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An archaeological perspective on architectural evolution at Fort Harrison

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An Archaeological Perspective on Architectural Evolution at Fort Harrison

An Honors College Project Presented to
the Faculty of the Undergraduate
College of Arts and Letters
James Madison University

by Rachel Nicole Bergstresser

Accepted by the faculty of the Department of Sociology and Anthropology, James Madison University, in partial fulfillment of the requirements for the Honors College.

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PUBLIC PRESENTATION

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Introduction

Fort Harrison is a historic home located in Rockingham County just north of Dayton, Virginia. Occupation of the site began in 1749, when the original limestone house was constructed by Daniel Harrison. The Harrison family was one of the first that settled within the Shenandoah Valley. When the city of Harrisonburg was founded it was named after Thomas Harrison, who was the brother of Daniel Harrison. Throughout occupation of the site changes took place to the original limestone structure that was constructed in 1749. First, a brick addition was constructed to the north of the original structure and later renovations to the original limestone structure took place. Archaeological investigation of the site has taken place on multiple occasions, most recently in the spring of 2016 through the fall of 2017. Results from the fieldwork and subsequent analysis suggest that the orientation of the extant dwelling was changed since it was first built in the mid-eighteenth century.



Figure 1: Present Day Fort Harrison



Figure 2: Aerial Photograph of Present Day Fort Harrison Site

Statement of Objectives

This project seeks to evaluate the hypothesis that the main (front) entrance to the house was relocated from the northerly-facing side to the southerly-facing side, in conjunction with the decision to enlarge the structure with an addition to the north side. If the hypothesis is supported, the ultimate goal is to answer why the house was reoriented.

The continuation of archaeological investigation at Fort Harrison contributes to the understanding of its occupation and changes to the dwelling, and it also contributes to the study of early settlement and cultural change within the Shenandoah Valley of Virginia.

This paper will first provide historical background information about Daniel Harrison, the history of occupation at Fort Harrison, and the architectural changes that took place over time. Second, this paper will provide context from the three beginning phases of settlement in the Shenandoah Valley of Virginia beginning in the 1730s to the early 1800s. Third, patterns and changes of architectural styles and farm layouts within the Shenandoah Valley will be outlined and compared to that found at Fort Harrison. Next, the archaeological process and archaeological results are described. Finally, the paper develops an interpretation of the archaeological findings, which includes an analysis of the spatial patterns found, the implications that they pose regarding the proposed change in structure orientation, and reasons as to why a change in orientation may have occurred.

Background

The following history of occupation is drawn from two sources of information. The first is the website for Fort Harrison, which is overseen by Fort Harrison, Inc. (Fort Harrison, Inc. 2017). The second is a 1979 report called *Fort Harrison*, a history and architectural overview

written with information provided by an architect who examined the structure at that time (Fetzer and Sease 1979).

Fort Harrison was initially built by Daniel Harrison, the eldest son of Isaiah Harrison and his second wife Abigail, who were from Long Island, New York. Isaiah and Abigail along with their children, including Daniel, moved from Smithtown, Long Island to Sussex County, Delaware in 1721. The family lived on Maiden Plantation, which encompassed 900 acres of land until the death of Abigail in 1732 when the plantation was divided among the ten children of Isaiah Harrison.

Daniel and his family moved from Delaware to the Shenandoah Valley of Virginia around 1738. Eight of Isaiah Harrison's children settled in areas within the Shenandoah Valley around Harrisonburg, Virginia. Originally, Daniel purchased a land tract on Naked Creek, which is now located in Augusta County. Daniel then purchased 400 acres on the Dry Fork of Smiths Creek. In 1749 Daniel purchased a 120-acre piece of land from Samuel Wilkins near the western branch of Cooks Creek, now in Dayton, where he built the limestone house still standing today.

Daniel Harrison constructed a water-powered mill and distillery on his property, and obtained a license to operate an inn within his home. He was a prominent leader in the community, especially during the French and Indian War as a captain in the militia. Legend has it that the stone house became a fort in times of Native American raids. Daniel Harrison died sometime between 1767 and 1770.

The Harrison household held not only held a prominent social position within the community, but was also of high economic status. That status is reflected in the probate inventory of Daniel Harrison, which is a written inventory of assets with descriptions and values assigned to items, that was written immediately following his death and provided by the Augusta

County courthouse records. The contents of the inventory indicate the family's high economic status. They owned multiple slaves and had high quality, expensive ceramic wares. The probate inventory also gives evidence of a site involved in agriculture from the large number of tools, livestock, and grains present (Bergstresser 2016).

Following Daniel Harrison's death in 1767 the house was passed to his son, Benjamin Harrison. In 1816, Peachy Harrison, the son of Benjamin Harrison, assumed the title to the property and was the last Harrison to own the house. In 1821 the house was sold out of the family to John Allebaugh. In 1856, while still owned by John Allebaugh, the house was reassessed from \$700 to \$1800. The architectural overview of Fort Harrison states that it was likely at this time in 1856 that the brick addition was built onto the northern side of the limestone structure. John Allebaugh sold the house to J. N. Liggett in 1856, who then sold to William and Solomon Burtner in 1862. During William and Solomon Burtner's ownership, there were renovations made to the original limestone structure, which are described below. In 1870 Solomon Burtner became the sole owner. In 1917 the house was sold to the Koogler family, who still owns much of the land today. Fort Harrison, Inc. purchased the portion of the land where the house is situated in 1978 from D. W. Koogler to begin its restoration and preservation (Table 1). The house was restored between 1978 and 1979 by Fort Harrison, Inc. to protect the history of the site for future generations.

Table 1: History of Building Ownership

Name/Owner	Date	Details
Daniel Harrison	1749	Built stone house on Cooks Creek
Benjamin Harrison	1767	Son of Daniel, assumed title to the property
Peachy Harrison	1816	Son of Benjamin, final Harrison to own the house
John Allebaugh	1821	Purchased the house from Dr. Peachy Harrison
J.N. Liggett	1856	Purchased the property
William and Solomon Burtner	1862	Purchased the house
Solomon Burtner	1870	Assumed full title
E.L. Koogler	1917	Purchased the house
D.W. Koogler	1929	Son of E.L. Koogler, assumed title
Fort Harrison Inc.	1978	Purchased the house to begin restoration

Fort Harrison Architectural History

The architectural history is taken from the write up *Fort Harrison* (Fetzer and Sease 1979). The original limestone building, built in 1749, was influenced by German architectural styles, evident in the I-house configuration of the structure (Figure 3). This building included two large rooms on both levels, a large attic, and a front and back porch. There was no cellar in the house. From evidence of soot-stained plaster and scars in the walls from the original fireplace, the kitchen was likely located on the west end of the first floor. There were two fireplaces constructed flush with the outer wall, with the larger of the two on the western side of the structure within the kitchen. A stairway connecting the first, second, and attic levels of the house was located in the southwest corner of the kitchen beside the fireplace. The doorways and the windows on the first level of the original stone structure were all built with stone arches to help support the structure due to the weight of the limestone material. The second level windows did not have arches, but instead had heavy timber lintels. There were no windows on either the easterly-facing or the westerly-facing sides. The entire length of the front of the building was whitewashed to a height of eight feet and the rear was painted similarly. Nailing patterns indicate the roof was constructed with wood shingles.

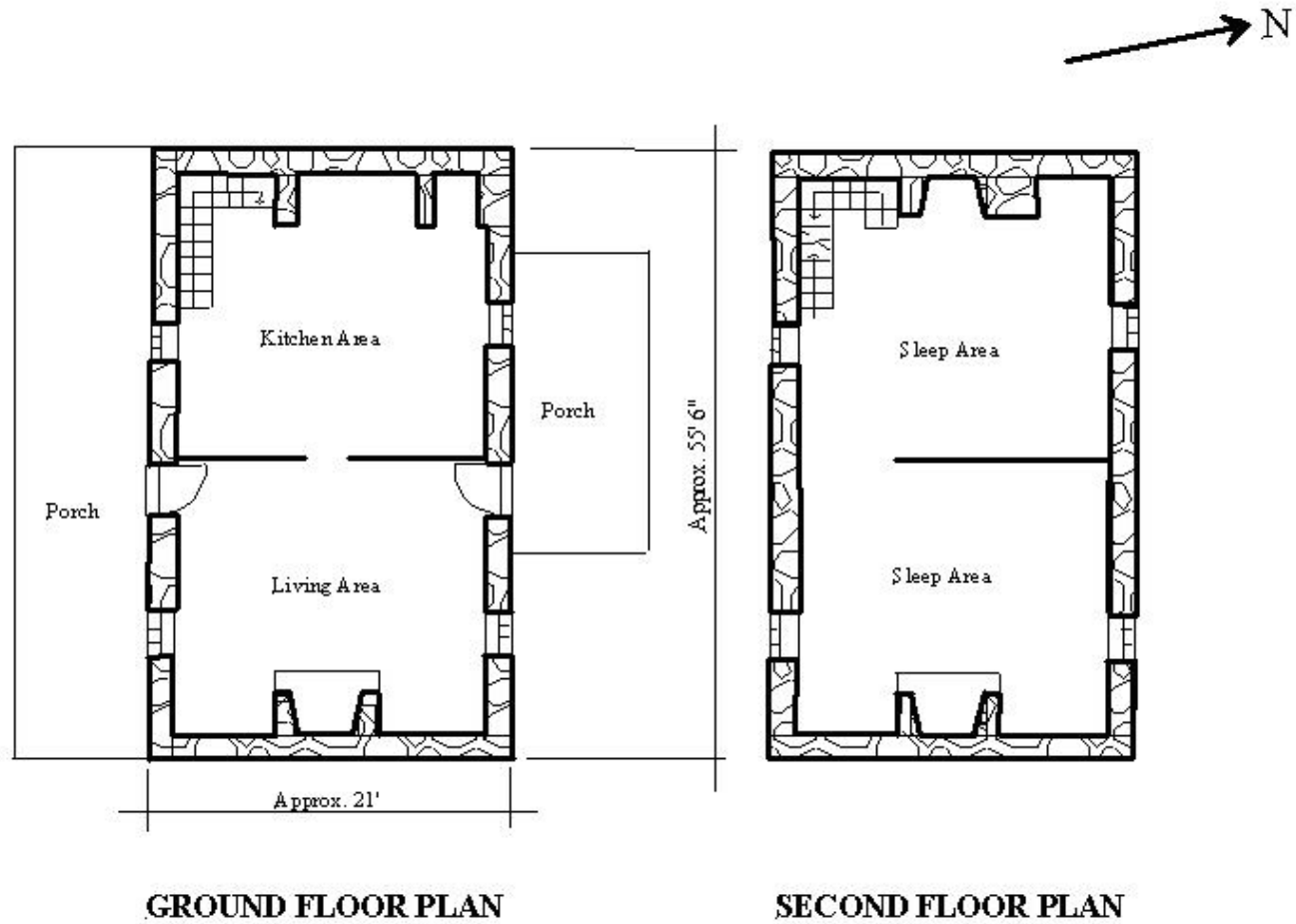


Figure 3: 1749 Original Stone Structure- First and Second Floor Plan

In 1856, a two-story brick addition was added to the northern side of the original limestone structure by John Allebaugh (Figures 4 and 5). If the hypothesis is supported, then it was at this time that the reorientation occurred. The north wall of this addition included two chimneys, with two fireplaces on each floor. A load-bearing wall runs through the middle of the addition from north to south to support the second floor and the attic. The existing doorway on the northerly-facing side connects the original stone structure with the new brick addition. The stone arch above this doorway was kept as support for the upper stories. The second level window on the western end of the northerly-facing side was widened to function as a doorway. The other second level window on the northerly-facing side was bricked shut, while still keeping the stone arch for support. Additionally, the windows on the northerly-facing side of the first level were both widened to function as doorways, and still retained their original arches. However, the east door was later bricked shut. There is no information regarding the stairway during this period of construction.

During the 1860s there were extensive renovations by William and Solomon Burtner to the original limestone structure, including some Greek revival influence seen in the design and woodwork (Figures 4 and 5). All four window openings on the southerly-facing side were made larger to accommodate taller and wider windows. The first level front door opening was enlarged to accommodate a taller door. The second level door opening leading onto the roof of the porch was also enlarged. At this time the stone arches above the doorway and the windows were removed because the weight distribution that they created could not accommodate a larger doorway and windows. A central hall, including a stairway, was constructed on both floors of the stone structure by removing the center partitions. This created an unheated hallway that provided access into two rooms on both floors. The existing corner stairway was removed and a closet

built. A new, south side porch was constructed, which was shorter than the original. An additional window was placed on the east side of the original stone structure. The entire exterior of the structure was coated with stucco, providing a more finished look and helping to seal the walls. The original stone fireplaces and chimneys located on the east and west sides were removed and replaced with freestanding brick fireplaces and chimneys. These chimneys were not built into the wall, but were added to the inside of the room. Following these major renovations, only minor changes occurred to the architectural form of Fort Harrison.

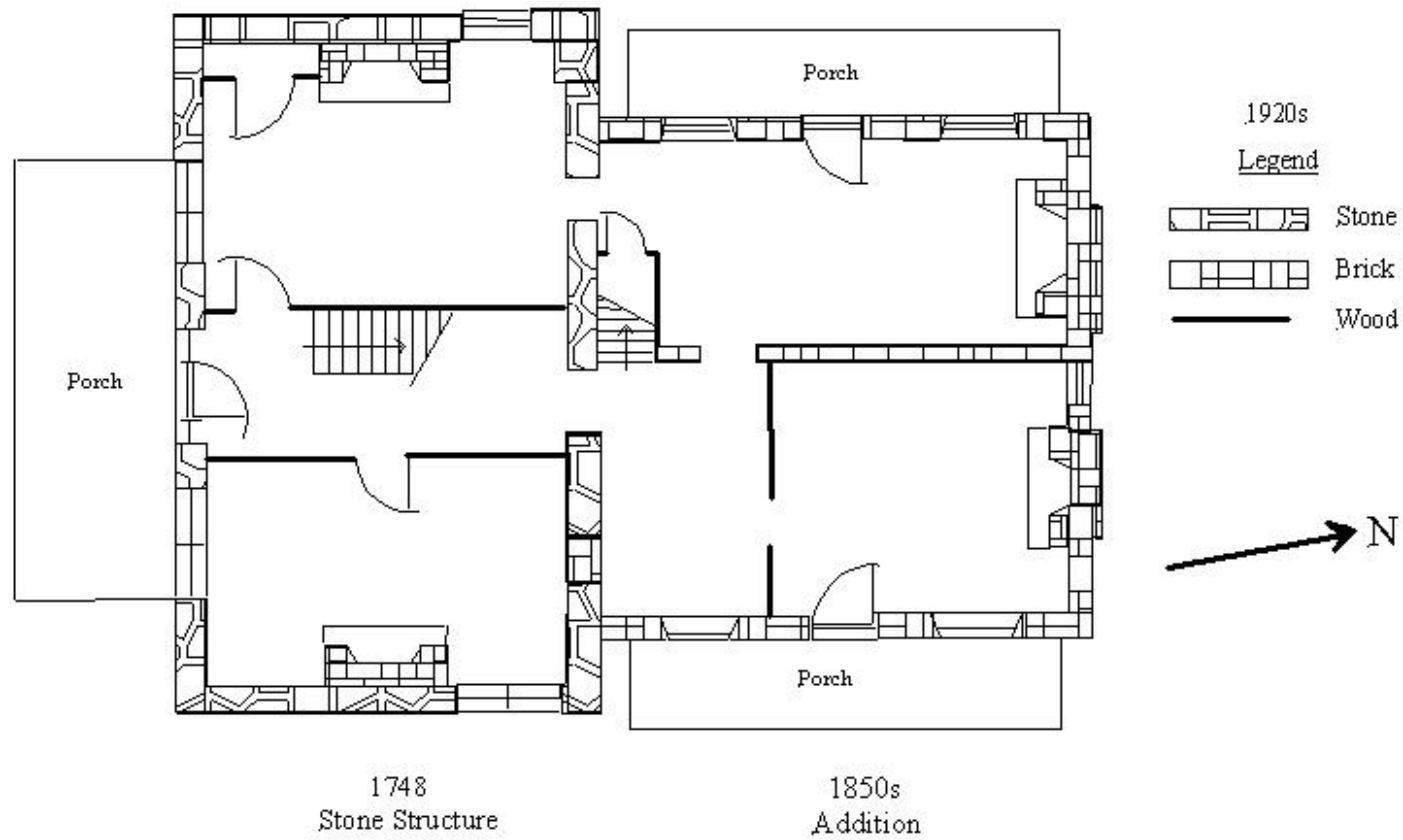


Figure 4: 1850s Addition and 1860s Renovations- First Floor Plan

The figure shows the first floor of both the 1856 brick addition added to the north side of the original limestone structure and the 1860s renovations completed on the original limestone structure portion of the house.

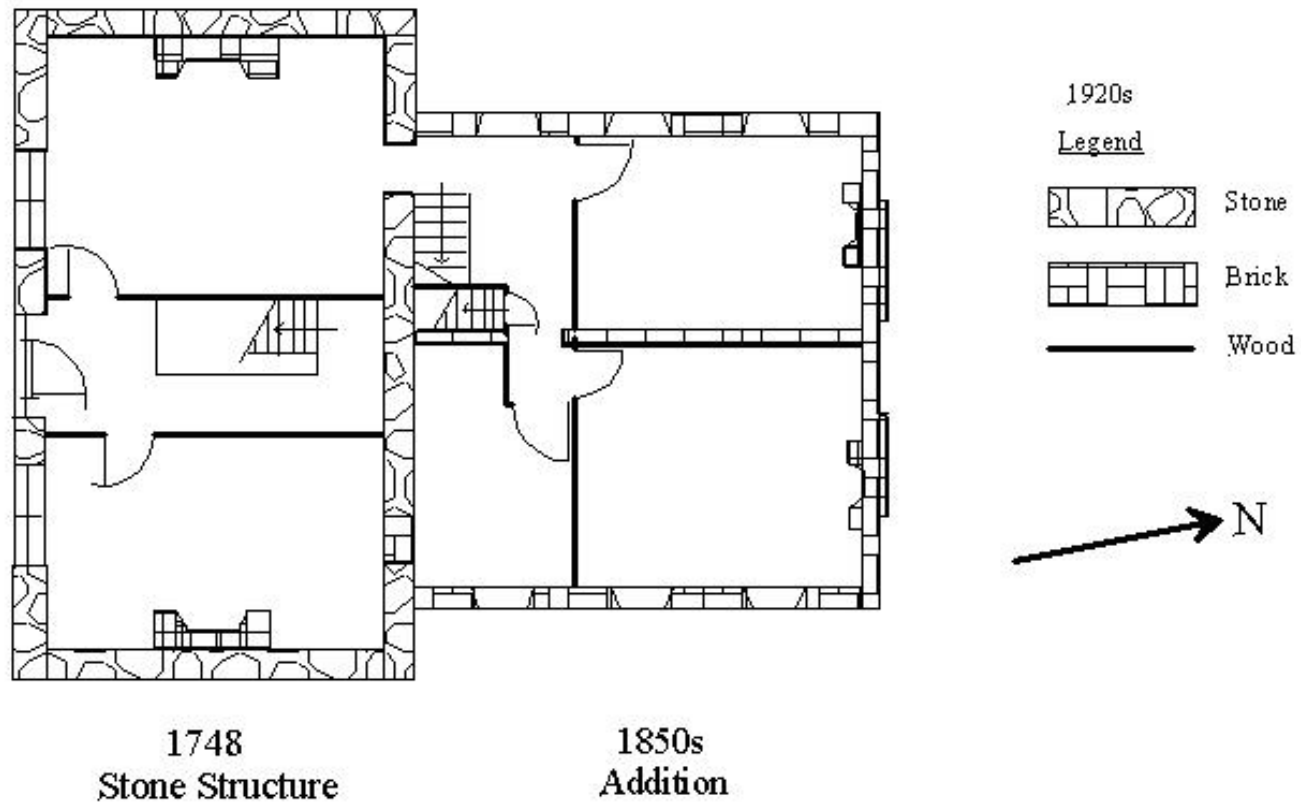


Figure 5: 1850s Addition and 1860s Renovations- Second Floor Plan
 This figure shows the second floor of both the 1856 brick addition added to the north side of the original Limestone structure and the 1860s renovations completed on the original limestone structure portion of the house.

Shenandoah Valley Settlement

In *The Planting of New Virginia: Settlement and Landscape in the Shenandoah Valley*, Warren Hofstra (2004) examines the initial settlement of the area and its progression from an unknown backcountry to an interconnected landscape crossing between areas of town and country. This contextual information helps to set the backdrop of the environmental, social, and economic conditions present at the time that Fort Harrison was first constructed and throughout its later periods of occupation. These conditions and mentalities would have affected human behavior, which is reflected in the architectural styles, layout, and artifact spatial patterns observed on the Fort Harrison property today.

At the beginning of the eighteenth century the Shenandoah Valley of Virginia was open, unfamiliar land. The Shenandoah Valley was a region of the southern backcountry that was one of the earliest settled and eventually became the most developed area West of the Blue Ridge Mountains by the early 1800s. Native Americans still occupied some of the area, but their habitations were increasingly uncommon beginning in the mid-seventeenth century as European settlement began and evolved in later years. The initial settlement of the Shenandoah Valley by Europeans began in the 1730s and lasted for around seventy years as the land was transformed into a developed world. Farms, roads, and markets eventually dotted the landscape among town and country as the area was altered through the institution of private property. The development and evolution of the town and country landscape west of the Blue Ridge Mountains is understood by Hofstra (2004) through three phases, the initial European settlement in the 1730s, the establishment of counties and towns, and the increasingly interdependent landscape between the town and country spheres.

The first phase of settlement within the Shenandoah Valley of Virginia was during the 1730s, when Europeans first came to the area from other settled regions within mid-Atlantic North America. It was during this first phase of settlement that Daniel Harrison moved to the Shenandoah Valley from Delaware around 1738. Reasons for the movement of individuals from other settled areas into the region included economic pressures pushing them out, and seeking land or new opportunities. Settlement west of the Blue Ridge Mountains was further initiated by the colonial government of Virginia through the development of land policies. These land policies were set in place to help alleviate the effects of situations like threats from French encroachment on their land from the west, Native American attacks, conflicting claims to land between neighboring colonies, and threats of slave uprisings in the mountainous areas.

Families and individuals that settled the area were initially dispersed and the average land ownership ranged from three to four hundred acres. Dispersal throughout the Shenandoah Valley created rural communities, also known as open-country neighborhoods, where individual families occupied hundreds of acres of land. The rural communities created the beginning of centrality on the landscape and were settled depending on the Europeans' perceptions of a good farmstead location. The pattern of settlement on the land depended on multiple factors such as environmental conditions and the likelihood of the land to produce economic gain. The locations of European homesteads were often sites previously inhabited by Native Americans, suggesting that Europeans took advantage of the environmental modifications made by Native Americans, such as land clearance for the location of agricultural fields. Europeans may have also been using some of the same criteria that Native Americans were using to select suitable settlement locations, which encompassed multiple environments that made for the best likely economic output. Homesteads consisting of a farmhouse and dependencies, such as small barns and storage

buildings, were often located in forested areas with good access to water. Forested areas were associated with good soil quality because Europeans judged the value of land based on vegetation coverage.

Dwellings during this phase of settlement were small, single roomed structures. They were often square, measuring about 20 feet on each side, and were essentially single room cabins. Log structures were built with earthen or wood floors, but stone structures were also common. Often if the early structures survived they were later incorporated into other structures. Surrounding these early dwellings were several smaller fields, which contained both gardens and crops. Fences kept free roaming animals like horses, cattle, and sheep separate from crop fields. During this initial settlement of the Shenandoah Valley the economy was focused on household production and local exchange. During this phase of settlement within the Shenandoah Valley there was a mix of ethnic backgrounds. Most populations were Scots-Irish and German, and there were some English and Anglo-Americans. This first phase of settlement ended with the establishment of Frederick and Augusta counties in 1738, which led toward the founding of county towns (Hofstra 2004).

The second phase in the settlement of the Shenandoah Valley consisted of the establishment and layout of county towns on the landscape, beginning in the years 1744 and 1745. During this evolutionary phase of settlement Daniel Harrison constructed the original limestone structure. The town of Dayton was likely beginning to emerge during this phase and the city of Harrisonburg was founded in 1780. The distinguishing factor of this stage of settlement is not a major change in the people or economic activities, but was the establishment and the influence of the political authority. War in England caused leaders within the community to recognize that they were vulnerable to their enemies. Thus, as a basis to maintain civic order

there began establishment of a landscape that allowed for the effective functioning of political organizations. The concentration of these political organizations, especially the court system was placed within county towns, where the court could serve as a large presence and exert its influence on the surrounding areas. The towns began in the form of property lots and streets aligned on a grid system, which ultimately created a center square of public buildings. The areas surrounding the county town continued to be occupied by rural, open-country neighborhoods. Houses and farm layouts with dependencies continued to be constructed in similar fashions. During this phase economic activities of individual farms generally continued to focus on household production with some local exchange of goods like wheat and flour. As towns started to be developed, the economic activities there centered on the stores, but the court also often stimulated local trade in the town center. During the global conflict of the Seven Years War, which spanned from 1756 to 1763, the economy was stimulated due to demand of the military. Merchants from coastal areas took advantage of the economic opportunities found in the backcountry, and contributed to the expansion of economic markets and the increasing dependence that the town and country began to have on one another. Economic developments that arose after 1760 resulted in the town and country spheres becoming even more integrated leading to the third phase of settlement and evolution within the Shenandoah Valley (Hofstra 2004).

The third phase of Shenandoah Valley settlement and evolution occurred around 1800. The first two phases of open-country and county town evolution occurred as results of political events. The third phase is the result of the occurrences in the previous two phases, which resulted in a more integrated and coherent landscape that consisted of both the town and country. The economy changed in Europe as the population increased, the Industrial Revolution began, and

agricultural yields could not support the growing population. Therefore, there were increases in food prices worldwide and stimulation in both the local and global exchange economies. Changes in Europe such as those previously mentioned led to the commercialization of the Shenandoah Valley region and the consumer revolution as individuals and families were gaining profits from selling their goods. Grain production, tobacco, and livestock constituted great sources of income for farmers within the Valley. Changes within the economy led to general prosperity and drove the town and country to become increasingly integrated and interdependent between commercial agriculture, market towns, and Atlantic ports. Due to the economic prosperity more towns were founded and placed in locations along developing road systems such as the Valley Road, which ran north to south through the Appalachian Valley from Pennsylvania to North Carolina. Out of this development emerged a settlement configuration that included hierarchy of towns, which were integrated into the earlier landscape of open-country neighborhoods. The increase in family wealth led to more defined social classes, including slaves. Furthermore, the prosperity led to renovations and rebuilding of structures on the landscape to better reflect the wealth of the region through Georgian and neoclassical forms. Streets and roads were merged, further establishing connections between town and country (Hofstra 2004). It was during this phase of settlement that the brick addition was added to Fort Harrison and later renovations were completed. Also during this phase was the founding of the town of Dayton in 1833 when the name was changed from Rifeville.

Shenandoah Valley Architecture

Architecture within the Shenandoah Valley of the Mid-Atlantic region evolved through multiple stages from the time the area was attracting its first frontiersmen to later when the

region was becoming further interdependent and developed. These architectural stages follow the different periods of settlement within the Shenandoah Valley. In *A Field Guide to American Houses*, Virginia and Lee McAlester (1984) state that domestic architectural buildings of the early settlement period fall between two categories: folk houses and styled houses. Folk houses are usually simple structures providing the basic need of shelter, and which are designed and built based on tradition with no conscious effort of including current styles. Two forms of vernacular architecture are hall and parlor dwellings and I-houses. Most American houses are styled houses, which are those that are designed with an attempt to include current styles. A distinct domestic building style found within the Shenandoah Valley from the middle of the 1800s is the Georgian style. This styled structure is classified based on the configuration of the first floor, while the arrangement and number of rooms on the second floor may be variable and does not affect the overall classification of the structure.

In *Everyday Architecture of the Mid-Atlantic*, Gabrielle Lanier and Bernard Herman (1997) examine structures and landscapes located within the Mid-Atlantic region from southern New Jersey to Virginia and interpret them through an archaeological perspective. Henry Glassie also examines typical structural forms and farm layouts found within the Delaware Valley in *Eighteenth-Century Cultural Process in Delaware Valley Folk Building* (1972). The Delaware Valley shares house building styles with the Shenandoah Valley in Virginia because the Delaware Valley was one source of migration to the Shenandoah Valley via the Valley Road. Property owners, local builders, and trained architects determine architectural forms of houses based on both the natural and cultural environment at the time of construction. Architectural forms create one aspect of many cultural elements that are continuously changing within the Shenandoah Valley.

The pattern of vernacular architecture predominant within the Shenandoah Valley during the seventeenth and early eighteenth centuries was the I-house. Vernacular architecture is based on tradition, material availability, and the needs of the community. Fred Kniffen (1990) named this folk form of architecture in the 1930s, to describe a certain form popular in rural areas settled by the English in the seventeenth and eighteenth centuries. This form was thus named because of the appearance of the tall, thin gable as an upper case I. This form was found throughout Europe prior to and during the time of settlement within North America, therefore, it was often built in the English colonies throughout the seventeenth and eighteenth centuries. During the time that the I-house form was initially being constructed, it was associated with societies containing an economy with an agricultural basis and it further indicated economic success. This form continued to be built within North America until the early 1900s, however, later after the mid 1800s it began to be increasingly associated with lower class households (Lanier and Herman 1997).

The definite characteristics of this form are two levels, one room in depth, and at least two rooms in length. In most instances, an I-house consisted of a hall and parlor design with two rooms placed side by side on the first level and a fireplace flush with the outside wall on each of the gabled ends. One room was called the hall, which was the main room of the house, and the other was the parlor, which served as a space for formal sitting and entertaining. The second level was used as a sleeping area for the inhabitants. The gable ends of the structure were usually blank, but later windows began to be incorporated. On the longer sides of the structure the doorways and windows were placed on each side of the doorways, to create a symmetrical arrangement.

Fred Kniffen (1990) explains that the I-house has a variable floor plan, which includes variation in the room dimensions and the placement of the stairway. While the form can be variable it includes the definite characteristics above, thus, it establishes a specific type within the Shenandoah Valley among other areas in the United States. The I-house type is further variable because structures are built using many material types including brick, log, and stone. The material that was chosen was due to multiple reasons including available materials, socioeconomic status, and the length of time intended for the occupation of that structure.

The I-house form is an open plan design because of the direct access that the entryway has into the dwelling's main floor living areas. While there are variations in the I-house across the United States, within the Valley the variations of open plans within the Mid-Atlantic region were limited, with most dwellings containing one or two rooms, although there were some structures that contained open plans with up to three and four rooms. Open plan designs for houses were typical of the early periods of European settlement until the middle of the 1800s and different variations of the open plan coexisted.

The original limestone structure that was built by Daniel Harrison in 1749 was built using the two room open plan I-house form typical of the early period of initial European settlement (Figure 3). The structure possesses defining characteristics of this architectural form. It was one room in depth with two separate rooms on the first and second floors. Both of the longer sides of the structure had a doorway, with a window to either side. The gabled ends both contained fireplaces flush with the outer wall and originally had no windows. Daniel Harrison's use of the I-house form is consistent with his position as an early settler in an agricultural society and his use of limestone material is an indicator of his higher social position, due in part to his economic success.

The early form of dwelling within the Mid-Atlantic region shifted from the open plan I-house to the closed plan Georgian house type (Glassie 1972). This shift occurred around the middle of the 1800s, but some early forms of the Georgian house type have been known to exist in the late 1690s. The Georgian type was inspired by the Renaissance period and classical Greek and Roman design during a time when the Mid-Atlantic region was becoming more developed, commercialized, and prosperous. When this form became more prevalent in the middle of the 1800s within the Mid-Atlantic region it was associated with affluent individuals of higher status, while the I-house hall and parlor form was increasingly associated with the less affluent.

The defining elements of the Georgian house type are a central hallway that contains the stairway and has direct access to the doorways. Typically the structure has a depth of two rooms located on either side of the central hallway. The second floor of a Georgian plan structure typically follows the same layout as the first floor, including two rooms on either side of the central hallway. There are Georgian plan structures that include more rooms on the second floor of the structure than on the first floor. There are two window openings on each floor of the gabled ends, and five openings on the longer sides of the structure, which include both doorways and windows. The doorways and windows are primarily placed in locations that are horizontally and vertically symmetrical to create a balanced form. Georgian plan structures were built in a variety of materials including log, brick, and stone.

Georgian houses are closed plans because they do not allow direct access into the living areas of the house. The front entrance in a Georgian structure has access to the central hallway, which then allows access into other rooms. A closed plan creates social distancing, separation, and control of space. This layout was popular for affluent owners of servants because of the

ability that it gave the owner to control the movement of servants within the house and through the creation of a social distance between owner and servant.

At Fort Harrison, the brick addition that was added to the north side of the original limestone structure in 1856 by John Allebaugh and the following renovations by William and Solomon Burtner in the 1860s to the original limestone structure were constructed according to the Georgian style, which was becoming more common during the middle of the 1800s (Figures 4 and 5). These changes to the structure include elements such as symmetry and proportion, which served as the basis of the Georgian form. The renovations to the original limestone building included the relocation of the corner stairway into the central hallway, which creates symmetry as well as creating a more closed floor plan with greater privacy. Renovations to existing domestic structures are often due to one or more of the following: to update the appearance, to add needed living space, and to minimize exterior maintenance. The use of structural elements by John Allebaugh and William and Solomon Burtner in the middle of the 1800s, to create a Georgian form dwelling indicates that they were changing the physical structure to update the appearance and to reflect a changing society. As the I-house hall and parlor form was becoming increasingly associated with the lower classes, Fort Harrison was altered to reflect an updated structure with the latest design elements, which reflect a fashionable family of higher status and success. The addition may have also been constructed to add needed living space to the structure, and the stucco that was applied during the renovations helped to seal the walls, therefore decreasing exterior maintenance while also providing a finished look.

Shenandoah Valley Farm Layouts

The arrangement of farmyard plans can vary for multiple reasons, but overall, functionality and geometry were key in the placement of barns and other dependencies. The types of farm buildings and their location on the land depended on other factors like the type of agriculture on the farm and regional preferences or traditions. Traditional folk plans for farmyards had to be combined with new unfamiliar elements found within the backcountry, such as the topography and weather patterns, as well as new social and economic systems.

Henry Glassie (1972) identifies two basic farmyard plans within the Delaware Valley: the courtyard plan and the linear plan. As previously stated, the Delaware Valley is comparable to the Shenandoah Valley because many Delaware Valley people migrated south down the Valley Road into regions such as the Shenandoah Valley, bringing their architectural forms and cultural expectations with them. When either of the farmyard plans are in their ideal form they contain the same layout patterns between the house, barn, and other dependencies on the landscape. The two farmyard plans were not always vigorously applied especially when the traditional planner met a new environment. However, it is unlikely that farmyard plans were seldom random, having no linear organizational element and logical orientation. While unlikely, there were some random arrangements of farmyards, but these are most common in poorer agricultural areas. Farmyard plans are described by their relationship to the house, most often placing barns and other buildings behind the house, to the side, or across a road from the house. Different styles of houses and barns could be incorporated into the two basic farmyard plans that were recognized by Henry Glassie.

The courtyard plan is an arrangement where the house is located in front of the barn with the farmyard between them. The house and the barn are often parallel, but the ridge lines of the

barn could also form a right angle with the ridge lines of the house. Other buildings to the side of the farmyard extend from the house to the barn and form a hollow rectangle that serves as an open work area. Buildings that are associated with the house are located closer to the dwelling, while outbuildings associated with the farm are located toward the barn. Overall this plan has the house at the front, the barn behind the house, and other outbuildings completing the hollow center courtyard area. There are a few variations of the courtyard arrangement for farmyards, such as just the house and the barn with no other outbuildings enclosing the center area. When this occurs a courtyard is implied in the space between the structures.

The linear plan is a farmyard arrangement that aligns the ridge lines of the house and the barn. The placement of these two structures is gable to gable. The arrangement of other buildings within the linear plan is a secondary courtyard arrangement that is defined by the barn, not the house. The farmyard arranged in a linear plan would often orient the front of both the house and the barn toward the south or east to maximize exposure to early morning sunlight.

Buildings present in early farmyard plans would have included the house, a small barn or stable, and other necessary outbuildings. Outbuildings were used to perform specific functions outside of the main house. This kept heavy, dangerous, dirty and odorous tasks separate from the house. Such outbuildings include detached kitchens, springhouses, dairies, smokehouses, multipurpose buildings or shelters, and slave or servant quarters.

Both archaeology and architecture reflect aspects of past cultures through material remains. They compliment one another so that when both are used to study a landscape, a more complete understanding of its past can be determined. In the case of Fort Harrison, archaeological investigation lends itself to studying the changes in architectural orientation over time.

Previous Archaeology

Beginning in the spring of 2016, Fort Harrison, Inc. invited the Department of Anthropology at James Madison University to perform exploratory archaeological fieldwork with the goal of gaining insight into the everyday life of occupants at Fort Harrison. Initially, Fort Harrison, Inc. wanted to search for the legendary tunnel that supposedly led from the house to the nearby spring during the French and Indian war from 1756 to 1763. When no evidence was found for a tunnel, a comprehensive exploration of the immediate landscape was undertaken. When unexpected concentrations of early artifacts were recovered from the south side of the structure, focus was then concentrated within this area. Since then, there have been four periods of archaeological fieldwork performed by students enrolled in both the Historical Archaeology course (ANTH/HIST 331) and the Archaeology course (ANTH 197) under the direction of Dennis Blanton (Figures 6 and 7). The first occurred in the spring of 2016 and was focused within the cultivated field, to the north of the house. During this period 30 shovel test pits were excavated. The second was conducted in the fall of 2016 and was focused in the southern yard of the house and within the pasture to the south. A total of 14 shovel test pits and three units were excavated. The third occurred in the spring of 2017, and consisted of 17 shovel tests filling in areas within the southern yard, the pasture to the south, and to the east of the stone house across Main Street. Finally, the fourth occurrence of archaeological fieldwork took place this past fall and was focused in the pasture to the south of the house. During this period four units were excavated.

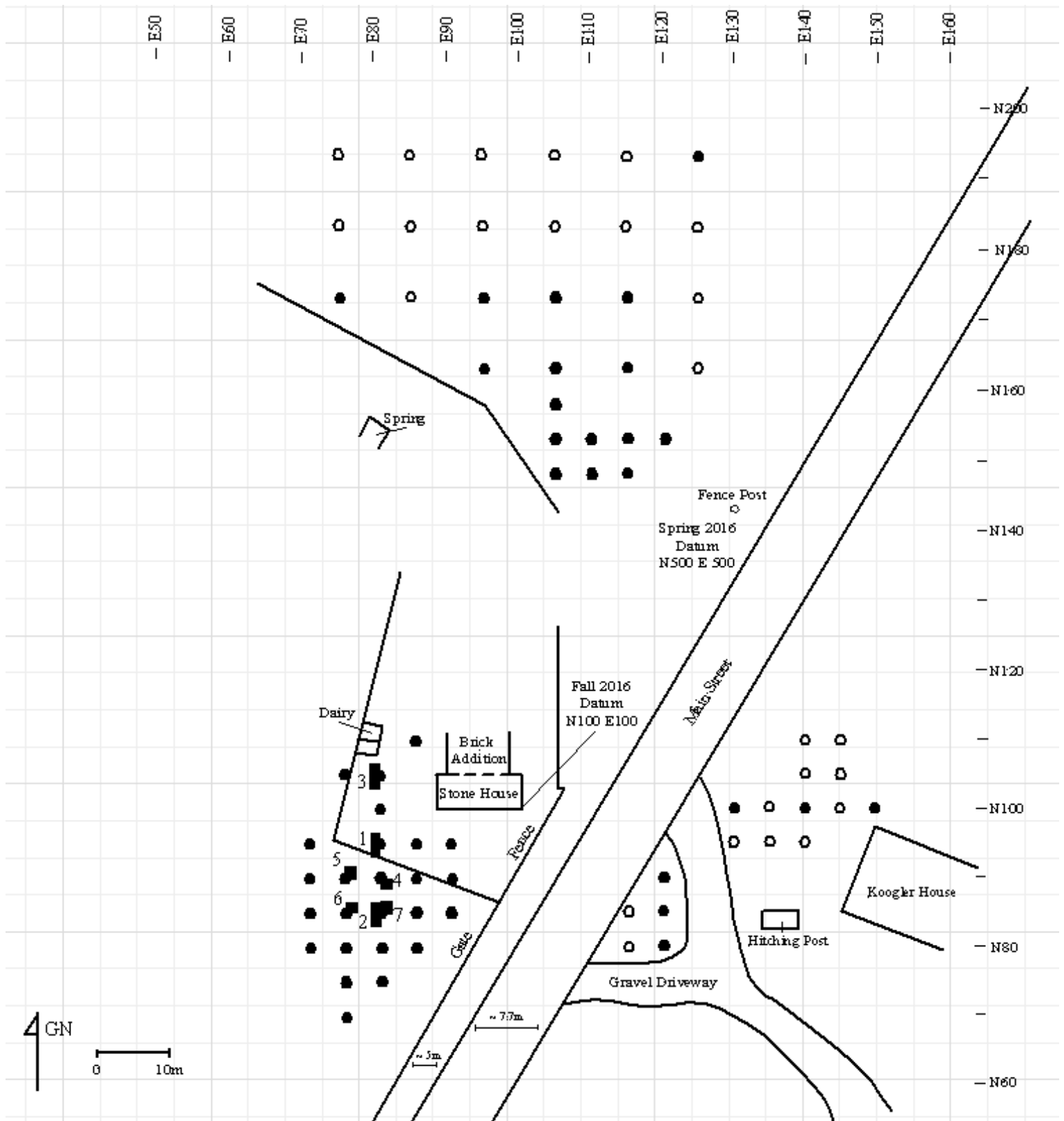


Figure 6: Full Site Plan

Circles represent shovel test pits and rectangles indicate units. Closed circles represent the presence of artifacts.

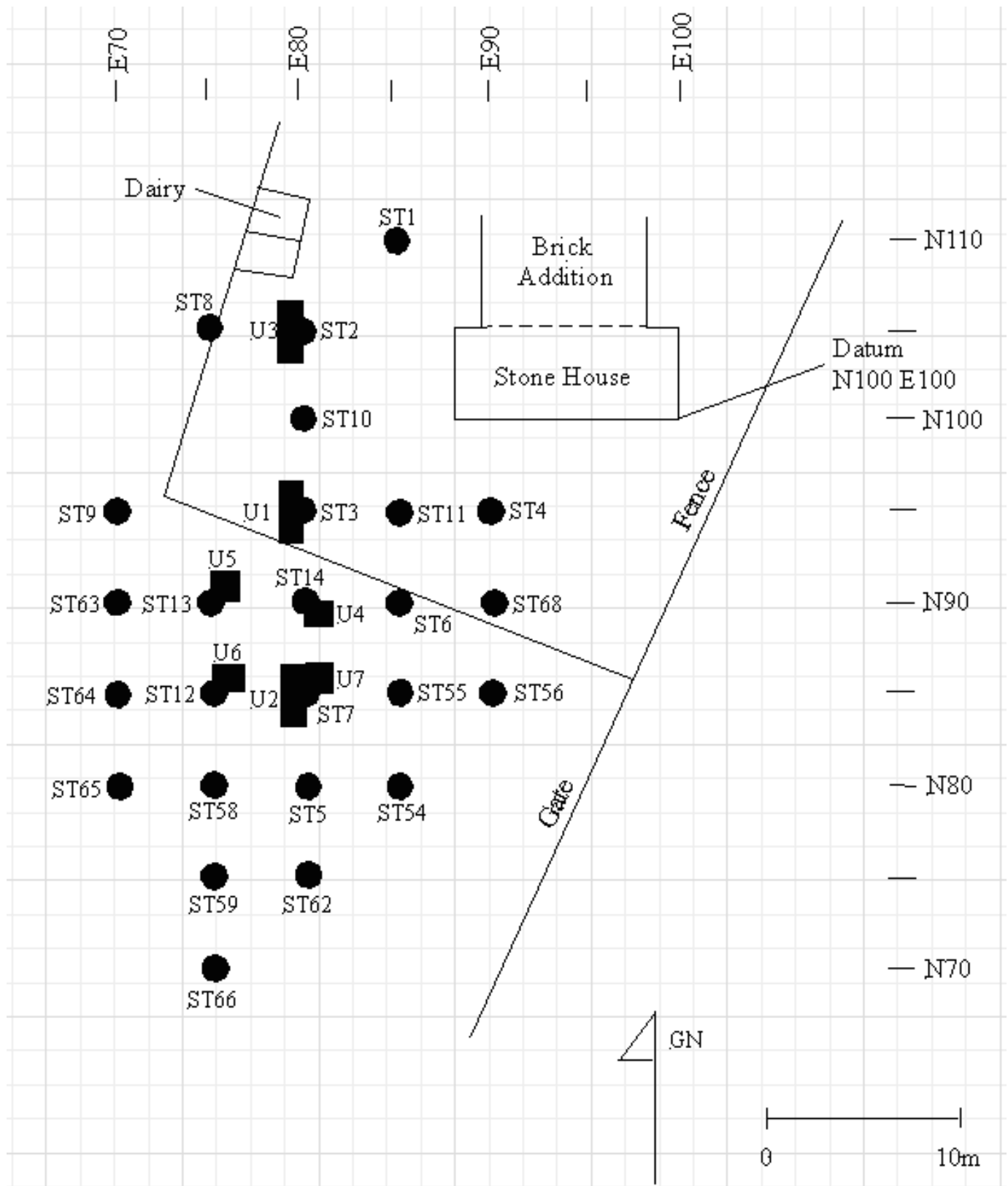


Figure 7: Zoomed Site Plan of Yard and Southern Pasture
 Closed circles represent shovel test pits with artifacts. Rectangles represent units.

Excavation Procedures

The initial stage of archaeological work performed in the spring of 2016 involved 30 shovel test pits measuring 30 cm in diameter placed within the cultivated field, to the north of the house. The shovel test pits were laid out according to a fence post datum located at N 500, E 500, and placed at either 10 m or 5 m intervals.

The archaeological work in fall of 2016 involved 14 shovel test pits measuring 30 cm in diameter located in the southern yard of the house and within the pasture to the south. This area includes areas inside the current picket fence and outside the fence in the pasture to the south. Shovel test pits were laid out in 5 m intervals in the vicinity to the southwest of the existing house based on a reference baseline and datum at the corner of the original stone house designated as N 100, E 100. The placement of three units measuring 2 m by 0.5 m was determined based on the results from the shovel test pits. The goal of unit excavation was to further investigate areas within the yard and southern pasture that yielded an abundant amount of artifacts and features.

Archaeological work in the spring of 2017 consisted of 17 shovel test pits measuring 30 cm in diameter placed across the site in areas previously not investigated in order to determine the location of activity areas and to perform a comprehensive spatial analysis of the entire site. Such areas were located across Main Street in the Koogler's front yard, to the east of the structure. Additionally, areas within the pasture to the south of the structure were filled in based on the locations of previous shovel test pits.

The final archaeological excavation procedure consisted of four units measuring 1 m by 1 m within the pasture to the south. Units were placed according to the results from the previous

excavation periods. Shovel test pits where features were documented and those that contained an abundance of early artifacts were chosen for unit excavation.

All shovel test pits were excavated until subsoil was reached using shovel and trowel. Unit excavation involved the removal of soil with shovel and trowel according to natural soil levels until contact with subsoil. All soil was sifted through ¼ inch dry screen and artifacts bagged. Unit profiles and plan views were drawn, and the unit photographed. As features were identified they were exposed, drawn, and photographed. Soil was described using standard terminology and Munsell soil color.

With a goal of defining the boundaries of a feature identified in Unit 7 within the pasture to the south, two small test trenches were examined and some soil core samples were taken using an Oakfield soil sampler.

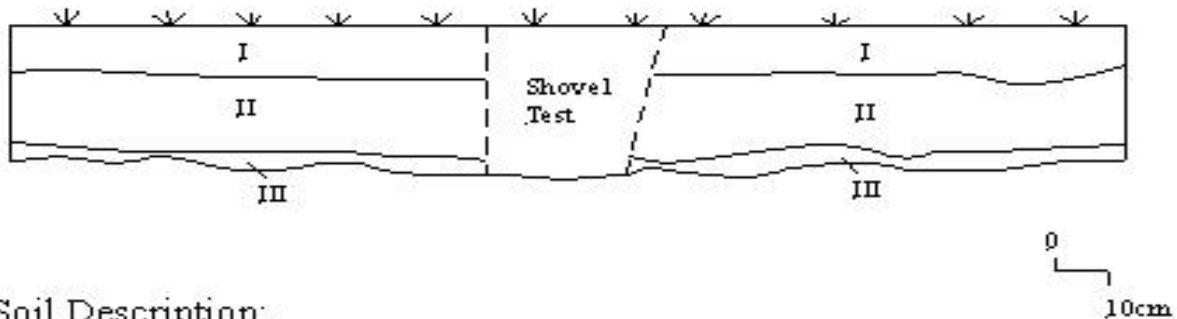
Following fieldwork all artifacts were taken to the James Madison University archaeology laboratory for washing, identification, cataloguing, and analysis. Using the AutoSketch drawing program, the site map, unit plan views, and unit profiles were converted to digital format.

Stratigraphy & Integrity

The stratigraphy of the shovel test pits and units generally progressed through the A-horizon topsoil at the surface, the E-horizon, and the B-horizon subsoil. The color of the A-horizon topsoil had a dark grayish brown color and was a silty loam. The E-horizon ranged from primarily brown to a more dark brown, dark gray, or yellowish color. The texture of the E-horizon ranged from a silty loam to a silty clay loam with abundant small stones or pebbles. The B-horizon subsoil ranged from yellowish brown to strong brown and had a clay texture.

Differences in the general pattern of soil transitions from A-horizon to E-horizon to B-horizon took place when features were identified (Figures 9 and 14) and when the soil had been backfilled (Figures 8 and 10). The abundance of small pebbles and stone increased with depth within the southern pasture. Differences in depth among the shovel test pits until subsoil was reached spanned from less than 10 cm at the shallowest and around 80 cm for the deepest. Refer to the figures illustrating the unit profiles for specific information on strata, Munsell color, and soil texture.

Interpretation of archaeological data relies on a few key principles. First, the location of artifacts within the stratigraphic sequence correlates to their age. The law of superposition states that in an undisturbed sequence of strata, the youngest stratum is at the top and the oldest stratum at the bottom. Therefore, in an undisturbed landscape artifacts recovered within the top strata are younger than artifacts recovered in the bottom strata. Second, the absolute or calendar dates for strata can be determined by the artifacts within them. Ceramic and nail types are useful artifacts to provide a date range of occupation within certain strata because of their known manufacturing dates according to certain attributes. The period of site occupation that correlates with the most common ceramic and nail types recovered is from the mid-1700s to the mid-1800s, which is concentrated in stratum II. The large concentrations of artifacts within stratum II indicates that this was the most intensive period of site occupation at the locations of the five units in the southern pasture.



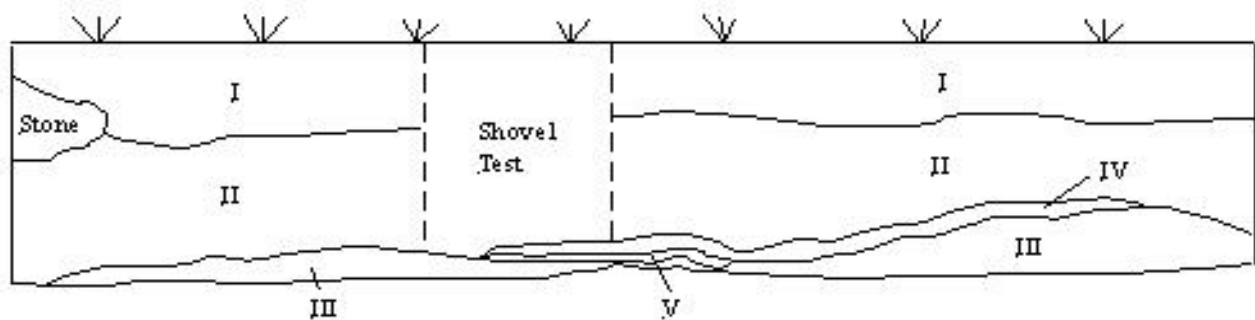
Soil Description:

I: Fill layer - relatively blocky structure, 10 YR 4/3, silty loam

II: Buried A-horizon - somewhat mixed with modern debris, 10 YR 5/3, silty loam

III: Subsoil - 10 YR 7/2, silty clay

Figure 8: Unit 1 East Profile



Soil Description:

I: Humus/root zone, 10 YR 3/2, silty loam

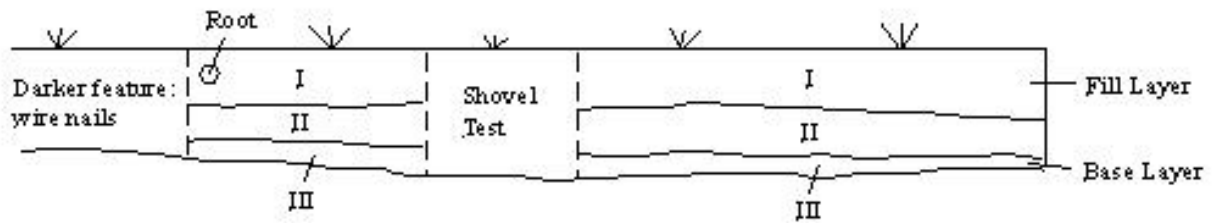
II: Sheet midden/A-horizon, 10 YR 4/3, silty loam

III: Transition to subsoil, 10 YR 5/4, silty clay loam

IV: Ash layer with common charcoal flecks (gray)

V: Heat-altered (orange) soil

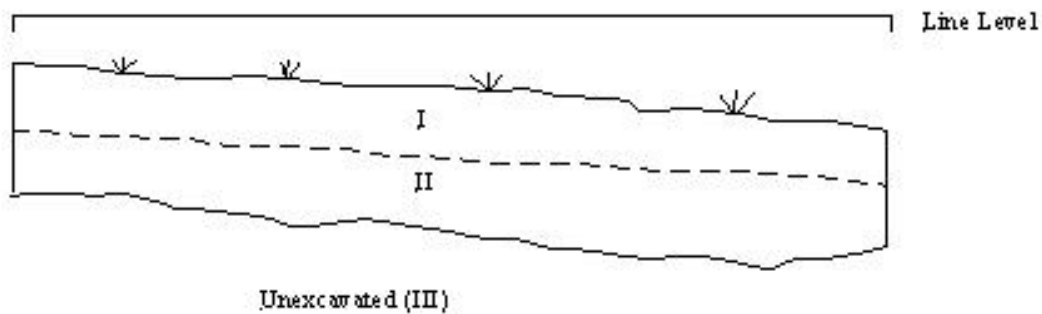
Figure 9: Unit 2 East Profile



Soil Description:

- I: Fill Layer, relatively chunky structure, 10 YR 4/3, silty loam
- II: Buried A-horizon/sheet midden, 10 YR 5/3, silty loam
- III: Subsoil, 10 YR 6/4, silty clay
- Feature: Pipe trench? Mixed soil, primarily 7.5 YR 5/6, silty clay

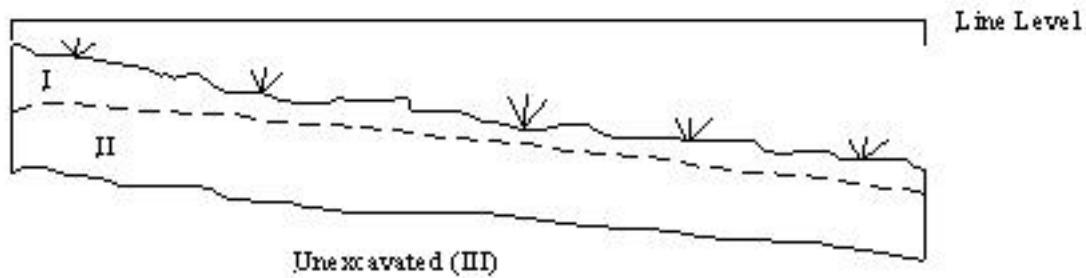
Figure 10: Unit 3 East Profile



Soil Description:

- I: A-horizon 10 YR 3/2, silty loam with occasional stone
- II: Primarily 10 YR 4/3, silty clay loam with abundant small stone
- III: Primarily 7.5 YR 4/6, silty clay loam with abundant small stones, and occasional lenses of 7.5 YR 5/6, silt clay (subsoil?)

Figure 11: Unit 4 South Profile



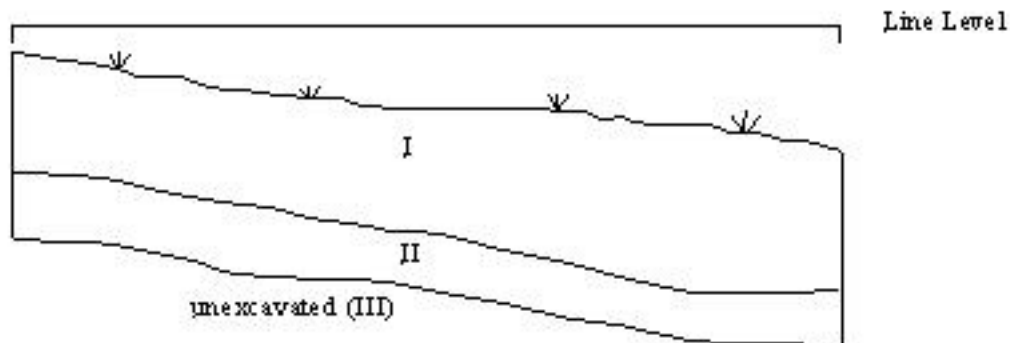
Soil Description:

I: A-horizon 10 YR 3/2, silty loam with occasional stone

II: Primarily 10 YR 4/3, silty clay loam with abundant small stones

III: Primarily 7.5 YR 5/6, silty clay

Figure 12: Unit 5 South Profile



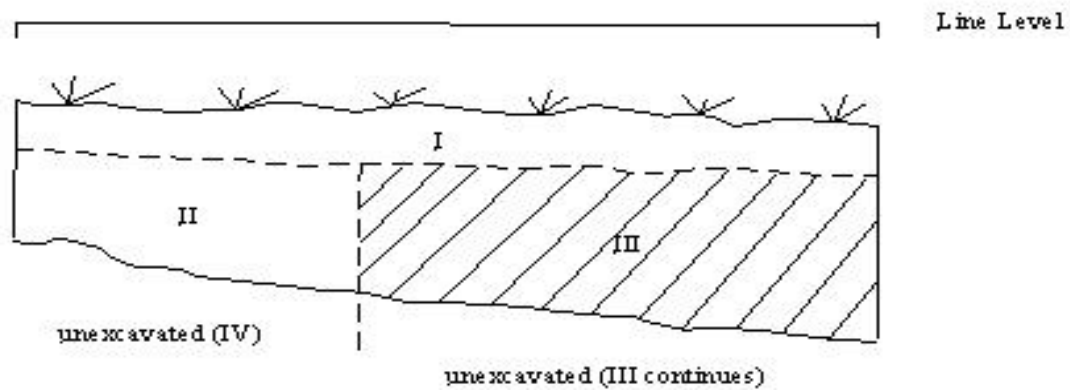
Soil Description:

I: 10 YR 3/4 dark yellowish brown, silty loam

II: 10 YR 3/3 dark brown, silty clay loam, abundant small stones/pebbles

III: 7.5 YR 4/6 strong brown, silty clay, common to abundant small stones

Figure 13: Unit 6 South Profile



Soil Description:

- I: A-horizon 10 YR 3/2, silty loam with occasional stone
- II: Primarily 10 YR 4/3, silty clay loam with abundant small stones
- III: Feature fill/midden - 10 YR 2/2 silty clay loam with moderate quantity small stones plus common burned wood and bone (unburned)
- IV: Subsoil - 7.5 YR 4/6, silty clay loam with abundant small stones

Figure 14: Unit 7 South Profile

The archaeological integrity of areas surrounding Fort Harrison is generally good. The integrity refers to the degree that the site has been disturbed and therefore, loses its archaeological validity. Modern day activities and erosion are the two factors that have likely influenced the site's archaeological integrity. The topmost stratum is of little to no value because of the degree of disturbance of the soil and the presence of modern day materials due to recent activities. The cultivated field to the north of the dwelling has undergone alterations like plowing and fertilizing to prepare for the growing of crops, thus the integrity of the top stratum is low. The pasture to the south of the dwelling has been used as an area for grazing cattle, also compromising the integrity of the topmost stratum.

Unit 4, Unit 5, and Unit 6 within the southern pasture likely suffered from the issue of deflation from soil erosion. Deflation is a process where wind and other natural forces transport sediment to another location. While this does not affect the artifacts, it causes the thickness of soil deposits to change over time as they shift within the area. Unit 5 is located toward the top of a small hill, while Unit 6 is located directly south and downhill. Within Unit 6 most artifacts are located in stratum III, while the majority of artifacts within other units are located within stratum II. This indicates that erosion caused another stratum of soil to gradually be deposited from the area of Unit 5 to the area of Unit 6. Based on the artifact types the time period of stratum III within Unit 6 correlates to the time period of stratum II among the other units. The same process affected Unit 4, which is also located toward the top of a small hill.

Archaeological Results- Shovel Test Pits

The four occasions of archaeological fieldwork included excavation of 61 shovel test pits in areas of the northern cultivated field, the yard, the southern pasture, and in the Koogler's yard across Main Street to the east (Figures 6 and 7).

Artifacts

The types of artifacts that were recovered at Fort Harrison fall among the following main categories: ceramics, nails, glass, brick, bone, and miscellaneous. Within those categories the artifacts can be subdivided further. Ceramics fall between two main categories: coarse earthenware and refined earthenware. Coarse earthenwares such as redware are fired at temperatures between 900 and 1,200 degrees Celsius and are the softest type of ceramic finished with a variety of surface treatments. Refined earthenwares include types such as creamware, pearlware, and whiteware. Refined earthenwares are fired at higher temperatures between 1,100 to 1,200 degrees Celsius and usually are finished with a glazed surface. Nails can be further categorized into hand wrought, machine cut, and wire based on their mode of manufacture. Glass types are distinguished between window glass and bottle glass. Any type of artifact that does not fit within a large category falls within miscellaneous. At Fort Harrison this includes metal fragments, buttons, a straight pin, and percussion caps.

Recovered artifacts are significant because they give information regarding the past activities that occurred on the site. Ceramics and nails are important artifacts because they have unique attributes, which allow them to be more easily dated.

Northern Cultivated Field Artifacts

Within the northern cultivated field there were a total of 30 shovel test pits. Among the 30 total test pits, 15 yielded no artifacts. The total number of artifacts recovered for the remaining 15 shovel test pits is 269 (Tables 2 and 3). The most abundant types of artifacts are brick fragments and bone fragments. Less abundant, but still numerous are redware sherds, refined earthenware sherds, bottle glass fragments, window glass fragments, and hand wrought and cut nails. One porcelain sherd was recovered (Figure 15). Within the recovered refined earthenwares, whiteware was the most common, followed by pearlware, then creamware. The temporal patterns of these artifacts are discussed in the next section.

Table 2: Shovel Test Pit Artifact Types
Northern Cultivated Field

Location	Ceramics	Nails	Window Glass	Bottle Glass	Bone	Brick	Total
SP 1	1				35	1	37
SP 2	8	1	1		5	14	29
SP 3	6		5	2	2	10	25
SP 4				1			1
SP 5						1	1
SP 6	11	1	3	6	4	23	48
SP 7	5	3	4	3	3	16	34
SP 8	4	2		2	1	8	17
SP 9	10	1	1	2	1	19	34
SP 10	5	2	2	1		3	13
SP 11	1						1
SP 12	2			3		15	20
SP 13							
SP 14							
SP 15							
SP 16	2					5	6
SP 17						1	1
SP 18							
SP 19							
SP 20							
SP 21							
SP 22							
SP 23							
SP 24							
SP 25							
SP 26							
SP 27							
SP 28							
SP 29							
SP 30		1					1
Total	54	11	16	20	51	116	269

Table 3: Shovel Test Pit Refined Earthenware and Nail Types
Northern Cultivated Field

Location	Creamware	Pearlware	Whiteware	Hand Wrought Nails	Cut Nails
SP 1		1			
SP 2	1		4		1
SP 3		1	1		
SP 4					
SP 5					
SP 6	2	4	1		
SP 7		2			1
SP 8			1		2
SP 9		1	5		1
SP 10		1	1		
SP 11					
SP 12					
SP 13					
SP 14					
SP 15					
SP 16			1		
SP 17					
SP 18					
SP 19					
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SP 22					
SP 23					
SP 24					
SP 25					
SP 26					
SP 27					
SP 28					
SP 29					
SP 30					

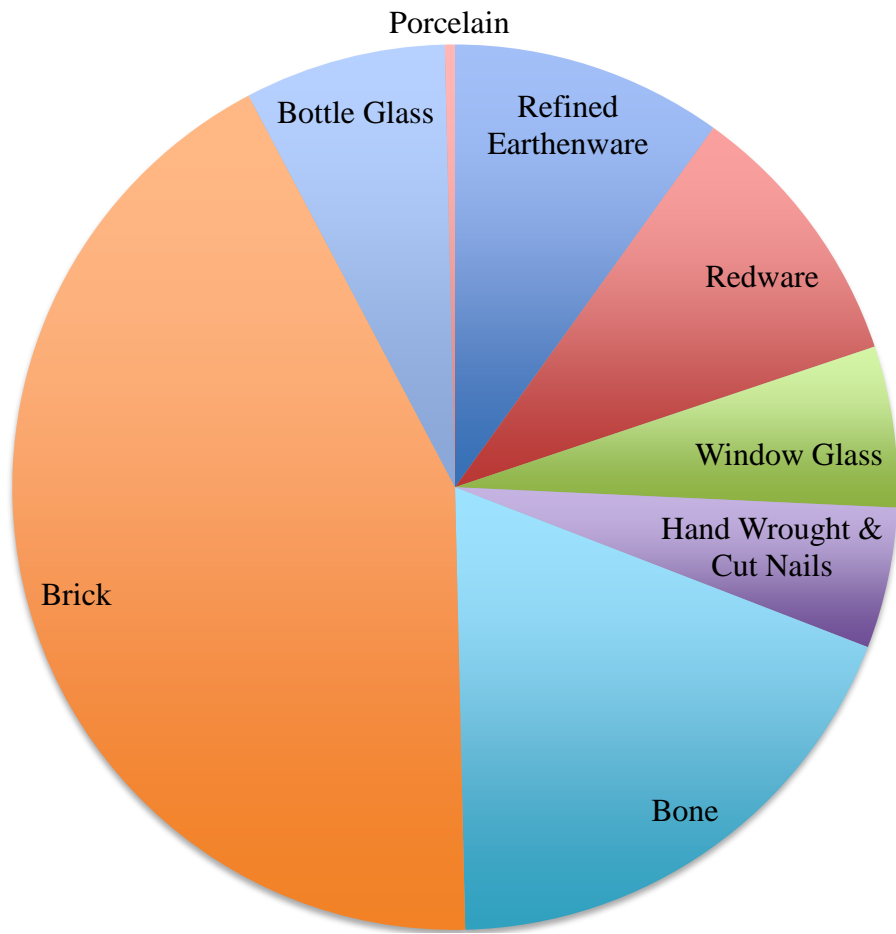


Figure 15: Northern Cultivated Field Artifact Type Percentages

Yard and Southern Pasture Artifacts

The yard south of the dwelling within the current picket fence and the pasture outside the fence included 25 shovel test pits. All of the shovel test pits contained artifacts and the total number recovered is 610 (Tables 4 and 5). The most abundant types of artifacts were redware sherds and refined earthenware sherds. Other artifact types that were still largely present but less abundant in this area of the site are brick fragments, bone fragments, hand wrought and cut nails, bottle glass fragments, and window glass fragments. No porcelain was recovered. In addition to the brick fragments, hand wrought and cut nails, and window fragments, another type of architectural material that was recovered was other stone, such as limestone. In addition to bone there are some shell fragments recovered from the shovel test pits in the south yard and the southern pasture. Rare items are included in the miscellaneous category, which includes pipe stem and bowl fragments, button, buckle fragment, spring clip, fastener ring, slate, and tin can sheet metal (Figure 16).

Table 4: Shovel Test Pit Artifact Types
Yard and Southern Pasture

Location	Ceramics	Nails	Window Glass	Bottle Glass	Bone	Brick	Shell	Pipe Frag.	Misc.	Total
ST 1	10	4		1	7	12			5	39
ST 2	35	4	3	1	1	3	1			48
ST 3	8	6	4	5	3	8	1		1	36
ST 4	3	5	10	2		5				25
ST 5	2					9	1		1	13
ST 6	4	2	3	1		1				11
ST 7	40	5	1	2	12	2	1		1	64
ST 8			1	2	1	7				11
ST 9	31			1	11	5		1		49
ST 10	3	3	2	3		2				13
ST 11	9	2		5	2		1		1	20
ST 12	18	1		1	2	9				31
ST 13	16	3	1	3		14	1		1	39
ST 14	29	6	6	6	3	11	1			62
ST 54	14	4	2							20
ST 55	7	3		1	22					33
ST 56	4			1						5
ST 58	1	1								2
ST 59	2									2
ST 62	5	1	1	1						8
ST 63	9			2						11
ST 64	18	1			1					20
ST 65	9	3		1						13
ST 66	3		2		2					7
ST 68	15	1	1	4	7					28
Total	295	55	37	43	74	88	7	1	10	610

Table 5: Shovel Test Pit Refined Earthenware and Nail Types
Yard and Southern Pasture

Location	Creamware	Pearlware	Whiteware	Hand Wrought Nails	Cut Nails	Total
ST 1	1		7	1	3	12
ST 2		18	10	1	3	32
ST 3	1		2	3	3	9
ST 4		1	2	1	4	8
ST 5			2			2
ST 6		3	1	2		6
ST 7		19	5	2	3	29
ST 8						0
ST 9	6	2	2			10
ST 10		1	2	3		6
ST 11	2	2	2		2	8
ST 12	1	3	2		1	7
ST 13		2	1	1	2	6
ST 14		4		2	4	10
ST 54	1		1	1	3	6
ST 55				1	2	3
ST 56						0
ST 58					1	1
ST 59						0
ST 62				1		1
ST 63	3					3
ST 64	2	3	3	1		9
ST 65		2	1		1	4
ST 66						0
ST 68	2	1	1		1	5
Total	19	61	44	20	33	177

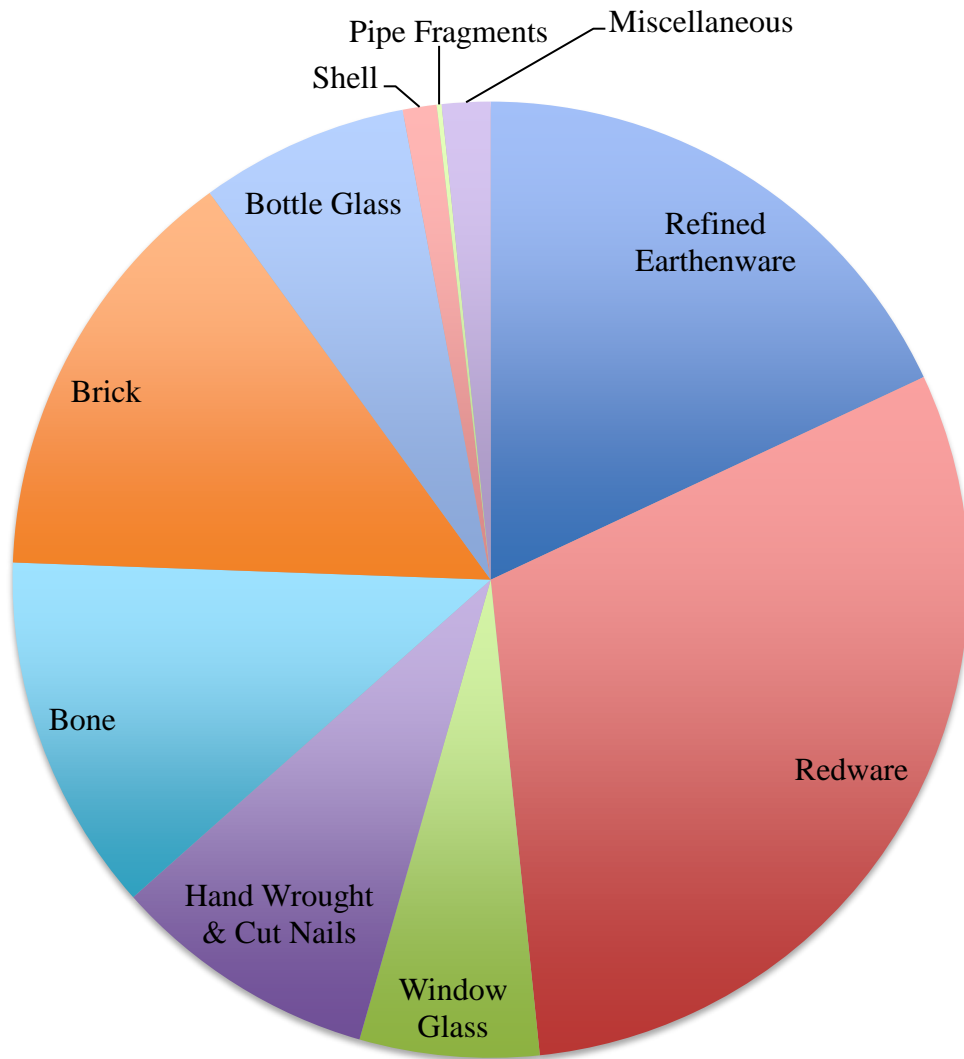


Figure 16: Yard and Southern Pasture Artifact Type Percentages

Koogler Yard Artifacts

Within the Koogler family's yard to the east of Fort Harrison across Main Street there were six shovel test pits. Among the six total test pits, four yielded no artifacts. The total number of artifacts recovered in this area of the site is four (Table 6). Half of the artifacts were redware sherds, followed by a refined earthenware sherd and a window glass fragment. No artifacts were recovered from the remaining types.

Table 6: Shovel Test Pit Artifact Types
 Koogler Yard

Location	Ceramics	Nails	Window Glass	Bottle Glass	Bone	Brick	Total
ST 52							
ST 53							
ST 57							
ST 60							
ST 61	1						1
ST 67	2		1				3
Total	3		1				4

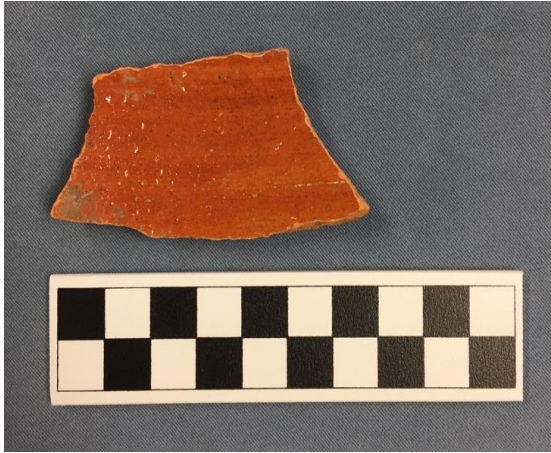


Figure 17: Redware Fragment



Figure 18: Feather Edge Creamware Fragment



Figure 19: Shell Edge Whiteware Fragment



Figure 20: Pearlware Fragment



Figure 21: Cut Nails

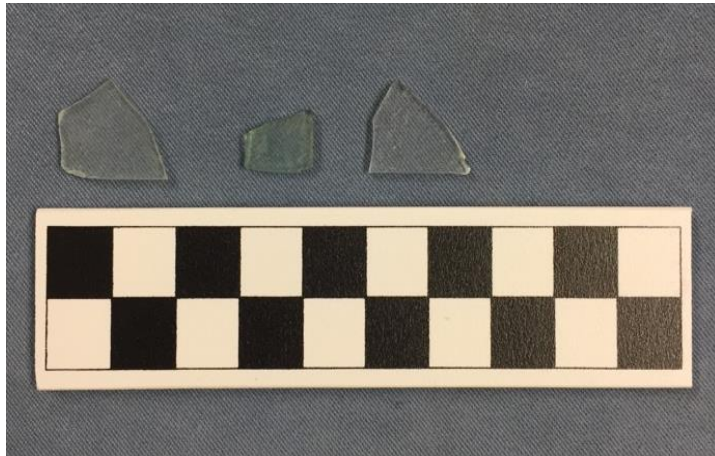


Figure 22: Window Glass Fragments



Figure 23: Bottle Glass Fragment



Figure 24: Bone Fragment



Figure 25: Tooth Fragment



Figure 26: Pipe Stem Fragment

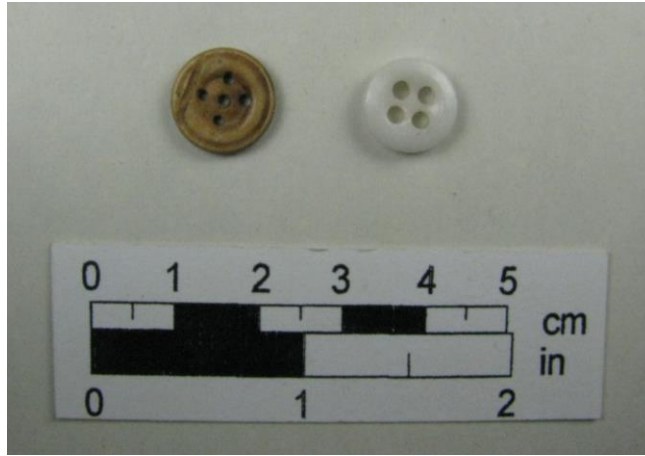


Figure 27: Bone Button and Milk Glass Button



Figure 28: Pewter Button

Artifact Distributions

The distribution and densities of artifact types in different areas of the site varies and reveals changing spatial patterns over time. Areas with high artifact densities correlate with more intense past activity, while areas of low artifact densities suggest less past activity. The type of artifact also indicates the type of activity occurring at a specific location on the site. Furthermore, the type of artifact indicates the manufacturing period, which thus reveals the time period in which that area of the site was used. Among the shovel test pits the highest density of total artifacts is within the yard and the adjacent southern pasture. There is also a higher density of artifacts in the southern portion of the cultivated field to the north of the dwelling. In contrast, areas of low artifact densities are the northern portion of the cultivated field and east of the dwelling across Main Street in the Koogler's yard.

The shovel test pits that have the highest total number of artifacts recovered are 7 and 14 (Table 4). These shovel test pits are located adjacent to one another within the southern pasture and are aligned according to their eastern coordinate (Figure 7). Shovel test pit 7 contains continuously high numbers of artifacts among all of the types. Categories of artifact types that have the highest numbers of artifacts recovered are ceramic, bone, and nails. The distributions of these three artifact types are concentrated within the shovel test pits located within the southern pasture. Shovel test pit 2 within the yard to the west of the dwelling also has a high concentration of ceramics.

The following is a chronological ordering of the artifact types with known manufacturing dates, their concentrations, and their distributions across the site. Over time ceramic wares develop from types of coarse earthenware to types of refined earthenware, and nail types develop from hand wrought to machine cut. Following the description of the distributions of artifacts

with known manufacturing dates, the distribution of other artifact types, such as bone fragments and architectural material like window glass and brick fragments are examined.

The coarse earthenware type that is most abundant is redware (1701-1800). The distribution of redware is highly concentrated within the southern pasture at the same location as the concentration of refined earthenware. Redware also has a high concentration in the yard to the west of the dwelling.

Refined earthenware can be broken into the following chronological categories: creamware (1760-1820), pearlware (1779-1830), and whiteware (1820-present). Within the southern pasture and the yard where there are the highest densities of refined earthenware, the distributions of creamware, pearlware, and whiteware are different. The distribution of creamware is more concentrated within the southern pasture to the south of the dwelling (Figure 29). The distribution of pearlware is to the west of the dwelling (Figure 30). The distribution of whiteware is to the north west of the dwelling (Figure 31). This change in refined earthenware distribution across the site, beginning in the pasture south of the dwelling and shifting north west of the dwelling, indicates that activity areas surrounding the dwelling changed over time. Creamware, the earliest manufactured refined earthenware type is densely distributed in the area south of the dwelling. Whiteware, the latest manufactured refined earthenware type is more densely distributed in the area to the north of the dwelling. Pearlware, the refined earthenware type that was manufactured between creamware and whiteware is most densely distributed in the area to the west of the dwelling. Thus, this indicates that the earlier activity areas were located to the south of the dwelling and later activity areas were shifted to a location north of the dwelling.

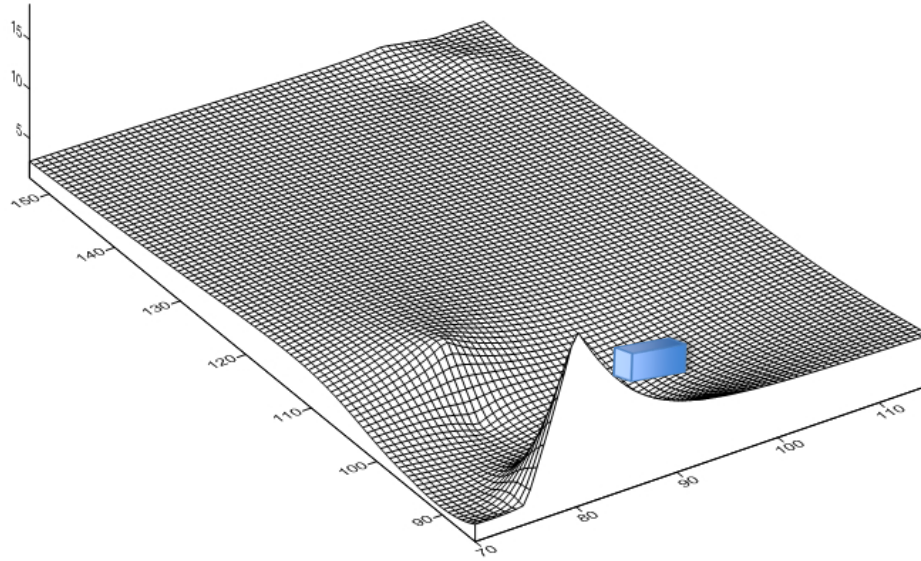


Figure 29: Shovel Test Pit Creamware Distribution

This figure shows the distribution of creamware that was recovered from the shovel test pits. The highest density of creamware is located south of the house, which is represented by the cube.

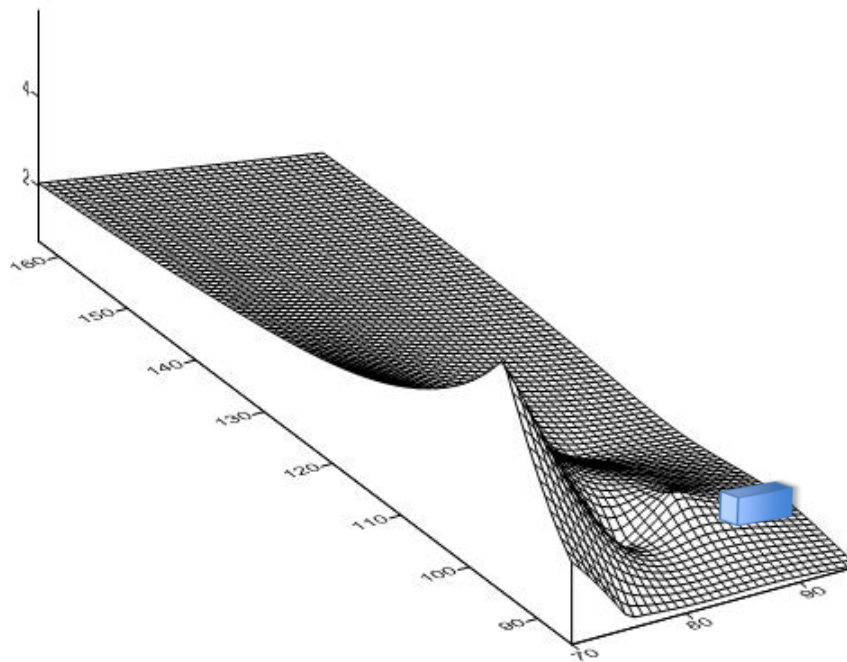


Figure 30: Shovel Test Pit Pearlware Distribution

This figure shows the distribution of pearlware that was recovered from the shovel test pits. The highest density of pearlware is located to the west of the house, which is represented by the cube.

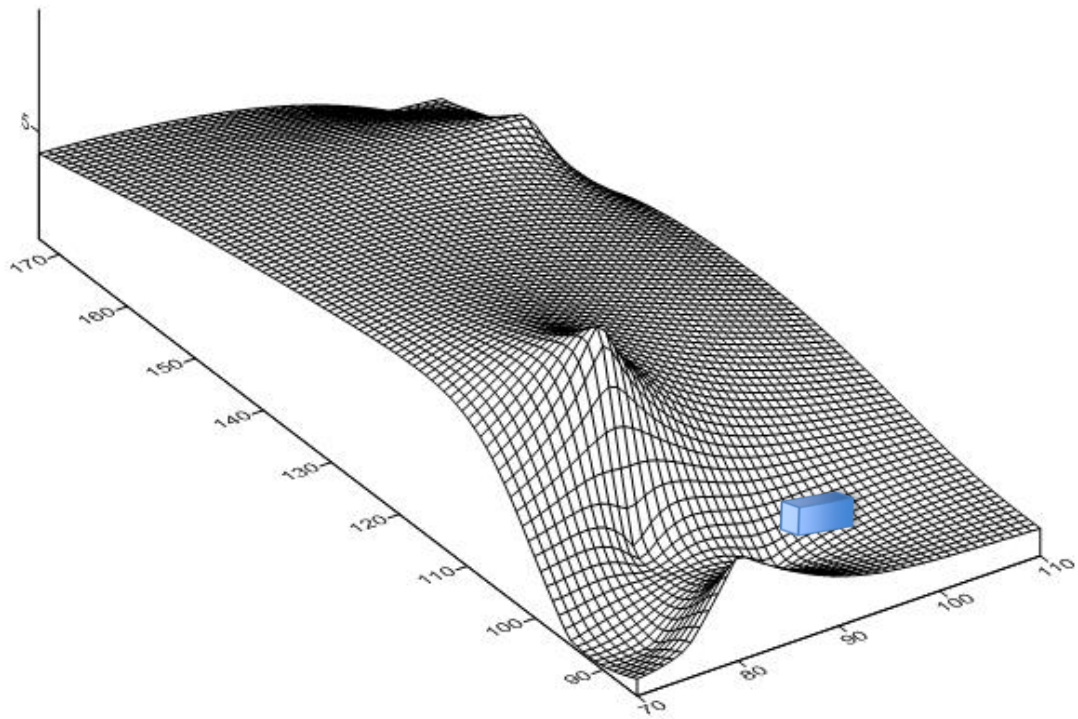


Figure 31: Shovel Test Pit Whiteware Distribution

This figure shows the distribution of whiteware that was recovered from the shovel test pits. The highest density of whiteware is located north of the house, which is represented by the cube.

Nails are another artifact type that have known manufacturing dates based on specific characteristics. The nail types that were recovered were hand wrought (before 1800) and machine cut (1801-1900). The distribution of the highest concentration of both hand wrought and cut nails is within the southern pasture and the south yard (Figure 32).

Other architectural materials that were recovered include window glass, brick fragments, and limestone. The distribution of the highest concentrations of window glass fragments corresponded with the highest concentrations of hand wrought and cut nails. Brick fragment distribution was both in the area to the west of the brick addition to the dwelling and in the pasture to the south of the dwelling.

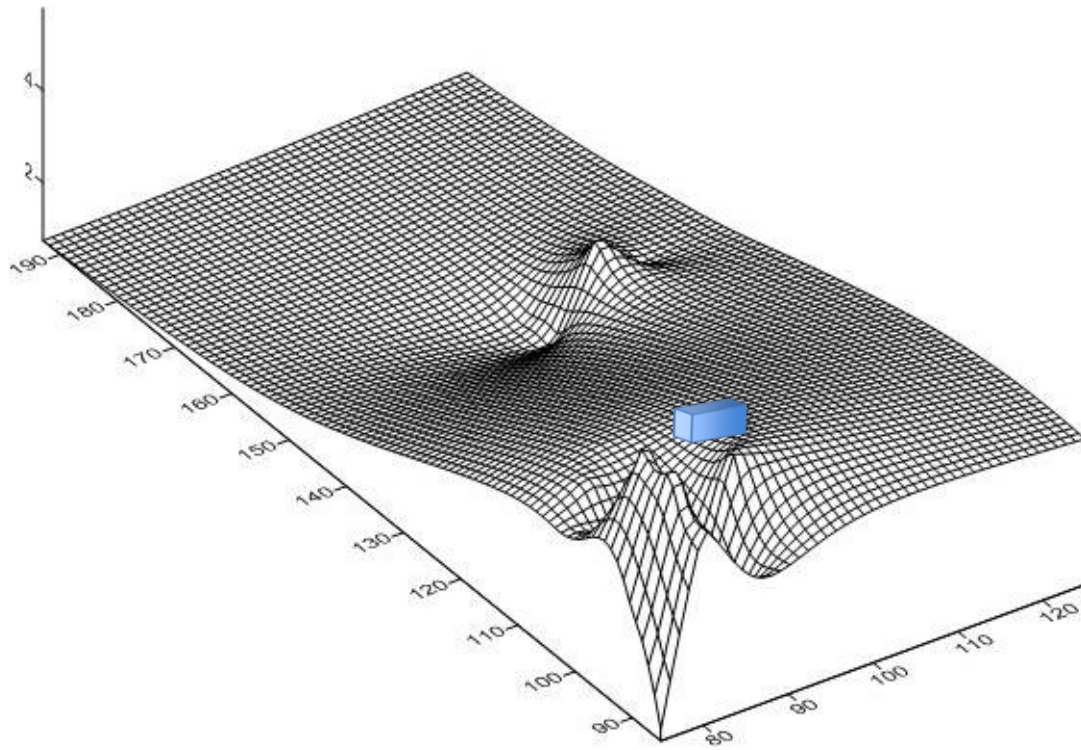


Figure 32: Shovel Test Pit Hand Wrought and Cut Nail Distribution

This figure shows the distribution of hand wrought and cut nails recovered from the shovel test pits. The highest density of nails is located to the west and south of the house, which is represented by the cube.

In addition to those artifact types with known manufacturing dates are animal bone fragments. One shovel test pit in the cultivated field and three shovel test pits within the southern pasture were where the most animal bone fragments were recovered (Tables 2 and 4). The distributions of the highest concentrations of bone fragments within the southern pasture are within the same area as the highest distributions of creamware. The majority of the shell fragments that were recovered are mussel shells and their distribution is most high in the area of the southern pasture (Table 4).

Archaeological Results- Unit Excavation

The four occasions of archaeological fieldwork included excavation of seven units located in both the yard and the southern pasture. Units 1, 2, and 3 measured 2 m by 0.5 m and Units 4, 5, 6, and 7 measured 1 m by 1 m. The placement of units in specific locations was based on the shovel test pit results and any results from previously excavated units. Areas were targeted which yielded large concentrations of early artifacts and features. Among all of the units, each one contained artifacts and additionally every stratum within each unit produced artifacts.

Artifacts

Within all of the units across the site, artifact types of varying counts were recovered in every unit and also among all the strata (Table 7). While artifacts were recovered in all strata, not every type of artifact was recovered in every stratum or every unit. As previously stated in the stratigraphy section, units generally progressed through the A-horizon topsoil at the surface, the E-horizon, and the B-horizon subsoil. There were additional strata in the units where features were documented. The color of the A-horizon topsoil had a dark grayish brown color and was a

silty loam. The E-horizon ranged from primarily brown to more dark brown, dark gray, or yellowish. The texture of the E-horizon ranged from a silty loam to a silty clay loam with abundant small stones or pebbles. The B-horizon subsoil ranged from yellowish brown to strong brown and had a clay texture. The abundance of small pebbles and stone increased with depth within the southern pasture. Artifacts were most abundant in stratum II of every unit. Units 7, 2, and 6 had the most total artifacts recovered. These three units are aligned along the north 85 coordinate (Figure 7). The most prominent artifact types were brick fragments, animal bone fragments, coarse earthenware, and refined earthenware (Table 7). Within the coarse earthenware type, redware was highly abundant. The most abundant refined earthenware type was pearlware, followed by whiteware, then creamware (Table 8 and Figure 33). Unit 2 had consistently high counts of all refined earthenware types and Unit 5 had low counts of each refined earthenware type (Figure 33). Hand wrought and cut nails were less abundant but still prominent within the units. Machine cut nails were the most abundant followed by hand wrought nails (Table 8 and Figure 34). Units 2, 7, and 3 had high numbers of hand wrought and machine cut nails (Figure 34). Window glass fragments followed nails in their abundance and were more abundant than bottle glass. Artifact types of low abundance include pipe fragments, shell, and miscellaneous items. Among the rare miscellaneous items there are buttons, sheet metal, a horseshoe, a straight pin, and a shoe buckle fragment.

The following tables show the seven units and the corresponding strata within each. Table 7 is a summary of all the major artifact types and the count of each recovered. It shows that Units 7, 2, and 6 have the most artifacts and further breaks down the count of each artifact type. Unit 5 has the least amount of artifacts present. Table 8 further breaks down the refined earthenware and nail types into categories. Porcelain is also included, but is considered a

separate ceramic type apart from either coarse or refined earthenware. Unit 2 and Unit 7 have the highest numbers of refined earthenware as well as the highest counts of hand wrought and machine cut nails. The highest counts of artifacts are continuously located within Units 2 and 7, therefore targeting this area on the site as being the location of more intense past activity.

Table 7: Unit and Level Artifact Types

Location	Unit, Level	Refined Earthenware	Coarse Earthenware	Nails	Window Glass	Bottle Glass	Bone	Brick	Shell	Pipe Frag.	Misc.	Total
15	U1, LI	6	1		11	6	12	47	1		2	86
18	U1, LIB	6	3	8	16	8	11	78	2		9	141
19	U1, LII	18	16	10	4		32	29		2		111
Total		30	20	18	31	14	55	154	3	2	11	338
16	U2, LI	7	11	5	6	3	4	4				40
20	U2, LII	80	104	26	23	15	72	106		4	10	440
Total		87	115	31	29	18	76	110	0	4	10	480
17	U3, LI	5	3	2	3	5	4	14		1	3	40
21	U3, LII	42	26	29	15	14	29	5		2	3	165
Total		47	29	31	18	19	33	19	0	3	6	205
70	U4, LI	21	21	5	6	7	20	16				96
74	U4, LII	22	13	10	8	9	23	32			2	119
Total		43	34	15	14	16	43	48	0	0	2	215
71	U5, LI	1	2	2	7	5	4	23			2	46
75	U5, LII		1	2	3	1	5	13			2	27
Total		1	3	4	10	6	9	36	0	0	4	73
72	U6, LI		4	2	10	3	16	7				42
76	U6, LII	2	4	2	1	2	4	1			2	18
78	U6, LIII	35	63	17	8	10	72	84	1		2	292
Total		37	71	21	19	15	92	92	1	0	4	352
73	U7, LI	10	15	6	2		7	25				65
77	U7, LII	65	77	28	20	5	138	115		5	5	458
Total		75	92	34	22	5	145	140	0	5	5	523
Grand Total		320	364	154	143	93	453	599	4	14	42	2186

Table 8: Unit and Level Refined Earthenware and Nail Types

Unit, Level	Creamware	Pearlware	Whiteware	Porcelain	Total Ref. Eware	Hand Wrought Nails	Cut Nails	Total Nail
U1, LI		3	3		6			
U1, LIB	4	2		2	6	2	6	8
U1, LII	1	9	8		18	3	7	10
Total	5	14	11	2	30	5	13	18
U2, LI	2	5			7		5	5
U2, LII	20	35	25		80	13	33	46
Total	22	40	25	0	87	13	38	51
U3, LI	1	3	1		5		2	2
U3, LII	3	16	23	1	42	9	20	29
Total	4	19	24	1	47	9	22	31
U4, LI		19	2		21	2	3	5
U4, LII	7	13	2		22	3	7	10
Total	7	32	4	0	43	5	10	15
U5, LI	1		1		2		2	2
U5, LII							2	2
Total	1	0	1	0	2	0	4	4
U6, LI							2	2
U6, LII	1		1		2		2	2
U6, LIII	10	9	16	2	35	1	16	17
Total	11	9	17	2	37	1	20	21
U7, LI	1	7	2		10	3	3	6
U7, LII	20	33	12	1	65	6	22	28
Total	21	40	14	1	75	9	25	34
Grand Total	71	154	96	6	321	42	132	174

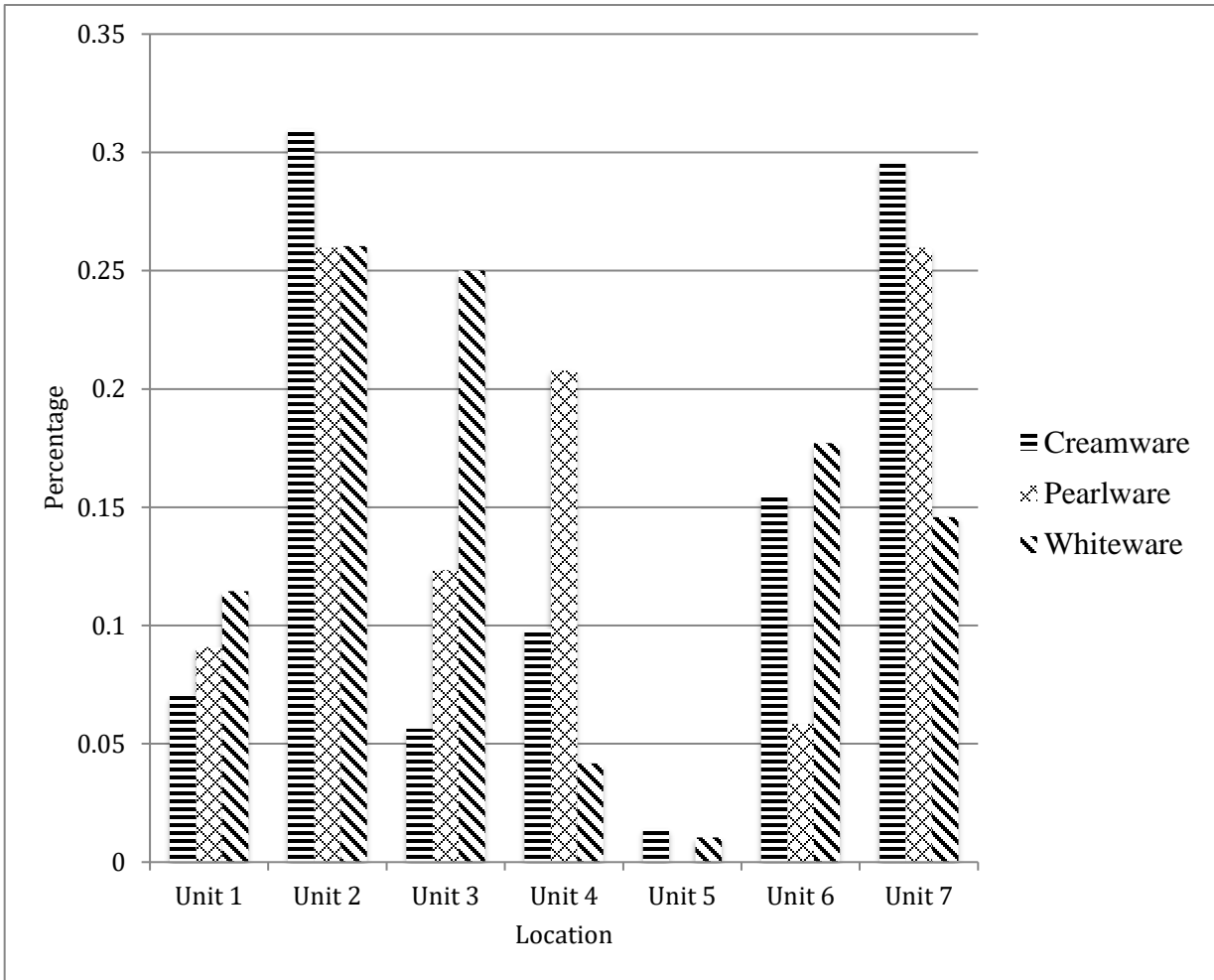


Figure 33: Refined Earthenware Type Percentages
 Percentages according to refined earthenware type total counts.

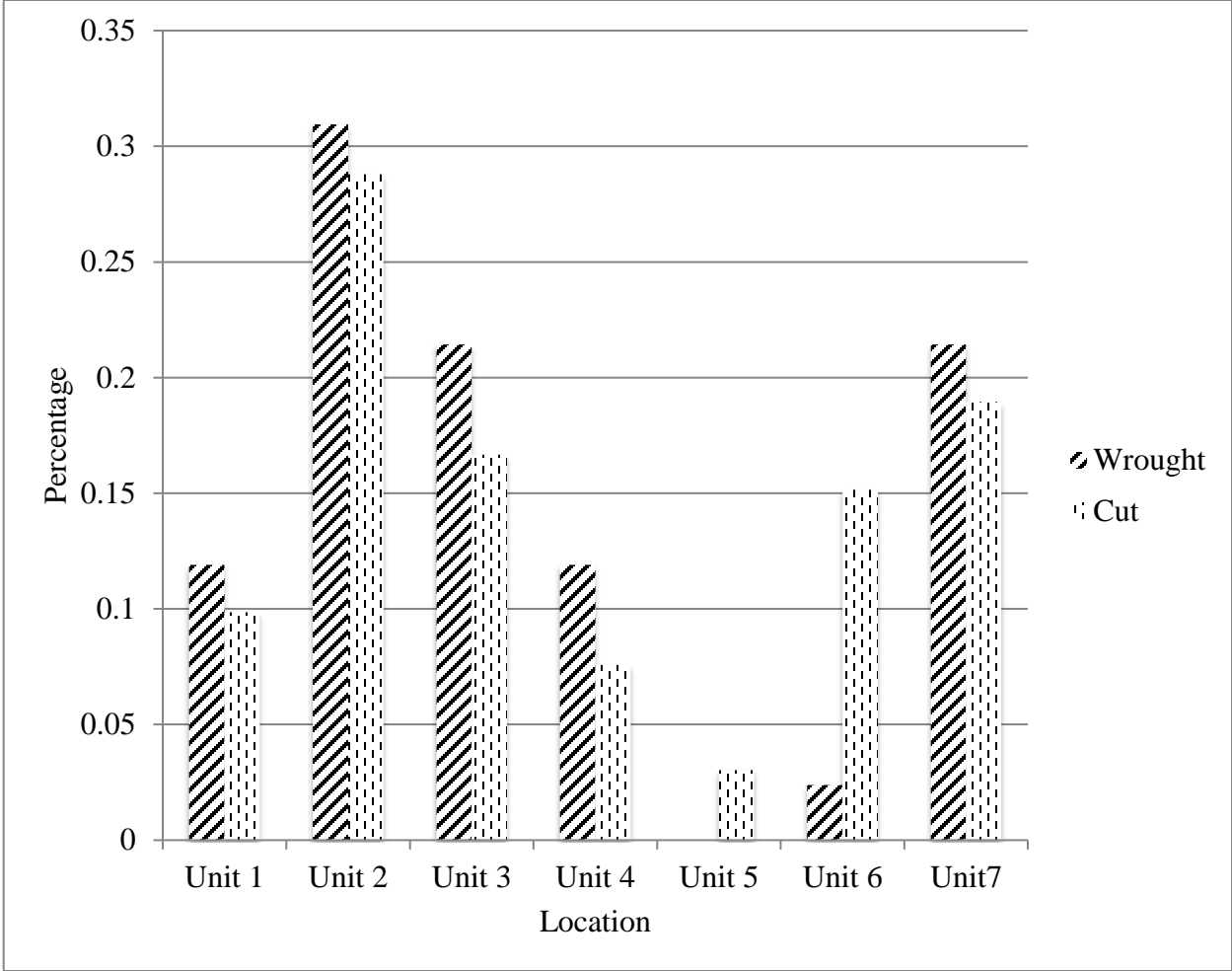


Figure 34: Nail Type Percentages
 Percentages according to nail type total counts.

Artifact Distributions

The artifact distributions among the seven units in the yard and the pasture to the south as well as the identification of features within these units indicates that there was intense activity in the pasture to the south of the dwelling (Figure 35).

The distribution of total artifacts among the units is concentrated in Unit 7 and Unit 2, which are adjacent to one another in the southern pasture (Figure 7 and Figure 35). Unit 6 is located to the west of Unit 7 in the southern pasture and also has a larger concentration of artifacts. Unit 1 is located within the southern portion of the yard and contains around the same amount of artifacts as Unit 6, but the highest concentration of artifacts within the yard. The remaining units have lower concentrations of artifact counts.

Brick fragments are the most abundant artifact type among the units (Table 7). The distribution of brick is more heavily concentrated within Unit 1, which is located in the yard to the west of the dwelling beside the brick addition. Next, brick fragments are similarly abundant in Unit 2 and Unit 7 within the pasture to the south of the dwelling. Unit 6, located to the west of Unit 7 has the next highest concentration of brick. The remaining Units 3, 4, and 5 have the lowest concentrations of brick fragments. Based on the abundance of brick within the units, the distribution is most concentrated near the brick addition to the north of the structure and within Units 2, 6, and 7 of the southern pasture where other artifact types are also abundant.

Animal bone fragments follow a similar distribution pattern within the southern pasture as the brick fragments (Table 7). Units 7, 6, and 2 have the highest concentrations of bone. Units 1, 4, and 3 all have low bone concentrations, and Unit 5 has very little to no bone. The distribution of bone is more heavily concentrated in the southern pasture within the units that

repeatedly contain large amounts of all artifact types. The distribution of bone fragments within the yard is more heavily concentrated closer to the southern pasture area.

The distribution of coarse earthenware follows the same general pattern as bone fragments and brick fragments within the southern pasture (Table 7). The units with the highest concentrations of coarse earthenware are Units 2, 7, and 6. Units 3 and 4 both have similar lower amounts of coarse earthenware and Units 1 and 5 have the lowest concentrations of coarse earthenware. The overall distribution of coarse earthenware is more concentrated within the pasture to the south of the dwelling in the area that has large concentrations of other artifact types. There is still a small presence of coarse earthenware in the yard area.

The distribution of refined earthenware is the highest within Units 2 and 7 in the southern pasture (Tables 7 and 8). Units 3, 4, and 1 both have slightly lower counts. Unit 5 contains very little concentrations of refined earthenware.

Hand wrought and machine cut nails also have the highest distribution in Units 7 and 2, but also in Unit 3 (Tables 7 and 8). Units 6, 1, and 4 have lower concentrations of nails. Finally, Unit 5 has very few concentrations of nails.

The distribution of artifacts among the strata within each unit varies, but typically the stratum that contains the largest concentrations of artifacts across the site is stratum II (Table 7). Units 2 and 7 have significantly larger concentrations of all artifact types within stratum II. Units 3 and 4 also have their largest concentrations of artifacts within stratum II. Units 1 and 3 both have the largest concentrations of artifact types within stratum I. Within Unit 6, stratum III contains the largest concentration of artifact types due to the issue of deflation from soil erosion.

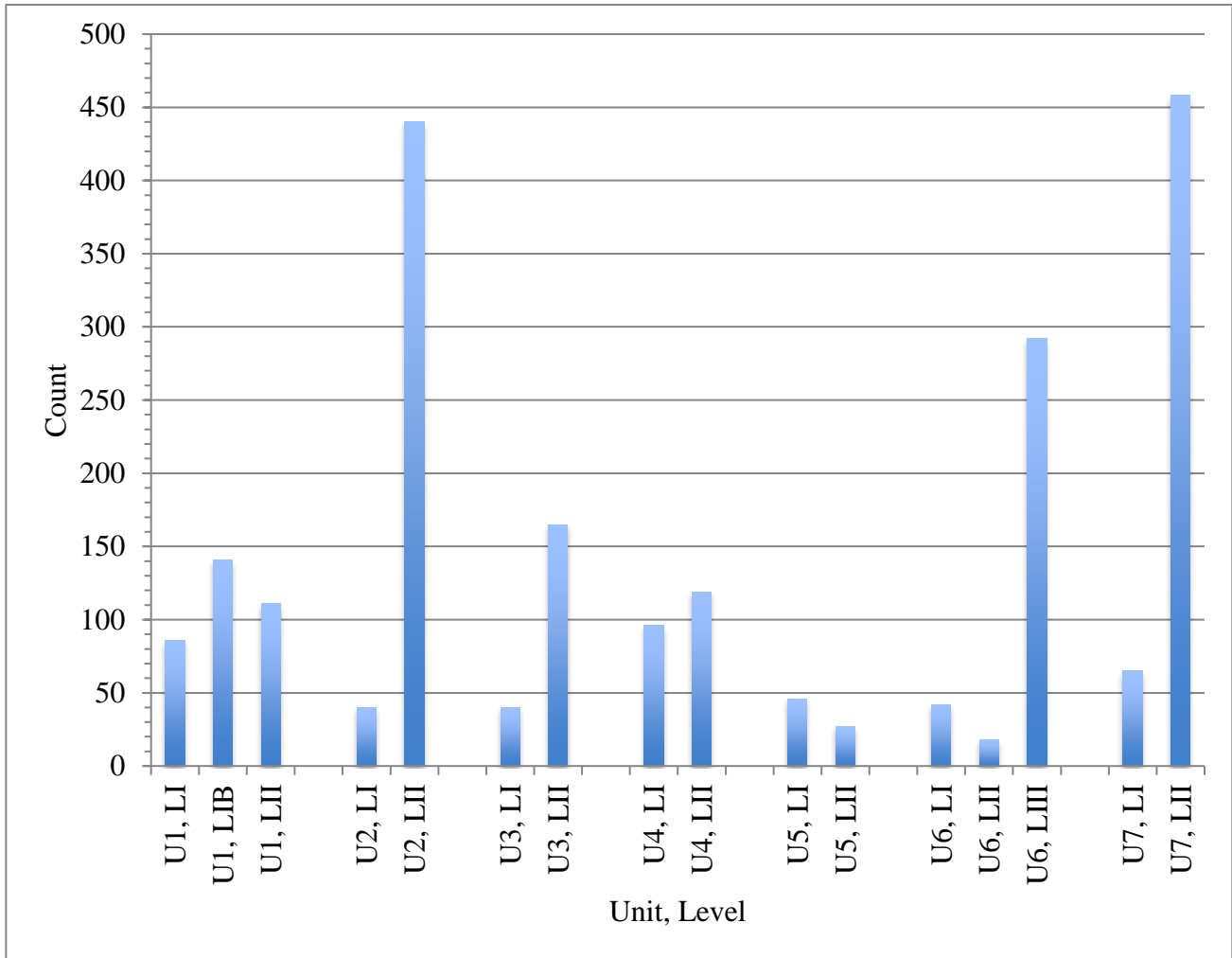


Figure 35: Unit and Level Artifact Total Counts

Features

During unit excavation nine features or possible features were documented (Table 9). Most of the features were identified within stratum II of the units, with the exception of the hearth feature in Unit 2 that was in stratum V and the pipe trench feature in Unit 3 within strata I, II, and III.

Unit 2 measured 2 m by 0.5 m and was located within the southern pasture. A hearth feature and two other possible features were documented at the base of stratum II (Figure 36). The hearth feature was rectangular and located along the middle of the eastern wall and had an ash layer directly above. One of the possible features was located directly across from the hearth feature along the western wall, and the other probable feature was located in the northwestern corner of the unit. These possible features may have been a sheet midden. A large stone was located in the northeastern corner adjacent to the probable feature.

Unit 3 measured 2 m by 0.5 m and was located within the yard to the west of the structure. A pipe trench feature was documented that spanned from strata I, II, and III (Figure 10). There was mixed soil within the trench and wire nails. The feature ran from east to west across the unit.

Unit 4 measured 1 m by 1 m and was located within the northern portion of the southern pasture. A feature was identified at the base of stratum II, which was oval in shape and may possibly be a posthole (Figure 38). The feature fill contained occasional artifacts and contained less gravel and stone than the surrounding soil. The feature was located along the southern wall of the unit and extended almost midway through the unit.

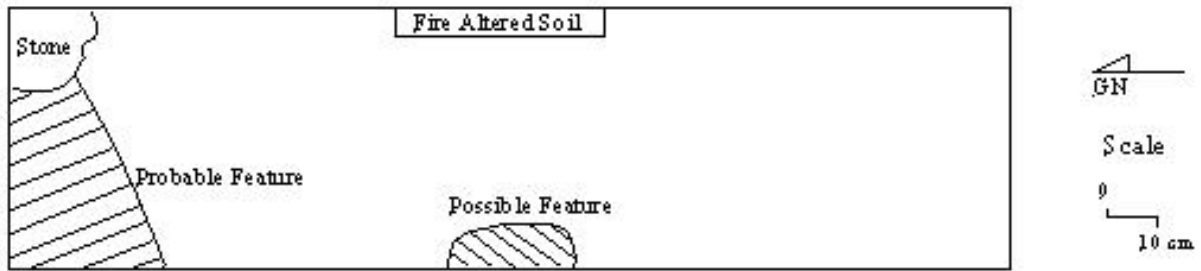
Unit 5 measured 1 m by 1 m and was located in the northern portion of the southern pasture. At the base of stratum II, two possible features were identified (Figure 39). One feature

was located on the northern wall, extended about a third of the way into the unit, and was rectangular in shape with rounded corners. The other possible feature was located on the eastern wall and was square in shape with rounded corners. The feature adjacent to the northern wall was larger.

Unit 7 located in the southern pasture measured 1 m by 1 m and contained the most significant feature at the base of stratum II (Figures 41 and 42). The feature was distinguishable by a large stone, a drastic change in soil color, charred wood, and a portion of fire-altered soil. This feature is located adjacent to Unit 2, which contained the rectangular hearth feature and two other possible features (Figure 36). The hearth feature in Unit 2 was located along the middle of the eastern wall, which is the wall that is adjacent to Unit 7. In an effort to try to determine the boundaries of the feature in Unit 7, soil core samples were taken with an Oakfield soil sampler (Figure 43). While the definite boundaries of the feature were not determined, as indicated by the feature plan view and the core sample profile the feature is significantly large and deep (Figure 43 and 44).

Table 9: Summary of Features

Unit, Level	Feature Type	Location	Shape
U2, LII	sheet midden	Adjacent to north wall, extended 30 cm from northwest corner along north wall, extending 22 cm from northwest corner along west wall	triangular
U2, LII	sheet midden	Middle of west wall, 20 cm long, extending 10cm into unit	oval
U2, LV	hearth	Middle of east wall, 32 cm long	rectangle
U3, LI, II, III	pipe trench	Run east to west across unit	rectangle
U4, LII	posthole	40 cm long adjacent to south wall, extended as far as 40 cm into unit	oval
U5, LII	posthole	60 cm long adjacent to the north wall, extending as far as 32 cm into the unit	rounded rectangle
U5, LII	possible posthole	30 cm long adjacent to east wall, extending 24 cm into unit	rounded square
U7, LII	cellar	Straight line from north to south (extending past unit boundaries) about 34 cm from east wall. Feature extend from there past the west wall	rectangle
U7, LII	hearth	20 cm long, 5 cm wide, 34 cm from east wall, 38 cm from north wall	rectangle

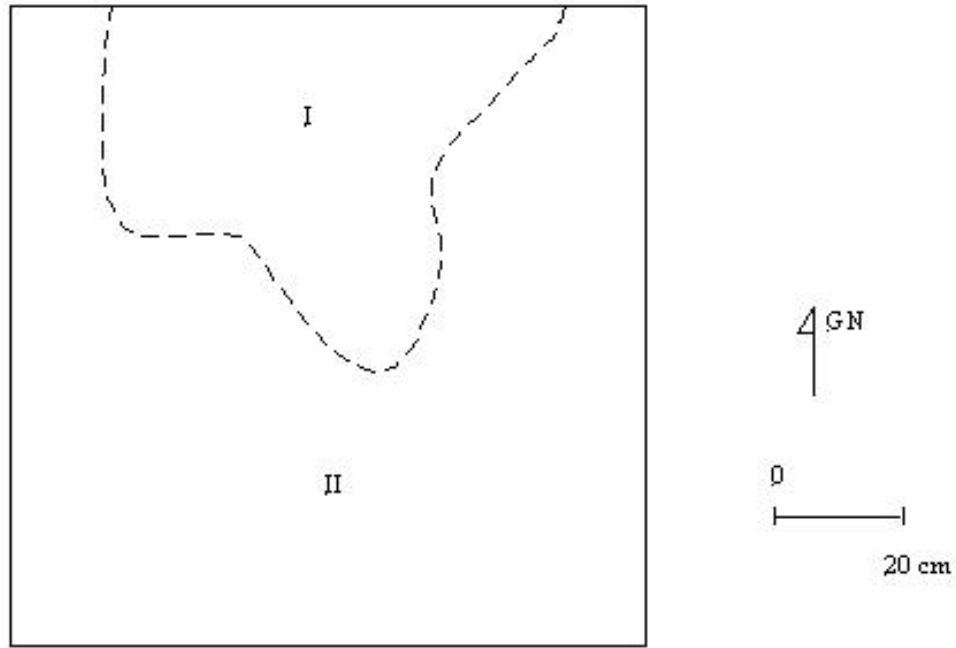


Soil Description:

Probable Feature: 10 YR 4/3

Possible Feature: 10 YR 4/3

Figure 36: Unit 2 Base Stratum II Plan View



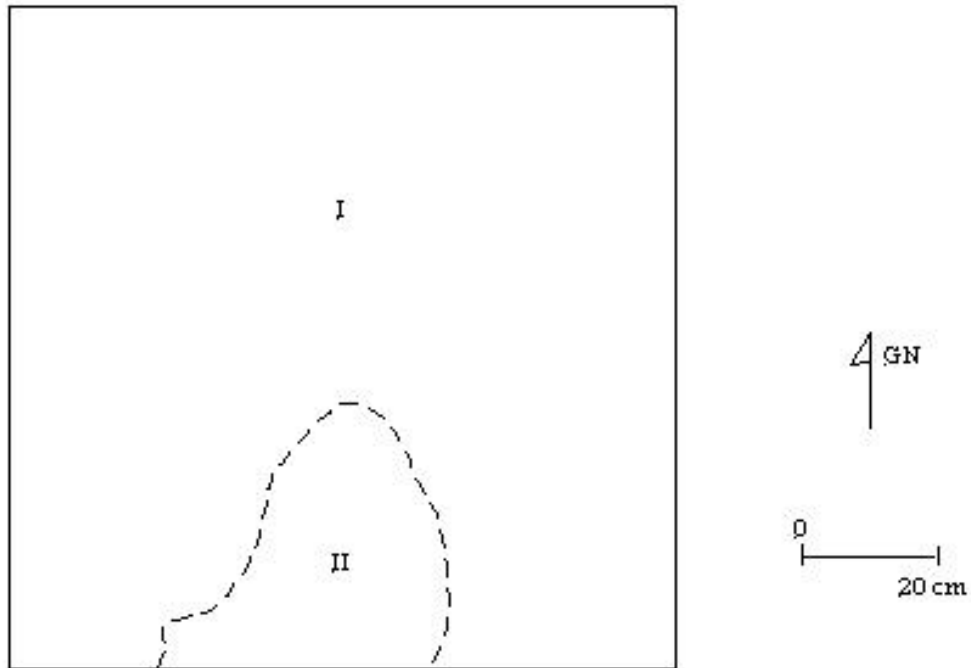
Soil Description:

I: 10 YR 6/5, clay (modern fill?)

II: 10 YR 3/2, silty clay loam

* low to moderate gravel

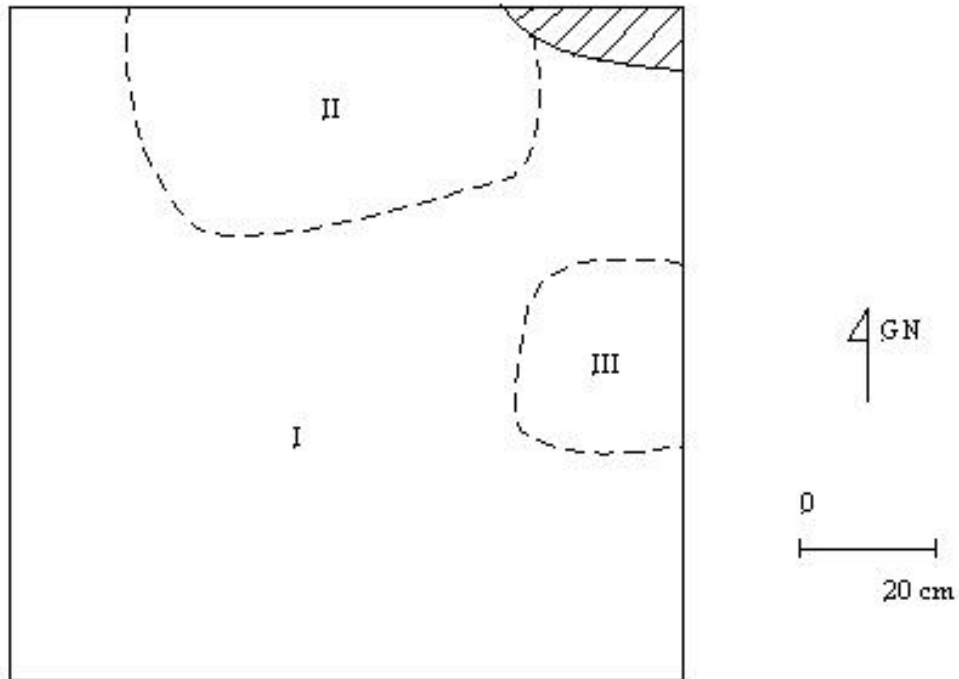
Figure 37: Unit 4 Base Stratum I Plan View



Soil Description:

- I: 10 YR 6/4, silty loam with clumps and patches of 10 YR 5/8 clay/concretions and abundant gravel
- II: Apparent feature - primarily 10 YR 4/2, silty loam with occasional artifacts, less stoney

Figure 38: Unit 4 Base Stratum II Plan View

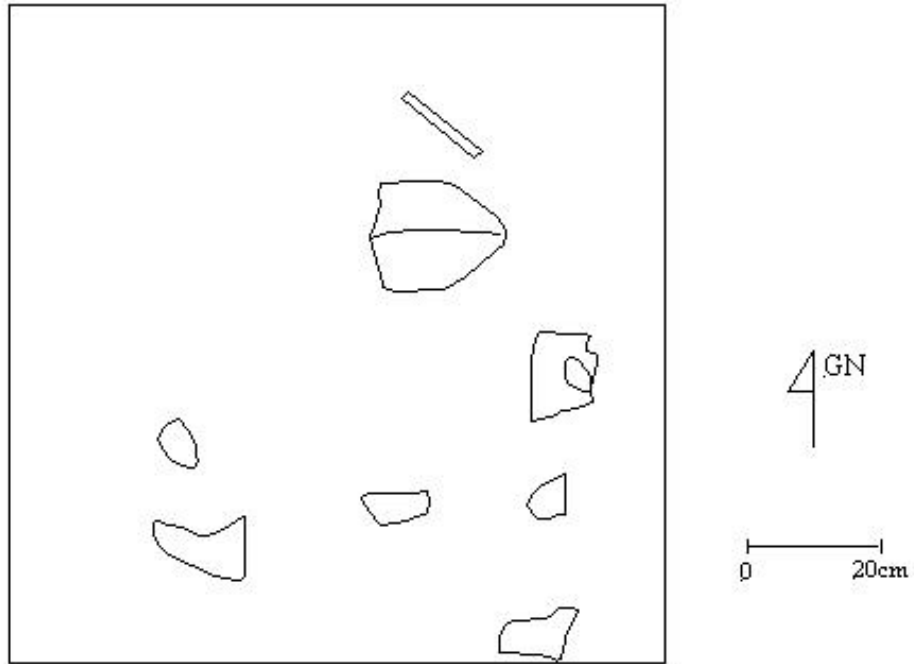


Soil Description:


- I: 7.5 YR 5/6, clay with common architectural chips, blended clay hash
- II: Apparent feature - 10 YR 3/1 silty clay loam with common artifacts
- III: Possible feature - primarily 10 YR 3/2 with some clay mottles, with common limestone chips

 Root

Figure 39: Unit 5 Base Stratum II Plan View



Description:

 : Iron bar


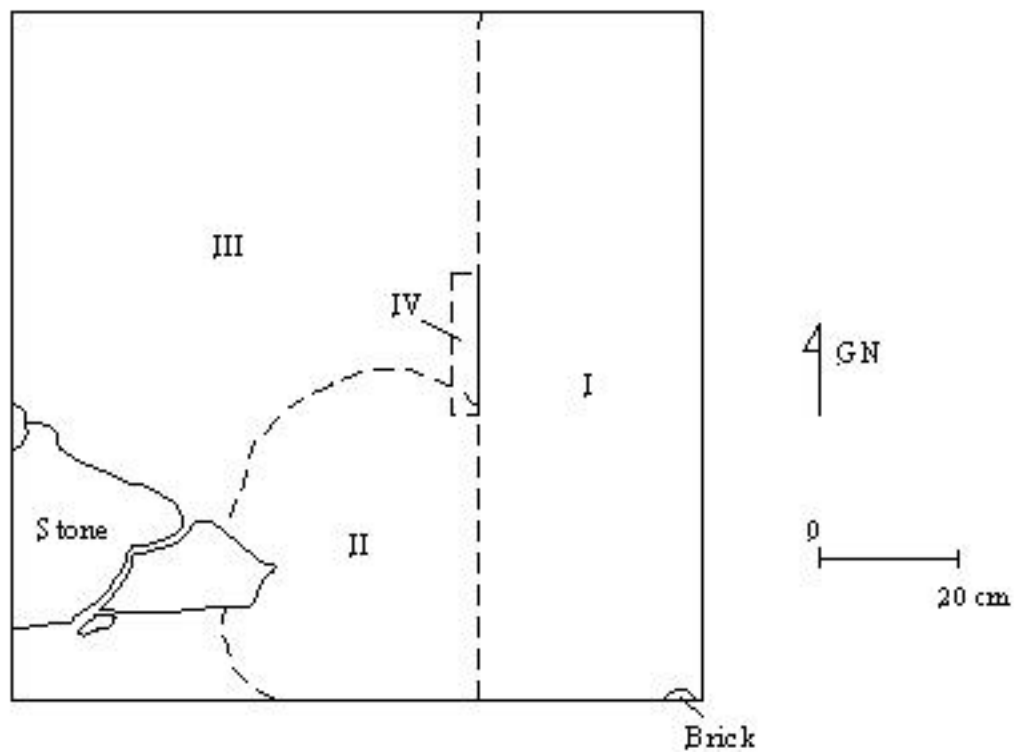
 : Limestone

Figure 40: Unit 7 Base Stratum I Plan View



Soil Description:

I: 10 YR 6/6 brownish yellow, silty clay loam

II: scattered charred wood

III: 10 YR 3/3 dark brown, silty clay

IV: fire-altered soil

Figure 41: Unit 7 Base Stratum II Plan View

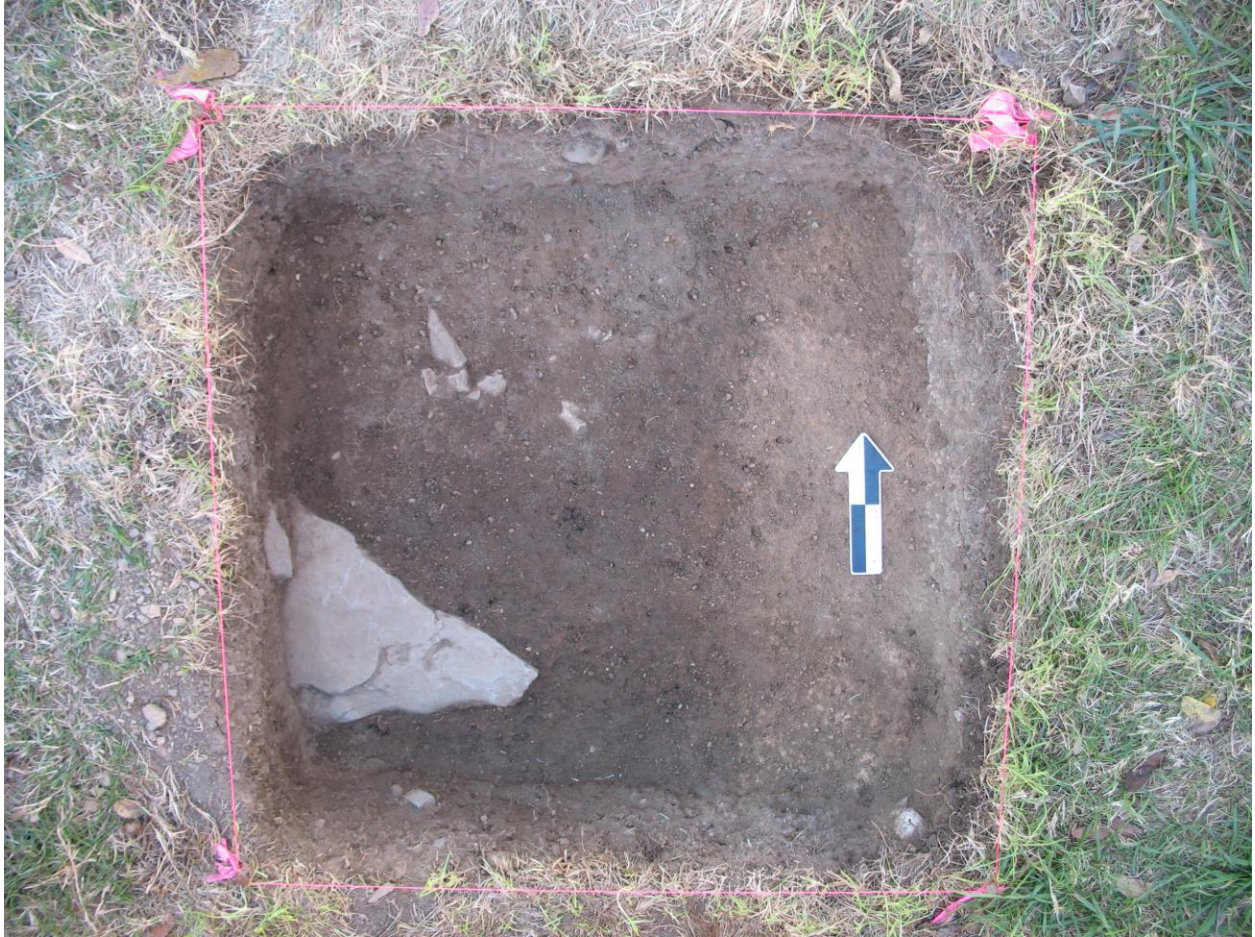
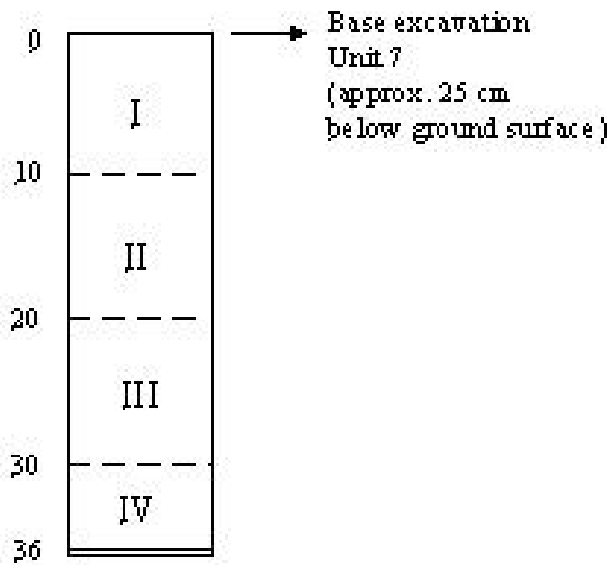


Figure 42: Photograph Unit 7 Base Stratum II



Soil Description

- I: Feature fill- relatively uniform dark brown, silty loam
- II: Feature fill- brown silty clay loam, with occasional mottles and charcoal flecks
- III: Feature fill- mixed brown loam and orange clay with common charcoal
- IV: Apparent orange clay subsoil

Location in Unit 7:
 40 cm from S wall
 20 cm from W wall

Figure 43: Oakfield Core Profile Unit 7

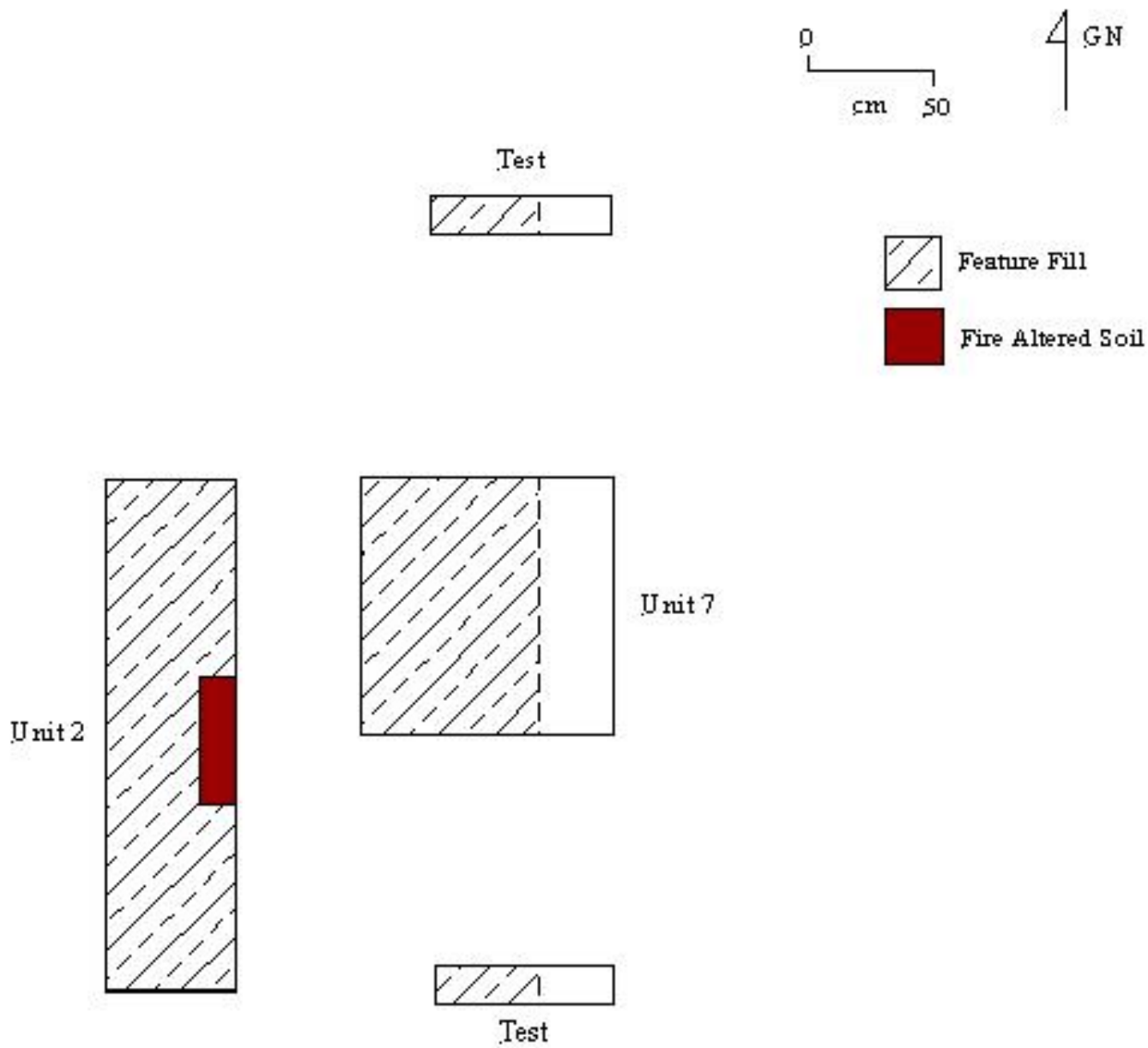


Figure 44: Feature Boundaries Plan View

Interpretation

Recall that this project seeks to evaluate the possibility that the main (front) entrance to the house was relocated from the northerly-facing side to the southerly-facing side, in conjunction with the decision to enlarge the structure with an addition to the north side. The archaeological results, architectural history, and cultural changes within the Shenandoah Valley all relate to one another and ultimately support the hypothesis that the orientation of the original house was changed since it was first built in the mid-eighteenth century.

Overall Spatial Patterns

The results from the shovel test pits allow for a comprehensive spatial analysis of the site and its activity areas in relationship to the dwelling. Among all the shovel test pits, those with the highest artifact densities were located in the southern yard and pasture located to the south of the structure and the current main entrance. High densities of early artifact types were abundantly distributed in this area of the site. Ceramics and nails were abundant artifact types recovered and are easily datable according to their attribute and corresponding known manufacturing dates. The distribution of early ceramic and nail types based on their corresponding manufacturing periods, indicates that the yard and pasture to the south was an area of intense activity during the earlier period of the site's occupational history and that over time the activity shifted west and north of the dwelling. The abundance of ceramics and animal bone suggests that this area may have been used for everyday tasks such as the preparation and storage of food. Such tasks may have been performed by enslaved individuals, of which there is evidence that Daniel Harrison owned in his probate inventory. This area may have also been where items were discarded and a midden was formed. Activities of this nature would have been performed in the rear yard of a dwelling, while

the front yard would ideally be kept clean and presentable. However, today, the location of this activity area is south of the main entrance, and is therefore located in the current front area of the house. The hypothesis is supported by the location of this activity area in the southern pasture, and an understanding that activity generally takes place in the rear of the house. Following the early period of site occupation when Daniel Harrison built the original limestone structure in 1749, at the time that the brick addition was constructed in 1856 the orientation of the house was changed so that activity areas moved further west and north within the yard surrounding the house.

The archaeological evidence, which indicates a change in house orientation based on the location of artifacts and features within the shovel test pits, is supported by architectural evidence. The original stairway within the limestone structure was located in the southwest corner of the house in the kitchen. If the original front entrance was placed on the northerly-facing side at this time, as the hypothesis states, then the stairway would be in the rear of the house, making it more closed off and only intended for the use of the occupants. The location of the front entrance on the northerly-facing side would place the southern pasture, where the early period activity areas are located, near the rear of the house. This would allow occupants or slaves to use the back door and immediately ascend upstairs, especially if coming from the dirty working area in the rear yard. In this way the everyday activities of the occupants would not involve usage of the more formal front entrance, which would be but kept for usage by guests. If the front entrance was originally located on the southerly-facing side, as it is today, then the original stairway would have been to the immediate left of the main entrance. This would decrease the privacy of the upper floor and make it appear more open to guests. It would also not be adequate for back door usage from the dirty working area in the rear yard because then when

occupants used the back door they would have to walk across the entirety of the room to ascend upstairs.

It is logical to place the change in orientation of the structure, to its current southerly-facing front entrance at the time that the brick addition was constructed in 1856. When this occurred it would have then placed the existing rear yard work area in the front of the house. Thus, this activity shifted west and north of the house into the new rear yard to allow for the new front yard to appear clear and presentable. This is archaeologically supported through the distributional shift of the refined earthenware types creamware, pearlware, and whiteware, and also the distributions of hand wrought and machine cut nails. The area within the southern pasture is less intensely used later in the site's occupational history evident by less abundance of later artifact types, such as pearlware and whiteware ceramics, and machine cut nails. The distribution of these late manufactured artifacts moves west and northward within the yard surrounding the house, which indicates that the house changed in orientation and thus affected the location of activity areas surrounding the outside.

Southern Activity Area

The results from unit excavation provide more detailed information regarding specific locations in the yard and the southern pasture. Units were specifically placed in their locations according to areas where there were high artifact densities and areas where features were documented during the shovel test pit excavations. Within the units, the artifact distribution in the horizontal dimension reveals the location and intensity of use for activity areas on the site and their position in relationship to other site areas and buildings. This can ultimately reveal the

overall layout of the site. The vertical dimension shows the time periods of activity, the duration of activity, and the intensity.

The five units located within the southern pasture generally contain the highest densities of artifacts compared to the two units located within the yard. Additionally, four out of the five units that contained documented features were located within the southern pasture. Unit 2 and Unit 7 contain the most significant features, which indicate the location of a previous structure. They also contain two of the highest artifact counts, and the shovel test pit that was initially excavated in that location yielded the highest overall artifact counts. The units where the remaining features were documented correlate with the shovel test pits that also yielded higher artifact counts. Thus the units are located within an area of more intense past activity. Stratum II within most of the units was that which contained the greatest abundance of artifacts and was generally the thickest depth among all the strata. The thickness indicates that this was the longest time period of intense occupation at this location on the site. The datable artifacts most abundant within stratum II reveal this time period to be from the mid-1700s to the mid-1800s.

The artifact types of great abundance were similar to the shovel test pit results, which further support this as an intense activity area that may have been used by the occupants and owners or by enslaved individuals for domestic work and food preparation. Animal bone was the most abundant type of artifact recovered, and high concentrations of both coarse and refined earthenwares were also recovered. Portions of the southern area may have been midden areas.

The features that were documented in Units 2 and 7 indicate that there was a previous structure in this location of the southern pasture. This supporting structure to the house would have likely been located in the rear yard of the dwelling because it would have involved everyday domestic tasks inappropriate to a front yard location. Thus, this supports the hypothesis

that the layout of the dwelling must have changed from a northerly-facing main entrance to a southerly-facing main entrance because currently this activity area is in the front of the house. The archaeological evidence is again supported by the location of the original staircase in the limestone structure. The current interpretation of this feature is that it is an early simple cellar that has an appearance between that of a subfloor pit and a formal stone-lined cellar. A simple cellar or root cellar would have been entirely or partially underground to provide a more constant cooler temperature for the storage of food. The simple cellar may have been its own structure or it could have also been underneath a structure that was used for another function. A structure that may have contained such a cellar could have been a kitchen and it would have been used to store food such as potatoes and apples, while having the open space above. It may have also been a multi-purpose structure, which provided storage and also a space for many common domestic tasks such as boiling flax, soap making, or dyeing cloth.

The location of this cellar feature, which indicates the location of a previous structure within the southern pasture, suggests some form of a courtyard layout of dependencies on the site. The courtyard plan is found in the area to the rear of the house, and in this case the location of the cellar feature in relation to the house creates a hollow space in-between the two structures, which is found in a typical courtyard layout. Having the front entrance initially located on the northerly-facing side of the house, would place the simple cellar in an ideal location for movement within the outdoor work area and to and from the house via back door. This would allow for the storage and preparation of food within the rear work area, then access to the dining area within the house via the back door.

The Harry Jaeger Site is the only other known site within the Shenandoah Valley that has evidence of a cellar feature similar to the one discovered at Fort Harrison. The Harry Jaeger Site

is located in southwest Virginia in Bath County. It is in the Gathright Dam-Lake Moomaw Reservoir, in a floodplain a half-mile north of Perkins Point Site and just west of the Jackson River (Geier and McFee 1981). Like the cellar feature at Fort Harrison, at the Harry Jaeger Site they documented a rectangular shaped cellar feature measuring 15 ft. wide, 25 ft. long, and 4 ft. deep. It was located in a structure that was built of wood with stone foundations at the corners.

Why a Change in Structure Orientation?

There may be multiple reasons that explain a change in orientation of the structure and at the time of reorientation many factors may have been involved in the decision. One explanation involves the amount of exposure the house and interior rooms have to natural sunlight and warmth as a result of the house's placement on the landscape, and the position of elements like windows and doorways. The placement of the house on the landscape when it was first constructed in 1749, with the long axis running east to west, took advantage of seasonal sun exposure to maximize natural sunlight, as well as maximize heat in the winter and minimize heat in the summer (Gromicko 2018). When the brick addition was constructed in 1856, the exposure that different rooms of the house had to the sun would have differed depending on whether the front entrance was on the northerly-facing side or the southerly-facing side. Reorienting the front entrance to the southerly-facing side at the time that the brick addition was added minimized and maximized exposure to the sun at appropriate times during the year. During the summer months when the sun's arch is higher it does not directly shine through the windows of the house, which minimizes the amount of heat entering the structure. During the winter months when the sun's arch across the sky is lower toward the south, having the front entrance to the house on the southerly-facing side with its four windows and front porch would maximize the amount of

natural light and heat coming into the house. Additionally, the construction of windows on the east and west sides of the house would have increased the amount of early morning sunlight and evening sunlight entering the house. In contrast, if the front entrance to the house were on the northerly-facing side and the brick addition added to the south side, sunlight during the winter months would shine on the brick side with the fireplaces and chimneys and would not provide any natural light or heat.

Another explanation for the change in orientation could be as the landscape was developing with new towns and roads, the orientation of the structure was altered to best fit the evolving environment. The first settler in Dayton was Daniel Harrison and the first structure was the limestone house constructed in 1749. At the time of construction the house was likely oriented according to sun exposure, weather conditions, and the surrounding natural landscape. As more settlers came into the area west of the Blue Ridge Mountains they were drawn to areas near other settlers, which gradually created small rural communities (Hofstra 2004). As the area was becoming more populated, roads began to be constructed according to already established structures on the landscape in order to make transportation and communication easier (Hofstra 2010). In *A History of Rockingham County, Virginia* by John W. Wayland (1912), it states that in May of 1778 many roads were in poor condition so overseers were appointed to monitor them. One of these overseers was assigned the road “from Rices Cabin in dry river Gap to Benj. Harrisons” (Wayland 1912). At that time, the land owned by the Rice family was located to the west of Fort Harrison (Figure 45). Since Fort Harrison was one of the earliest structures in the area, roads were likely oriented according to its location and layout. Roads were also created according to landforms, efficiency, and kinship (Hofstra 2010). As stated in *A History of Rockingham County, Virginia* (1912), a road ran east to west from the property of the Rice

family to the property owned by Benjamin Harrison, according to the natural landscape and efficiency. When this road was first developed, it was likely oriented to the front entrance of the limestone structure because it was one of few structures on the landscape at the time. Figure 45 is an 1875 map of Rockingham County that includes Fort Harrison, the Rice property, and the roads at that time. While this map is from a later period, there is a road to the north of Fort Harrison that runs east to west and connects to the Rice's property. This road may have been one of the first to develop on the landscape and it may have initially been oriented to the northerly-facing front entrance of the original limestone structure.

Over time, throughout the phases of settlement within the Shenandoah Valley the town of Rifeville developed into a small center of social, political, and economic life. Rifeville or Rifetown was the previous name of the town of Dayton before it was officially established in 1833 (Wayland 1912). The city of Harrisonburg was established earlier in 1780 and was likely a larger center of social, political, and economic life in comparison to Dayton. At the time that Dayton was established in 1833 many roads were being constructed and in 1834 the Valley Turnpike Company was formed to begin construction on a road that would connect Winchester to Staunton (Wayland 1912 and Carter 2013). Dayton was a smaller community along this route in between Staunton and Harrisonburg and this road would have served as a valuable connection among many of the growing centers on the landscape. The main road running north to south through downtown Dayton today is Main Street. At the time of the construction of the Valley Turnpike in 1834, Main Street was likely already established in Dayton and it was eventually connected to the turnpike to facilitate easier travel and communication. During this time of road expansion and development in the early to middle 1800s, Main Street was expanded to pass directly to the east side of Fort Harrison (Figure 46).

After the establishment of these main roads connecting major centers of activity within the Shenandoah Valley, the brick addition was constructed in 1856 and the orientation of the structure changed to better fit within the new cultural landscape. Shifting the orientation of the house so that the front entrance is on the southerly-facing side rather than the northerly-facing side, places Main Street and downtown Dayton within view outside the front entrance. If the front entrance was located on the northerly-facing side it would not be facing the road directly beside the structure nor would it face the town of Dayton.

In conclusion, there is evidence that supports the hypothesis that the main (front) entrance to the house was relocated from the northerly-facing side to the southerly-facing side, in conjunction with the decision to enlarge the structure with an addition to the north side. There may have been multiple factors at the time, which led to the reorientation of the structure. The current interpretation to explain why the house was reoriented from a northerly-facing front entrance to a southerly-facing front entrance is due to the evolving cultural landscape, which involved the development of towns and roads. When the brick addition was constructed in 1856, the changes that had occurred on the landscape over time were considered and a reorientation of the house was a logical decision to make the structure better fit on the new landscape. The road running east to west to connect rural neighbors was constructed before the road running north to south through downtown Dayton. The front entrance to the original limestone structure was initially facing the north and the road was later constructed accordingly. Over time, as Dayton was established in 1833 and further evolved a road was constructed that ran from Harrisonburg to Dayton. When the brick addition was added in 1856, the structure was reoriented and the addition constructed on the north side so that the front entrance faced the town of Dayton and was also better oriented to the closest road. It would have been important for the house to face

the road because it connected points on the landscape and the occupants could present themselves through their house to those traveling. Additionally, the road presented economic opportunities, created ties among the community, and was a dynamic part of the environment.



Figure 45: 1875 Map of Rockingham County- Harrison Property and Rice Property
 Harrison family property and Rice family property highlighted.



Figure 46: 1875 Map of Rockingham County- Harrison House and Adjacent Roads
 This figure shows the Harrison house highlighted and its adjacent roads. One road running east to west on the north side of the structure and one road (Main Street) running north to south on the east side of the structure.

Significance

Archaeological investigation lends itself to studying architectural evolution by looking at the material remains of occupants on a site. Evaluation of both the archaeological results and the architectural history at Fort Harrison provides complimentary evidence that supports the hypothesis. If studied separately the archaeological findings and the architectural history would not result in as clear of an interpretation of the site in the past. Studying past cultures through archaeology and architecture can offer insight into any combination of the elements that create a culture or society, therefore, providing a more holistic picture of how aspects within the past are interconnected. The mentality or view of the material world held by the occupants of Fort Harrison, which can include factors relating to social relationships, the economy, and community ties, are reflected in the material culture and the organization of elements on the landscape. Through archaeological investigation and architectural study, the way Fort Harrison was utilized and how that changed over time can better be understood.

The possible cellar feature within the pasture to the south of the stone structure, which suggests the location of a previous structure, may prove to be a rare occurrence within the Shenandoah Valley, thus offering unique insight into a specific form of early settlement patterns within the Valley of Virginia. The cellar feature also strongly supports the hypothesis that the orientation of the structure was changed.

Furthermore, this project is significant for Fort Harrison, Inc. as it seeks to educate the public about the everyday life of the occupants at Fort Harrison and how it has changed over time.

Recommendations

This project has evaluated the possibility that the main (front) entrance to the house was relocated from the northerly-facing side to the southerly-facing side, in conjunction with the decision to enlarge the structure with an addition to the north side. The results and analysis of the artifacts and features within the yard and southern pasture, as well as the architectural evidence, supports the hypothesis that the orientation of the original dwelling was changed since it was first built in the mid-eighteenth century.

Continuation of archaeological fieldwork at Fort Harrison especially in the southern pasture would provide further information about the changing layout over time. Excavation of the cellar feature may reveal more about the type of structure and the activities that took place there. Recommendations for future archaeological investigation and research at Fort Harrison are as follows:

1. Excavate the possible cellar feature in Unit 7 and the surrounding area.
2. Use ground-penetrating radar further south within the pasture and perform shovel test pits.
3. Excavate more units near the location of Unit 2 and Unit 7 as well as further south within the pasture in an effort to locate other possible structures that fit within the courtyard farm layout.
4. Further research the history and development of road systems within Dayton and the Shenandoah Valley of Virginia.

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Appendixes

Table 10: Shovel Test Pit Artifact Catalogue

Location	Refined Earthenware	Redware	Window Glass	Hand Wrought & Cut Nails	Bone	Brick	Bottle Glass	Shell	Pipe Fragments	Misc.	Porcelain
ST 1	8	2		4	7	12	1			5	
ST 2	17	18	3	4	1	3	1	1			
ST 3	3	5	4	6	3	8	5	1		1	
ST 4	2	1	10	5		5	2				
ST 5		2				9		1		1	
ST 6	3	1	3	2		1	1				
ST 7	24	16	1	5	12	2	2	1		1	
ST 8			1		1	7	2				
ST 9	9	22			11	5	1		1		
ST 10	3		2	3		2	3				
ST 11	6	3		2	2		5	1		1	
ST 12	6	12		1	2	9	1				
ST 13	3	13	1	3		14	3	1		1	
ST 14	4	25	6	6	3	11	6	1			
ST 54	3	11	2	4							
ST 55		7		3	22		1				
ST 56		4					1				
ST 58		1		1							
ST 59		2									
ST 62		5	1	1			1				
ST 63	4	5					2				
ST 64	9	9		1	1						
ST 65	2	7		3			1				
ST 66		3	2		2						

ST 53											
ST 57											
ST 60											
ST 61		1									
ST 67	1	1	1								

Table 11: Unit Artifact Catalogue

Location	Unit, Level	Refined Earthenware	Redware	Coarse Earthenware	Window Glass	Hand Wrought & cut nails	Bone	Shell	Brick	Bottle Glass	Pipe Fragments	Misc.
15	U1, LI	6	1	1	11		12	1	47	6		2
18	U1, LIB	6	3	3	16	8	11	2	78	8		9
19	U1, LII	18	16	16	4	10	32		29		2	
16	U2, LI	7	4	11	6	5	4		4	3		
20	U2, LII	80	79	104	23	26	72		106	15	4	10
17	U3, LI	5	3	3	3	2	4		14	5	1	3
21	U3, LII	42	22	26	15	29	29		5	14	2	3
70	U4, LI	21	2	21	6	5	20		16	7		
74	U4, LII	22		13	8	10	23		32	9		2
71	U5, LI	1		2	7	2	4		23	5		2
75	U5, LII			1	3	2	5		13	1		2
72	U6, LI			4	10	2	16		7	3		
76	U6, LII	2	1	4	1	2	4		1	2		2
78	U6, LIII	35		63	8	17	72	1	84	10		2
73	U7, LI	10	1	15	2	6	7		25			

77	U7, LII	65	5	77	20	28	138		115	5	5	5
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Table 12: Miscellaneous Artifact Catalogue

Lot	Location	Item	Material	Description
1	ST 1	sheet metal	ferrous	Tin can
1	ST 1	sheet metal	ferrous	Tin can
1	ST 1	sheet metal	ferrous	Tin can
1	ST 1	sheet metal	ferrous	Tin can
1	ST 1	sheet metal	ferrous	Tin can
3	ST 3	Spring clip?	cuprous	poss. Military accouterment
5	ST 5	Button, flat	cuprous	soldered eye, embossed back "Gilt" w/ wreath
7	ST 7	fastener ring	ferrous	
11	ST 11	Pencil, slate	mineral	
13	ST 13	Buckle frag?	cuprous	decorative finish; shoe buckle?
15	U 1, L I	Button, bone	bone	4-hole
15	U 1, L I	Button, milk glass	glass	4-hole
17	U 3, L I	Button, shell	shell	
17	U 3, L I	Percussion caps (2)	cuprous	prob. Civil War era
17	U 3, L I	Spring closure; clothes pin?	ferrous	
18	U 1, L IB	bullet case	cuprous	0.22 cal
18	U 1, L IB	sheet metal	ferrous	
18	U 1, L IB	sheet metal	ferrous	
18	U 1, L IB	sheet metal	ferrous	
18	U 1, L IB	sheet metal	ferrous	
18	U 1, L IB	sheet metal	ferrous	
18	U 1, L IB	sheet metal	ferrous	
18	U 1, L IB	sheet metal	ferrous	

18	U 1, L IB	sheet metal	ferrous	
20	U 2, L II	Button, domed, 3-piece	cuprous	wood core, complex stamped decoration
20	U 2, L II	Button, flat, 1-piece	pewter	cast eye, raised ridge on top
20	U 2, L II	Gunflint?	stone	or poss. Strike-a-light flint
20	U 2, L II	harrow point	ferrous	
20	U 2, L II	metal wire	ferrous	wire piece
20	U 2, L II	rivet	cuprous	rivet
20	U 2, L II	sheet metal	ferrous	
20	U 2, L II	unidentified iron	ferrous	
20	U 2, L II	unidentified iron	ferrous	
20	U 2, L II	wire ring	ferrous	Circular metal piece - metal ring fastener
21	U 3, L II	copper alloy cutout	cuprous	Native American trade piece?
21	U 3, L II	Pencil, slate	mineral	
21	U 3, L II	Pitchfork tine	ferrous	
71	U 5, L I	scrap- distorted	aluminum	sagged edges, folded
75	U 5, L II	button	cuprous	loop for attachment at buckle
76	U 6, L II	fragment	cuprous	oxidated, thick for site, smoothed edges
78	U 6, L III	horseshoe	ferrous	nail attached, rusty, disproportionate ware pattern
74	U 4, L II	clothespin tinge, curber fragment?	ferrous	thin cooled fragment as thick hook
75	U 5, L II	bucket bail?, staple fragments	ferrous	broken bucket bail?
76	U 6, L III	fragment	ferrous	curbed edge, curbed breaks
74	U 4, L II	button	cuprous	image of figure and makers mark, LATRD?
77	U 7, L II	harrow tooth and fragment	ferrous	fragment is thin with straight sides
77	U 7, L II	button	silver	loop edge, broken in half/clean break
77	U 7, L II	shoe buckle fragment	pewter	slightly warped, some loops broken
71	U 5, L I	coil- hinge (?)	ferrous	length after coil wrapped around it
77	U 7, L II	straight pin	cuprous	circular head, tip bent
76	U 6, L II	clothes pin tinge, staple	ferrous	thick staple, small coil-length broken
77	U 7, L II	thin metal rod	ferrous	slightly warped, clean break

Table 13: Pipe Fragment Catalogue

Lot	Location	Stem frags.	Bowl frags.	Comments
9	ST 9	1	1	Rouletted design on bowl, local-made earthenware
17	U 3, L I	1		
19	U 1, L II	2		
20	U 2, L II	4	1	
21	U 3, L II	2		
77	U 7, L II	5		

Table 14: Animal Bone Fragment Catalogue

Location	Bone (Cnt)	Bone (g)	Comments	Shell (Cnt)	Shell description
U 1, L I	12	16.1		1	Unidentified
U 2, L I	4	3.4			
U 3, L I	4	8.8			
U 1, L IB	11	12.9		2	1 Mussel, 1 gastropod (small)
U 1, L II	32	93.2			
U 2, L II	72	348.3			
U 3, L II	29	26.8			
U 4, L I	20				
U 5, L II	5				
U 6, L III	72			1	
U 7, L I	7				
U 5, L I	4				
U 6, L II	4				
U 6, L I	16				
U 7, L II	138				
U 4, L II	23				
ST 1	7	4.7			
ST 2	1	1.6		1	Mussel

ST 3	3	3.1		1	Mussel
ST 5				1	Bivalve, small
ST 7	12	27.9	24.6 bone, 3.3 tooth	1	Unidentified
ST 8	1	40.6			
ST 9	11	9.5	8.7 bone, 0.8 tooth		
ST 11	2	2.4		1	Mussel
ST 12	2	2.3			
ST 13				1	Unidentified
ST 14	3	33.9		1	Mussel
ST 54					
ST 55	22				
ST 56					
ST 58					
ST 59					
ST 62					
ST 63					
ST 64	1				
ST 65					
ST 66	2				
ST 68	7				
SP 1	35	10.65			
SP 2	5	3.16			
SP 3	2	4.95			
SP 4					
SP 5					
SP 6	4	3.41			
SP 7	3	31.17			
SP 8	1	3.54			
SP 9	1	1.71			
SP 10					
SP 11					
SP 12					

SP 13					
SP 14					
SP 15					
SP 16					
SP 17					
SP 18					
SP 19					
SP 20					
SP 21					
SP 22					
SP 23					
SP 24					
SP 25					
SP 26					
SP 27					
SP 28					
SP 29					
SP 30					

Table 15: Modern Day Material Catalogue

Location	Qty	Description
ST 10	1	hickory nut
U 1, L I	4	seeds
U 1, L I	4	foam bushing
U 1, L I	6	styrofoam
U 1, L I	1	plastic wrapper
U 1, L I	1	unidentified plastic
U 3, L I	1	plastic wrapper
U 3, L I	1	plastic shoe heel, woman's
U 1, L IB	10	styrofoam (small)

U 1, L IB	1	plastic wrapper
U 1, L IB	1	plastic comb tooth
U 1, L IB	2	wood (small)
U 1, L II	7	styrofoam (small)
U 2, L II	1	walnut
U 5, L I	3	plastic fragment; one flexible piece, two fragments
U 4, L I	1	golf ball; plastic product, worn, "Titlest 2 Professional 90"
U 4 L II	1	plastic fragment; one fragment with makers mark
U 6, L III	1	plastic shard; sharp breaks, thin, off white
U 4, L I	1	plastic fragment; white, small piece, hard