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# ARCHAEOLOGICAL INVESTIGATIONS AT THE 1795 ELIJAH FOLEY HOUSE, FAYETTE COUNTY, KENTUCKY

By

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## ABSTRACT

*In this paper, the results of salvage excavations at the Elijah Foley House (15Fa231) near Lexington, Kentucky are presented. Foley, an early gunpowder manufacturer, built a two story brick residence on his property about 1795. The diverse artifact assemblage at this site was representative of the entire occupational span of the house. Although the site had been disturbed by construction activities for a new subdivision, it still provided an excellent assemblage of an early rural farmstead.*

## INTRODUCTION

During the summer of 1994, the Kentucky Heritage Council learned that the Elijah Foley House in southern Fayette County, Kentucky was being demolished to make way for a new subdivision. The Foley House was constructed about 1795 by gunpowder manufacturer Elijah Foley. Since this was one of the few surviving early houses in rural Fayette County, the Kentucky Heritage Council felt the need to conduct excavations at the Foley House. Mr. Steve Haydon, owner and developer, was contacted and he graciously gave us permission to conduct archaeological investigations at the site. Between April 21 and June 2, 1994 (12 field days), salvage excavations were conducted under the supervision of Kentucky Heritage Council staff archeologist Charles D. Hockensmith.

The Elijah Foley House is located within the Inner Bluegrass region. The site is situated on a ridge top about 380 m east of Clays Mill Road in southern Fayette County and approximately 8 km south of downtown Lexington. The Jessamine-Fayette County line is 450 m south of the house. Archaeological remains associated with the house extended over an area 53 m north-south and 62 m east-west. The area surrounding the house had been bulldozed extensively in connection with a proposed subdivision called Foley's Landing.

This report has been divided into several major sections. Initially, the Elijah Foley House and its setting are described in a section about architecture. The next section discusses the Foley family and their role in gunpowder manufacturing industry. Subsequent sections discuss the archaeological

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With contributions by Gary A. O'Dell, Nancy Foley Johnson, and Valerie A. Haskins.

investigations and cultural deposits at the site. The bulk of the report deals with the artifacts recovered from our excavations. A section about faunal remains follows. The subsequent sections deal with functional group patterning and integrity of the archaeological deposits. The final section presents the conclusions of the study.

## ARCHITECTURE

The original Elijah Foley House was a two and a half story Federal style structure with three bays (Figure 1 a-d). Flemish bond brickwork was used on the front, back, and east sides. One course of a decorative molded brick was used on the front and rear walls of the house. The structure had a gabled roof and two outside end chimneys with corbeled caps. It was built on a cut limestone foundation. A small basement with cut limestone walls was located under the northwest wing of the house. The windows were nine over six on the first floor and six over six on the second floor. Brick coussours were over pegged windows.

Later in time the Foley House was modified and enlarged. A Greek Revival two-panel door with a four paned transom and shouldered architrace was added to the main entrance. Also, a delicate fretwork band was added at the lower edge of the cornice. A one story, three bay east wing with a hip roof probably functioned as a separate kitchen at one time. A breezeway or dogtrot originally separated the house and kitchen. The breezeway was later closed in using a common bond brick pattern. The wide mortar joints in the breezeway sharply contrasted with the narrow (pencil) mortar joints of the original structure.

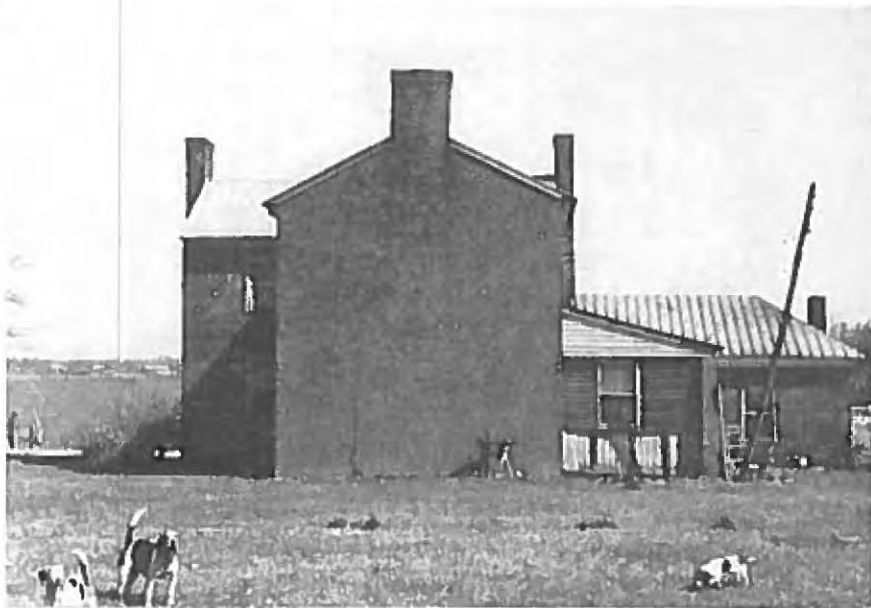
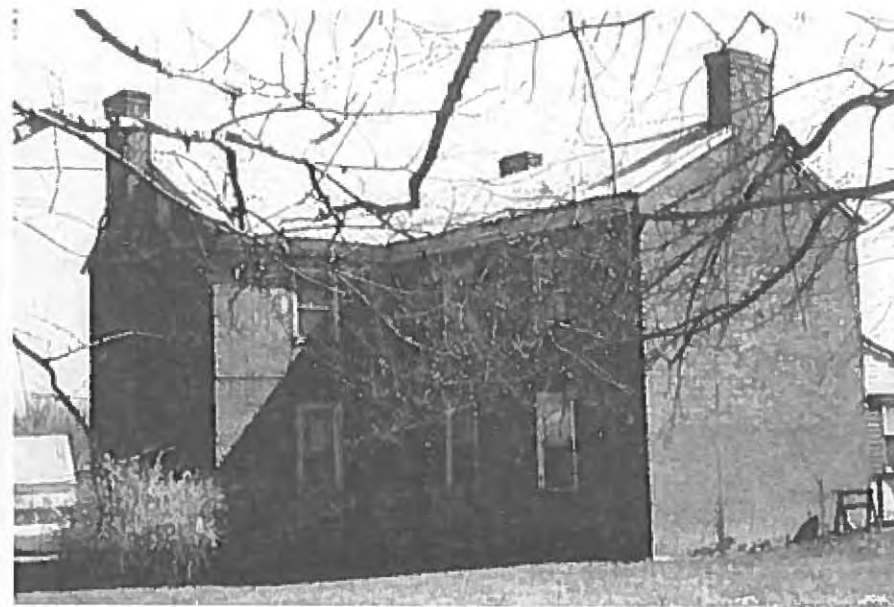
During the mid-nineteenth century, a rear two story addition with two bays was added. It had an inside end chimney, mitered window frames, and common bond brickwork. A porch supported with square brick columns was covered with a shed roof. The porch was later enclosed with horizontal wood siding (Figure 1d).

A one story brick garage is located 21 m east of the Foley House. It measures 6.1 by 12.25 m (20 by 40 feet) with a north-south long axis. The garage was constructed with used brick (some with paint on them) and built on a limestone foundation. Portland cement was used in the wide mortar joints. A hip roof with shingles covers the structure. The north end of the structure had a thin concrete floor and was used for parking a vehicle. The southern two-thirds of the structure was subdivided into two compartments with a north-south wall. The western compartment has coal on the floor and may have functioned as a coal shed. The eastern compartment was filled with recent trash and served an unknown function. Architectural historian William Macintire (personal communication 1994) thinks that the garage was built no earlier than 1900.

A small frame building was located in the east side yard. At the time of the fieldwork, it had been pulled down and the roof was on the ground to the west. The structure was a small shed (3.05 by 3.75 m) with a wooden floor and tin roof. The wire nails used in the structure indicate that it probably dates to the twentieth century.

A natural spring is located about 150 m northwest of the house. The water flows from under a large limestone outcrop located at the base of the hill. This is a very reliable spring with a very strong and constant stream of water. There was no evidence for a spring house. However, fill dirt for the proposed subdivision had been dumped to the edge of the spring. The only evidence of human activity





**Figure 1. Photographs of the Elijah Foley House Taken During the 1960s: a, front elevation; b, west and rear elevations; c, rear elevation; d, east elevation. Courtesy of the Office of Historic Preservation in Lexington.**



was a flattened bucket and a recent earthen embankment below the spring to impounded the water into a shallow pond.

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## THE FOLEY FAMILY AND THEIR ROLE IN GUNPOWDER MANUFACTURE

By

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During the period from about 1795-1815, gunpowder was one of the most important export commodities in the developing economy of Kentucky. Not only was it valuable, it was a necessary article for local use. In an era marked by conflict with the British and their Indian allies, gunpowder was sufficiently compact that it could be profitably transported to neighboring states and territories. The Bluegrass region was centrally located to the largest known natural repositories of saltpeter (calcium or potassium nitrate) in North America, the primary ingredient needed to make gunpowder. Consequently, in Kentucky, the Bluegrass region became the trade center for saltpeter and the manufacturing center for gunpowder. The largest cluster of gunpowder factories was located in Fayette and Jessamine counties in the vicinity of South Elkhorn Creek. The industry here, and for the state, was pioneered by the Foley family.

The Foleys were among the earliest settlers in Kentucky. Richard Foley and family set out from Frederick County, Virginia for the western frontier in late autumn of 1779. Foley was accompanied by his wife Margaret (Wilson), and their six children ranging in age from ten years to eight months. By mid-December of that year, they had reached their intended destination, the fertile Bluegrass uplands between the Kentucky River and the heads of the Salt and Green rivers (present Mercer County). They may have been the first European arrivals at the site of an intended settlement, and helped to establish Bowman's Station. The Foleys, with several other families, spent a hard first winter at the station.

Decades later, Elijah Foley was interviewed by the Reverend John D. Shane. As Elijah recalled:

My mother was the first white woman that was there for some time; and our coming was the first settling of the station. There was nothing but a camp there, till some time in March, because it was too cold to work. As soon as we had gotten a good camp, Colonel [Abraham] Bowman brought his family from Harrodsburg, and by spring we had twenty families that had camped in the snow and remained during that winter (Beckner 1937:255).

There are some alternative versions of the first camp at the station that winter of 1779. Regardless of

whether or not the Foleys were actually first on the spot, they certainly were among the founders of the station (Wayland 1943:103-105).

The Foleys left Bowman's Station in 1787, and came to live in Fayette County near Lexington at about that time. Richard Foley's name first appears on the Fayette tax lists in 1789. In June 1791, Richard purchased 61.6 ha (154 acres) on South Elkhorn Creek, a few miles south of town, from Elijah Craig for "fifty pounds lawful money of Virginia" (Fayette County 1791). By this time, the Foley family had been increased by the addition of three more children. Richard built a house on the hill overlooking the Elkhorn. This site is bounded by the Higbee Mill Road to the north and the Clays Mill Road to the west.

The community of South Elkhorn takes its name from South Elkhorn Creek. Here in 1783 Lewis Craig established the first Baptist church and first worship assembly in Kentucky (Collins 1847:108). John Higbee was another of the early settlers in this neighborhood, who built a grist mill and operated several other enterprises including an inn and a tavern.

Soon after settling at South Elkhorn, Richard began making gunpowder by hand with mortar and pestle, according to family tradition. Many of the early settlers in Kentucky were well acquainted with the art of gunpowder manufacture. During the Revolutionary War, gunpowder had been a scarce and vital commodity in the colonies and instructions for its manufacture had been published in many newspapers. While the elements of powder making were common knowledge, making good gunpowder was not. The art of producing high quality black gunpowder lay in determining the best proportion of ingredients for the mixture and in the subsequent processing.

The manufacturing technology had remained virtually unchanged since gunpowder had first been made by the Chinese nearly a thousand years before the American Revolution. In all its aspects, gunpowder making was a highly dangerous trade. Because of the risk of explosion from even the slightest spark, all equipment was wooden. The basic items were a mortar and pestle, in which the moistened ingredients were ground and mixed. With a single mortar and pestle one man could produce small quantities of gunpowder for personal use; commercial operations used a series of these hooked to a camshaft and driven by water or animal power. The moist gunpowder mass was then pressed through a screen to produce grains of the desired size, and then dried. Finally the gunpowder was polished in a tumbler and packed into containers for use or sale.

Richard Foley must have been well acquainted with the techniques of gunpowder making, for he soon erected a powder mill on his property along the waters of South Elkhorn Creek. The mill most likely consisted of several buildings. The usual practice in powder manufacture was to conduct each step of the process in a separate building to minimize both the magnitude of an explosion and the loss of equipment. By spring of 1793 Richard had made sufficient quantities to advertise in the *Kentucky Gazette* (1793), available at his "powder mill on South Elkhorn," gunpowder of "superior quality, by the large or small quantity, at 3 [shillings] 9 [pence] per lb. with an allowance to those who purchase a large quantity." Based on available documentation, Richard Foley is believed to be the first person in Kentucky to produce gunpowder in commercial quantities.

In 1793, of the ten Foley children, only Elijah (22) and John (14), two of the five males, began to help their father in the powdermill. It was fortunate that they learned the trade, because Richard, 49 years old, died of measles the following year and the welfare of the family now depended on these two elder sons.



By the terms of Richard's will, probated in Fayette County in January 1795, his widow Margaret received 100 of the original 154 acres (40 of 61.6 ha), containing the "house and plantation" and presumably the powder mill operation (Fayette County 1795). Elijah received 54 acres (21.6 ha) from the southern end of the property, "laid off in such a manner as to include the big spring and the branch...". The other children in the family were to receive various sums as they reached age 21 (Fayette County 1795).

Elijah had his own family by this time, having married Rachel Miller prior to 1793, when their son Richard was born. On his 54-acre (21.6 ha) inheritance, he built a sturdy and spacious brick house in the Federal style, two and a half stories with a gable roof and full basement. Immediately after his father's death, Elijah assumed primary responsibility for running the powder mill, as indicated by an advertisement for gunpowder under his name in the 24 June 1797 *Kentucky Gazette*. A similar advertisement ran in 1799 (*Kentucky Gazette* 1799). However, Elijah was soon forced to turn the powder mill over to his brother John. Richard's widow, Margaret, died in 1801, and by the terms of her late husband's will, John was to assume possession of the "house and plantation," property which included the powder mill.

In 1803 John, now 24 years old, advertised in the *Kentucky Gazette* that he "has on hand, and keeps a constant supply of the first quality of gunpowder," at the South Elkhorn mill. This powder, which was also available at the store of Lewis Saunders in Lexington, was priced at two shillings per pound to "any person buying 25 pounds [11.25 kg], or more" (*Kentucky Gazette* 1803). The same advertisement was repeated on 21 February 1804.

As the years of the first decade of the nineteenth century passed, many other South Elkhorn families followed the lead of the Foleys and established mills to manufacture gunpowder. While there were many other mills in the neighborhood that produced ground corn, whiskey, and lumber, there came to be a greater concentration of gunpowder establishments at South Elkhorn than anywhere else in the state. While many of these local mills were small, in aggregate they constituted a significant portion of all gunpowder production for Kentucky.

According to the 11 May 1801 *Kentucky Gazette*, 3,042 pounds (1,368.9 kg) of gunpowder were shipped from the port of Louisville during the preceding six-month period. Although this was export shipment only from a single port, during the first years of the new century total gunpowder production in the state was only a fraction of what would be made in the years immediately preceding the War of 1812. The 1810 census of Kentucky manufacturers, a period when the threat of impending war with Britain had considerably boosted speculative production of black powder, reported the total for that year as slightly over 115,000 pounds [51,750 kg] (Coxe 1814:125-126). This figure included local use as well as that for exports.

By comparison, the reported sales of South Elkhorn gunpowder by the largest wholesale/retail firm in Kentucky, that of Samuel and George Trotter in Lexington, amounted to 49,416 pounds (22,237.2 kg) of gunpowder from April 1806 to July 1812. This is equivalent to over 8,200 pounds (3,690 kg) of gunpowder produced per year by the mills of South Elkhorn. This powder was reported to have been resold to "regular customers residing in the state of Kentucky, Ohio, and Pennsylvania, and designed for home consumption" (Trotter and Trotter 1812).

The Trotter firm stated that they had purchased, for resale, gunpowder made in the mills of Daniel Bryant, John B. Miller, William Roman, Nathaniel Pettitt, and the three Foley brothers Elijah,



John and William. This statement indicates that Richard Foley's third son William, who was 25 years old in 1806, had joined with his brothers to run the family business. All the other men named, Bryant, Roman, Miller, and Pettitt, were residents of the South Elkhorn area and near neighbors of the Foleys.

John Foley sold an adjoining 10.75 acres (4.3 ha) of the south end of his property to Elijah in 1802. With a similar purchase from another neighbor, Elijah increased his holdings to a little over 80 acres (32 ha). In 1804 William purchased 82.75 acres (33.1 ha) adjoining the east boundary of Elijah's land. Over the next few years the three brothers engaged in various land transactions until, by July 1811, John remained in possession of 40 acres (16 ha) of the original 100 (40 ha) left him in his father's will, including the house and powder mill. Elijah owned 76 acres (30.4) adjoining John; and William had divested himself of the property next to Elijah.

From February 1804 to November 1811, little is known of the Foley powder mill operation. No advertisements for Foley gunpowder appear in regional newspapers. On 12 November 1811 an advertisement appears in the *Kentucky Gazette*, under Elijah's name, that implies the mill may have been out of operation for several years beforehand. Elijah stated:

Having put my powder mill in complete order, I am ready to manufacture powder....Merchants or others who wish to deal in that article will find it their interest to apply to the subscriber, living about six miles from Lexington... (*Kentucky Gazette* 1811).

Alternatively, this ad might also indicate a change in management. The mill was still on John's property, but the brothers may have made an agreement whereby Elijah managed or even purchased the powder mill. The use of the phrase "my powder mill" in the ad seems to imply ownership.

Additional light on the fortunes of the Foley powder mill in the years immediately preceding the War of 1812 is shed by a series of broadsheets published in July 1812. According to one of these sheets, the firm of S & G Trotter had in 1809 stopped purchasing any gunpowder from the Foley mill (Trotter and Trotter 1812). This would have been a severe blow to the Foleys, and might well have forced the mill to shut down its operations. Having lost a guaranteed outlet for the output of the Foley mill, the advertisement for gunpowder placed in the 11 November 1811 *Kentucky Gazette* by Elijah was likely an attempt to regain a market share. However, by that time many persons, anticipating the outbreak of war, had constructed powder mills in the Bluegrass. Among these were the Trotter brothers, who with ample funds built powder mills on the Old Frankfort road that soon became the largest such establishment in the state. The Trotters used their political connections to help land huge military contracts for gunpowder from the U.S. government (O'Dell 1990).

Under these circumstances, Elijah became embittered and let his resentment overpower his discretion. In late summer 1811, Elijah accompanied by several neighbors, was riding through the South Elkhorn neighborhood, returning from a trip to Lexington. Elijah, John Keller, Jacob Keller (John's son; the Kellers were South Elkhorn landowners who shared a boundary with the Foleys), William Pollard, Elijah Pollard, and John B. Miller (Jessamine County powderman, near neighbor to the Foleys) were en route to the Republican Meeting House on the Higbee Mill Road (a non-denominational place of worship, established 1801, located directly across the stream from the Foley property) (Ward 1933). Along the way John Keller remarked "I wonder where all the powder went that was made for Trotter's in this neighborhood?" Allegedly, Elijah Foley replied, "They sent it to Canada, for his brand was seen there." According to a deposition by one of his companions, Elijah implied that the Trotters were

supplying the British with gunpowder and thus were traitors to their country (Trotter 1812).

Emotions were high in those months before the outbreak of war, and this incendiary rumor spread through the Bluegrass with various elaborations. The indignant Trotters responded in July 1812 with a broadsheet to which were appended various depositions of their good character and proofs of the destinations of their gunpowder. The Trotters referred to Elijah as "a man, who, from habitual intoxication has become considerably deranged in his intellects" (Trotter and Trotter 1812).

Elijah immediately printed up a somewhat incoherent handbill of his own, in which he denied having spread any such rumor. Purportedly sworn statements were attached, but in reading, these seem to do more damage than if they had been omitted. One such statement, used inexplicably as exoneration for Elijah, read thusly:

WILLIAM POLLARD says, before witnesses, that he never heard Foley say that the said Trotters had sent powder to Canada but once, and then Capt. Foley was in a state of intoxication, and knew not what he was saying (Trotter 1812):

George Trotter Jr. printed still another handbill on 31 July, in which he reproduced Elijah's own sheet and asked the readers to draw their own conclusions.

There was no time left to pursue the handbill war further. War with Great Britain had been declared on 18 June 1812, and volunteers were mustering to fight the British and their Indian allies in the Northwest. George Trotter, Jr., a colonel in the Fayette militia, left Lexington to become personal aide to General William Henry Harrison. Samuel Trotter stayed in Lexington and made gunpowder for the army (O'Dell 1990). Elijah, who had been active in the local militia (42nd regiment, Fayette County) since 1800 (Clift 1957:78) and was known to his neighbors as "Capt. Foley" (Trotter 1812), enlisted in the mounted volunteer militia as a private soldier in the company of Captain James Williams, commanded by Lt. Colonel James Allen (Kentucky Adjutant General's Office 1891:254). Elijah served his 30-day term in Harrison's army and spent the rest of the war at home.

After the war, the gunpowder manufacturing industry in Kentucky was ruined as Great Britain flooded American markets with high quality gunpowder at very low prices. Very few of the mills were able to survive. Apparently the Foley gunpowder mill was among the casualties of the depressed postwar economy, for it was never heard from again.

Over the next few years Elijah's fortunes sank still further. From the evidence in the Trotter broadsheets, Elijah was an alcoholic. In the 17 April 1815 edition of the *Kentucky Gazette* appeared the following notice: "The trustees for Elijah Foley (insane) Thos. Roberts, John & Jacob Keller, caution the public not to deal with Foley due to his insanity." In July 1816 John and Jane Foley sold their land, including the powder mill, to Jane's father Thomas Roberts. Three months later, a deed in the Fayette books under the date of 3 October 1816 granted provisional title to Elijah's house and 32 acres (12.8 ha) of land to Roberts and James Craig.

The circumstances were rare for that period. According to the deed:

Whereas the said Elijah Foley & Rachel Foley from some unfortunate circumstances are unable longer to live together as man and wife and they have immediately agreed to separate and the said Elijah by these



presents, releases and relinquishes all right and claim in the said Rachel as his wife and covenants from henceforth to withdraw from and never more to molest the said Rachel. And the said Rachel hereby releases and relinquishes all claims in the said Elijah Foley for future support and covenants henceforth to withdraw from the said Elijah Foley (Fayette County 1816).

Roberts and Craig, as trustees of the Foley estate, were to offer the property for sale to the highest bidder. One-third of the proceeds were to go to Rachel for support of herself and her children, and the remainder to Elijah.

The record is not clear as to exactly what happened at this point. The Fayette tax lists show Elijah in possession of 33 acres (13.2 ha) in 1817 and for many years afterward, increasing to 40 acres (16 ha) by 1839. Apparently a reconciliation came about between Elijah and Rachel, as the property was not sold and Rachel is listed as wife to Elijah in the 1840 census for Fayette County. The 40-acre (16 ha) tract is shown under Rachel's name on the tax lists in 1844, a year after Elijah's death in 1843. Rachel's name did not appear on the tax list for 1845, but her son James is shown in possession of 35 acres (14 ha) beginning at that time. Evidently Rachel died in 1844. The 1861 and 1877 maps of Fayette County show Thomas Foley in residence at the Elijah Foley home place (Beers and Lanagan 1877; Smith, Gallup & Co. 1861); Thomas was grandson to Elijah through Elijah's youngest son Richard. Thomas died in 1892.

The old house passed out of the hands of the Foley family, and in the 1970s was occupied as a tenant residence and later became vacant. In 1992 vandals set fire to the interior and gutted the structure, collapsing the roof (Edwards 1994). Attempts by the Blue Grass Trust for Historic Preservation to find a buyer who would restore the house, an expensive undertaking, were unsuccessful. In 1994, the remains of the structure were dismantled, the brick salvaged for its resale value, and the site graded over to make way for housing in a new subdivision development.

The Foleys were important early pioneers in Kentucky, and have left numerous descendants now scattered across the country as well as in the Bluegrass. Richard Foley certainly deserves a footnote in history as the man who first began commercial production of gunpowder in Kentucky, nor is his colorful if erratic son, Elijah, likely to be forgotten soon. Careful reconstruction of the past, by means including archaeological excavations and also deeds, letters, and contemporary accounts, serve to recreate historical events and help bring to life personalities. In learning about our antecedents, we also learn about ourselves.

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## ARCHAEOLOGICAL INVESTIGATIONS

During the initial visit to the Foley House, it was observed that much of the site had been affected by recent construction activities. The eastern half of the house had been demolished and the resulting brick rubble piled in the rear yard. A sewer manhole had been installed near the former northwest corner of the house and the small basement was partially filled with rubble. The western yard had been bulldozed to subsoil, trees and undergrowth had been bulldozed from the rear of the structure, and a strip had been bulldozed across the back yard. A layer of fill had been deposited between the house and garage and across the narrow front yard. These activities severely restricted our sample of



the Foley House midden and the locations where we could place excavation units.

The archaeological investigations at the Foley House (15Fa231) used a combination of hand excavation units and shovel probes (Figure 2). A total of 20 square meters were excavated. Sixteen of the units were 1 x 1 m in size and one unit was 2 x 2 m in size. The 1 x 1 m units were used to sample the north (front) yard, the southeast yard, and the southwest corner of the garage. Nine of the units formed a 3 x 3 m block in the southeast portion of the yard. A final unit (2 x 2 m) was excavated within the eastern wing (kitchen) of the house after demolition to sample a midden. All units were excavated in arbitrary 10 cm levels and the soil was screened through 13 mm hardware cloth. Artifacts were bagged and provenienced by unit and level. The 39 shovel probes were excavated on a four meter grid to sample the rear (south) yard and to obtain information from areas between units. They also were excavated in 10 cm levels and screened through 13 mm hardware cloth. The artifacts and records are curated by the Museum of Anthropology at the University of Kentucky.

### CULTURAL DEPOSITS AND FEATURES

The cultural deposits at the Foley House have experienced varying degrees of disturbance throughout the history of the site. The soil profiles exhibit only minor stratigraphic differences. In general, the cultural deposits are confined to the upper 30 cm of soil usually containing two zones. A sterile clay subsoil extends below 30 cm in most instances. In areas disturbed by historic pipe lines, cultural remains extend to a greater depth within backfilled trenches. Because of the simplicity of the cultural deposits, comments will focus on different areas. These areas include the front of the house, the area near the southeastern rear yard, the 3 x 3 m excavation block, and the southwestern corner of the garage. Two units excavated in front of the house were placed adjacent to the house foundation. The soil in this area turned out to be disturbed by drainage and gas pipe lines. In these units the midden (10-30 cm thick) was a medium brown clay loam underlain by a reddish brown clay subsoil.

The soils in the 3 x 3 m excavation block, southern yard, and area at the southwest corner of the garage had slightly different profiles. In the 3 x 3 m block, three soil horizons were noted: a medium brown clay loam (10-14 cm thick) overlying a light brown clay loam (15-22 cm thick) which terminated on an orange brown clay (unknown thickness). The soils in the back (south) yard also consisted of three horizons: a medium brown clay loam (13-17 cm thick) overlying a light brown clay loam (12-18 cm thick) which terminated on a light yellowish brown clay (unknown thickness). The area adjacent to the garage contains a dark brown loam (12-20 cm thick) overlying an orange/brown clay (unknown thickness). A dense layer of gravel was present in front of the garage just beneath the grass.

Two features were recorded during the investigations. Feature 1 was located at the base of level 1 (10 cm deep) in Unit 6. This crescent-shaped area measured 83 cm north-south and 34 cm east-west and appeared to extend to the east. Excavation revealed that it was a shallow (less than 10 cm) lense of dark brown clay loam containing charcoal, coal cinders, wire nails, and burned glass. This feature probably represents the contents of a stove or fireplace that was dumped in the yard. Feature 2 is a large post mold located at the southwest corner of the garage in Units 12 and 16. It measures 40 cm north-south, 53 cm east-west, and 70 cm deep. The mottled fill (dark brown clay loam/orange clay) of Feature 2 yielded brick fragments, limestone fragments, wire, and a few twentieth century artifacts.

Pipes were encountered in three units. In Unit 1, a ceramic sewer or drain pipe was uncovered at the base of level 1 (10 cm deep). The pipe extended from the center of the south wall to the northwest corner of the unit. Since Unit 1 is adjacent to the kitchen of the Foley House, the ceramic pipe may have

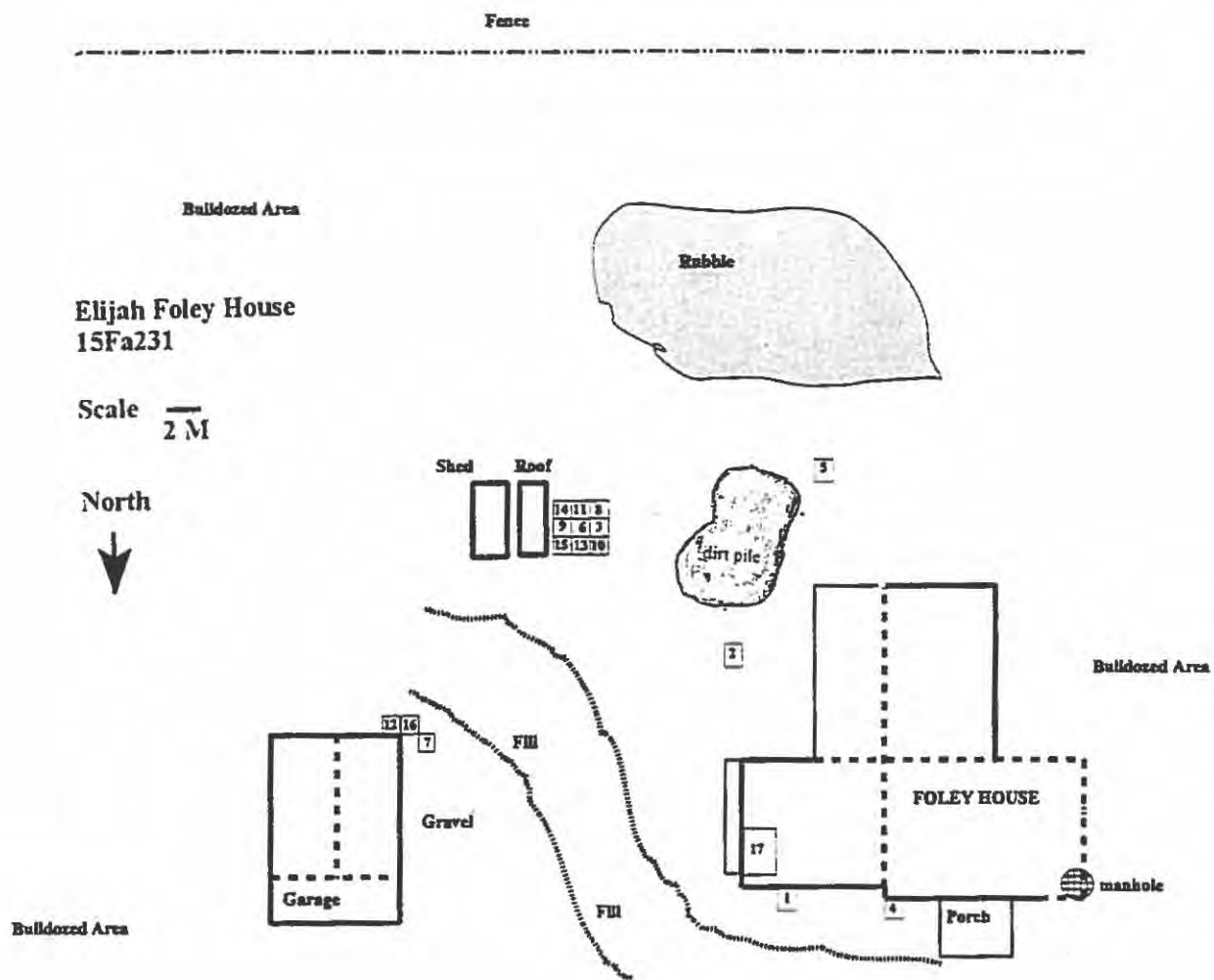


Figure 2. Map of the Elijah Foley Site Showing the Structures, Disturbances, Excavation Units, and Shovel Probes.



served as a drain for the kitchen sink. Two parallel pipelines were unearthed in Unit 4. These pipes extend northward across the center of the unit. They may have been water or gas lines. Finally, a pipe trench was encountered along the west wall of Unit 17 under the former kitchen after demolition. The trench was excavated to a depth of 25 cm below the unit floor and was still going down. We suspect that it is a modern water or sewer line running to the bathroom.

Other possible features were noted during the investigations. In the northeastern (Units 13 and 15) and the southeastern (Unit 14) corners of the 3 x 3 m excavation block, some evidence of a former outbuilding was uncovered. In Unit 15 and the adjacent edge of Unit 13, several small limestone slabs and a few brick fragments were in an L-shaped configuration (possible corner). Two meters to the south in Unit 14, some additional limestone slabs, brick fragments, and a concentration of mortar were encountered in a linear configuration. The limestone, bricks, and mortar may be foundation remnants from a former outbuilding. The high density of animal bones in the excavation block indicates that this may have been the smoke house. A circular stone ring was exposed north of the garage and ash beds were noted along the fence row between the house and garage. Unfortunately, this area was bulldozed before it could be studied.

It was planned that the plowzone from the backyard of the Foley House be stripped off before the area was bulldozed. It was felt that this area potentially contained privy pits and other features dating to the late 1700s and early 1800s. During the final grading for the subdivision, the developer decided to place fill over the backyard, and it was not possible to have top soil removed to look for features.

## ARTIFACT ANALYSIS

The Elijah Foley assemblage consists of 6,657 artifacts. The majority of these artifacts (n=6,012) were historic, as expected. However, a large assemblage of prehistoric artifacts also were recovered. Most of the prehistoric artifacts are associated with a Late Prehistoric Fort Ancient component. A separate paper will focus on the Fort Ancient component while this report will be restricted to the historic component.

### Functional Groups

During analysis, artifacts were first classified by material type categories including ceramics, flat glass, other glass, metal, bone/shell, and other materials. Subsequent analysis focused on attributes with chronological and stylistic implications such as manufacturing types, decoration styles, functional class, and form types. Finally, the artifacts were assigned to general functional groups based on South's classification (South 1977), in order to determine historic artifact patterning.

A total of 11 general functional groups were used in this classification, representing an expansion of South's (1977) original eight functional categories. However, many historical archaeologists frequently modify the groups and group contents to account for temporal and regional variations. For this study, it was necessary to breakdown groups into more specific additional groups. This was done to enable a more in-depth investigation of particular activities. This modification of groups permits a more complete interpretation of the site. The 12 functional groups used in this analysis include kitchen, architecture, clothing, activities, arms, personal, furniture, entertainment, transportation, faunal, and miscellaneous groups. The Foley artifact assemblage will be discussed within this framework of these functional groups (Ball 1984; South 1977; Young et al. 1990).



The Elijah Foley artifact assemblage is comprised predominately of artifacts from the kitchen and architecture groups. The remaining groups were moderately represented. The faunal assemblage comprised a large part of the artifact assemblage. The distribution of artifacts within the functional group framework can be seen in Table 1.

**Table 1. Functional Groups at the Foley House.**

Functional Groups	Number	Percentage
Kitchen	1,730	28.7%
Architecture	2,246	37.5%
Furniture	195	3.2%
Entertainment	27	0.5%
Clothing	75	1.2%
Activities	198	3.3%
Arms	21	0.4%
Transportation	18	0.3%
Miscellaneous	90	1.4%
Faunal	1,381	23.0%
Personal	31	0.5%
<b>Total</b>	<b>6,012</b>	<b>100%</b>

### **Kitchen Group**

The kitchen group artifacts include items that would be associated with kitchen related activities, such as food preparation, service, and storage. This group also includes items that were not necessarily related to foodways, but may also have been stored and used in the kitchen, such as pharmaceuticals, cleaners, and other household chemicals. The majority of the kitchen group consists of ceramic and glass artifacts, accounting for 29 percent of the group totals (Table 1). The remaining kitchen group artifacts were metal.

*Ceramics.* There were 642 sherds recovered that were in the kitchen group. The sherds were classified by attributes into ceramic type, decoration type, decoration color, vessel part, and vessel form. Eleven different types of ceramics were present which included: whiteware, white granite, pearlware, porcelain, yellowware, redware, buff stoneware, grey stoneware, creamware, and fixture porcelain. Most of these types are well known to historical archaeologists, however, several of these types require some definition. For this analysis, fixture porcelain refers to a thick rough porcelain like ceramic often used in the twentieth century for lighting fixtures and bathroom fixtures. The term whiteware refers to a very porous refined earthenware with a white body and a white paste. White granite represents a non or slightly porous refined earthenware that has a white body and white paste, and is commonly called "Ironstone" (Miller 1991). There were many trade names that were used to describe white granite during the nineteenth century. The distinction between porous and non-porous whiteware may have chronological implications since American potters were trying to emulate fine non-porous porcelain (Majewski and O'Brien 1987). Although some English ceramics, using the name "Ironstone," were produced as early as 1805, wide spread manufacture of white granite ceramics did not begin until 1845 (Miller 1991; Noel

Hume 1969). Thus, as manufacturing techniques improved over time, the non-porous aspect of ceramics increased suggesting that non porous whitewares would become more frequent through time. This trend can be substantiated with marked English and American ceramic pieces that reveal trade names like ironstone, semi-porcelain, graniteware, stone china, and semi-vitreous, which typically exhibit late nineteenth century dates (DeBolt 1994; Godden 1964). Although porosity can be relative to a particular analyst, consistency was ensured for the Foley House assemblage by having the same person analyze all the ceramics.

The distribution of these ceramic types throughout the Elijah Foley Site are illustrated in Table 2. The most frequently encountered ceramic types were whiteware and white granite, which accounted for 29 and 25 percent of the ceramic assemblage, respectively. A substantial amount of redware (Figure 3c-e) also was recovered from the Foley Site, constituting 14 percent of the ceramic assemblage. Frequencies of pearlware, porcelain, yellowware (Figure 3a-b), and stoneware (Figure 3f-g) also were significant, while remaining ceramic types represented less than two percent of the ceramic assemblage.

**Table 2. Ceramic Types at the Foley House.**

<b>Ceramic Type</b>	<b>Number</b>	<b>Percentage</b>
Whiteware	232	29.0%
White granite	202	25.3%
Pearlware	78	9.7%
Porcelain	61	7.6%
Yellowware	36	4.5%
Redware	113	14.2%
Stoneware	46	5.7%
Creamware	8	0.9%
Fixture porcelain	5	0.6%
Sewer pipe	10	1.2%
White clay	3	0.4%
Unidentified	7	0.9%
<b>Total</b>	<b>801</b>	<b>100%</b>

Ceramic types result from a particular mode of manufacture. A chronology of ceramic types can be constructed using manufacturing attributes. Although date ranges are very broad for ceramic types, it is possible to place an assemblage within certain decades or show popular transitions of ceramic types. Creamware, pearlware, redware, and yellowware are the best indicators of temporal affiliation. Creamware has a general manufacturing period from 1762 to 1820, pearlware 1780 to 1830, redware 1750 to 1870, and yellowware 1830 to 1930 (Ketchum 1983; South 1977). Whiteware also can be useful in designating the ceramic transition between the late nineteenth century and early twentieth century. In this case, whiteware has been given a general date of 1830 to 1890 (Smith 1983) and white granite a general date of 1845 to the present, which will be represented by 1950 (Miller 1991). It is most probable that white granite sherds recovered from the Elijah Foley Site were produced prior to the mid-twentieth century.

The next attribute taken into account for the ceramic assemblage was that of decoration type.



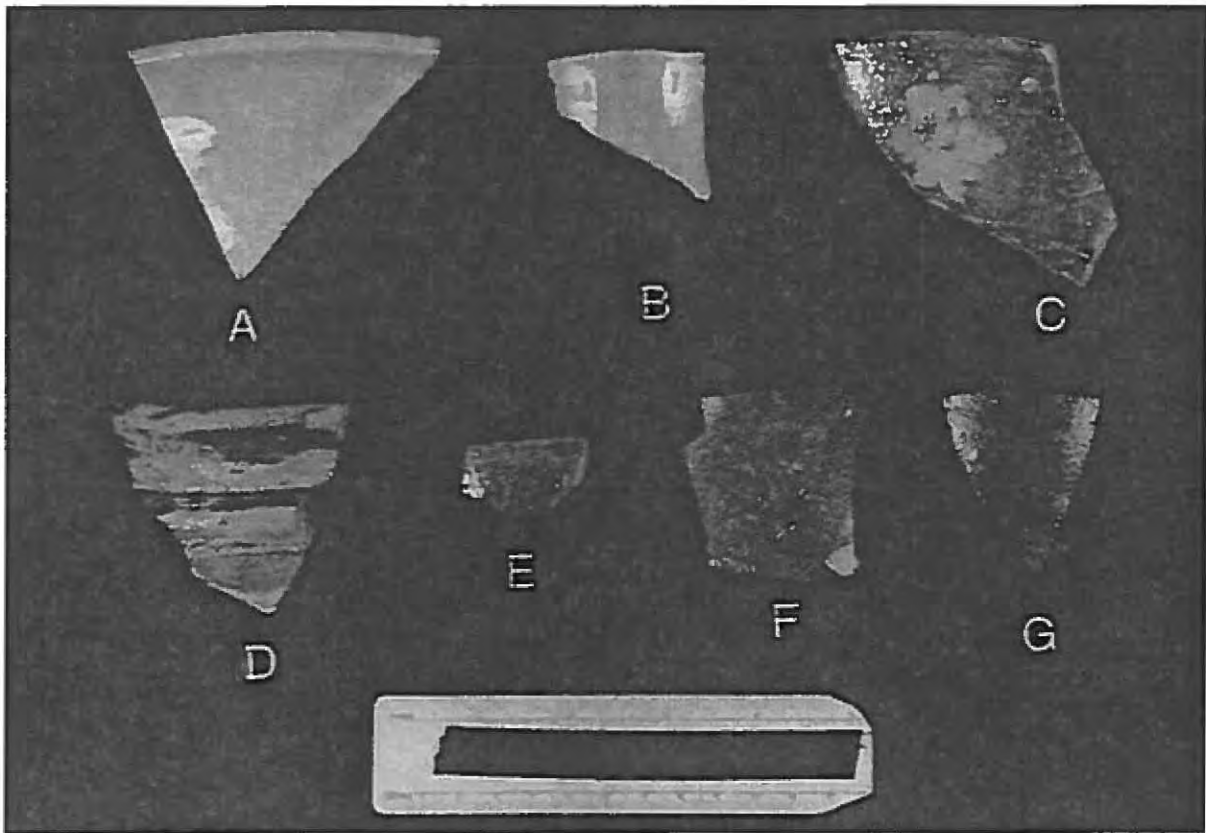


Figure 3. Ceramics From the Foley Site: a-b, yellowware; c-e, redware; f-g, salt glazed ware.

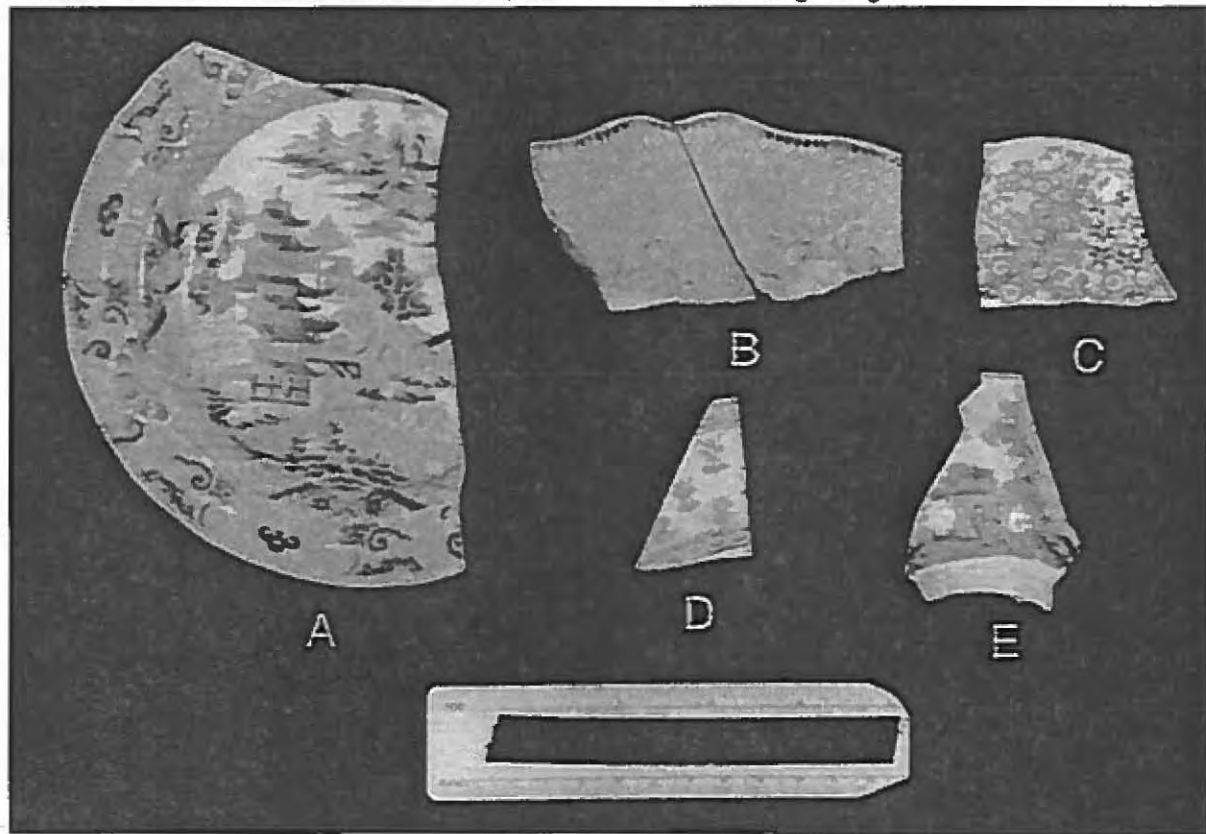


Figure 4. Transfer Printed Ceramics From Unit 17 at the Foley Site.



Decoration styles can have both chronological and stylistic implications. Fifteen different types of decoration were present in the ceramic assemblage. The decoration types included plain, decal, transfer printed (Figure 4), edge, mocha, Rockingham, flow, colored glaze, relief, shell edge, hand painted (Figure 5), banded, sponge, luster, and salt glaze. The majority (46 percent) of the ceramics were plain while relief decoration (15 percent) was the second most common type. Transfer printed, salt glazed, clear glaze, slip glaze, and shell edged decorations were well represented in the assemblage. The remaining decoration types were represented by less than two percent each of the assemblage.

Some decoration types have general periods of manufacture, depending on which ceramic type they appear, refining their chronological placement. The best dating indicator found at the Elijah Foley Site is transfer printed ceramics. This type of decoration on pearlware has a general date range of 1795 to 1830 (South 1977). Transfer printing that occurs on whiteware has a general date range of 1830 to 1860 (Price 1979). While other decoration types have general date ranges, these date ranges are just as broad as those for ceramic types.

Some other non-chronological trends can be observed from the distribution of decoration types at the Elijah Foley Site. The refined earthenwares exhibited differing patterns of decoration. Whiteware, pearlware, and white granite were more likely to be decorated than porcelain, yellowware, and creamware. Pearlware was the most likely to be decorated with a transfer print, shell edge, or flow, which is a type of transfer print. Whiteware was mostly decorated with transfer print, flow, shell edge, and colored glaze. However, the majority of these two ceramic types were plain. The majority of white granite was decorated in relief and transfer print, with relief occurring more often than plain decoration. The remaining refined earthenwares were typically plain isolated examples of other decoration (Table 3).

General date ranges for ceramic types and decoration types can be combined and computed to produce a mean ceramic date for the site (South 1977). The mean ceramic dating formula for the Elijah Foley Site produced a date of 1857 (Table 4).

Based on the ceramic attributes examined, the bulk of the assemblage is representative of the late nineteenth century. However, substantial amounts of earlier ceramics were present in the assemblage. The historic documentation suggests an occupation at this site since the 1790's, which is also reflected in the ceramic assemblage. The use of ceramic attributes as temporal indicators can be problematic, because the date indicated for a particular attribute only reflects the date of manufacture and is not indicative of the date of archaeological deposition. Also, ceramics were often objects that were considered heirlooms and passed from generation to generation. However, accidental breakage or stylistic taste often interrupted this tradition. South (1977) suggested an average of 20 years lag to account for these instances. Caution must be taken when using distribution of sherd frequencies, particularly for the mid nineteenth century to early twentieth century, when mass production of inexpensive ceramic goods made it feasible for people to purchase higher qualities of ceramics. Such may bias the distributional relationships of ceramic types.

The ceramic assemblage also was analyzed for vessel parts and vessel forms. By analyzing vessel part frequencies, it is possible to produce minimum vessel counts. However, this analysis has more implications for determining site integrity. The most prevalent vessel part is the body sherd which accounts for 57 percent of the ceramic assemblage. Rim sherds were the next abundant vessel part with only 20 percent of the ceramic assemblage. Remaining vessel parts, include bases, attachments, other, and whole, were modestly represented. The condition of these sherds were very poor, with most sherds being less than two centimeters in size (Table 5).

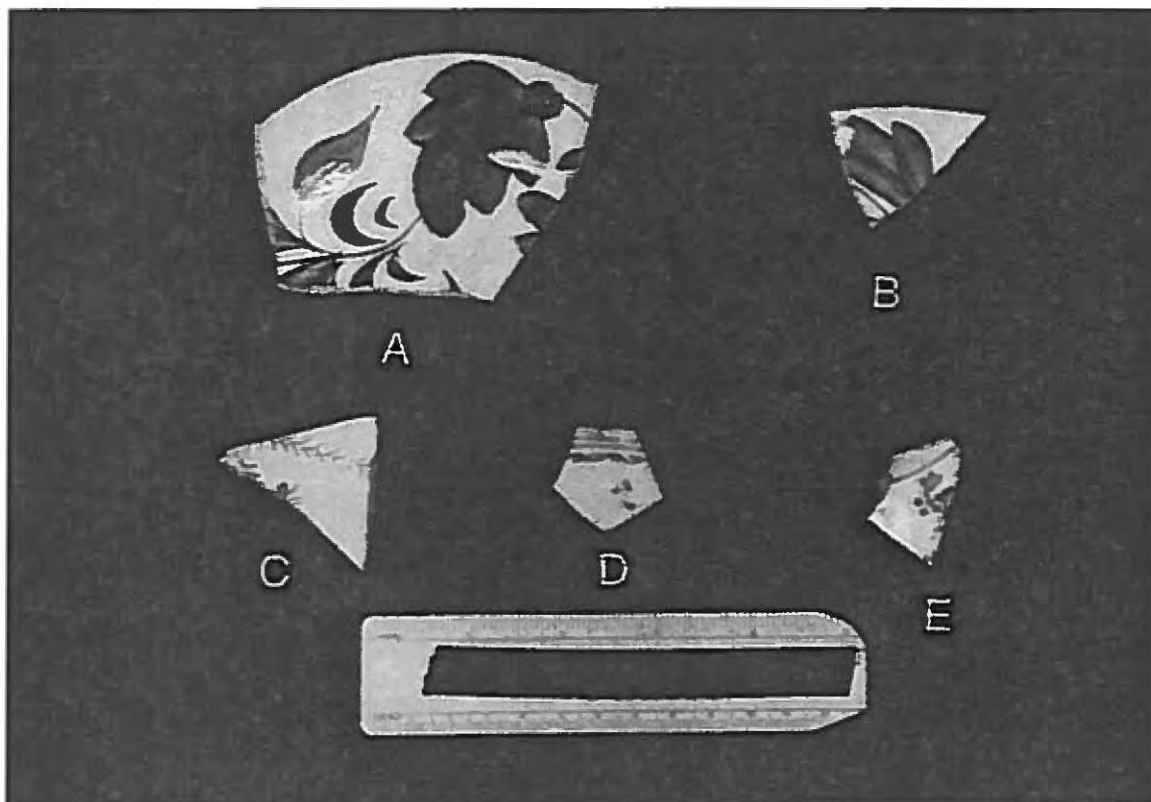


Figure 5. Hand Painted Ceramics From Unit 17 at the Foley Site.

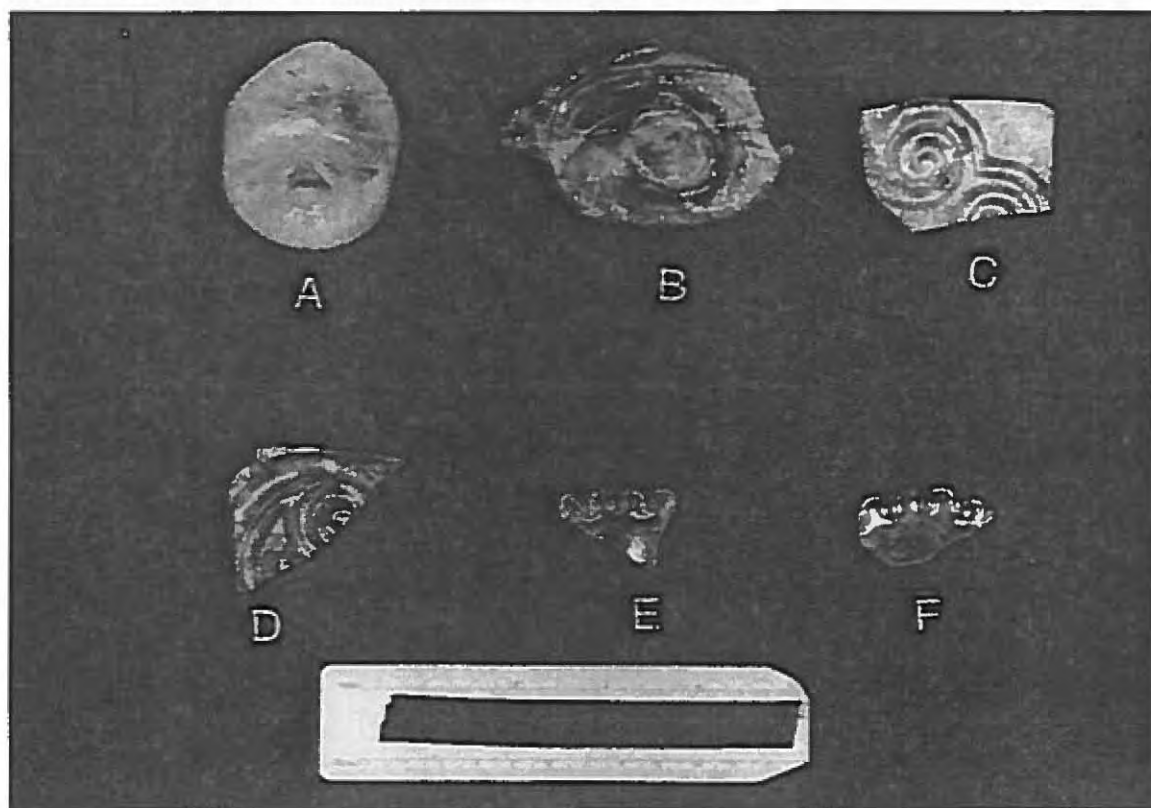


Figure 6. Glass From the Foley Site: a-b, bases of bottles with pontil scars; c-d, body sherds with relief designs; e-f, lamp globe crowns.



Table 3. Ceramic Decoration Types at the Foley House.

Type	W. ware	W. granite	P. ware	Porc.	Y. ware	C. ware	R. ware	S. ware	Total	%
Undecorated	142	74	35	41	31	7	27	1	358	46.1
Decal	2	7	0	3	0	0	0	0	12	1.5
Transfer printed	40	0	19	5	0	0	0	0	64	8.2
Edge	3	0	3	1	0	0	0	0	7	1
Mocha	2	0	0	0	1	0	0	0	3	0.4
Rockingham	1	0	0	0	3	0	0	0	4	0.5
Flow	12	0	4	0	0	0	0	0	16	2.1
Slip	10	4	0	1	0	0	6	20	41	5.3
Relief	1	109	1	2	0	0	1	1	115	14.8
Shell edged	16	1	9	1	0	0	0	0	27	3.5
Trans. printed & shell edge	1	0	0	0	0	0	0	0	1	0.1
Hand painted	2	0	4	4	0	1	0	0	11	1.4
Banded	0	5	2	0	1	0	0	0	8	1
Decal, lustre. & relief	0	2	0	1	0	0	0	0	3	0.4
Sponge	0	0	1	0	0	0	0	0	1	0.1
Clear/lead glaze	0	0	0	0	0	0	73	0	73	9.4
Salt glaze	0	0	0	0	0	0	6	24	30	3.9
Swirl	0	0	0	2	0	0	0	0	2	0.3
<b>Total</b>	<b>232</b>	<b>202</b>	<b>78</b>	<b>61</b>	<b>36</b>	<b>8</b>	<b>113</b>	<b>46</b>	<b>776</b>	<b>100</b>

**Table 4. Mean Ceramic Date at the Foley House.**

Ceramic Type	Decoration Type	Number	Mean	Reference
Whiteware	Undecorated	142	1860	Smith 1983
	Decal	2	1925	Adams 1980
	Transfer print	40	1850.5	Price 1979
	Edge decorated	15	1845	Price 1979
	Mocha	2	1850	Smith 1983
	Flow blue	12	1862.5	Price 1979
	Trans. print & edge	1	1845	Price 1979
	Hand painted	2	1850	Price 1979
Pearlware	Undecorated	35	1805	South 1977
	Transfer print	19	1812.5	Smith 1983
	Edge decorated	12	1810	South 1977
	Hand painted	4	1812.5	Smith 1983
	Banded	2	1810	Smith 1983
Creamware	Undecorated	7	1791	South 1977
Redware	All	113	1810	Ketchum 1983
Yellowware	Undecorated	31	1880	Ketchum 1983
	Mocha	1	1880	Ketchum 1983
	Banded	1	1880	Ketchum 1983
	Rockingham	3	1870	Barret 1964
White granite	Undecorated	195	1897.5*	Miller 1991
	Decal	7	1925.5*	Adams 1980
	<b>Total</b>	<b>647</b>	<b>1857</b>	

\*Based on date ranges of 1845-present (1950) and 1901-present (1950).

**Table 5. Ceramic Vessel Parts at the Foley House.**

Vessel Part	Number	Percentage
Body	435	56.6%
Rim	157	20.4%
Base	47	6.1%
Attachment	3	0.4%
Other	85	11.2%
Whole	41	5.3%
<b>Total</b>	<b>768</b>	<b>100%</b>



Nearly three-fourths (73 percent) of the ceramic sherds could not be identified by vessel form. This difficulty occurred because of the high frequency of very small body sherds. Of the identifiable vessel forms, plates were the most abundant followed by bowls and cups (Table 6). Other vessel forms included saucers, crocks, platters, teapots, and a bottle.

*Glass.* Glass artifacts comprised the majority (n=986) of the kitchen group. The glass artifact assemblage was analyzed for vessel portion, which categorized each shard as lip, base, body, rim, whole, or other. When lip and base shards were discovered, they were analyzed for their specific type of manufacture. These two aspects of container glass are the most diagnostic for dating. Only 21 glass container lips were identified from the assemblage. The majority of the lips (n=19) were machine made while the remainder consisted of two applied lips and one unknown lip. Machine made lips date from the early twentieth century to the present. The applied lip process was generally used from the eighteenth century to the late nineteenth century (Diess 1981; Jones and Sullivan 1989).

Thirty-one basal portions were identified in the glass assemblage. Most (n=17) of the base portions exhibited Owens scars while five basal portions had pontil marks (Figure 6a-b), two were plate bottom molded, and seven were unknown. The Owens scar is indicative of the automatic bottle making process developed by Michael J. Owens in 1903; the process is still used today (Diess 1981; Jones and Sullivan 1989). The pontil marks are caused by breaking the pontil from the base of a vessel. The pontil was used to hold the glass vessel during tooling and final shaping of a vessel. This process was prominent from the eighteenth century to the late nineteenth century (Diess 1981; Jones and Sullivan 1989). The plate bottom molded base is representative of a late nineteenth century date (Diess 1981).

Lip or rim sherds were analyzed for the type of seal that would have been used. There were 33 identifiable examples of glass container seals from the assemblage. Screw caps were the most prevalent (n=16) while the stopper seal type was next in frequency (n=10). Other seal types were minimally represented and include the crown cap, lock top, and open vessel. Screw caps and crown caps began during the late nineteenth century and are still used today (Newman 1970; Diess 1981).

The glass assemblage was analyzed by color. Most glass color types are either undiagnostic or their period of manufacture is very broad. However, some color types such as amethyst and amber colored glass can provide limited temporal information. These glass colors are much more diagnostic because of their shorter period of manufacture. Amethyst glass, was formed by adding manganese to the glass mixture, in an attempt to make glass clear. This attempt was successful, however, the glass became an amethyst color when exposed to ultraviolet light. The period of manufacture for this type of glass occurred between 1880 to 1914 (Kendrick 1966). Different chemicals were used to produce amber glass. It has a date range of 1914 to 1930 (Kendrick 1966). The Elijah Foley glass assemblage produced 11 sherds of amethyst glass and two sherds of amber glass. The most abundant glass color was clear, which dates from 1875 to the present (Fike 1987). Earlier glass colors include green tinted, blue tinted, olive, and black. These colors have continue to be produced today. Although glass color does not provide much information for identifying nineteenth century context, it can be useful for determining early twentieth century contexts.

Table 6. Kitchen Ceramic Vessel Forms (number of sherds) at the Foley House.

Form/Type	Whiteware	White granite	Pearlware	Porcelain	Yellowware	Redware	Stoneware	Total	Percentage
Unidentified	179	150	34	19	32	95	28	537	72.9%
Plate	20	41	30	3	0	0	0	94	12.7%
Bowl	6	14	8	4	3	2	0	37	5 %
Saucer	1	0	2	2	0	0	0	5	0.7%
Cup	8	14	1	8	1	0	0	32	4.3%
Crock	0	1	0	0	0	3	15	19	2.7%
Platter	0	10	1	0	0	0	0	11	1.5%
Teapot	0	0	1	0	0	0	0	1	0.1%
Bottle	0	0	0	0	0	0	1	1	0.1%
<b>Total</b>	<b>214</b>	<b>230</b>	<b>77</b>	<b>36</b>	<b>36</b>	<b>100</b>	<b>44</b>	<b>737</b>	<b>100%</b>



Container glass decoration was analyzed. Most of the sherds were plain or exhibited no decoration. Twenty-five of the sherds were embossed, however, they were generally too small to yield diagnostic information. Other types of decoration exhibited were pressed, cut, relief (Figure 6 c-d), and screen printed designs. Screen printed designs are the only diagnostic decorations represented in the later group, and dates to the mid twentieth century (Diess 1981).

The functional class of sherds was determined when possible. Unfortunately, most of the sherds were undiagnostic for identifying functional class. Of the discernable functional class types, beverage bottles were the most common class of kitchen sherds. A detailed listing of glass functional classes recovered from the Elijah Foley House is illustrated in Table 7.

The remainder of the kitchen group artifacts consists of several examples of metal and bone items including forks, knives, spoons, pot handles, and caps for bottles.

### Architecture Group

The architecture group consists of artifacts associated with structures, including building materials and decorative architectural attributes. The majority of the architecture group consists of metal artifacts (n=1,209) and window glass (n=1,020). The architecture group accounted for 37.5 percent of the Elijah Foley assemblage (Table 1).

*Metal.* This assemblage was primarily divided between nails and other metal artifacts. The nail assemblage consists of three types of nail manufacture, wrought, machine cut, and wire. Each of these nail types have chronological significance. Wrought nails were hand made and are indicative of the earliest type of nail manufacture, predominating before the nineteenth century. However, this type of manufacture was practiced

Table 7. Kitchen Glass Functions at the Foley House.

Function	Number	Percentage
Unidentified	931	96.0%
Canning jar	1	0.1%
Stopper	3	0.3%
Tumbler	3	0.3%
Lid liner	4	0.4%
Dropper	2	0.2%
Other medicine bottle	1	0.1%
Milk bottle	1	0.1%
Lid	1	0.1%
Beverage bottle	15	1.6%
Local medicine bottle	3	0.3%
National medicine bottle	2	0.2%
Pharmaceutical bottle	2	0.2%
Cosmetic container	1	0.1%
<b>Total</b>	<b>970</b>	<b>100%</b>

up until the mid nineteenth century. Machine cut nails, or square nails were the first mass produced nails cut from sheets of metal. This nail type dominated the early to late nineteenth century with production ending in the 1880s (Nelson 1968; Smith 1975). Wire nails or circular nails were developed in the 1860s and became most prevalent at the turn of the century. They are still the dominant nail type today (Nelson 1968; Smith 1975).

The Foley site nail assemblage exhibited all three types of nails. Each nail was examined to determine whether it was a whole specimen or a fragment. The total amount of whole nails from the assemblage was 365. Nail fragments accounted for 566 items of the total identifiable nail assemblage which totaled 931 artifacts. The fragmented nail assemblage was dominated by the machine cut type with 81 percent of the assemblage. Wire nail fragments comprised only 17 percent of the fragment assemblage, while the wrought fragments frequency was two percent. Fragmented nails have limited utility outside of chronology (Table 8).

**Table 8. Nail Sizes at the Foley House.**

Size/Type	Wire	Machine cut	Wrought	Total
Fragment	98	460	8	566
2d	6	17	0	23
3d	10	30	0	40
4d	18	20	0	38
5d	3	7	0	10
6d	19	3	0	22
7d	6	3	0	9
8d	56	18	0	74
9d	25	6	0	31
10d	43	12	0	55
12d	11	3	0	14
16d	7	2	0	9
20d	11	2	0	13
30d	3	1	0	4
40d	0	4	0	4
50d	1	1	0	2
Large head	16	0	0	16
Rose head	0	1	0	1
<b>Total</b>	<b>333</b>	<b>590</b>	<b>8</b>	<b>931</b>

Whole nails provide a wealth of information pertaining to the structures at the site. Of the 365 whole nails recovered, the majority (64 percent) were wire nails. The machine cut nails comprised 35 percent of the whole nail assemblage (Table 8).

The fact that a nail is whole allows its size to be determined. Nail size is an indicator of the type of construction that occurred. Different size nails were used for different aspects of construction. Small nail sizes were better for roofing, while larger nails were better for framing. Whole nails can be classified as pulled, clinched or unaltered (Young 1994). Pulled nails were removed after having been



driven fully or partially into a surface. Clinched nails were driven into a surface and the protruding point was then bent over for stronger holding power. Unaltered nails were most likely lost or dropped during construction activities.

The whole nail assemblage was further analyzed by penny weight, a standard size designation currently used today by nail manufacturers. The Elijah Foley assemblage ranged from a 2d penny weight to a 50d penny weight. The majority of the wire nails ranged in size from 8d to 10d. Machine cut nails had the highest frequency of 3d and 4d sizes. The total distribution of nail sizes is illustrated in Table 8. The 8d to 10d pennyweight nails are associated with siding and flooring construction activities, while the smaller 3d to 4d pennyweights nails are associated with roofing. Nails with a penny weight over 10d were used for heavy framing while penny weights in the 6d range were used for light framing activities (Young 1994). The distribution of nail sizes indicate that the wire nails were used primarily for flooring and siding, while the machine cut nail assemblage indicates a high frequency of roofing construction (Table 8).

The analysis of nail condition indicates that 53 percent were unaltered specimens. Pulled nails had the next highest frequency (44 percent) while clinched nails were minimally represented with three percent (Table 8). Nail condition indicates that most of the whole nails were dropped or lost. However, there also was considerable dismantling of structures or nailing mistakes.

Since much of the Elijah Foley House complex was standing during the archaeological investigations, information about the types and styles of structures were present. However, the nail assemblage may indicate the presence of outbuildings that were no longer standing during excavation. It is probable that the nail assemblage represents continuous construction and remodeling activities. This pattern is particularly noticeable in the high frequencies of machine cut nail fragments as opposed to wire nail fragments.

A variety of other metal items complete the architecture group. These include hinges, a pintile, door knobs, nuts, bolts, screws, and lighting fixtures.

*Flat Glass.* The flat glass assemblage totaled 1,021 artifacts. All but one of these artifacts were sherds of window glass, while the one was probably furniture glass. The flat glass assemblage was analyzed for variation in color and thickness. Four different colors (green tint, blue tint, aqua tint, and clear) were present. A variety of thicknesses were recorded, measured to the nearest hundredth in millimeters, with 198 different measurement categories. A mean flat glass date was calculated with this assemblage using formulas by Moir (1983) and Ball (1983). The Ball formula produced a date of 1826 and the Moir formula produced a date of 1860. Given the long occupation of this site, both of these dates are realistic.

Flat glass dating formulas make the assumption that window glass became progressively thicker through time. For this assumption to be accurate in a statistical formula, there should be some continuity of window glass thickness on a site. Since depositional processes generally change the context of the sherds, a mixing of different types of windows glass from different time periods may occur. Occasionally, good archaeological context can isolate a particular window or time period. Unfortunately, there is much variation in thickness even within a single window pane. The wide range of window glass at the Elijah Foley House produced problematic mean flat glass dates.

Other architecture related artifacts included bricks, mortar, plaster, and asphalt roofing shingles. Of these, only bricks warrant a detailed description.



*Bricks.* An opportunity to examine numerous bricks occurred when the Foley House was being demolished during the fieldwork. Observations were made regarding how the bricks were used in the house before the last walls (13 inches thick) were removed. The bricks were all hand made and probably produced nearby on the Foley property. Three grades of common bricks were present. These grades were determined by the degree of firing. The best grade were those bricks closest to the fire in the kiln. They were a reddish brown color and were well fired. They range in length from 20 to 20.7 cm, in width from 10 to 10.3 cm, and in thickness from 5.3 to 5.8 cm. These bricks were used in the exterior walls of the house. Bricks from the top or outer edges of the kiln were under-fired and thus of an inferior grade. Since these light yellowish brown bricks were porous and could not withstand weathering, they were used on the interior walls. They range in length from 20.7 to 21 cm, in width from 10.2 to 10.4 cm, and in thickness from 5.8 to 6 cm. Their slightly larger size is probably because of less shrinkage since they received less heat during firing. The third grade included bricks that were over-fired and had a black glassy glaze on one or more surfaces. These bricks are about the same size as the first grade. Since the glazing detracted from their appearance, they were used on the rear of the structure or in the interior walls.

A second category of bricks were rounded decorative specimens. These dark reddish brown bricks were flat on the bottom surface and flat on a 5 cm wide strip across the top. They curve downward from the edge of the 5 cm strip to the bottom of the brick. They are similar in style to the "bullnose stretcher" illustrated by Gurcke (1987:121). The only difference between these bricks and the "bullnose stretcher" is the 5 cm wide flat surface on the top to receive mortar. These hand made bricks served both decorative and practical functions by spanning the gap where the wall was slightly inset and by creating an attractive architectural feature. Brick mason Charles P. Hockensmith (personal communication, 1994) noted that these bricks are commonly referred to as water table bricks. They range in length from 20.4 to 20.5 cm, are 10 cm wide, and range in thickness from 5.6 to 5.8 cm. These handmade bricks were produced in a wooden mold and struck on the bottom surface.

The final category consists of fire bricks. These specialized bricks had to be purchased from a commercial manufacturer since they were made from heat resistant clays not available in the Bluegrass region. Specimens were recovered from a rear first story fireplace (mid 1800s addition) which was later converted from burning wood to coal. These light yellowish brown bricks were marked with the brand name of "JUSTICE" in recessed letters. They range in length from 22 to 22.2 cm, in width from 10.6 to 11.3 cm, and in thickness from 6 to 6.4 cm. This "JUSTICE" brand name is not listed by Gurcke (1987). The International Brick Collectors Association was contacted to obtain information on the "JUSTICE" brand name. They were aware of this brand but had no information on its manufacturer or date of production (Jim Graves, personal communication 1995).

Some very general observations can be offered concerning the manufacture and firing of the hand made bricks. The bricks were formed in wooden molds which were struck by pulling a board or other straight object across the top of the mold to remove the excess clay. The struck surfaces frequently show lines and depressions where small pebbles were dragging during the striking process. Some specimens indicate that the bottom of the mold was smooth but slightly irregular. Other bricks with slightly uneven sides suggest that the clay was not always firmly pressed into the molds. Their sandy texture indicates that the molds were sprinkled with sand to prevent the clay from sticking.

The bricks also show some evidence of how they were fired. Specimens with narrow parallel strips of glazing on their sides indicate that the bricks were stacked in the kiln on their edges with air spaces between them to facilitate the circulation of the heat. The orientation of the bricks were alternated



90 degrees for each course as they were stacked in the kiln. The kilns were undoubtedly temporary field kilns with arches built into them as the bricks were stacked. These primitive kilns are not very efficient and consequently produce many underfired specimens. This type of kiln was very temporary and would leave very little in the way of archaeological evidence.

### **Arms Group**

The arms group includes 16 brass cartridges for rifles or pistols, three brass bases for shotgun shells, and one possible stock plate. The most common cartridges are 0.22 caliber rim fire long (n=8) and short (n=5) cases. The long casings have three headstamps: C (n=6), F (n=1), and U (n=1). Four of the .22 caliber short casings have a U headstamp and one is blank. The C headstamp is by the Cascade Cartridge of Blount, Idaho while F may represent Federal and U may represent UMC or Remington. Barnes (1985:305) states that "the .22 Short is the oldest American, commercial self-contained, metallic cartridge. It was first introduced in 1857 for the Smith and Wesson First Model revolver and is still loaded and widely used all over the world." Barnes further notes that "Remington introduced noncorrosive (Kleanbore) priming for their rimfire line in 1927 and the first high velocity type in 1930" (Barnes 1985:305). The 0.22 caliber long and long rifle cartridges were first introduced in 1887 (Barnes 1985:305).

Three larger caliber brass cartridges were recovered. The smallest of these is a 0.25 caliber rimfire with no headstamp. Next, is a 0.32 caliber rimfire lacking a headstamp. Finally, a 6 mm centerfire with the headstamp "R-P 6 mm REM" was found. Barnes (1985:308) states that the 0.25 caliber Stevens Short was "introduced in 1902 as a shorter, cheaper and less powerful version of the .25 Steven... only smokeless powder was used when it was discontinued about 1912." The 0.32 caliber Extra Short cartridge was introduced about 1871 and remained in use until about 1920 (Barnes 1985:308). The 6 mm cartridge was a common military and later civilian type produced in recent years. It is manufactured by the Remington Arms Company.

Three brass shotgun shell bases were recovered. The most interesting specimen is a 12 gauge shell with the following headstamp "W.R.A. Co. STAR." Stadt (1984:6) states that "Star shells were offered from 1884 to 1894 in 10 and 12 gauges." The W.R.A. Co. stamp indicates that the shell was manufactured by the Winchester Repeating Arms Company of New Haven, Connecticut. The second specimen is also 12 gauge with a headstamp of "U.M.C. Co. CLUB." This shell dates to before 1912 when the Remington Arms Company officially merged with the Union Metallic Cartridge Company to form Remington Arms-U.M.C. (Fiegel 1991:189). The third specimen is a 410 gauge with the headstamp "REM UMC 410 NITRO." This shell dates to sometime after the 1912 merger of Remington Arms Company and Union Metallic Cartridge Company (Fiegel 1991:189; Hatch 1956:207-209).

### **Transportation Group**

The transportation group consists mostly of auto parts including several spark plugs, which were probably deposited as a result of activities associated with the garage and dumping during the years of abandonment. The transportation group also consists of horseshoes, which are indicative of the primary mode of transportation during the nineteenth century and farm related activities.

*Horse Shoes.* Seven horseshoes were recovered. Four are actual horseshoes, one is a muleshoe, one is probably a ponyshoe, and one is a partially completed specimen. The horseshoes vary considerably. One early specimen is very thin (5-6 mm thick) and lacks both caulks and fullering. It measures 12.5 cm long



and 12.6 cm wide with 17-20 cm wide branches. Three horseshoes have heel caulks (7 x 11 mm to 13 x 17 mm and 5-10 mm long) and two have distinct fullering grooves. They range from 8-10 mm thick with branches 17-23 mm wide. The larger shoe (14.2 cm long and 14 cm wide) appears to have been made for a large draft horse used for heavy pulling. The two smaller horseshoes (13 x 12.3 cm and 13.5 x 12 cm) were probably worn by quarter horses that were used for transportation. The ponyshoe measures 9.2 cm long, 10 cm wide, and 18 mm thick. The branches are 19 mm wide and lack caulks. A single mule shoe with flaring branches at the heel measured 14.4 cm long, 10 cm wide, with branches 17-20 mm wide, and 9-14 mm thick. It has heel caulks (14 x 15 cm and 5 mm long) and a toe clip. The final specimen is a half finished shoe with an unmodified bar stock on one end. This shoe has been hammered into shape (including a fullering groove) but developed a stress fracture when the blacksmith tried to bend it into shape.

The shoes recovered from the Foley House indicate that four types of animals were being used around the farm. Most common were horses used for riding or pulling buggies. Second, draft horses were used for heavy pulling tasks on the farm. Third, mules were used for plowing and other activities. Finally, a pony was probably used for children to ride.

### **Entertainment Group**

The entertainment group consists primarily of marbles and doll parts. Modern plastic and metal toys complete the assemblage. However, the marbles were the most abundant and diverse of the entertainment group artifacts.

*Marbles.* Twenty-five marbles were recovered from the Foley House (Figure 7). Six of these are made from clay. Two earthenware marbles were imperfectly rounded. One is grayish brown (1.5 cm) and the other (Figure 7c) is a light tan (1.45 cm). A third specimen (1.7 cm) appears to be a banded stoneware marble. This marble had alternating bands of dark and light gray. Another stoneware marble is a Bennington type (Figure 7b). This irregular marble (1.6 to 1.8) has a mottled brown glaze with spots. The two remaining marbles are unglazed porcelain or china types. The first china is a white specimen (1.6 cm) lacking decoration. The second china (2.2 cm) specimen has two bull's eyes painted in black with a dashed line in red (Figure 7a).

Most clay marbles were produced in Europe and the United States during the late 1800s and the early twentieth century (Randall 1971:103). The cruder specimens were usually made and fired by children while machine molded clay marbles were produced by some potteries (Carskadden et al. 1985:88). Stoneware marbles such as Benningtons have a "...brown manganese glaze... quite similar in appearance to the mottled brown or tortoise shell glaze found on Rockingham pottery" (Carskadden et al. 1985:90). They were probably produced in Germany during the 1880s and 1890s (Carskadden et al. 1985:90). Porcelain marbles were manufactured from kaolin/feldspar clay in glazed and unglazed forms (Carskadden et al. 1985:90). Gartley and Carskadden's (1987:120) study of marbles from the Irish Channel Cistern in New Orleans suggest that the bull's-eye pattern dates between 1850 and World War I.

Nineteen marbles are various types of machine made glass specimens (Figure 7 d-I). Only one solid color specimen was recovered while most marbles (n=15) had two colors. The remaining specimens had three or four colors each (Figure 7 d-I). Predominate colors included white, blue, green, yellow, red, and orange. These specimens had different types of swirl patterns. Four specimens were transparent glass with swirl patterns on the inside. A single machine made agate with yellow swirls was



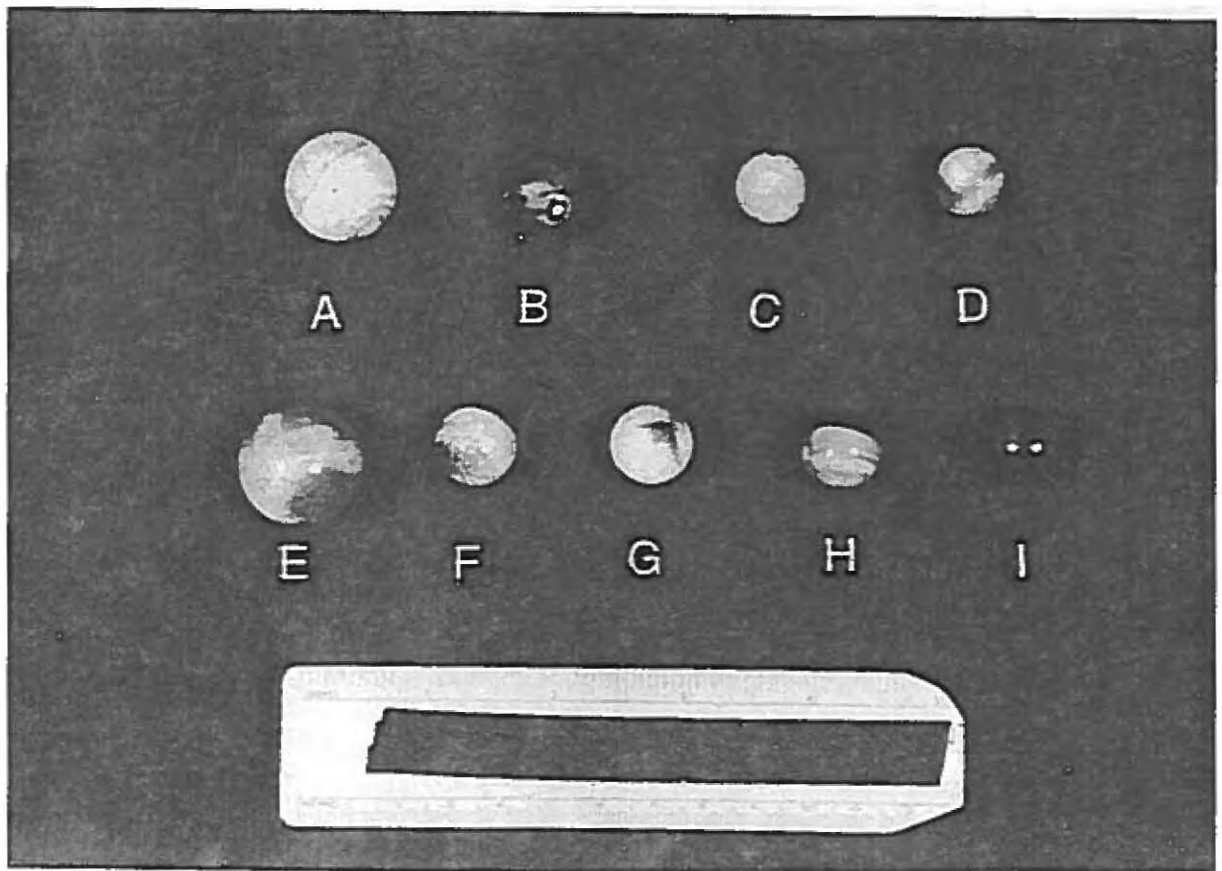


Figure 7. Marbles From the Foley Site.

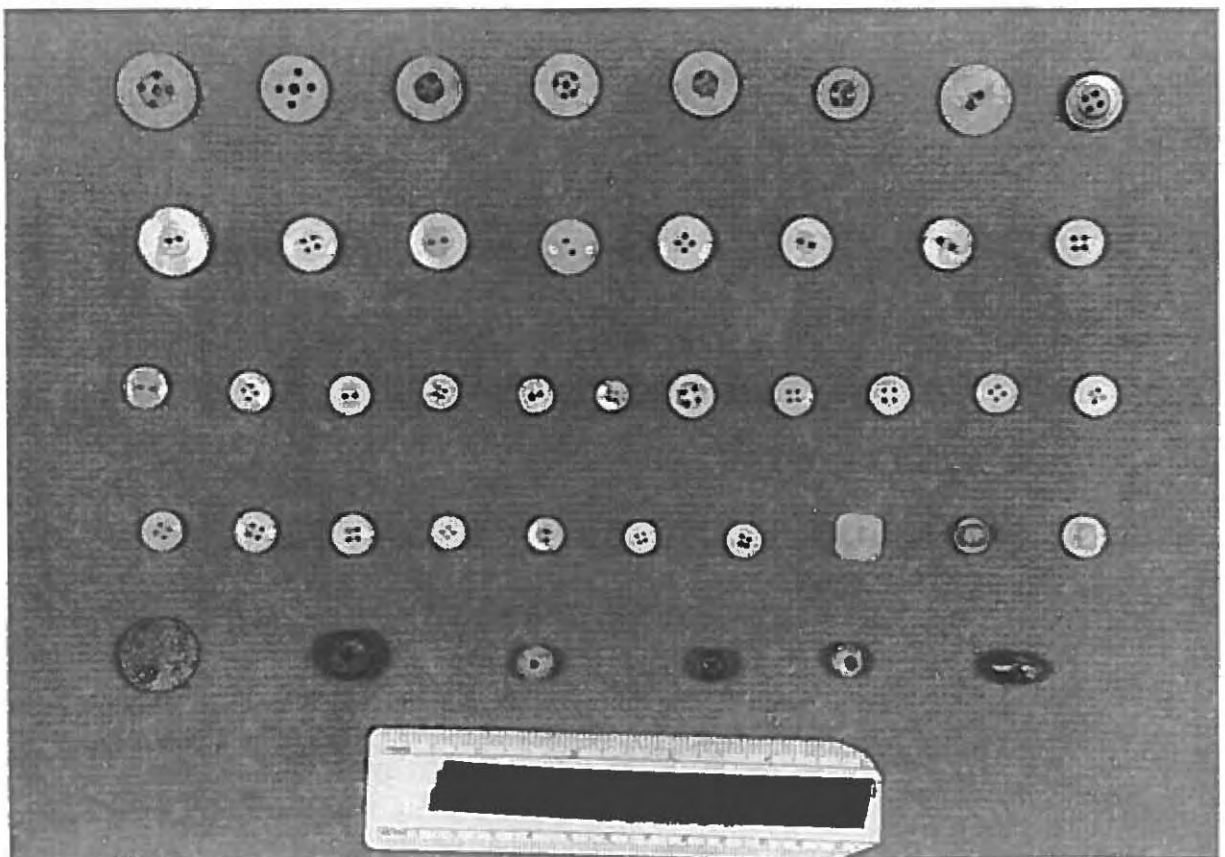


Figure 8. Buttons and Beads From the Foley Site.

in the sample. In terms of size, the glass marbles ranged from 1.2 to 2.45 cm in diameter with most specimens clustering between 1.4 and 1.7 cm. Many of the marbles exhibited damage from being used. The damage ranged from small nicks to occasional conoidal fractures to heavy battering.

Perfectly rounded machine made marbles were first produced sometime between 1901 and 1905 (Carskadden et al. 1985:93; Randall 1971:105). Machine-made "Akro Agates" were very abundant between 1914 and the 1930s (Carskadden et al. 1985:93). It was not possible to make marbles with three or four colors until 1926 when John Early invented a new machine (Randall 1986:163). These multi-colored marbles became very common by the 1930s and 1940s (Randall 1986:163).

### **Clothing Group**

The clothing group artifacts consist mainly of buttons (85 percent). The remaining clothing group artifacts were buckles, eyelets, cuff links, and various small leather shoe parts.

*Buttons.* The Elijah Foley site produced 64 buttons (Figure 8), which varied in material, decoration, number of holes, and size. The majority of the buttons were made of porcelain and shell, with other material types including bone, plastic, metal, and glass. Fifty-four of the buttons exhibited holes that ranged from one to five holes per button. The remaining buttons exhibited shanks or other types of fastening. Two and four hole shell or porcelain buttons were the most prevalent, as well as, five hole bone buttons. Most of the button assemblage was plain and not decorated. However, several decorated buttons were recovered. Two porcelain buttons were decorated with a red transfer print in a geometric design and a red illegible hand painted design. One glass button was decorated with a molded geometric design. Also, two metal military buttons were recovered.

The buttons range in date from the mid-nineteenth century to present day. Most of the buttons are representative of the late nineteenth to early twentieth centuries. The four and five hole bone buttons typically date from 1800 to 1865 (South 1964). Ceramic buttons are more indicative of a late nineteenth and early twentieth century date, probably as a replacement for the more brittle bone buttons, as ceramic manufacturing techniques improved during this time. Between the early and mid-twentieth century, ceramic buttons were replaced with plastic buttons (Diess 1988). Shell buttons seem to have a much wider range of manufacture than other types. Although shell buttons had been produced since the eighteenth century, the ornate styles and sizes that are typical of the period are not reflected in the Elijah Foley assemblage. Plain two and four hole varieties were most representative of the Elijah Foley assemblage. This type was manufactured throughout the nineteenth century and into the early twentieth century. However, Kentucky was a large producer of freshwater shell buttons during the 1880's through the 1920's, which may have implications for the Elijah Foley shell button assemblage (Claassen 1994).

Two pre-Civil War U.S. infantry buttons were recovered. One button depicts an eagle with shield and contains the letter "I." The second metal military button also depicts an eagle and shield. These buttons actually may have belonged to Elijah Foley, who had served in the Fayette militia.

### **Furniture Group**

The furniture group consisted of decorative ceramic items and lamp globe glass (Figure 6 e-f). The ceramic items were dominated by decorative sherds of unknown forms, but they probably represent vases or other furniture type room adornments. Also, six flower pot sherds were recovered. Glass items represented lamp globe glass, which consisted of mostly body sherds with a few distinguishable crowns.



## Personal Group

The personal group represents a wide variety of items that are related to personal adornment or that are likely to be kept on one's person. The personal group artifacts recovered from the Elijah Foley site are predominately represented by smoking pipe fragments and coins. Other items include beads, bone handled pocket knives, a key, and jewelry. The jewelry consists of two rings, one of which had a small green stone and metal band of unknown type. The other ring was too badly deformed to identify. The knives were extremely rusted; several had simple etched bone handles. Only the coins and pipes warrant further discussion.

*Coins.* A total of nine coins representing a wide range of dates were recovered. Two coins from the nineteenth century include a 1859 penny and an 1865 penny. A 1908 nickel and a 1913 penny represent coins from the early twentieth century. The remaining coins, a 1937 penny, a 1948 quarter, a 1973 dime, and a 1975 penny were found during Elijah Foley excavations. One coin was so badly burnt that it was not legible.

*Pipes.* Four smoking pipe fragments were recovered. The most complete specimen is an "elbow" type with ribbed exterior decorations from Unit 11 (Level 2). It is made from a light brown unglazed clay. The pipe is 34 mm long, 33 mm high, and has a 6 mm diameter bore in the mouth piece. The base of the bowl is smooth. A second specimen, a bowl fragment, was recovered from Unit 3 (Level 2). It is made from a medium brown unglazed clay. The bottom of the bowl is smooth but a ribbed exterior decoration extends from the adjacent area toward the mouth piece. The third specimen is a small rim fragment from a bowl recovered from Unit 8 (Level 3). It is made from a light brown unglazed clay and has a vertical rib pattern. The final specimen recovered from Unit 13 (Level 1) is a mouth piece with a small portion of the bowl. The mouth piece has a raised rim and a series of "X"s around the stem. It is 37 mm long with a 7 mm diameter bore. Fay (1986:99) indicates that "elbow" style pipes were made during the late eighteenth and early nineteenth centuries.

## Other Groups

Other functional groups were represented by the activities and the miscellaneous groups. The activities group consisted of artifacts that were related to activities not specifically related to any of the other functional groups. This group includes mostly fencing and unidentifiable items that were obviously related to activities associated with residential or farming activities. The miscellaneous group primarily includes very recent artifacts that were probably deposited during final dumping activities when the site was abandoned. The inclusion of these artifacts could bias the interpretation of specific functional groups.

## FAUNAL REMAINS

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Faunal remains from the Elijah Foley House excavations comprise a modest assemblage (N = 1,383). This total includes items such as bone and shell buttons, and bone knife and fork handles: these are discussed elsewhere in this report. Although vertebrate faunal remains were recovered from a number of contexts, detailed analyses were conducted only on those from one provenance, Unit 17, Level 1 (N = 201) (Table 9). Percentages offered in figures and text refer only to the vertebrate faunal remains from this unit. These materials are the primary subject of this report. General comments about the remainder of the assemblage also are offered. This section provides information about subsistence practices of the inhabitants of this late nineteenth century farmstead by examining taxonomic composition and butchering patterns. In addition, the taphonomy of the elements is considered.

In general, the condition of the faunal remains is quite good. Skeletal part representation appears to be excellent. However, because of a number of factors, not all faunal materials were recovered during the excavations: therefore, the assemblage must be considered a somewhat biased sample.

### Methodology

The methodology employed in this analysis was to: 1) assign specimens to the most specific taxonomic category possible, 2) to determine NISP (number of identifiable specimens) and MNI (minimum number of individuals), as defined from skeletal part representation within size of the animal, age categories, symmetry (right/left), and portion (e.g., proximal, distal, midshaft, lateral, etc.) of the elements, and 3) to describe macroscopic morphological characteristics such as weathering, breakage, burning, cut/saw marks, evidence of trauma/pathology, and presence/absence and degree of carnivore/rodent gnawing that establish cultural and natural taphonomic factors affecting the specimens. Microscopic observations were made on specimens that exhibit cut or saw marks in order to establish whether the marks were made by machine or by hand. As only one provenance was examined in detail, NISP and MNI estimates are only for this unit. Each element was not individually weighed during analysis: total counts and weights of the faunal materials were provided by Jay Stottman.

Identification of the specimens was made by direct comparison to comparative collections held at the University of Kentucky Museum of Anthropology in Lexington, and at the University of Tennessee in Knoxville. Taxonomic nomenclature for mammals followed Hall (1981), while avian taxonomy was derived from Robbins, Bruun, and Zim (1983). Additional skeletal identification sources included Chaplin (1971); Davis (1987); Gilbert (1980); Gilbert, Martin, and Savage (1985); Hesse and Wapnich (1985); Hillson (1986); Olsen (1964, 1968a, 1968b, 1979a, 1979b); and Parmalee (1985).

Identifications and the attendant data were encoded into a database, using the vertebrate faunal analysis coding system (FACS) established by Shaffer and Baker (1992). The data were input into a Paradox database using a dBase structure, then were manipulated using FACS dBase support programs and procedures to check for illogical errors due to miscoding or erroneous data entry. File links are established to convert coded data back to text, and to give listings by scientific name as well as common name. These listings are provided below.

### Taxonomic Representation

Pig elements (*Sus scrofa*) (N = 65) comprise the largest portion of the domestic assemblage from Unit 17 Level 1 (Table 9), followed by chicken (*Gallus gallus*) (N = 38). Cattle (*Bos taurus*) also are represented by a small sample (N = 13). Sheep/goat (*Ovis/Capra*) are represented by five elements, and a single horse (*Equus caballus*) bone also was recovered from this unit. Wild animals consist of



turkey (*Meleagris gallapavo*) (N = 6), rabbit (*Sylvilagus floridanus*) (N = 9), and goose (*Branta* sp.) (N = 1). Taxa that were most likely included in the assemblage because of natural, rather than human, processes include at least two, and perhaps three, species of rats [*Neotoma floridana*, and *Rattus* sp. (Black and/or Norwegian)] (N = 6), frog (*Rana* sp.) (N = 1), and muskrat (*Ondatra zibethicus*) (N = 1). One modified marine shell fragment also was recovered from this unit: it is not included in any of the totals or percentages presented here.

Elements not assigned to a specific taxon also contributed to a total understanding of the nature of the assemblage. For example, a number of Aves elements were assigned to medium, medium/large, or large categories (N = 26): in all likelihood, most of these are elements from domestic chickens. Likewise, most of the small/medium mammal elements (N = 4) are probably rabbits, and the large/very large mammals (N = 23) are mostly pigs, and perhaps a small number of cattle elements. The micro/small mammal elements (N = 2) are both vertebrae, and are probably from small rodents such as rats.

A total of 146 elements (73 percent) from Unit 17, Level 1 could be assigned to taxa at the level of Order or below. Those not identified to Order or below were grouped according to general size categories of birds (medium-medium/large) and mammals (micro/small, small/medium, and large/very large). Both wild and domestic animals are represented in the assemblage, although, as expected from the context (under the kitchen extension of this late nineteenth century structure), domestic mammals and birds dominate the sample (Table 9). For the purpose of discussion, elements that compare favorably ("cf.") to a taxon are grouped and described with that taxon. Elements that could not be definitely assigned to a specific taxon were grouped according to Order, size and type. The size, texture, and context of these elements give clues as to the probable taxon to which they belong.

Mammals dominate the Unit 17 assemblage (NISP=129), accounting for 64 percent of the total. Of these, most (NISP=107, 53 percent) could be attributed to domestic mammals. Pigs and cattle make up the overwhelming majority of the domestic mammals (7 percent). Many of the elements could be classified to taxon only as "large mammal." This is particularly true for vertebral and rib elements. Given the cultural context, these are undoubtedly from pigs and cattle, however, specific morphological characteristics other than general size and texture were not sufficiently present to positively distinguish between the taxa. When these undifferentiated large mammals are totaled, 94 percent of the total domestic mammals are represented by swine and cattle.

Birds also constitute a large portion of the Unit 17 assemblage (NISP=71, 35 percent). Most of the elements represent domestic chickens (54 percent), while turkey (8 percent) and geese (1 percent) account for a small percentage of the total. Over a third of the avian elements only could be classified as medium/large birds (37 percent); most of these are undoubtedly chickens with a few turkey elements.

Other animals (NISP=23) make up the remaining 11 percent of the total assemblage from Unit 17. Most of these elements represent rabbits (39 percent), a frog, muskrat, and two species of rat. As mentioned previously, the small/medium mammals are probably rabbits, and the micro/small elements, both vertebrae, are probably from rats but could not be assigned to specific taxa.

### **Modifications to Bone**

Macroscopic signs of modification to bone such as gnaw marks, burning, and sawing, as well as bony responses from trauma or illness were noted. A small portion of the assemblage from this unit

exhibited signs of modification. The most impressive morphological sign of modification is that by gnawing. The most common agent was most likely rodent gnawing, although some evidence of carnivore gnawing was seen.

Very little of the assemblage exhibits signs of having been burned black or calcined. Some materials exhibit possible slight charring from perhaps roasting.

**Table 9. Faunal Remains from Unit 17 at the Foley House.**

Taxon	Total NISP	% of NISP
Rana sp.	1	0.5%
Branta sp.	1	0.5%
Gallus gallus	29	
cf. Gallus gallus	9	18.9%
Meleagris gallapovo	6	3 %
Sylvilagus floridanus	9	4.5%
Neotoma floridana	2	1 %
Ondatra zibethicus	1	0.5%
Rattus sp.	4	2 %
Sus scrofa	57	
cf. Sus scrofa	8	32 %
Bos taurus	12	
cf. Bos taurus	1	6.5%
Ovis/Capra	4	
cf. Ovis/Capra	1	2.5%
Equus caballus	1	0.5%
<i>Other</i>		
Aves (Medium)	3	
Aves (Medium/large)	14	
Aves (Large)	9	12.9%
Mammalia (Micro-small)	2	1 %
Mammalia (Small)	1	
Mammalia (Small/medium)	3	2 %
Mammalia (Large)	19	
Mammalia (Large/very large)	4	11.4%
<b>Total</b>	<b>201</b>	<b>100%</b>

Cut marks were present on some of the faunal assemblage from Unit 17. A few elements were cut with a saw rather than by hand. In particular, ribs and some vertebrae from both pigs and cattle exhibit saw or axe marks. It is interesting to note that the marine shell exhibits evidence of sawing; the function of this item remains unknown.



Some of the elements show evidence of pathology. This natural modification is generally in the form of periosteal lesions, bony inflammatory responses to trauma or illness. Most of these lesions were noted on domestic mammals, such as swine or cattle. These lesions can usually be attributed to non-specific stress.

### **Body Part Representation**

In general, the taxa and their body parts represented are typical for a nineteenth century farmstead in the Midwest or southeast. Not surprisingly, taxa consist primarily of pigs, chickens, and some cows, with small percentages of wild species included. The body parts represented indicate that the pigs, chickens, and turkeys were probably grown on the farm, and the entire carcass butchered and used.

Chicken and turkey elements such as the tibiotarsals are present, while most chickens sold in groceries today remove the heads and the ends of the limbs. No avian cranial parts were recovered, however. This may be because of the excavation strategies and recovery methods employed by the excavators, and because only one unit was subjected to detailed faunal analysis.

Likewise, pig body part representation suggests that the entire animal was butchered and used, rather than single cuts of meat. Many cranial portions, including dentaries, were noted from this unit and from the remainder of the assemblage as well. In addition, elements such as phalanges suggest that the entire animal was used. Hog butchery practices have been well documented, particularly from Appalachia and other small subsistence farmstead areas. Most of the animal was utilized, including organs such as the brain, liver, and lungs ("lights").

Very few cattle elements could be positively identified; however, many of the "large animal" ribs could likely be attributed to these animals. The sample size is too small to be able to discern whether the cows were locally butchered or specific cuts of meat purchased and brought to the farm.

### **Faunal Conclusions**

The recovery of a large number of pig and chicken bones from an eighteenth/nineteenth century residence in the Bluegrass, even close to the Lexington area, is not surprising. These staples would be expected in farmsteads and urban residences of this era. Whole animals appear to have been used. It is interesting to note that wild fauna, such as turkey and rabbits, appear to be plentiful.

The paucity of riparian animal remains, particularly fish, can most likely be attributed to the recovery methods employed. The excavations at the Elijah Foley house were a salvage effort; traditional means of excavation and artifact processing were not always employed. For example, in Unit 17, many of the bones were picked up by the excavators, rather than recovered by screening. While Shaffer (1992) has found that the use of 6.25 mm (.25 inch) mesh hardware cloth biases a faunal sample toward the loss of elements from smaller animals, screening would normally contribute toward a consistent good sample of rabbit-sized animals or larger. In the absence of screening, fish elements undoubtedly would be lost.

The extensive rodent and carnivore gnawing also suggests that smaller elements may have simply been eaten, and thus not recovered. Many of the avian elements, in particular, were so heavily gnawed that they were nearly completely encircled by gnawing. The ends were almost always missing. It is very likely that these bones may have been tossed into the yard in an expedient disposal pattern, and

were therefore at the mercy of dogs and/or rodents.

The assemblage from Unit 17 is enticing. A glimpse at the faunal remains from other contexts at the Elijah Foley house demonstrates that similar taxa are represented. What might be of interest would be to discern if body part representation, and taphonomy, would be expressed differently in other regions of the house/yard, and through time. It would also be of interest to see if percentages of types of taxa recovered would remain the same or differ from the pattern expressed in Unit 17. The additional fauna from the Elijah Foley excavations should be analyzed and compared to that recovered from Unit 17, and from other sites in the Bluegrass as well to contribute toward enhancing our picture of economic subsistence during this time.

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## FUNCTIONAL GROUP PATTERNING

The artifact assemblage was separated into functional groups in order to be related to artifact patterning models and to delineate activity areas within the yard. Overall, the artifact pattern is indicative of a typical domestic residence or farmstead. This is not unexpected given the abundance of architectural and documentary evidence that better illustrate this fact. This type of artifact patterning is on much too broad of a scale to lend any interpretive information to the understanding of this site. However, these functional groups also may be used to delineate particular activity areas within the farmstead complex. Percentages of particular functional groups, when viewed spatially, can aid in the identification of outbuildings or particular activity areas (Andrews 1992; Rotenizer 1992).

Functional group percentages were used to delineate the activities that took place in the area of the 3 x 3 meter block excavation. The block excavation was located in close proximity to the house and adjacent to the roof remains of a small outbuilding. The function of this outbuilding was unknown, despite the abundance of documentary evidence for the site. The kitchen, architecture, and the faunal groups represent the majority of the artifacts from this excavation block. The faunal group was the most abundant with 39 percent of the block assemblage (Table 9). The architecture and kitchen groups followed with 32 and 24 percent, respectively. The remaining functional groups were minimally represented.

The high frequency of architecture related artifacts confirm the existence of an outbuilding in the location. This is substantiated by the high concentrations of mortar discovered within the block of units, as well as, the discovery of several pieces of limestone, which may have been associated with a foundation or chinking. The high frequency of faunal remains recovered from the block excavation may actually be the determinant of outbuilding function. The faunal assemblage consisted of an overwhelmingly high frequency of pig. The elements of the remains represent mostly teeth, jaws, and feet. This suggests that the area served as a place for pig slaughtering or a disposal area for unwanted pig parts. This high frequency of pig bones indicates that the outbuilding was probably the smokehouse. With this premise in mind a high concentration of coal/clinker and wood charcoal were recovered from the block excavation. However, a smokehouse was not always used for smoking meat since meat was often sugar cured or salt cured in these structures. Nevertheless, these structures still retained the name smokehouse (Karen Hudson, personal communication 1995). High concentrations of coal and clinkers were discovered at the Gibb's smokehouse in Knox County, Tennessee (Young 1994).

The functional group frequencies were compared to other excavations conducted in the region that included smokehouses. Excavations at Liberty Hall in Frankfort, Kentucky depicted a high



concentration of faunal remains in units excavated behind a standing smokehouse (Fay 1986). Although kitchen refuse and building hardware were discovered in higher frequencies, the units behind the smokehouse produced a significant amount of faunal remains. Although the faunal assemblage was not identified by units, the majority of the faunal assemblage for the site was pig. Excavations at the Waveland Historic home in Lexington, Kentucky included a block excavation near a standing smokehouse (Pollack and Hockensmith 1985). These excavations revealed high concentrations of faunal remains in the assemblage. The architecture, kitchen, and faunal groups were the abundant groups represented in the block assemblage. The kitchen group had the highest frequency followed by the faunal, and architecture groups. Pig was the most abundant taxa identified in this assemblage and the elements recovered were consistent with the Elijah Foley faunal assemblage with a majority of teeth and foot bones.

Although these assemblages vary in the frequencies of kitchen and architecture groups, the high frequency of faunal remains exhibited in all the assemblages near the smokehouse is significant. While large concentrations of faunal material may also be discovered near kitchens, these sites suggest that smokehouse outbuildings will also accumulate a large proportion of faunal remains, particularly pig. The architecture group will depict discrepancies because of the difference between standing structures and no longer standing structures, which will produce a high frequency of architectural remains, as exhibited in the Elijah Foley site assemblage. The findings from the excavations of known smokehouses at other regional sites is consistent with the Elijah Foley faunal assemblage and functional group distributions. Thus, the assertion that the block excavation at the Elijah Foley site probably represents a smokehouse.

#### ARCHAEOLOGICAL INTEGRITY

Since only two minor features were discovered during the excavations, the interpretation of the site is primarily reliant on materials recovered from the sheet midden throughout the yard. Investigation of this midden has proven to be important to site interpretation, by using particular artifacts as temporal indicators to designate spatially significant middens (King and Miller 1987). The ability to distinguish between temporally different middens spatially has enabled interpretations to be made concerning ethnicity by relating this information to the yard depositional habits of particular ethnic groups.

In order to conduct an investigation of the Elijah Foley site midden, the integrity of the archaeological context must be assessed. As noted previously, recent disturbances greatly restricted the location of excavations. However, this site also has experienced a great deal of disturbance throughout its long occupation. This condition was exhibited in the site stratigraphy, distribution of artifactual temporal markers, and condition of the artifacts. The site stratigraphy was consistent throughout the site being comprised of a 20 to 25 cm mixed historic layer and a lighter subsoil that contained a light artifact density of historic and prehistoric artifacts in the transition area between the two zones.

The distribution of temporal indicators was mixed vertically throughout the site. Early and later artifacts were found equally within all arbitrarily designated levels. Prehistoric materials were also mixed within the level, but they tended to be most concentrated in the deeper levels. It is probable that some residual prehistoric artifacts underlaid the mixed historic zone within the transitional area to subsoil. Finally, the condition of the artifacts suggests a considerable amount of disturbance or mixing. The majority of the artifacts were small fragments usually no larger than 2 or 3 cm. Most of the larger artifacts were recovered from a midden underneath the house or from surface collections. The surface finds were collected in the recently disturbed areas of the site, in which the artifacts were probably



dredged up and spread out from destroyed subsurface features.

Midden studies have shown that middens that have destroyed vertical context tend to retain some horizontal integrity, which can provide beneficial data concerning the spatial patterns of particular artifact concentrations (King and Miller 1987). However, temporal designation of artifact concentrations is necessary for delineating differently deposited middens spatially. For earlier historic sites, there are several artifact classes which allows precise dating of middens without interference of an abundance of other artifact classes. However, with the influx of the numerous artifact types and the difficulty of dating many of the artifacts during the late nineteenth century, midden delineation becomes problematic. There is no way to accurately designate the date of particular artifact concentrations in enough detail to delineate these different midden deposition episodes. This is the case for the Elijah Foley site assemblage, which consists mainly of late nineteenth and early twentieth century artifacts. While sheet midden studies have proven informative on early historic sites, the sheer frequencies and difficulty of dating late nineteenth and early twentieth century artifacts in detail have limited the benefits of a midden analysis.

Another problem with the Elijah Foley Site sample was the restricted area of intact deposits that could excavated. Several activities were contributing factors that limited the scope of the investigations. These activities clearly limited the possibility for conducting accurate spatial research. Overall, the site appears to have been disturbed or mixed occasionally over its long history. This would not be unusual for a long term occupation, which would undoubtedly have several periods of demolition, construction, and different land uses. The matter is complicated with the influx of a tremendous amount of recent trash resulting from the site's use as a dump after its abandonment. Also, the recent earthmoving activities associated with the construction of the subdivision disturbed much of the site, particularly the subsurface features. The disturbances to the archaeological context greatly limited the interpretive potential of the site. Thus, much of the interpretive value is restricted to the level of artifact analysis.

#### Unit #17

Although most of the site had disturbed context, one unit exhibited some resemblance of good archaeological context. During the last two field days, demolition had begun on the remaining standing sections of the house. After demolition, a small area under the kitchen was left clear of rubble. In this area, the exposed soil contained several large sherds of early ceramics. On the last day of excavations, enough rubble was hand cleared to allow the excavation of a 2 x 2 m unit. The soil exposed was very dark, loose, and it obviously had been consistently dry. There were several large pieces of limestone encountered on the east side of the unit. These limestone fragments appeared to have been associated with a dry laid foundation wall and mortared bricks located at that end of the unit. A concrete porch and steps had been added to the east wall of the kitchen, in which some of the original foundation appeared to have been disturbed. Some of the limestone slabs were two or three courses high and may have been remanent of former piers used to support a floor. Other slabs were obviously out of context.

As excavation began, it was obvious that this area represented a trash midden and was comprised of one zone, with intermittent pockets of different soil textures, bricks, and rubble. The midden contained large ceramic sherds, bones, buttons, marbles, coins, metal, and some glass fragments. It appeared that this midden was completely intact. However, numerous recent items such as carpet, clothing, plastic wrappers, foam rubber, and even fresh grass occurred consistently throughout the unit. At first this occurrence was quite puzzling, however, when the floor of the unit collapsed into a rather large rodent burrow, the source of the disturbance was apparent. A ground hog had recently burrowed



into the rich loose soil and carried carpet, plastic, foam rubber, clothing, and numerous other items to line his burrow.

As the excavations proceeded, other disturbances were discovered. A pipe trench was discovered along the west side of the unit. This pipe trench coincided with a pipe trench discovered in Unit #1 which was located adjacent to the outside north wall of the kitchen. Although these disturbances had contaminated the midden with recent artifacts, it appears that the original intact midden extended to a depth of 55 cm and represents a short term deposition. Thus, this unit provided the best archaeological context at the site. Although it was impossible to distinguish between the context of the midden and the context of the rodent burrow stratigraphically, the temporal difference in the artifacts is great enough to assume that the earlier artifacts are associated with the midden and the recent artifacts are intrusive with the burrow.

Having established the contextual integrity of the unit, we next focused on dating the midden assemblage. The earliest ceramics from the Elijah Foley Site were discovered in this midden, including pearlware and whiteware. A majority of these artifacts were highly decorated with hand painting and transfer prints. One datable maker's mark was discovered exhibiting a date of 1839. A mean ceramic date was calculated for the midden ceramic assemblage, producing date of 1855 (Table 10). Also, a mean flat glass date was calculated exclusively for this unit, producing the same dates of 1826 and 1860 that were produced by the total site assemblage. However the best temporal indicators were the three coins discovered in the midden. All three coins were pennies, which had dates of 1859, 1865, and 1913. The coin dates were factored into the mean ceramic date to produce another mean date for the unit, of 1856 (Table 10). Unit #17 also, produced the earliest glass artifacts found at the site, several of which exhibited pontil marks, indicative of the early to mid nineteenth century (Diess 1981; Jones and Sullivan 1989).

The midden artifact assemblage exhibits a date from the early to late nineteenth century. However, this represents the manufacture dates for these artifacts and not necessarily the deposition date. The time of deposition probably coincided with the major renovation of the kitchen, when it was connected to the main house. As mentioned before, this was completed by extending the kitchen across the breezeway or dog trot to the main house. It is possible that the entire kitchen may have been renovated at this time, including the installation of a new floor. This renovation probably occurred just after the turn of the century, considering the presence of the 1913 coin. The midden most likely was deposited during this renovation of the kitchen. However, the intrusive pipe would had to have been constructed while the floor had been removed. These circumstances present several possible scenarios for the formation of this midden. The most plausible is that the midden could have been deposited at the time of renovation and later the floor was replaced for a pipe or the pipe was added long after midden deposition during a kitchen renovation, that took place long after the kitchen, was connected to the house.

The Unit #17 faunal assemblage seems to also support a turn of the century deposit date. This assemblage indicates that many of the bones were machine sawed. Machine sawing suggests that these cuts of meat were probably purchased from a butcher and thus were representative of a later date, possibly turn of the century. The bones exhibit no evidence of having been brought into the midden by animals and were probably deposited purposefully in the midden.

This midden does contain the most concentrated assemblage of early to mid nineteenth century artifacts found at the Foley Site. Although these artifacts may have been deposited much later, it is still the most intact assemblage that dates to Elijah Foley's lifetime. The rest of the Elijah Foley Site

assemblage seems to have been associated with Thomas Foley of the late nineteenth century and the non Foley occupants of the twentieth century. Unfortunately, the historical documentation has not been helpful for determining the temporal affiliations of construction episodes, which would provide a better context for the midden assemblage.

**Table 10. Mean Ceramic and Coin Date Unit 17 at the Foley House.**

Ceramic Type	Decoration Type	Number	Mean	Reference
Whiteware	Undecorated	6	1860	Smith 1983
	Hand painted	2	1850	Price 1979
	Flow blue	5	1862.5	Price 1979
	Shell edge	4	1845	Price 1979
	Transfer printed	14	1850	Price 1979
Pearlware	Undecorated	3	1805	South 1977
	Hand painted	3	1812.5	Smith 1983
	Edge decorated	4	1805	South 1977
	Transfer printed	8	1812.5	Smith 1983
	Banded	2	1810	Smith 1983
Redware	Undecorated	12	1810	Ketchum 1983
Yellowware	Undecorated	2	1880	Ketchum 1983
White granite	Undecorated	34	1897*	Miller 1991
	Decal	1	1925*	Adams 1980
Maker's Mark	Printed date	1	1839	
	<b>Total</b>	<b>101</b>	<b>1855</b>	

\*Based on date ranges of 1845-present (1950) and 1901-present (1950).

Coins	Number	Date
Penny	1	1859
Penny	1	1865
Penny	1	1913
<b>Total</b>	<b>3</b>	<b>1879</b>

The ceramic assemblage from this unit exhibits a higher frequency of decorated wares than the entire site assemblage, particularly transfer prints. The distribution of decoration types is also, more evenly distributed than the entire site assemblage. Given the earlier date for this assemblage it seems that many of these highly decorative ceramics probably reflect the wealth of the Foley family during the early to mid nineteenth century. Unfortunately, the remaining site assemblage lacks the context to make temporal designations feasible for comparison. A trend observed within this ceramic assemblage



indicates that the later white granite wares were plain or relief decorated as opposed to the earlier pearlware and whitewares, which were decorated with transfer prints, hand painted, flow, or edge decorated than plain or relief. This may indicate a decline in socio-economic status or may indicate stylistic changes between these time periods (Table 11).

## CONCLUSIONS

The destruction of the Elijah Foley Site created an opportunity for archaeology, but it also created numerous obstacles. Without the cooperation of the developer and the diligence of the many volunteers, this unique site would have been long forgotten underneath suburbia. Although preservation is the primary goal in most cases, the salvage of information can preserve history and continue to benefit historical and archaeological research. The excavations at the Elijah Foley house produced over 6,000 artifacts representative of the early nineteenth century to the mid twentieth century.

Because much of the site had been disturbed by recent land grading, demolition of the structure, vandalism, fire, and historic renovating, the archaeological context for this vast artifact assemblage has limited integrity. This restricts the interpretive potential of the material culture recovered at this site. However, a previously unknown smokehouse was discovered. Although we were not able to isolate the date for the structure, it has been learned that the common practice of smoking or curing pork was indeed performed at this site. The trash midden discovered beneath the kitchen floor, provided the only substantial artifact assemblage from the Elijah Foley's tenure at the site. His material possessions reflected his wealth and status within the Lexington community, as suggested by the historical documentation. Within this same midden the later very plainly decorated ceramics were most likely associated with Thomas Foley or a later tenant may suggest a lower economic status. Although the lack of good archaeological context is problematic for this particular issue, the general trend between earlier and later ceramics exhibits a decline in decorative ceramics. This corresponds with the documented decline of the family gunpowder making business and Elijah Foley's declining involvement in the operation of that business. With Elijah Foley's death in 1843, the Foley heirs probably ran an agricultural operation at the site and then rented the property to tenants. This endeavor probably did not provide the wealth enjoyed by Elijah Foley.

Although there were only a few insights revealed by the archaeological assemblage, this assemblage provides an excellent comparative collection of a long term occupation site during the nineteenth century for the Lexington area. These types of sites are quickly disappearing into the suburban landscape and very few artifact assemblages have been curated from this region thus far. A comparison to other assemblages from other parts of Lexington could be useful. A preliminary comparison to sites such as the John Pope House, Ashland, and Waveland indicate that the Elijah Foley family, while living a somewhat wealthy lifestyle, did not live the same lavish lifestyles indicated by these other sites. Reasons for this may have to do with differences in the geographical and historical contexts. The community of South Elkhorn was small and situated at distance from Lexington. Its role as a commercial area in milling and gunpowder making may have attracted or created a few wealthier families like the Foleys, but, not on the scale of large agricultural operations or famous statesmen.

Perhaps the most important thing we learned from this site was the difficulty of conducting salvage archaeology. The lack of time, the limited excavation area, and the disturbed nature of the site heavily impeded the success of our investigations. Improved communication between the developer, historic preservation groups, and archaeologists could have allowed sufficient time to develop a research

Table 11. Ceramic Decoration Types From Unit 17 at the Foley House.

Type	Whiteware	White granite	Pearlware	Porcelain	Yellowware	Redware	Stone ware	Total
Undecorated	6	25	3	19	2	1	0	56
Transfer printed	14	0	8	1	0	0	0	23
Banded	0	2	2	0	0	0	0	4
Edge	0	0	1	1	0	0	0	2
Hand painted	2	0	3	4	0	0	0	9
Flow	5	0	0	0	0	0	0	5
Colored glaze	0	2	0	1	0	0	0	3
Salt glaze	0	0	0	0	0	0	9	9
Relief	0	5	0	0	0	0	0	5
Shell edged	4	0	3	0	0	0	0	7
Swirl	0	0	0	1	0	0	0	1
Decal, lustre, & relief	0	2	0	0	0	0	0	2
Clear/lead glaze	0	0	0	0	0	11	0	11
<b>Total</b>	<b>31</b>	<b>36</b>	<b>20</b>	<b>27</b>	<b>2</b>	<b>12</b>	<b>9</b>	<b>138</b>



design that would not impede the progress of the developer. With an adequate research design much more information could have been recovered from this site prior to site disturbance. This time factor would have allowed for the development of a much broader public involvement and developer involved project. Salvage archaeology would be served best by learning from the experiences at the Elijah Foley house site to improve the information collected and the benefits for all parties involved.

Despite the limits of this excavation, the Elijah Foley site is important for its contribution to our history and because this site was excavated. Excavations at this site illustrate that private developers, government, and volunteers can work together to salvage history. The lessons learned at the Elijah Foley site will help future salvage projects to be less inhibitive and more productive. It is hoped that this site has set a precedent and opened up a new cooperative attitude that will lead to more than just salvaging history.

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