar to those described above, except that a flake blank often needs additional thinning at the proximal or bulbar end of the piece to reduce the pronounced swelling and achieve a thinned final product.

FORMAL CHIPPED STONE TOOLS

The identification of formal and informal chipped stone tools is useful in addressing questions involving the trajectory of reduction and the general activities undertaken by the prehistoric occupants of a site(s). Formal tools are defined as implements with a standard morphology. Formal tools, such a projectile points, may in fact be produced for a specific anticipated function or functions. However, we also know they were often used to perform a wide variety of tasks. Identification of prehistoric formal chipped stone tools recovered from this site was based on comparisons with previously defined types (Justice 1987; Railey 1996).

Projectile Points

Eighty-nine projectile points/point fragments were recovered from the Frazer Farmstead. If complete, or nearly complete, projectile points are examined for size and shape, resharpening methods, flaking characteristics, blade and haft morphology, presence of basal thinning or grinding, notch flake scars, type of fracture(s), and material type. Length, width, and thickness measurements (in millimeters) were taken for the projectile point fragment. Length measurements were taken on points retaining a distal end or working edge. “Length” reflects the maximum length along the axis of the point. “Width” reflects the point of maximum width that is perpendicular to the long axis of the point. “Thickness” reflects the point of maximum thickness on a plane that is perpendicular to the width.

Thirteen defined point types recovered from the Frazer Farmstead are described in the following section. As the existing archaeological literature suggests (e.g., Justice 1987), the majority of these established point types were utilized, in all likelihood, as knives and projectile points. Nevertheless, the projectile points recovered from the Frazer Farmstead are diagnostic of time periods ranging from Early Archaic through Late Prehistoric (Fort Ancient) time periods.

Early Archaic

Three Kirk Corner Notched Cluster projectile points were recovered from the site. They consist of a nearly complete Stillwell point, the proximal fragment of a Palmer Corner Notched point, and a nearly complete Pine Tree Corner Notched point (Figure C-1 a-c)

Stillwell (n=1)

The Stilwell point recovered from the site was manufactured from Boyle chert (Figure C-1 a). Due to the fact that the distal tip is missing, no length measurements were taken for this specimen. This point has a biconvex cross-section with a maximum thickness of 7.8 mm. The maximum width (measured at the shoulders) is 34.6 mm. The hafting element has a concave base that has been thinned and lightly ground. Basal width is 25.1 mm and the depth of the basal cavity is 2.3 mm. The corner notches are wide, with an average depth of 4.1 mm. The blade margins on this point are somewhat parallel and both are serrated. Random flake scars can be observed on both blade faces. Stillwell points are diagnostic or the Early Archaic subperiod and date to around 7,500-6,900 B.C. (Justice 1987:77).

Palmer Corner Notched (n=1)

The proximal portion of a small corner notched point manufactured from Boyle chert (Figure C-1 b) has a hafting element with a straight basal edge that has been ground. The extant notch has a depth of 6.5 mm. A serration projection can be observed on the lower part of the blade margin, just above the barbed shoulder. Although fragmented, the attributes observed on this specimen are consistent with that of a Palmer Corner Notched point. Palmer points are diagnostic of the Early Archaic Kirk Horizon and date to around 7,500-6,900 B.C. (Justice 1987:78).

Pine Tree Corner Notched (n=1)

A nearly complete corner notched point manufactured from heat treated Boyle chert was recovered from the site (Figure C-1 c). This specimen has an overall maximum length of 39.7 mm. The maximum width of this point (measured at the basal ears) is 23.5 mm. The point has a biconvex cross-section and a maximum thickness of 7.5 mm. The side notches are wide and shallow. Both barbs are missing, therefore, notch depth and width measurements were not recorded. The hafting element is expanding and has a straight basal edge that has been thinned, and ground. The resharpened blade displays collateral flaking on both faces and both blade margins are serrated. The attributes observed on this specimen are consistent with the Pine Tree Corner Notched type. Pine Tree points are diagnostic of the Early Archaic subperiod and date within a range of 7,500-6,900 B.C. (Cambron and Hulse 1975:105; Justice 1987:79-80).

LeCroy Cluster (n=1)

The proximal portion of a small bifurcated point manufactured from Boyle chert (Figure C-1 d) possesses a straight stem with pointed basal ears that lack grinding. The point fragment displays a bi-convex cross section and has a maximum thickness of 7.4 mm. The attributes observed on this point are consistent with that of LeCroy Cluster Projectile points. LeCroy Cluster points are diagnostic of the Early Archaic (6,500-5,800 B.C.) subperiod (Justice 1987: 91-93).

Big Sandy (n=1)

A complete resharpened side notched projectile point manufactured from Boyle chert was recovered from the site (Figure C-1 e). This specimen has an overall maximum length of 38.0 mm and an average blade length of 28.9 mm. The maximum width of this point (measured at the basal ears) is 18.6 mm. The point has a biconvex cross-section and a maximum thickness of 6.8 mm. The side notches are wide and shallow. Average notch width is 4.9 mm and average notch depth is 2.5 mm. The hafting element has a straight basal edge that has been thinned. The basal ears are slightly rounded and the entire haft area has been ground. This point has a narrow blade and fine pressure flake scars can be observed along both blade margins. The attributes observed on this specimen are consistent with the Big Sandy type. Big Sandy points are diagnostic of the Early Archaic subperiod and date within a range of 8,000-6,000 B.C. (Cambron and Hulse 1975:14; Justice 1987:60-6).

Figure C-1. Early Archaic Projectile Points: a, Stillwell; b, Palmer Corner Notched ; c, Pine Tree Corner Notched; d, LeCroy Cluster ; d, Big Sandy.

Late Archaic

McWhinney Heavy Stemmed (n=7)

Seven McWhinney Heavy Stemmed projectile points were recovered from the Frazer Farmstead (Figure C-2 a-g). They consist of a complete specimen (n=1), proximal portions (n=3), and points that were recycled into hafted scrapers (n=3) (Figure C-2 d-f). The complete point (Figure C-2 a) was manufactured from Haney chert. The proximal portions (Figure C-2 b-d) were produced from Muldraugh, Ste. Genevieve, and an unidentified (burned) chert, respectively. The hafted scrapers (Figure C-2 e-g) were made from heat treated Boyle (specimen e), Boyle (specimen f), and an unidentified chert type (specimen g).

The stems on these points range from straight (n=3) to expanding (n=4). Six of the specimens have concave basal edges and one has a straight basal edge. In addition, all of the stems lack grinding. The complete point, (Figure C-2 a) has an overall maximum length of 47.6 mm and an average blade length of 40.0 mm. This specimen has a plano-convex cross-section and a maximum thickness of 9.7 mm. Maximum width is 25.1 mm. Both blade faces have wide random flake scars and fine pressured flake scars can be observed on the excurvate blade margins. The remaining points, including the hafted scrapers, have an average maximum thickness of 10.8 mm and an average maximum width of 23.8 mm. McWhinney Heavy stemmed points date to the Late Archaic (4,000-1,000 B.C.) subperiod (Justice 1987:137-139).

Figure C-2. a-g, McWhinney Heavy Stemmed Points.

Merom Expanding Stemmed (n=1)

The proximal portion of a small side notched projectile point manufactured from Muldraugh chert was recovered from the site (Figure C-3 a). This specimen has a biconvex cross-section and a maximum thickness of 6.4 mm. Maximum width (measured at the base of the stem) is 14.9 mm. Stem length is 6.5 mm and average notch depth is 1.9 mm. The entire stem has been lightly ground. Random percussion flake scars are evident on both blade faces. Pressure flaking was utilized to thin the stem. The attributes observed on this specimen are consistent with Merom Expanding Stemmed projectile points. Merom points are diagnostic of the Late Archaic subperiod and date to around 1,600-1,000 B.C. (Justice 1987:130).

Table Rock Stemmed (n=1)

The medial and proximal portion of an expanding stem point manufactured from Harrodsburg chert was recovered from the Frazer Farmstead (Figure C-3 b). This specimen has a biconvex cross-section and a maximum thickness of 6.7 mm. Maximum width (measured along the blade margins) is 16.4 mm. The stem has a convex basal edge. The entire stem and notches have been ground. Stem length is 11.4 mm and average notch depth is 4.5 mm. Maximum stem width is 15.4 mm. Random percussion flake scars are evident on both blade faces and fine pressure flake scars can be observed along the blade margins. The attributes observed on this specimen are consistent Table Rock Stemmed projectile points. Table Rock Stemmed points are diagnostic of the Late Archaic subperiod and date to around 3,000-1,000 B.C. (Justice 1987:124).

Figure C-3. a, Merom; b, Table Rock; c, Matanzas.

Matanzas Cluster (n=1)

A nearly complete resharpened side notched point manufactured from an unidentified chert was recovered from the site (Figure C-3 c). This specimen measures 26.3 mm in maximum length. It displays a biconvex cross-section and a maximum thickness of 5.3 mm. The extant side notch is very shallow and was placed near the base of the preform. The basal edge of the hafting element is convex and it has been lightly ground. Long and narrow pressure flake scars can be observed covering one of the blade faces. The attributes observed on this specimen are consistent with Matanzas Cluster projectile points. Matanzas points are diagnostic of the Middle and Late Archaic subperiods and date to around 3,700-1,000 B.C. (Cook 1976; Justice 1987:119-120).

Late Archaic/Early Woodland

Saratoga Expanding Stem (n=2)

On complete and one heavily burned and fragmented expanding stem projectile point was recovered from the Frazer Farmstead (Figure C-4 a, b). Specimen (a) was manufactured from Boyle chert. However, due to intense burning, the chert type specimen (b) was manufactured from could not be identified.

Specimen (a), which has been resharpened, measures 40.7 mm in maximum length. Blade length measures 35.6 mm. This point has a plano-convex cross-section and a maximum thickness of 9.3 mm. The stem, which is bifacially thinned, has a straight basal edge that lacks grinding. The stem measures 24.9 mm in maximum width. Stem length is 12.1 mm. The notches on this specimen are wide and have an average notch depth of 6.5 mm. Broad percussion flake scars can be observed on both blade faces. Small pressure flake scars and small hinge fractures along the lateral blade margins indicate resharpening.

Maximum length and maximum thickness measurements could not be recorded for specimen (b). The maximum width of this specimen (measured above the shoulders) is 31.4 mm. The stem, which is bifacially thinned, has a straight basal edge and measures 21.5 mm in maximum width. Stem length is 14.9 mm. Saratoga Cluster projectile points are diagnostic of the Late Archaic to Early Woodland subperiods (2,000-650 B.C.) (Justice 1987:158).

Dickson Cluster (n=2)

The Dickson Cluster points recovered from the site (Figure C-4 c, d) consist of two complete specimens. Specimen (b) was manufactured from Ste. Genevieve chert, and specimen (c) was produced from Boyle chert. Both points have been resharpened. Specimen (c) has a maximum length of 55.4 mm, a maximum width (measured at the shoulders) of 27.5 mm, and a maximum thickness of 9.6 mm. Blade length is 38.6 mm. The cross section of the blade is biconvex. The stem is thinned, and lacks grinding. Stem length is 17.2 mm and stem width is 15.6 mm. Broad percussion flake scars can be

observed on both blade faces. Small pressure flake scars and step fractures observed on both lateral blade margins indicate that the point was subjected to resharpening.

The maximum length measurement recorded for specimen (d) is 41.1 mm. Maximum width (measured at the shoulders) is 19.4 mm. Blade length is 23.2 mm. The cross section of the blade is biconvex and maximum thickness measures 9.6 mm. The stem is thinned near the basal edge, and lacks grinding. Stem length is 17.9 mm and stem width is 14.8 mm. A shortened blade length as well as step fractures and irregular edges observed on both lateral blade margins and distal end indicate that the point was subjected to heavy resharpening. Dickson Cluster points are diagnostic of the Late Archaic and Early Woodland subperiods and date from about 1,500 to 300 B.C. (Justice 1987:189-198).

Figure C-4. a-b, Saratoga Expanding Stem; c-d, Dickson Cluster.

Late Woodland

Jack's Reef Pentagonal (n=1)

A nearly complete pentagonal-shaped point manufactured from Paoli chert was recovered from the site (Figure C-5). Although the proximal portion of this specimen has

been fractured, most of the pentagonal shape of this point remains. The area that appears to be a wide side notch actually is a fracture. This point has a flattened cross-section and measures 5.4 mm in maximum thickness. Both blade faces are covered with fine percussion flake scars. Pressure flake scars can be observed along the angular edges. The attributes observed on this specimen is consistent with Jack's Reef Pentagonal projectile points. Jack's Reef points are diagnostic of the Late Woodland subperiod and date to around A.D. 500-1,000 (Justice 1987:215; Ritchie 1961:26).

Figure C-5. Jack's Reef Pentagonal.

Late Prehistoric (Fort Ancient)

Type 2 Fine Triangular: Flared Base (n=1)

The proximal portion of a Type 2 Fine Triangular point manufactured from thermally altered Boyle chert was recovered from the Frazer Farmstead (Figure C-6). This specimen displays a flattened cross-section and incurvate blade margins, indicating some form of edge resharpening, and a straight basal edge. Maximum thickness measures 3.4 mm. Basal width measures 19.4 mm. Both faces of the point are completely covered with fine pressure flake scars. Type 2 Fine Triangular points are diagnostic of the early Fort Ancient subperiod (A.D. 1000-1200), but continued to be manufactured well into the middle Fort Ancient subperiod (A.D. 1200-1400) (Henderson 1998; Railey 1992).

Unidentified Projectile Points (n=7)

Seven projectile points/point fragments that could not be assigned to a known type were recovered from the site (Figure C-7 a-g). Significant resharpening, recycling, or

fragmentation of these specimens made it difficult to assign them to a specific cluster or type.

Figure C-6. Type 2 Fine Triangular Point.

A medium-sized point with a short, straight stem manufactured from Boyle chert was recovered from the site (Figure C-7 a). The maximum length measurement recorded for this specimen is 50.7 mm. Blade length is 41.3 mm. Maximum width (measured at the mid-point of the blade) is 27.1 mm. The cross section of the blade is biconvex and maximum thickness measures 7.6 mm. The stem is thinned near the concave basal edge, and lacks grinding. Stem length is 7.0 mm and stem width is 11.8 mm. Both faces of this specimen display heavy patination. However, both lateral blade margins and the shoulder haft juncture show signs of rechipping, as the patina is no longer present in these areas. The thin cross-section and flaking style observed on both faces of this point are attributes that would be observed on an Early Archaic type. It is highly probable that this is an Early Archaic point that was recycled sometime during the Late Archaic subperiod.

A complete, heavily resharpened corner notched point manufactured from Paoli chert was recovered from the site (Figure C-7 b). This specimen has a maximum length of 54.2 mm and a blade length of 44.5 mm. Due to extensive resharpening, beveling is present along both blade margins. The cross-section is rhomboidal and maximum thickness is 8.8 mm. This specimen has and expanding stem with a straight basal edge that has been ground. However, both basal ears have been fractured. The flaking characteristics, corner notching, and beveled blade edges indicate that this is an Early Archaic point. However, due to

significant resharpening and fractured basal ears, it was not possible to assign this point to a specific cluster or known type.

Figure C-7. Unidentified Projectile Points.

A fragmented corner notched point manufactured from Ste. Genevieve chert was recovered from the site (Figure C-7 c). Although the hafting element is missing, the flaking style observed on both blade faces and the extant corner notch strongly suggests that this point was manufactured during the Early Archaic subperiod.

The proximal portion of a side notched point manufacture from an unidentified (burnt) chert was recovered from the site (Figure C-7 d). This specimen has an expanding stem with a straight basal edge that has been ground. The stem also has been basally thinned. The point displays a biconvex cross-section.

A complete contracting stem point manufactured from Boyle chert was recovered from the site (Figure C-7 e). The maximum length measurement recorded for specimen is

50.4 mm. Maximum width (measured above the shoulders) is 21.4 mm. Blade length is 42.1 mm. The cross section of the blade is biconvex and maximum thickness measures 10.9 mm. The stem is not very well defined and lacks grinding. It was produced from a side notching technique. Random percussion flake scars can be observed on both blade faces. Step fractures are present on both lateral blade margins; however, it could not be determined if this specimen has been resharpened, or if the prehistoric knapper experienced difficulties thinning the point. Although this specimen shares some of the attributes with Late Archaic Stemmed Cluster projectile points it could not be placed into a specific category.

A fragmented expanding stem point manufactured from an unidentified (burnt) chert was recovered from the site (Figure C-7 f). This point was fractured or split longitudinally as a result of intense burning. This specimen has a biconvex cross-section and measures 9.3 mm in maximum thickness. The basal edge is straight and has been ground. The extant lateral blade margin is straight and displays fine pressure flake scars.

A heavily fragmented point manufactured from Boyle chert was recovered from the site (Figure C-7 g). Due to the highly fragmented state of this specimen it was difficult to determine the notching technique and shape of the hafting element. This point has a biconvex cross-section. In addition random flake scars can be observed on both faces.

Projectile Point Fragments (n=65)

Sixty-five projectile point fragments were recovered from the Frazer Farmstead. All of these specimens exhibit attributes of finished formal tools, such as thin profiles and refined flaking; however, due their highly fragmented condition, they could not be assigned to any known clusters or types. The fragments consist of distal fragments (n=16), mid-sections (n=38), and indeterminate fragments (n=11). The distal fragments were produced from Boyle (n=5), heated Boyle (n=5), Haney (n=1), Harrodsburg (n=1), and Paoli (n=4) cherts. The mid-sections were manufactured from Boyle (n=12), heated Boyle (n=11), Haney (n=1), Harrodsburg (n=1), Paoli (n=4), Ste. Genevieve (n=3), and unidentified (n=6) cherts. The indeterminate fragments were produced from Boyle (n=5), heated Boyle (n=1), Harrodsburg (=1), Paoli (n=3), and Ste. Genevieve (n=1) cherts.

Drills /Perforators (n=4)

The drill fragments recovered from Site15Hr42 consist of proximal portions (n=2), and distal fragment (n=1), and a nearly complete specimen (n=1) (Figure C-8 a-d). The two proximal portions and the nearly complete specimen were manufactured from Boyle chert. The distal fragment was produced from Paoli chert. All four specimens display very fine pressure flaking on the bit and have a median ridged or diamond shape cross-section. One of the proximal portions appears to have been originally manufactured as a drill/perforator (Figure C-8 a). The other proximal portion displays the remains of shoulders or barbs and a stem. This specimen most probably was recycled from a corner notched projectile point (Figure C-8 b). Drills/perforators were used for boring and/or piercing a wide variety of materials, such as bone, shell, antler, wood, stone, and leather.

Figure C-8. Drills/Perforators.

Unifacial Endscraper/Frgments (n=4)

Two complete unifacial endscrapers and two unifacial endscraper fragments were recovered from the Frazer Farmstead. The complete specimens (Figure C-9 a, b) were manufactured from Ste. Genevieve (a) and Boyle (b) cherts. The fragments were manufactured from heated Boyle and an unidentified (burnt) chert, respectively. The edge angle measurements recorded for these specimens range from 60 to 75 degrees. A light polish was noted on the working edge of all of the specimens, the only exception being the burnt fragments. The edge angles and signs of use wear indicate that these tools most probably were used to cut and scrape soft animal or plant materials.

Informal Chipped Stone Tools

Informal chipped stone tools are those artifacts that were manufactured for a specific task at, or shortly before, the point at which they were to be used. These tools either show evidence of utilization without modification, or minimal modification through nominal retouching. Retouched flakes are an example of an informal tool.

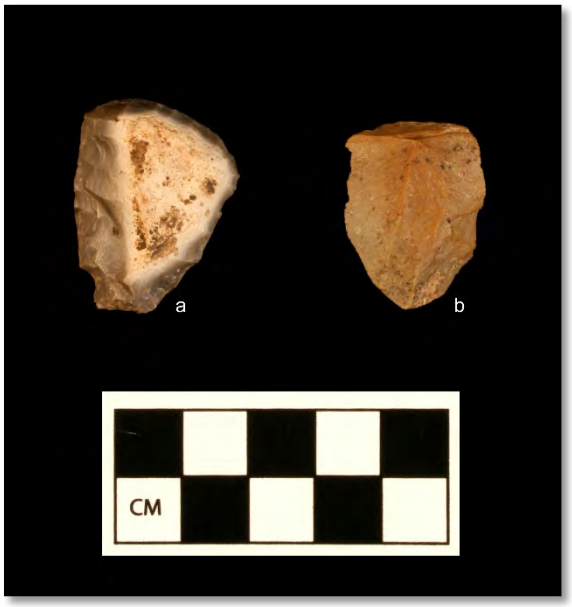

Figure C-9 a-b, Unifacial Endscrapers.

Edge Modified (Retouched) Flakes (n=10)

Ten edge modified (retouched flakes) were recovered from the Frazer Farmstead. These expedient tools were produced from thermally altered Boyle (n=3), Ste. Genevieve (n=1), St. Louis (n=1), Muldraugh (n=1), and Paoli (n=4) cherts. Possible uses of retouched flakes are suggested by Wilmsen's (1968) examination of the measurement of edge angles as an indicator of tool function. He conducted experiments on edges with different angles. His results indicated that edges with angles between 35 and 45 degrees would be most effective at cutting soft material and butchering. Edges with angles between 50 and 75 degrees would be most effective at cutting, scraping, or shaping hard materials, such as bone or wood. Seven of the retouched flakes possessed edge angles ranging from 50 to 90 degrees, advocating their use in cutting, scraping, or shaping hard materials, such as bone or wood. The three remaining flakes had edge angles ranging between 35 and 45 degrees, suggesting that their primary use was for cutting soft plant or animal material, or possibly butchering.

Utilized Flakes (n=5)

The utilized flakes recovered from the site were manufactured Boyle (n=4), heated Boyle (n=1), Paoli (n=6), and Ste. Genevieve (n=1) cherts. Utilized flakes show modification through use, not intentional retouch along one or more margins of the tool. The variability in the shape of these flakes and the relatively simple level of modification strongly suggests these are informal tools. These tools were probably expediently produced and used on an as-needed basis for tasks, such as cutting, and then discarded.

Channel Flake

One channel flake fragment, made of Boyle Chert, was recovered from 15Hr42. The fragment has a weight of 1.78g, length of 31.7mm and a maximum width of 13.0mm. Channel flakes are distinguishable according to platform remnants and dorsal surface morphology. They are highly unique and can be easily recognized if only a minute fragment is recovered. Channel flakes are specialized tertiary, basal thinning flakes, which are unique to Clovis, Cumberland and Folsom projectile points (Boldurian 1999).

This particular specimen lacks a proximal end, and is only a "mid section" of a channel flake, but concluding its legitimacy as a channel flake is straightforward. The dorsal surface of this specimen has a slightly pronounced median ridge formed by parallel flaking. These flake scars are oriented perpendicular to the direction of the channel flake's removal, which is characteristic of a channel flake. The removal of this flake has the appearance of being completely controlled, and not random, as would be the case if this were a flake from an impact fracture. Multiple personal experiments reproducing "fluted points" have produced the exact same type channel flake. Often in the process, due to the amount of stress paced on the flake during removal, the channel flake breaks, leaving "mid sections" that are identical to the specimen recovered at 15Hr42. This channel flake also has use wear, evidence that it was used as a light-duty tool.

CHIPPED STONE DEBITAGE

The French term debitage has two related meanings: 1) it refers to the act of intentionally flaking a block of raw material to obtain its products; and 2) it refers to the products themselves (Grace 1989, 1993). Commonly, the term debitage is used by prehistorians to describe flakes that have not been modified by secondary retouch and make into tools. For the purpose of this analysis, which is based on the research of Grace (1989, 1993), each type of debitage has been assigned to a specific class. These classes are as follows:

1) Initial reduction flakes: produced from hard hammer percussion; are typically thick; display cortex on all or part of their dorsal surfaces; and have large plain of simple faceted butts (striking platforms).

2) Flakes (Unspecified reduction sequence): applies to those pieces to which a specific reduction sequence cannot be assigned. With these pieces, it is impossible to tell whether they have been detached by simple core reduction or biface manufacture. For example, cortical flakes initially removed from a block of material can appear similar in both core and biface reduction strategies.

3) Biface initial reduction flakes: produced from hard or soft hammer percussion; are typically thick; display cortex on part of their dorsal surfaces; and have large plain or simply faceted butts (striking platforms). These flakes display more dorsal scars than initial reduction flakes.

4) Biface thinning flakes: result from shaping the biface while its thickness is reduced; generally lacking cortex; are relatively thin; and have narrow, faceted butts multi-directional dorsal scars, and curved profiles. Bifacial thinning flakes are typically produced by percussion flaking.

5) Biface finishing or trimming flakes: produced during the preparation of the edge of the tool. These flakes are similar in some respects to thinning flakes, but are generally smaller and thinner and can be indistinguishable from tiny flakes resulting from other processes, such as platform preparation. Biface finishing flakes may be detached by either percussion or pressure flaking.

6) Chips: descrinbed flakes (<1cm in length) that are detached during several different types of manufacturing trajectories. First, they can result from the preparation of a core or biface edge by abrasion, a procedure that strengthens the platform prior to the blow of the hammer. Second, tiny flakes of this type also are removed during the manufacture of tools like endscrapers.

7) Shatter: produced during the knapping process and through natural agents. Naturally occurring shatter is usually the result of thermal action shattering a block of chert. During biface reduction, shatter results from an attempt to flake a piece of chert with internal flaws (fossils) and fracture lines. For the purpose of this analysis, shatter is defined as a piece of chert that shows no evidence of being struck by a human (i.e., bulb of percussion and faceted butts [striking platform]), but may nonetheless be a waste product from a knapping episode.

8) Janus Flakes: produced during the initial reduction of a flake blank (Tixier and Roche 1980). The removal of a flake from the ventral surface of a larger flake results in a flake, of which the dorsal surface is completely or partially composed of the ventral surface of the larger flake.

Discussion

Nearly one half of the unmodified flakes recovered from the Frazer Farmstead consist of unspecified reduction sequence flakes (n=904; 45.2 percent) (Table C-1). These are followed in frequency by biface initial reduction sequence flakes (n=392; 19.6 percent), initial reduction flakes (n=241; 12.1 percent), biface thinning and shaping flakes (n=240; 12.0 percent), biface finishing or trimming flakes (n=115; 5.7 percent), shatter (n=96; 4.8 percent), and chips (n=12; 0.7 percent) (Table C-1).

A little over 37 percent of the debitage recovered from the site can be attributed to biface manufacture (Table C-1: Classes 3-5) and the debitage assemblage is well represented by early stage biface reduction flakes or class 3 flakes, derived from the initial thinning of bifaces. In addition, the presence of initial reduction flakes (12.1 percent) indicates that that some lithic raw material and possibly cortex-bearing preforms were transported to the site and knapped into their finished form.

The analysis of the debitage indicates that the full range of lithic production occurred at this locale. In addition, it can be suggested that that formal tools were being produced and probably refurbished at the site. The fact that 24.1 percent of the debitage was thermally altered indicates that this was an important activity carried out at the site (Table C-1). The only material being heat treated at this locale was Boyle chert. The ability to knap some stones can be enhanced by thermal alteration, or heat treating. Heat treating improves the ability to thin and shape a piece using either percussion or pressure flaking methods. Thermal alteration also produces changes in luster and/or changes in color. The high quality Mississippian age cherts, such as Haney, Paoli, Ste. Genevieve, and St. Louis would not have required thermal alteration.

Table C-1. Flake Types Recovered from the Frazer Farmstead.

Flake Type	Frequency	Percent
Initial Reduction Flakes	225	11.3%
Initial Reduction Flakes (HEATED)	16	0.8%
Unspecified Reduction Sequence Flakes	722	36.1%
Unspecified Reduction Sequence Flakes (HEATED)	182	9.1%
Biface Initial Reduction Flakes	298	14.9%
Biface Initial Reduction Flakes (HEATED)	94	4.7%
Biface Thinning and Shaping Flakes	152	7.6%
Biface Thinning and Shaping Flakes (HEATED)	88	4.4%
Biface Finishing or Trimming Flakes	59	2.9%
Biface Finishing or Trimming Flakes (HEATED)	56	2.8%
Chips	1	0.1%
Chips (HEATED)	11	0.6%
Shatter	62	3.1%
Shatter (HEATED)	34	1.7%
Janus Flakes	0	0.0%
Janus Flakes (HEATED)	0	0.0%
Total	2000	100.0%

OTHER CHIPPED STONE

Bifaces/Biface Fragments (n=21)

Three complete bifaces and 18 biface fragments were recovered from the site. To provide some clarity to this group, they were divided into four subcategories: early stage, middle stage, late stage, and fragments. An early stage biface exhibits the initial outline of the chipped stone tool. Flake scars are widely spaced and the biface itself is relatively thick. A middle stage biface is thinned to the point where projections and irregularities are removed. As a result of this shaping they tend to be thinner than early stage bifaces, and their lateral blade margins are more defined. A late stage biface is essentially finished, well-thinned, and symmetrical in outline and cross-section. Biface fragments were further subdivided into proximal, and middle or mid-section categories.

The complete bifaces consisted of early stage (n=1), middle stage (n=1), and late stage (n=1) specimens. The early and late stage bifaces were manufactured from Haney chert. The middle stage biface was produced from an unidentified chert. The biface fragments were made up of mid-sections (n=14) and proximal portions (n=4). The mid-section fragments were derived from early stage (n=4), middle stage (n=2), and late stage (n=8) bifaces. The proximal portions represent fragments of early stage (n=1) and late stage (n=3) bifaces. The mid-section fragments were produced from Boyle (n=3), heated Boyle (n=7), Paoli (n=2), and Ste. Genevieve (n=2) cherts. The proximal fragments were fashioned from heated Boyle (n=1), Paoli (n=2), and Ste. Genevieve (n=1) cherts.

Cores (n=6)

The cores recovered from the site were produced from thermally altered Boyle (n=4), Paoli (n=1), and St. Louis (n=1) cherts. All of the cores exhibit areas of crushing and battering, with flake scars in succession between these areas. All of the cores can be classified as free-hand cores, or cores that were produced without the aid of an anvil.

Tested Cobbles (n=4)

Four tested cobbles were recovered from the Frazer Farmstead. These specimens were produced from Boyle (n=3) and Paoli (n=1) cherts. All of the tested cobbles reveal areas where one flake was removed and battered. The presence of cobble or riverine cortex indicates that these specimens were recovered from a local stream, such as the nearby Licking River.

Chert Hammerstones (n=3)

Two complete chert hammerstones and one chert hammerstone fragment were recovered from the Frazer Farmstead. One of the complete hammerstones is made of Boyle Chert and the other is made of St. Louis Chert. The hammerstone fragment was produced from Boyle chert. The complete Boyle chert hammerstone has battered riverine cortex, suggesting it was procured from a stream. It is small in size, most likely being used for late stage thinning and finishing knapping.

The St. Louis chert hammerstone has cortex and patination also indicating that it was procured from a nearby stream. It is medium in size and has battering over much of the surface. This may indicate that it was used in multiple knapping scenarios. This hammerstone also has an area of coning, a concave area in the center of the piece. This may suggest several circumstances. Perhaps the tool was used as a direct and indirect knapping utensil. It is also possible it was used on other hard stones in the manufacturing of other tools. The presence of the coning leaves no doubt that his tool was used against another very hard material.

The hammerstone fragment appears to have originated from a medium to large hammerstone. The explanation for the fragmentation on this particular specimen most

probably is due to an internal flaw in the chert. Repeated percussion blows exploited this internal flaw and subsequently caused the hammerstone to break.

CHIPPED STONE RAW MATERIAL

Raw material identification was conducted on the entire chipped stone assemblage (Table C-2). Raw material types were identified on the basis of personal experience, physical properties of the raw materials (i.e., color, luster, fracture, and texture), reference to published descriptions (Applegate 1996; Gatus 1980; Meadows 1977; Ray 2003; Vento 1982), and comparisons with chert specimens housed at the William S. Webb Museum of Anthropology in Lexington**.** A 10X hand lens and a Swift M27LED Stereo Microscope (4X) was used to identify inclusions and to evaluate texture and structure.

Cortex was described as being present or absent in residual (block) or cobble form. The presence of residual or block cortex denotes lithic procurement from primary sources or outcrops, while cobble cortex indicates procurement from secondary sources (i.e., stream gravel bars). Generally, residual cortex is rather coarse, while cobble cortex is smooth and often pitted and/or polished. It was noted that the overwhelming majority of the cortex- bearing specimens recovered from the site exhibited cobble cortex, strongly indicating that raw materials were being procured from local streams.

Boyle Chert

Boyle chert (n=817) makes up 37.9 percent of the lithic raw materials utilized within the assemblage (Table C-2). Boyle chert occurs in the Middle Devonian aged dolomites of the Boyle Formation of central and eastern Kentucky and occurs as nodules and discontinuous layers (Meadows 1977:102). The nodules are large and blocky, and can be found eroding out of its parent dolomite in a clayey soil environment. These nodules often exhibit a white, chalky cortex. However, stream transported cobbles frequently exhibit a smooth, polished brown cortex. Boyle chert is somewhat variable in color, with a mottled mixture of tan, gray, light brownish gray, light bluish gray, bluish gray, pinkish gray, yellow, and different shades of brown and white (Ray 2003). Moderate changes in color, texture, and luster occur in thermally altered Boyle chert (Ray 2003:8). Color changes primarily include pinkish gray, and pale to weak red. Boyle chert can range from earthy to waxy in appearance. A little over 23 percent of the Boyle chert recovered from the site was thermally altered (Table C-2). Boyle chert is generally opaque, but can be translucent. This material also can be highly fossiliferous, containing bryozoans, brachiopods, corals, crinoids, and echinoderms (Vento 1982).

Newman Limestone Cherts

Mississippian age Newman Limestone cherts are known to outcrop along the western boundary of the Eastern Coalfields (Applegate 1996; Meadows 1977). Newman Limestone also crops out near the Pine Mountain overthrust of southeastern Kentucky. The Newman Limestone contains several chert-bearing members, including Haney, Paoli/Beaver Bend, Ste. Genevieve, and St. Louis.

Haney

Haney chert can be distinguished by its high content of oolites, which can be observed by the naked eye. Oolites are spheroidal or ellipsoidal bodies that are usually calcareous or siliceous in composition and are suspended within the chert matrix. According to Meadows (1977:109), other than its oolitic appearance, Haney chert is essentially the same as Paoli chert, but more translucent. However, some specimens of Haney chert do not appear to be highly oolitic. Haney chert varies in color from white and buff, to tan, brown, and dark-brown (Vento 1982). This material also may contain brownish and grayish banding, or stripes. Haney chert is of high quality and fractures with ease. Haney chert accounts for 2.1 percent of the lithic raw material recovered from this site (Table C-2).

Paoli

Paoli chert occurs as irregularly shaped and elongated nodules, and in thin discontinuous beds (Meadows 1977:108). This material is non-fossiliferous and highly silicified. Paoli is a colorful and variegated chert, sometimes displaying lines and swirls of red, brown, orange, yellow, and tan. Paoli chert is vitreous and shiny, and can be semi-translucent. Paoli chert is a very high quality knapping material and makes up 37.1 percent of the lithic raw material recovered from this site (Table C-2).

Ste. Genevieve

Ste. Genevieve chert occurs in both nodular and tabular form (Gatus 1980). Ste. Genevieve chert ranges in color from light to medium blue-gray, very dark gray, to olive gray and yellowish-gray. Ste. Genevieve chert is vitreous and can be translucent. It is considered a high quality knapping material. Ste. Genevieve chert makes up 2.4 percent of the lithic raw material recovered from the site (Table C-2).

St. Louis

St. Louis (Green) chert occurs in nodular and bedded form. Gatus (1980) describes the green nodules as being almost perfectly spherical in shape, often quite large in diameter, and very dense. Because of these qualities, St Louis chert generally requires considerable force to fracture. These nodules can be found in the basal strata of limestone cliffs. In addition, this chert can be found scattered in regional streambeds and terraces as alluvial deposits. St. Louis chert is variable, in colors that include, white, to red, and differing shades of green and gray. However, it is predominantly green (Gatus 1980). St. Louis constitutes only 1.5 percent of the raw lithic material recovered from the site (Table C-2).

Harrodsburg

Harrodsburg chert is named for the Harrodsburg Limestone formation. The color of Harrodsburg chert may include white, pale brown, dark brown, light gray, gray, bluish

gray, and different shades of brown. The chert usually occurs as a fine mottling of two or more of these colors. The luster of this material is low or dull. Harrodsburg chert is highly fossiferous and for the most part contains crinoidal detritus; however, it also contains fragmens of brachiopods, twiggy bryozoa, and siliceous spicules (Ray 2003). Thermal alteration of Harrodsburg chert produces different shades of red and a medium luster. Harrodsburg chert accounts for only 0.9 percent of the entire chipped stone assemblage.

Muldraugh

Muldraugh is a Mississippian-age bedded chert, which can vary greatly in quality. Muldraugh chert occurs in continuous and discontinuous beds approximately 5-25 cm thick (Ray 2003:8). The color of this material is highly variable and generally consists of an irregular mottling of light and dark colors. Colors include white, light gray, gray, dark gray, dark bluish gray, light brownish gray, pale brown, yellowish brown, and weak red (Ray 2003). The Muldraugh chert recovered from the Frazer Farmstead is a mottled light and dark-gray color. Thermal alteration typically produces significant color changes in Muldraugh chert, such as pale to weak red. This chert is found extensively along the Ohio River and tributary drainages along the southern tier of counties in Indiana and the northern tier of Kentucky counties. Muldraugh chert accounts for only 0.5 percent of the raw lithic material recovered from the site (Table C-2).

Table C-2. Chipped Stone Raw Material Types and Frequencies.

Chert Type	Flakes	Indeterm-inate PPK Frags.	Projectile Points	Edge Mod. & Utilized Flakes	Biface/ Biface Frags.	Core/ Core Frags.	Tested Chert/ Tested Cobbles	Drills	Scrapers	Chert Hammer Stones	Channel Flake	Percent
Boyle	251	22	9	4	11	0	3	3	1	2	1	14.4
Heated Boyle	481	17	3	4	0	4	0	0	1	0	0	23.5
Haney	41	2	1	0	2	0	0	0	0	0	0	2.1
Harrodsburg	16	3	0	0	0	0	0	0	0	0	0	0.9
Muldraugh	7	0	2	1	0	0	0	0	0	0	0	0.5
Paoli	770	11	2	10	4	1	1	1	0	0	0	37.1
Ste. Genevieve	38	4	3	2	3	0	0	0	1	0	0	2.4
St. Louis (Green)	29	0	0	1	0	1	0	0	0	1	0	1.5
UID	367	6	4	0	1	0	0	0	1	0	0	17.6
Total	**2000**	**65**	**24**	**22**	**21**	**6**	**4**	**4**	**4**	**3**	**1**	**100.0**

Unidentified Chert

Several of the chipped stone specimens recovered from the study area could not be positively identified and some had been heavily burnt. The burning may have taken place incidentally during prehistoric times. However, some may also have been burned during historic times, as they were recovered from plow zone contexts. Unidentifiable (b chert constitutes 17.6 percent of the chipped stone assemblage (Table C-2).

SUMMARY

Based on the recovery of a varied assemblage of projectile points, it appears that Site 15Hl42 contains Early Archaic, Late Archaic, Early Woodland, Late Woodland, and Late Prehistoric (Fort Ancient) components. The recovery of bifaces/fragments in differing stages of production and several cores indicates that both bifacial and core reduction was carried out by the prehistoric inhabitants of this site. The presence of chert hammerstones further indicates that early and late stage reduction activities took place.

The debitage profile indicates that the full range of lithic reduction, which included the production of formal and informal stone tools, also took place at this locale. The overwhelming majority of cortex observed within the debitage assemblage consisted of smoothed, pitted, and sometimes polished cortex, indicating that stream cobbles were transported to the site and knapped into their finished form. Mississippian-age Paoli and Middle Devonian-age Boyle cherts appear to have been the preferred lithic raw materials. Both material types could have been procured from the nearby Licking River and its tributary streams.

The presence of bifacial drills/perforators indicates that activities centered around the boring of materials, such as bone, wood, or stone and piercing leather hides, were carried out at this locale. The presence of edge modified (retouched) flakes, utilized flakes, and unifacial endscrapers points to repeated activities aimed at processing both plant and animal materials, including the preparation of animal hides.

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