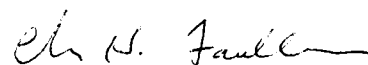


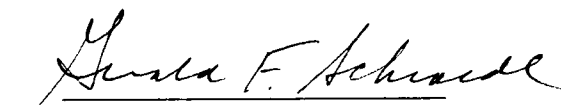
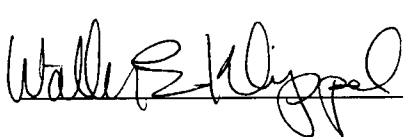
To the Graduate Council:

I am submitting herewith a thesis written by Charles Alan Longmire entitled "Archaeological Investigations at Two 19th Century Farmsteads in Rhea and Roane Counties, Tennessee." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Anthropology.



Charles H. Faulkner, Major Professor

We have read this thesis
and recommend its acceptance:

Accepted for the Council:



Associate Vice Chancellor and
Dean of the Graduate School

Archaeological Investigations at Two
19th Century Farmsteads in
Rhea and Roane Counties, Tennessee

A Thesis

Presented for the Master of Arts Degree
The University of Tennessee, Knoxville

Charles Alan Longmire

December 1996

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ABSTRACT

The Upland South pattern of spatial organization has long been associated with Euroamerican, specifically Scots-Irish, farmstead arrangement in the interior Southeastern United States. Recent archaeological investigations along the Cumberland Escarpment in the East Tennessee Valley have provided a look at two 19th century farmsteads which can be added to the body of archaeological knowledge in this region. This thesis is an in-depth report of archaeological investigations at these two farmsteads.

One of these sites, 40RE192, was initially thought to be an early 19th century Euroamerican farmstead dating circa 1820 to 1840. Further analysis has cast doubt on this interpretation. The spatial arrangement of site 40RE192 has affinities with Historic Cherokee sites of the same time period in western North Carolina. It is likely, therefore, that at least one member of the household who created the site was of Cherokee descent.

The other site in this thesis, 40RH156, had two temporal components. The earlier component was consistent with Euroamerican occupation circa 1830 to about 1855. The later component dates circa 1865 to about 1920. There was no spatial information for the earlier component, but the later component fit the Upland South pattern. Interestingly, there is evidence that the occupants of the site during the later component may have been African-American tenant farmers.

The conclusions of this thesis suggest that the Upland South pattern of spatial arrangement on rural farmsteads may be cross-cultural in its occurrence in this region.

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CHAPTER 1

Introduction

The part of the East Tennessee Valley region situated between the Tennessee River to the east and the Cumberland Escarpment to the west has not seen much historic archaeology. Fort Southwest Point in Kingston is the only site in the region to have been professionally excavated (Smith 1993; Thomas 1977). The domestic part of the historic archaeological record was not investigated until 1995, when two 19th century farmsteads were excavated by archaeologists from the Transportation Center at the University of Tennessee-Knoxville during the expansion from two lanes to four lanes of U.S. Highway 27 in Rhea and Roane counties, Tennessee. This work was sponsored by the Tennessee Department of Transportation and the Federal Highway Administration.

Site 40RE192 was a house site consisting of a square subfloor pit cellar and a chimney/hearth area with a scattering of circular pit features. The artifacts recovered from the cellar indicate a range of occupation circa 1820-1840 (Franklin and McIlvenna 1995a). No archaeological evidence of outbuildings was found. Therefore, only the material from the features, and the features themselves, can be used to elicit information on the early history of the site.

Site 40RH156, on the other hand, contained a relative wealth of data. It was situated in a relatively wide part of the right-of-way and consisted of two house sites plus at least three outbuilding areas. The first house site, adjacent to U.S. Highway 27, was identified by a chimney pad, remnants of a stone and brick foundation, and a subfloor pit cellar containing artifacts dating roughly from 1860 through 1930 (Franklin

and McIlvenna 1995b). The only remnant of the second, earlier house site was a pit cellar approximately 30 m west of the first house site. This cellar contained ceramics and other artifacts dating roughly from 1830 to 1855. The outbuilding areas were defined by both surface remains and subsurface features, and all artifacts from these areas date to the period represented by the later house site.

This thesis is intended to be an "historical ethnography" (Schuyler 1987) for sites 40RE192 and 40RH156. Historical archaeology in this part of the State of Tennessee is not presently in a position to support processual interpretations or covering laws. It is this premise which has resulted in the production of what is essentially a culture history (per Trigger 1989) of these two sites.

CHAPTER 2

Environmental Setting, Historical Background, and Archival Research

Environmental Setting

Tennessee has five major physiographic provinces (Figure 1). The project area of sites 40RE192 and 40RH156 lies in the western part of East Tennessee at the juncture of the Ridge and Valley province and the Appalachian Plateau province (Fenneman 1938). Both sites are in the valley at the very foot of Walden's Ridge, the easternmost edge of the Cumberland Escarpment. The project area is bounded on the north by U.S. Highway 70 at Rockwood, on the east by U.S. Highway 27, on the south by State Route 68 at Spring City, and on the west by the Cumberland Escarpment. This area is drained to the south and east by streams which flow into the Tennessee River in the Watts Bar Reservoir section of the river. The geology of the project area is a Paleozoic sedimentary geosyncline, folded and faulted during the late Paleozoic, and subject to erosion since that time (Luther 1977:69-70). Limestone and sandstone are the major lithic components. Site 40RE192 was situated on a colluvial bench adjacent to U.S. Highway 27 approximately 230 m east of Black Creek (Figure 2). Site 40RH156 was similarly situated approximately 150 m east of Vans Creek (Figure 3).

The project area is within the Carolinian Biotic Province (Dice 1943:16-18), characterized by temperate deciduous forest. Oak, (*Quercus* sp.), hickory (*Carya* sp.) and tulip poplar (*Liriodendron* sp.) are the dominant species (Braun 1950:238). Faunal populations include most eastern woodland species and have remained unchanged except through human intervention for over 8,000 years (Kellogg 1939:257-297). White-tailed deer is the

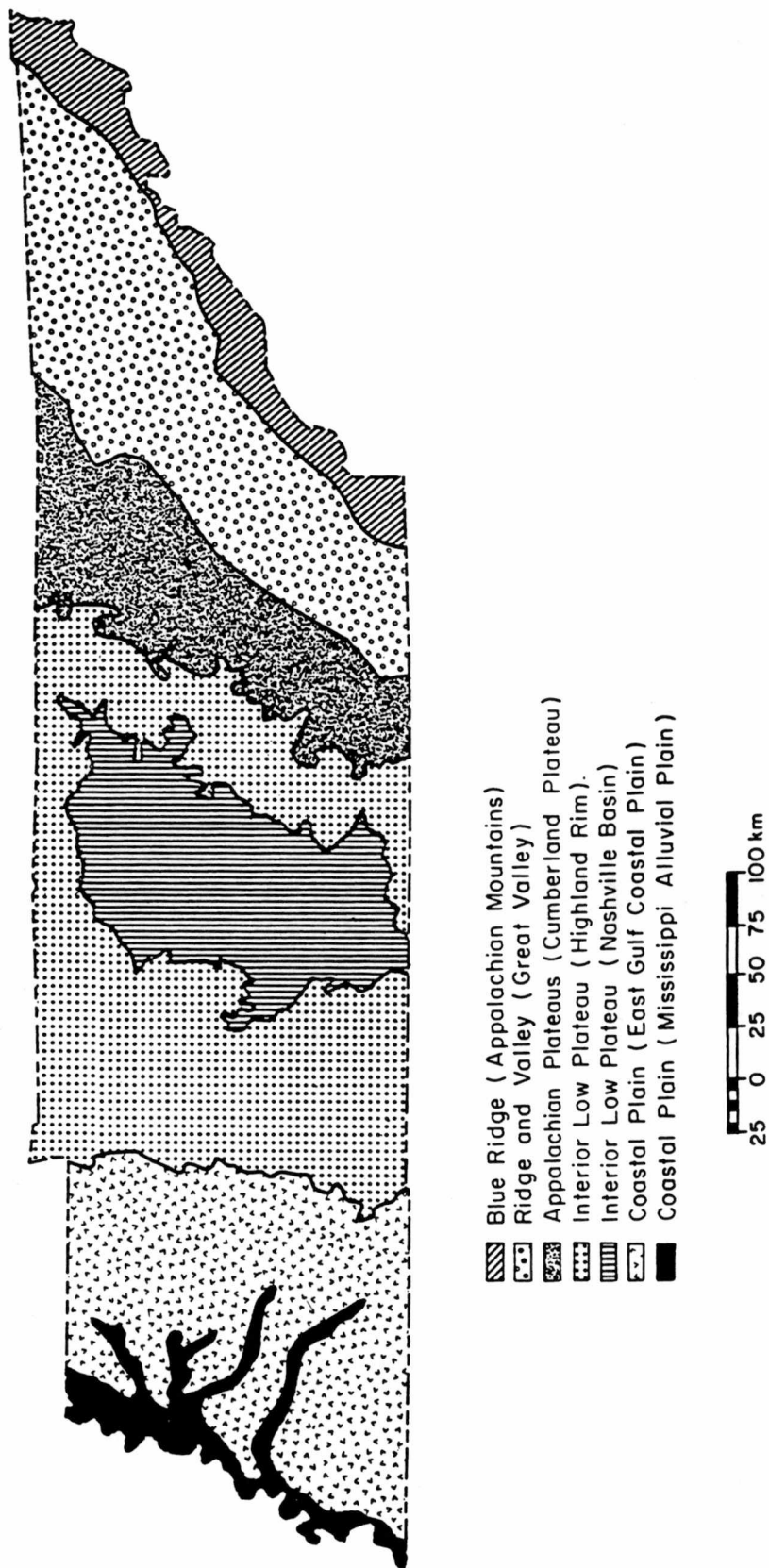
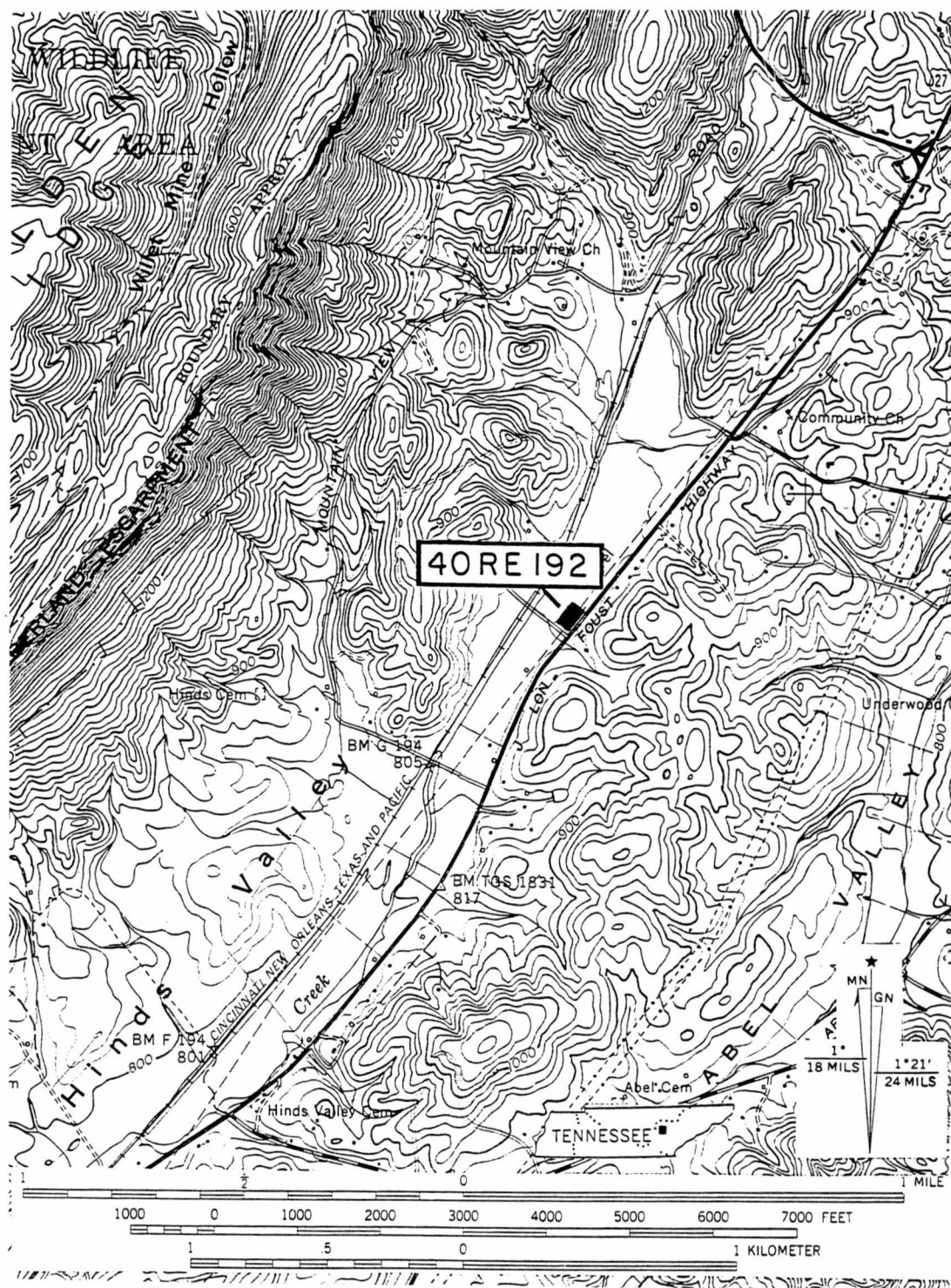


Figure 1. Physiographic Provinces of Tennessee.

Source: Longmire, C. Alan and Jay D. Franklin (editors)
 1996 *A Final Report on Phase II and Intensive Phase II Archaeological Testing on Site 40RE192, Phase II Archaeological Testing on Site 40RH155, And Phase II Archaeological Testing and Phase III Archaeological Data Recovery on Site 40RH156, Rhea and Roane Counties, Tennessee.* Transportation Center at The University of Tennessee, Knoxville. In Press.



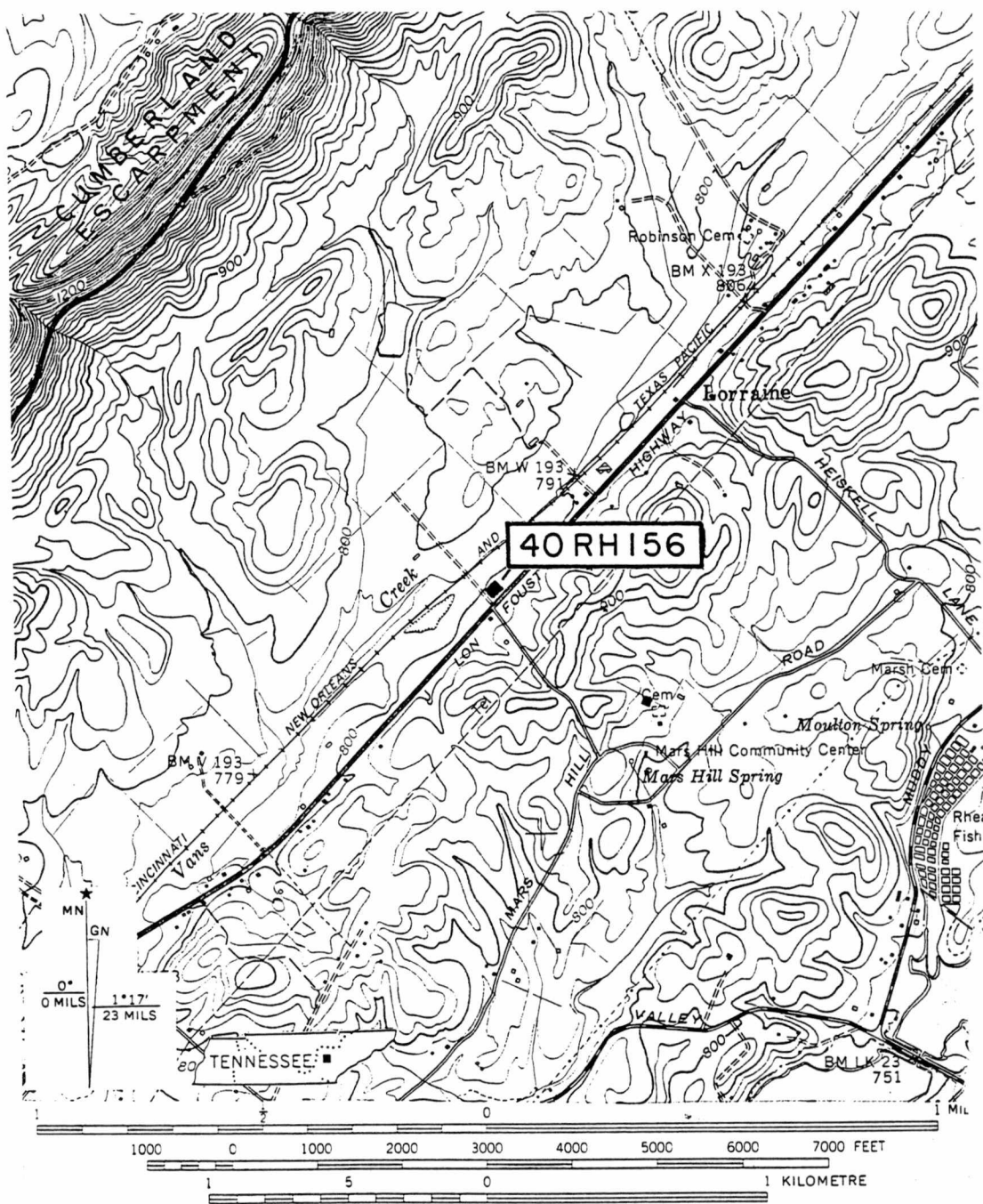


Figure 3. Site 40RH156 on U.S.G.S. 7.5 Minute Spring City, Tennessee Quadrangle.

most abundant large wild mammal in the region. Species which have become extinct in the project area through prehistoric and historic human pressures include the American bison, elk, gray wolf, red wolf, and eastern mountain lion. (Kellogg 1939:257-297). Aquatic and avian life is also abundant.

Historic Background

Roane County

Fort Southwest Point, established in 1792 as part of the Territory South of the River Ohio (Ramsey 1853), was the first permanent Euroamerican settlement in what became Roane County, which at that time was beyond the Cherokee frontier (Ford 1982:4). The county was established in 1801 and named for Archibald Roane, who governed Tennessee from 1801 to 1803 (Ramsey 1853). The area was gradually opened for Euroamerican expansion from 1792 until 1819, when the southwestern part of the county (which includes part of the project area) was ceded by the Cherokee as part of the Hiwassee tract (Ford 1982:5). Frontier period (1801-1820) Roane County had a subsistence based agricultural economy, as did most of East Tennessee, until the second quarter of the 19th century, when an iron industry was founded near what is now Rockwood. Corn was the primary crop, with a concomitant liquor distillation industry in attendance prior to the coming of the iron industry (Longmire and Franklin 1996:10-11).

Rhea County

Rhea County was created in 1807 out of southwestern Roane County. It was named for John Rhea, a member of the 1796 Tennessee constitutional convention (Ramsey 1853). The 1805 Tellico Treaty had opened part of the county to Euroamerican settlement, but it was not fully open or settled until after the Hiwassee Tract cession of

1819 (Ford 1982:4). The first deed book entries for Rhea County began in 1824. The early economy of Rhea County was very similar to that of Roane County, since iron deposits were found along the entire length of the Cumberland Escarpment. Rhea County was one of only three East Tennessee counties which sided with the Confederacy during the Civil War, due largely to the interests of the Waterhouse family, who controlled most of the county from 1807 to 1865.

Archival Research

Preliminary archival research was conducted for site 40RE192 and site 40RH156 during the Phase II testing (Franklin and McIlvenna 1995a; Franklin and McIlvenna 1995b). Deeds, wills, tax records, county records, and federal population census enrollments, as well as published and unpublished county and regional histories, were reviewed. Funding was denied for further archival research for site 40RH156 during the Phase III data recovery. Further archival research on both sites was conducted by the author after the completion of the final report for the Tennessee Department of Transportation (Longmire and Franklin 1996).

Site 40RE192

The part of Roane County in which site 40RE192 is located lay within the Hiwassee tract of Cherokee territory until the U.S./Cherokee treaty of February 7, 1819 (Ford 1982:4; Ramsey 1853:696). A deed search revealed that the first Euroamericans to own the property were Francis Maybury and four brothers named Hinds (Franklin and McIlvenna 1995a). The tract was part of a 1000 acre land grant from North Carolina in 1793, and was probably not settled at that time. In 1802 Maybury sold his share of the grant to the Hinds brothers. The record is vague after that time, and there is one report of

Joseph Hinds receiving the land in a grant from Tennessee in 1826 (Franklin and McIlvenna 1995a). All four Hinds brothers were very active in real estate transfers between 1802 and 1846, and the confusing trail of records they left behind is of little assistance in determining the exact ownership of site 40RE192, although it is likely that the property was owned by one of the Hinds brothers during the period the site was occupied. The present owner of the property is James Hinds, a descendant of Joseph Hinds. The site also lies in a landform called Hinds Valley.

Site 40RH156

Like site 40RE192, the property on which site 40RH156 was located was Cherokee territory until 1819 (Ford 1982:4). Also like site 40RE192, the trail of ownership by Euroamericans is complicated and frustrating. The ubiquitous land speculator Stockley Donelson acquired a grant of 19,000 acres of what would become northern Rhea County from North Carolina in 1795. After Donelson's death, R.G. Waterhouse bought the property from Donelson's widow in 1807 (Broyles 1991). Donelson's heirs contested the sale, and the ownership was not settled until 1824, when Deed Book A of Rhea County becomes filled with the many properties of R.G. Waterhouse (entries 1 - 16 are almost exclusively Waterhouse land, acquired from the Donelson estate). Entry 12 on page 7 of the first deed book of Rhea County is the survey by R.G. Waterhouse of 650 acres of land which would later contain site 40RH156. R.G. Waterhouse died in 1827 and passed much of his property to his son Franklin, including site 40RH156 (Rhea County Will Book A). Franklin Waterhouse and his brother Darius were ardent Confederates during the Civil War, with Franklin serving on the home guard. After the war, Franklin Waterhouse sold 450 acres including site 40RH156 to a Luther

Heiskell from Missouri, a 37 year old farmer with a wife and five children (Rhea County Deed Book J:428; U.S. Census 1870). It is unlikely that Waterhouse or Heiskell ever lived at site 40RH156; Waterhouse because he owned most of the northern part of the county (Broyles 1982), and Heiskell because of a road and a creek named for him about a mile from the site. The property was inherited by Heiskell's youngest daughter in the early 20th century (no date available). The present owner of the portion of the property containing site 40RH156 bought it from Heiskell's granddaughter in 1977 (Rhea County Deed Book 159:212-214).

CHAPTER 3

Research Design, Theoretical Orientation, and Field Methodology

Research Design

Very little research has been done to date on East Tennessee farmsteads of the time period represented by sites 40RE192 and 40RH156. Most research has focused on sites of obvious historic importance; sites associated with important persons in the history of the state, on homesteads dating to the frontier period, or on ethnically historic sites such as slave cabins associated with affluent households. Examples of these sites include Ramsey House (Roberts 1986), James White's second home (Faulkner 1984), the Nicholas Gibbs house (Faulkner 1988, 1989, 1991), and the Mabry house (McKelway 1994): a wealthy landowner's house, the home of the founder of Knoxville, a pioneer and Revolutionary War veteran's log cabin, and a wealthy farmer's slave cabins, respectively. A study of modernization on historic farmsteads in the Watts Bar Reservoir (Ahlman 1996) has recently been performed in the study area of this thesis, but the focus of that study is not similar to this one.

Recent studies in Illinois (McCorvie et al. 1989) and Kentucky (Rotenizer 1992), however, have begun to document the archaeology of the common rural farmstead of the Upland South tradition. The Upland South tradition is found in the Upland South region of the eastern United States (Figure 4), defined by Glassie as that part of the southeastern United States lying north and west of the Coastal Plain (Glassie 1968:114). The region is characterized by mountains, plateaus, and valleys, trailing into dissected uplands as the

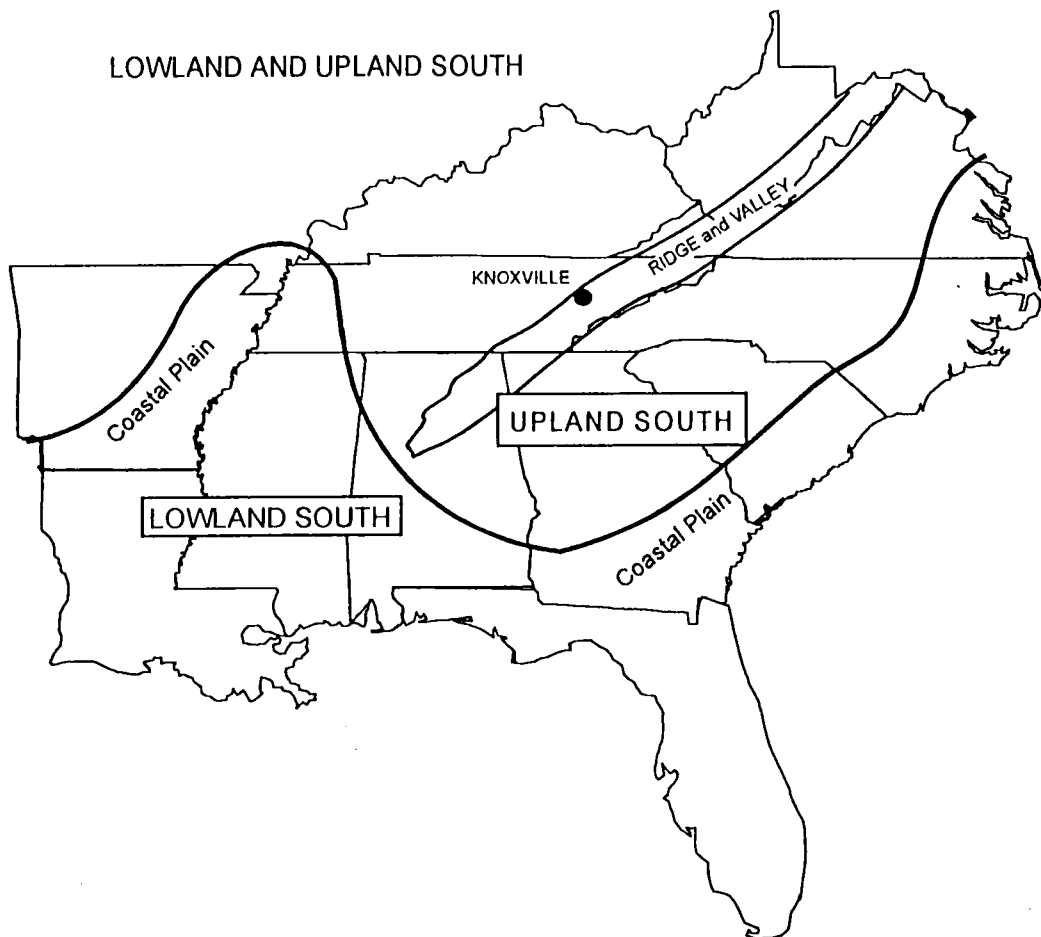


Figure 4. The Upland South Region.

Source: McKelway, Henry S.

1994 Slaves and Master in the Upland South - Archaeological Investigations at the Mabry Site. Unpublished Ph.D. Dissertation, The University of Tennessee, Knoxville.

elevation falls towards the coastal plains (Otto 1989:82). The Upland South tradition as a cultural entity has been treated as a predominately Anglo-American phenomenon, with traits derived from various other Euroamerican cultures such as the Finn-Swedes (Jordan and Kaups 1989) and the Germans (Glassie 1968). The Upland South tradition is defined in this thesis as a type of spatial organization on rural farmsteads, independent of artifactual remains, characterized by the following traits:

1. Outbuildings and barns are arranged around a dwelling in a seemingly disordered cluster determined by the occupant's conception of convenience.
2. Major buildings include the dwelling, barn, storehouse, smokehouse, and animal pens, all of which often serve multiple functions.
3. The location of the well/cistern, privy, storage shed, and chicken house are tied closely to the dwelling and formed areas that were usually associated with female activities and were periodically swept.
4. Barns and large animal and equipment shelters associated with male activity areas are located further away from the dwelling and its closely tied support structures. Access to these structures is around the dwelling and its yard rather than through the immediate yard.
5. The dwelling faces the probable path of approach.
6. The dwelling tends to be shaded by trees.
7. Fields and pastures are irregular, often dictated by topography.
8. Log construction is widely used.
9. There is a concept of modular construction based upon the pen or crib.

In Illinois and Kentucky there has been an effort to use these traits to produce a regional model for rural farmstead development so that farmsteads in one area may be compared with other such sites throughout the Upland South region. In order to achieve

this goal in Tennessee, site 40RE192 and site 40RH156 were investigated using an Upland South model for comparison. This procedure will result in a regional database for the study of rural Tennessee farmsteads that will be comparable to those of our neighboring states which share in the Upland South tradition.

The research questions addressed in this thesis are as follows:

1. What effect does local environment have on historic settlement location, and do cultural factors help determine site location?
2. What is the spatial arrangement of the specific farmstead, and does it change through time? How does it compare to other Upland South farmsteads? How does it compare to farmsteads settled by other cultural traditions?
3. What dietary patterns and food preferences are evident in the artifacts recovered from the sites, and how do these compare with documented patterns for the Upland South tradition? Does the pattern change through time?
4. What socioeconomic conditions are indicated by the artifact assemblage? How do they compare to those of other domestic sites in East Tennessee?
5. How does the later occupation of site 40RH156 compare to McCorvie et al.'s (1989) model of Upland South occupations in southern Illinois and Rotenizer's (1992) model of Upland South occupations in Virginia and Kentucky? Does the evidence support the hypothesis that the Upland South tradition is comparable across its entire range?

Theoretical Orientation

The overall paradigm of this thesis is culture history as defined by Trigger: archaeological investigation with the conscious goal of placing a given cultural group, in

this case rural small farmers, within a known history, that of 19th century East Tennessee (Trigger 1989:206-206).

Field Methodology

In order to maximize data recovery while at the same time minimizing mitigation costs, excavation strategy for sites 40RH156 and 40RE192 called for limited use of hand excavation to clarify details of structures and features, while fence lines and yard areas were stripped by backhoe. Based on data from 1x1 meter test units and power trenching of site 40RH156, the entire site area except for the house was stripped of plowzone with a backhoe. The entirety of site 40RE192 was stripped, as the entire area had been plowed. This made it possible to trace the positions of past fence lines and locate outbuildings by the presence of postholes and subsurface features. All subsurface features were defined, photographed, mapped, and excavated by hand in two halves and by natural strata, with the exception of the cellars, which were excavated in quarters by natural strata subdivided into arbitrary levels. Samples of fill for flotation (20 liters maximum) were collected from arbitrary 10 centimeter levels established in one half of each feature, and the remaining fill was water screened through 6.35mm (1/4 inch) mesh hardware cloth. Four 1x1 meter test units were excavated by hand in 5cm levels at site 40RE192, and seven 1x1 meter test units were excavated in 10cm levels at site 40RH156, with a 10 liter flotation sample removed from the southwest corner of each level at both sites. These test units were placed strategically around the house areas in order to determine placement of doors and windows as well as to determine the orientation of the structures. Additional test units were placed inside the house area on site 40RH156 in an attempt to determine the functions of different rooms in the houses by materials that may have fallen through the

floorboards. All postholes were bisected and mapped in plan view and in profile, with the excavated soil trowel sorted for artifacts.

CHAPTER 4

Artifact Analysis Procedures and Techniques

Ceramics

Ceramics are the most important class of artifact commonly found on historic sites because vessel form, paste, glaze, and decoration changes have been well recorded through time. Ceramics are broadly grouped into two major categories, coarse and refined, based on the amount of refining of the clay in the manufacturing process. Ceramics are also grouped by the degree of vitrification the clay has undergone in firing. The lowest temperature wares are called earthenware and are not vitrified. Earthenwares are porous and will not hold water unless glazed. Most refined tablewares are a type of earthenware, such as pearlware or whiteware. Unrefined earthenwares such as the yellow wares, redwares, and terra-cotta are often coarse utility vessels. The next higher temperature wares are the stonewares, which are partially vitrified and will hold water without a glaze. Ironstone and semi-porcelain are refined stonewares, while coarse stonewares include salt glazed, Bristol glazed, and Albany slip glazed crockery. The highest temperature ceramics are the porcelains. Porcelain is fully vitrified, and in the highly refined specimens the glaze is indistinguishable from the paste of the body.

The ceramic types recovered from sites 40RE192 and 40RH156 include creamware, pearlware, and whiteware from the refined earthenwares, ironstone and semi-porcelain from the refined stonewares, and soft paste and hard paste porcelains from the porcelain group. Coarse ceramics are represented by unglazed and lead glazed redwares, yellow wares, and salt glazed, Bristol glazed, and Albany slip glazed stonewares.

Refined Ceramics

Creamware. Creamware is a refined earthenware invented by Josiah Wedgwood in 1762 as a cheaper substitute for both Chinese porcelain and white salt-glazed stoneware (Noel-Hume 1970). It consists of a buff to creamy white clay body covered with a clear lead glaze, and after about 1800 is rarely decorated, except for annular banding. Creamware was produced until around 1830, when it became indistinguishable from whiteware (Miller 1980).

Pearlware. Invented by Josiah Wedgwood in the 1770s, this is a refined earthenware with a creamy white body covered with a clear lead glaze containing cobalt, also produced in an attempt to produce a cheap substitute for Chinese porcelain. The cobalt in the glaze makes the cream colored body appear whiter while the glaze itself takes on a distinct bluish cast, using exactly the same principle as adding bluing to white laundry items. Pearlware was being manufactured all over Great Britain by 1790, and continued in manufacture until its gradual replacement by whiteware over the period from circa 1825-1835 (Miller 1980).

Whiteware. Whiteware was not invented *per se*, but rather seems to have evolved from pearlware and creamware over time. The clay body is closer to being white than either creamware or pearlware, although there is evidence that manufacturers sometimes put cobalt in the clay rather than the glaze to achieve this effect (Miller 1991). Interestingly, potters continued to use cobalt in the glaze as well, resulting in some confusion for archaeologists when presented with blue-tinted sherds of pottery. Whiteware glazes contained lead in some degree for most of the 19th century, but the lead was gradually replaced with a clear felspathic glaze which is still used (Miller 1991).

Whitewares first appear in the 1820s, and by the late 1830s were ubiquitous in American households.

Transitional Wares. Transitional wares are a category of convenience rather than a true ceramic type. In this thesis all refined earthenwares which show characteristic traits of both pearlware and whiteware are classified as transitional wares and are given a date range corresponding with the period during which whiteware gradually superseded pearlware as the common table ceramic, 1820-1835. Historical archaeologists have long attempted to find an easy way to distinguish late pearlware from early whiteware (Noel-Hume 1970; Price 1979). The most common method is to look for blue puddling of the glaze combined with a refined thinness of the ceramic body and the use of certain colors for underglaze enameling (Price 1979:14-15). Unfortunately, this method can produce erroneous results. The slow whitening of pearlware and the vestigial bluing of whiteware, combined with the various manufacturers' use of the term "pearl" to refer to their wares long after the disappearance of what archaeologists call pearlware, combine to make a critical determination of ware type in some cases almost impossible for the years between 1820 and 1835. To make matters worse for those who use glaze tint as a criterion, there was a resurgence in the popularity of blue tinted glazes on whiteware produced for the provincial English and American markets in the 1840s (Miller 1980:17-18). Fortunately these later blue tinted whitewares are easily distinguished from the transitional period wares by their thickness and decoration. While the colors of underglaze enameling are probably the most helpful criterion in distinguishing late pearlware from early whiteware, in the case of sites 40RE192 and 40RH156 this method does not help; most of the wares classified as transitional are underglaze blue monochrome painted. The use of a transitional ware category in the calculation of Mean Ceramic Dates (South 1977) will

tend to even out the discrepancies that would appear with the use of arbitrary classification of these wares as either pearlware or whiteware. That this technique is effective in this respect at the two sites involved in this study is borne out by comparisons with dates derived from other artifact categories, such as window glass. The root of the debate over the determination of ware type can be reduced to one concern - chronology. The transitional wares category addresses this concern by providing a tighter date range for certain artifacts.

It is interesting that the potters who manufactured these wares and the archaeologists who classify them generally use different groupings. In the 18th century potters distinguished between creamware and pearlware, and they continued to do so into the 19th century. However, the people who made whiteware did not distinguish between whiteware and creamware, which had been gradually getting whiter of body through its long existence. In fact, the two wares are a single evolutionary lineage (Miller 1980). Luckily for archaeologists, paste colors and decoration types allow us to date all these wares with relative ease. The importance to archaeologists of the creamware / pearlware / whiteware evolution in which creamware and whiteware are actually the same is primarily a matter of socioeconomics, as Miller has pointed out with his tables of "C.C. values" for various 19th century ceramics (Miller 1980, 1991). Simply put, after the invention of pearlware, pearlware was a semi-luxury item while creamware was not. According to the manufacturers' price lists, this held true as creamware became whiteware, with the price of pearlware gradually falling to match. By 1830, the type of ware was immaterial, as the price of the ware was based solely on the level of decoration (Miller 1980, 1991).

Ironstone. Ironstone was invented in England in 1813 by James Mason (Godden 1964:163), but did not begin to become popular in this country until the 1850s or later. It

is a refined white-bodied stoneware with a white felspathic glaze, and is partially vitrified. It was heavier and harder than earthenware, and as a result was more durable and more expensive. One hindrance to its popularity in this country was the fact that early ironstone was not colorfully decorated, as no technique of the time but blue transfer-printing could withstand the heat of the firing. During the mid-19th century, however, various sanitation campaigns inspired the popularity of plain white dishes, and simultaneously the ironstone industries of East Liverpool, Ohio arose; a combination which ensured the long-term popularity of semi-vitrified wares in this country. From the 1870s to the 1920s ironstone was king of the table. Unfortunately, it is sometimes difficult to distinguish between ironstone and whiteware when examining sherds from archaeological contexts.

Porcelain. Chinese porcelain was quite fashionable for the wealthy classes in the late 18th and early 19th centuries. It is a hard-paste porcelain, so called because it is completely vitrified to the point where the glaze is indistinguishable from the body of a broken piece. It is bluish-white in color, and if thin enough, is translucent. The Spode Company of England, while trying to duplicate the properties of porcelain while firing at a lower temperature, invented bone china in 1800 by mixing calcined animal bone and ground flint with white kaolin clays. Bone china is a soft-paste porcelain, so called because it is slightly porous and will stain if broken, and the glaze is distinct from the body. Relaxation of the high tariffs against Chinese porcelain by the British in the first quarter of the 19th century resulted in a surplus, causing the market for Chinese porcelain to collapse, as it was no longer expensive (Noel-Hume 1970). Bone china, however, remains expensive to the present day.

Coarse Ceramics

As opposed to the refined ceramics, coarse, utilitarian wares were usually of local manufacture. In some parts of the southern United States the local manufacture of utilitarian stoneware persisted to the present day, when it has become more of a folk art curiosity than a necessity of life (Burrison 1983; Greer 1981; Ketchum 1991; Zug 1983).

Redware. This is a coarse earthenware which has been manufactured for centuries. The clay body is reddish-brown to buff colored and is usually covered with a lead glaze which may be clear or colored with various metallic oxides (copper produces greens and blues, manganese produces a rich brown, and iron produces a deep blackish brown). The manufacture of unglazed redware in the form of flowerpots continues today. Redwares were primarily utility wares, such as crocks and beanpots, but refined redware pitchers and other table pieces were made as well. Redware was slowly supplanted by stoneware in most of East Tennessee beginning in the 1820s and was almost gone by the 1840s, but lead glazed utilitarian redware continued to be made in upper East Tennessee until the 1860s (Smith and Rogers 1979).

Yellow ware. This is a buff-bodied coarse earthenware with a clear lead or feldspathic glaze. It was first produced in 1828 in East Liverpool, Ohio. It was also produced at an early date in New Jersey, and production later spread from New England to the Mississippi River, with concentrations in Ohio and Illinois. Pfalzgraff of Pennsylvania produced a yellow glazed stoneware which was not a true yellow ware in the late 19th-early 20th century (Lehner 1987). Yellow ware was almost always a utilitarian ware, with bowls and pitchers being the most common forms. It was often given a form of annular decoration, with bands of colored slip placed horizontally on the vessel.

Stoneware. Stoneware production in East Tennessee started in the first quarter of the 19th century. As it was harder, more durable, more watertight, and most of all less toxic than lead glazed redware, it supplanted redware for food storage and preservation purposes by the second quarter of the 19th century. Salt glazing is the earliest surface treatment of stoneware found in East Tennessee. It was invented in the 15th century in Germany. It is produced by throwing common salt (sodium chloride) into a kiln full of white-hot stoneware. The salt vaporizes and the sodium combines with the silica in the clay and produces a hard, heat resistant film of sodium silicate glass on all exposed surfaces of the vessels (Zug 1983:172). The chlorine combines with available hydrogen and exits the kiln through the chimney in the form of hydrochloric acid vapor. After the Civil War and reconstruction era, local potters had access to "store-bought" glaze in the form of Albany slip, a brown siliceous clay from the Hudson River near Albany, New York, which vitrifies at stoneware firing temperatures. Albany slip appears in this area in the late 1880s (Smith and Rogers 1979). Another "store-bought" glaze was Bristol glaze, an opaque white feldspathic/zinc oxide slip which was invented in Bristol, England during the 1860s and appears in Tennessee around 1890. The bright white surface of a Bristol glazed vessel seems to have appeared more sanitary than the older brown salt glazed vessels, a point which was of social concern in the late 19th century. Bristol glaze and Albany slip often appear together on factory-made stonewares dating from 1890-1930, in the form of the familiar brown and white crockery which fills antique stores.

A list of the ceramic dates used for the analysis of artifacts from sites 40RE192 and 40RH156 is found in Table 1. In some cases these dates have been modified from their original sources in order to correspond with the later time ranges encountered at site 40RH156. Modified dates are designated by the letter "m" after the source number.

TABLE 1.
HISTORIC CERAMIC DATES

TYPE	GLAZE/ DECORATION	DATE RANGE	MEAN DATE
Redware	clear lead glazed	c.1790 - 1830+	1820 ¹
	MnO ₂ lead glazed	c.1790 - 1830+	1820 ¹
	FeO ₂ lead glazed	c.1790 - 1830+	1820 ¹
	CuO lead glazed	c.1790 - 1830+	1820 ¹
Yellow ware	all types	c.1840 - 1930+	1880 ^{3 m}
Stoneware	salt glazed	c.1830 - 1880+	1860 ¹
	Albany slip glazed	c.1870 - 1930+	1890 ¹
	Bristol glazed	c.1890 - 1930+	1910 ¹
Creamware	undecorated	c. 1762 - 1820	1791 ⁴
Pearlware	undecorated	c. 1780 - 1830	1805 ⁴
	blue shell edged	c. 1780 - 1830	1805 ⁴
	green shell edged	c. 1780 - 1830	1805 ⁴
	edge-decorated	c. 1810 - 1830	1820 ⁴
	fineline polychrome	c. 1795 - 1815	1805 ⁴
	broadline polychrome	c. 1815 - 1830	1822 ⁴
	blue hand-painted	c. 1780 - 1830	1805 ⁴
	transfer printed	c. 1795 - 1830	1812 ⁴
	annular/mocha	c. 1790 - 1830	1810 ^{4 m}

TABLE 1. (continued)

TYPE	GLAZE/ DECORATION	DATE RANGE	MEAN DATE
Transitional Wares			
	all types	c. 1820 - 1835	1827
Whiteware			
	undecorated	c. 1830 - 1900+	1860 ^{3 m}
	blue shell edged	c. 1830 - 1860+	1845 ³
	edge-decorated	c. 1830 - 1850	1840 ^{4 m}
	fineline polychrome (sprig)	c. 1830 - 1870+	1850 ^{3 m}
	broadline polychrome	c. 1830 - 1850	1840 ²
	blue hand-painted	c. 1830 - 1870	1850 ³
	transfer printed	c. 1830 - 1900+	1870 ^{3 m}
	flowed (flow blue, etc.)	c. 1840 - 1900+	1875 ^{3 m}
	spatter	c. 1830 - 1860	1845 ²
	stick spatter	c. 1850 - 1900+	1875 ²
	annular/mocha	c. 1830 - 1870+	1850 ^{3 m}
	embossed plain white	c. 1860 - 1900+	1880 ²
	thick "hotel" ware	c. 1860 - 1900+	1880 ²
	decalomania	c. 1890 - 1900+	1900 ²
Ironstone			
	plain white	c. 1830 - 1900+	1870 ^{3 m}
	embossed plain	c. 1830 - 1900+	1870 ^{3 m}
	blue painted	c. 1830 - 1870+	1850 ²
	blue transfer printed	c. 1830 - 1900+	1870 ²
	decalomania	c. 1890 - 1900+	1900 ²

TABLE 1. (continued)

TYPE	GLAZE/ DECORATION	DATE RANGE	MEAN DATE
Bone China	all types	c. 1800 - 1900+	1850 ²
	decalomania	c. 1890 - 1900+	1900 ²
Porcelain	Oriental	c. 1780 - 1900+	N.A. ²
	European	c. 1780 - 1900+	N.A. ²
	American	c. 1880 - 1900+	N.A. ²

- Sources:
- ¹Greer, Georgianna H.
1981 *American Stonewares*. Schiffer, Philadelphia.
- ²Miller, George L.
1980 Classification and Economic Scaling of 19th Century Ceramics. *Historical Archaeology* 14(1):1-40.

1991 A Revised Set of CC Index Values for Classification and Economic Scaling of English Ceramics from 1787 to 1880. *Historical Archaeology* 25(3):1-25.
- ³Smith, Samuel D.
1984 Excavation of a Mid-Nineteenth Century Trash Pit, Wynnewood State Historic Site, Sumner County, Tennessee. *Tennessee Anthropologist* 8(4):133-181.

TABLE 1. (continued)

⁴South, Stanley.

1977 *Method and Theory in Historical Archaeology*. Academic Press, New York.

Note: ^m means the date range and mean have been modified to a later date than the source.

Glass

Glass falls into two basic groups: curved and flat. Flat glass is almost always window glass, and is placed in the architectural artifacts section. Curved glass is usually container or table glass; vessels such as bottles, jars, bowls, drinking glasses, and plates. Flat glass of the 18th and 19th centuries, assuming that it is in fact window glass, can be roughly dated by means of various formulae. Moir's formula (Moir 1987) perhaps provides the best results in the Southeastern United States. The formula, which is:

$$\text{initial date } i = (84.22 \times \text{Mean}) + 1712.7,$$

provides a date in actual calendar years which seems to be accurate to within +/- 5 years in East Tennessee. Window glass becomes gradually thicker through time, as methods of manufacture and raw materials improved (Roenke 1978). Most 19th century window glass was made by the cylinder method, wherein a worker took a large blob of glass on a blowpipe and slowly blew a free-hanging cylinder while leaning over the edge of an elevated platform. These cylinders could be as large as 18 inches in diameter and 8 to 10 feet long. After cooling slightly, the cylinders were split lengthwise and flattened out. When they had cooled completely they were cut into panes. Throughout the 19th century the formulae for glassmaking improved slowly but consistently, resulting in thicker glass (Roenke 1978). After the advent of float glass in the early 20th century, window glass thickness is no longer a reliable dating method.

Container glass is a much more difficult item to work with. Method of manufacture is not easy to determine unless basal sherds and lip sherds are present, and if the sherds are very small (as is usually the case) vessel form is difficult to determine as well. Curved glass was sorted by color, vessel form, and to a small extent thickness. Container glass is not common on rural historic sites of the early 19th century in East

Tennessee. Only after the invention of various machines for the semi-automatic production of jars and bottles after 1870 does glass become a common artifact in this area, mostly in the form of panel bottles and canning jars. Early 19th century forms of container glass that are found with some frequency in East Tennessee are mostly wine and liquor containers. Freeblown and moldblown dark olive green bottle fragments are typical of sites predating 1830 (Jones and Sullivan 1985), while light green or amber moldblown pictorial or "historical" flasks are present from around 1825 to around 1840 (McKearin and McKearin 1941; Muncie 1970). Clear glass with a blue-green tint appears in freeblown and moldblown bottles and jars in the mid-1840s, and quickly becomes the most common container glass type. Almost all bottles made prior to the invention of the snap case around 1850 have pontil marks on the base, where the bottle was held on a rod with a little blob of molten glass while the neck was finished (Jones and Sullivan 1985). By 1860, empontiled bottles were rare. The invention of moveable plates in flat molds after the Civil War resulted in the panel bottle, in which medicinal products of all descriptions were sold until the pure food and drug act of 1906 put the makers of most patent medicines out of business (Muncie 1970). Panel bottles are important artifacts because they sometimes have the name and address of local druggists or of patent medicine vendors embossed on the sides. With this information it is possible to speculate on the illnesses, real and imaginary, which plagued the former inhabitants of sites. Panel bottles are also good dating artifacts, if the druggist mentioned on the bottle can be located in the documentary record. Canning jars were invented in the 1850s, but did not become common in East Tennessee until the 1890s, as they were more expensive and more fragile than locally made stoneware preserve jars. Only after 1900 did glass jars begin to replace stoneware in popularity in the South (Burrison 1983).

The most reliable indicator for dating container glass manufactured after the Civil War is the treatment of the lip, if the vessel is a bottle. Bottle lips were laid on by hand until the mid-1820s, when the lipping tool was introduced (Jones and Sullivan 1985:43). Fully mold formed lips appear in the 1880s, although they were not common until the 1890s. With the invention of the fully automatic Owens machine for bottle and jar manufacture in 1903, fully machine-made containers become ubiquitous (Jones and Sullivan 1985). Glass color can also be used as a relative dating tool. Glass of the mid 19th century often has a blue-green tint. As consumer pressures for pure food products increased in the later years of the century, the demand for cheap, non-leaded truly colorless glass increased as well. Beginning about 1886, manganese dioxide was used to produce a colorless glass. An unplanned effect of this process is the fact that manganese-clarified glass will turn purple with prolonged exposure to the ultraviolet light from the sun, resulting in what is popularly called amethyst glass. With the advent of World War I, the supplies of manganese (which came from Germany) were cut off. After about 1915, selenium was used as the clarifying agent, resulting in a slightly yellowish glass. Arsenic was used from around 1930 to the present. (Jones and Sullivan 1985).

Pressed Glass. Pressed glass tablewares are not easily dated, as patterns were produced over long periods of time. The early (1820-1850) "lacy" pressed glass is not commonly found in East Tennessee. As with container glass, pressed glass only becomes cheap and popular after the Civil War (Lee 1931; McKearin and McKearin 1941).

Metal

Non-nail metal. Metal artifacts are sorted first into groups *per* South 1977, and then by material of manufacture and function. Explanation and interpretation of non-nail metal artifacts is done on a group- or artifact-specific level, as there is far too much variation in metal artifacts to explain in a short summary such as this.

Nails. Prior to the invention of the nail cutting machine in about 1790, all nails were hand wrought in sizes and head shapes suited to their intended purpose. After the invention of machine cut nails, nail sizes were standardized according to the pennyweight system, which was later carried over to wire nails. Cut nails were not perfected until around 1830, although their use was quickly overtaking that of wrought nails for all but the most specialized functions in East Tennessee by the 1820s. After the introduction of fully machine-cut nails, wrought nails quickly disappear from the archaeological record. Cut nails are still produced for certain purposes, such as rough flooring and masonry work. Drawn wire nails were in use for furniture manufacture in England by the second quarter of the 19th century, but the machinery for their manufacture was not imported to this country until the last quarter of the century. In East Tennessee the replacement of cut nails with wire nails for general construction purposes was a gradual process, occurring in the 1880s and 1890s; thus it is common to find both kinds of nails on sites of the later 19th and early 20th centuries.

Architectural materials

Bricks and stone. Brick and dressed stone from each site was weighed and a sample was retained for future study.

Other materials

Items such as buttons, beads, tobacco pipes, et cetera are analyzed following their listings by feature.

CHAPTER 5

Field and Laboratory Research Procedures

Site 40RE192 Field Procedures

Site 40RE192 was first plowed and disked. After being gridded in 8 m x 10 m squares and allowed to settle, a controlled surface collection was then conducted across the site. All artifacts lying within a 2.5 m radius (a 5 m diameter circle) of the grid points were collected. Artifact distribution maps were then generated. Based on the information provided by these maps, 1 m x 1 m hand excavated test units were placed in areas of highest artifact density. Six 2 m wide backhoe excavated power units were placed at 10 m intervals across the site. These power units revealed three historic features and several potential postholes. A block area was then opened up with the backhoe across the portion of the site where the aforementioned features were clustered. This excavation exposed six additional features (five historic and one prehistoric) and a row of historic postholes.

Site 40RH156 Field Procedures

Phase III data recovery began by re-establishing the grid and laying out four 2 m wide and one 1 m wide power unit transects placed alternately with the power unit transects from Phase II testing. Ordinarily the entire site area excluding the house area would have been subject to mechanical plowzone removal, but in this case the Tennessee Department of Transportation determined that due to budget restrictions only an additional 20 percent of the site area would be stripped of plowzone by mechanical or manual means. After initial power unit excavation, some time and money remained in the

backhoe budget. Therefore, an additional area around Feature 3, an outbuilding location, was stripped of plowzone in order to reveal the full extent of subsurface remains of that structure. A small block of plowzone was also removed from around Feature 9, an early pit cellar, in an attempt to uncover any associated remains. Fourteen 1 m x 1 m test units were excavated in the house area, and an additional six 1 m x 1 m test units were placed in the subsurface remains at Feature 3.

Laboratory Procedures

Water screening of all excavated fill through 1/4 inch mesh hardware cloth was carried out in the University of Tennessee Transportation laboratory throughout the field excavation period. Laboratory analysis of the historic artifacts was undertaken immediately following the fieldwork. Artifacts were washed and sorted by material, then sorted and analyzed according to South's (1977) categories for historic materials analysis, with some modifications for the 19th century. These modifications include the category of medicinal glass, added to this analysis for the purpose of dealing with panel bottles, a type of artifact which does not appear in South's artifacts of the 18th century. Ceramics were sorted according to Miller's manufacturer's types and vessel forms for the 19th century (Miller 1980, 1991). Window glass was sorted by color and thickness, with dates being obtained through the use of Moir's (1987) formula for window glass thickness/date correlation in Texas. Curved glass was sorted according to color, vessel form, and method of manufacture. Nails were classified according to method of manufacture, size in pennyweight, and condition. Other metal was sorted by material and function. Important metal artifacts such as table knives were cleaned and stabilized through electrolysis.

Architectural debris was sorted by material and weighed, due to the extremely fragmentary state of the brick, mortar, and daub from these sites.

Field notes, photographs, other records, and artifacts are being temporarily curated by the Transportation Center at the University of Tennessee-Knoxville. The Tennessee Department of Conservation Division of Archaeology will be the final curation facility.

CHAPTER 6

Features : 40RE192

Nine features were defined and excavated at site 40RE192 (Figure 5). Five of these features were amorphous circular basin-shaped pits, an unusual form for historic features in East Tennessee. A sixth basin-shaped pit feature was defined, but was determined to be prehistoric in origin (not surprising, as there is a large prehistoric site immediately adjacent to the western edge of site 40RE192). A square pit cellar and the remains of a chimney base were exposed as well.

In this analysis, weighed architectural materials such as brick fragments and daub are not included in the artifact counts or artifact group frequencies. Ceramic type frequencies for each feature appear in parenthesis following the count for each type.

Feature 1

Feature 1 was an historic amorphous, circular pit measuring 102 cm N-S by 130 cm E-W by 11 cm in depth. It was probably used as a storage pit, but erosion and plow disturbance eliminated most artifactual evidence. Feature 1 contained only one indeterminate cut nail and one undecorated pearlware sherd.

Group	Count	Percentage
Architecture Group	1	50%
Kitchen Group	1	50%
Total	<u>2</u>	100%

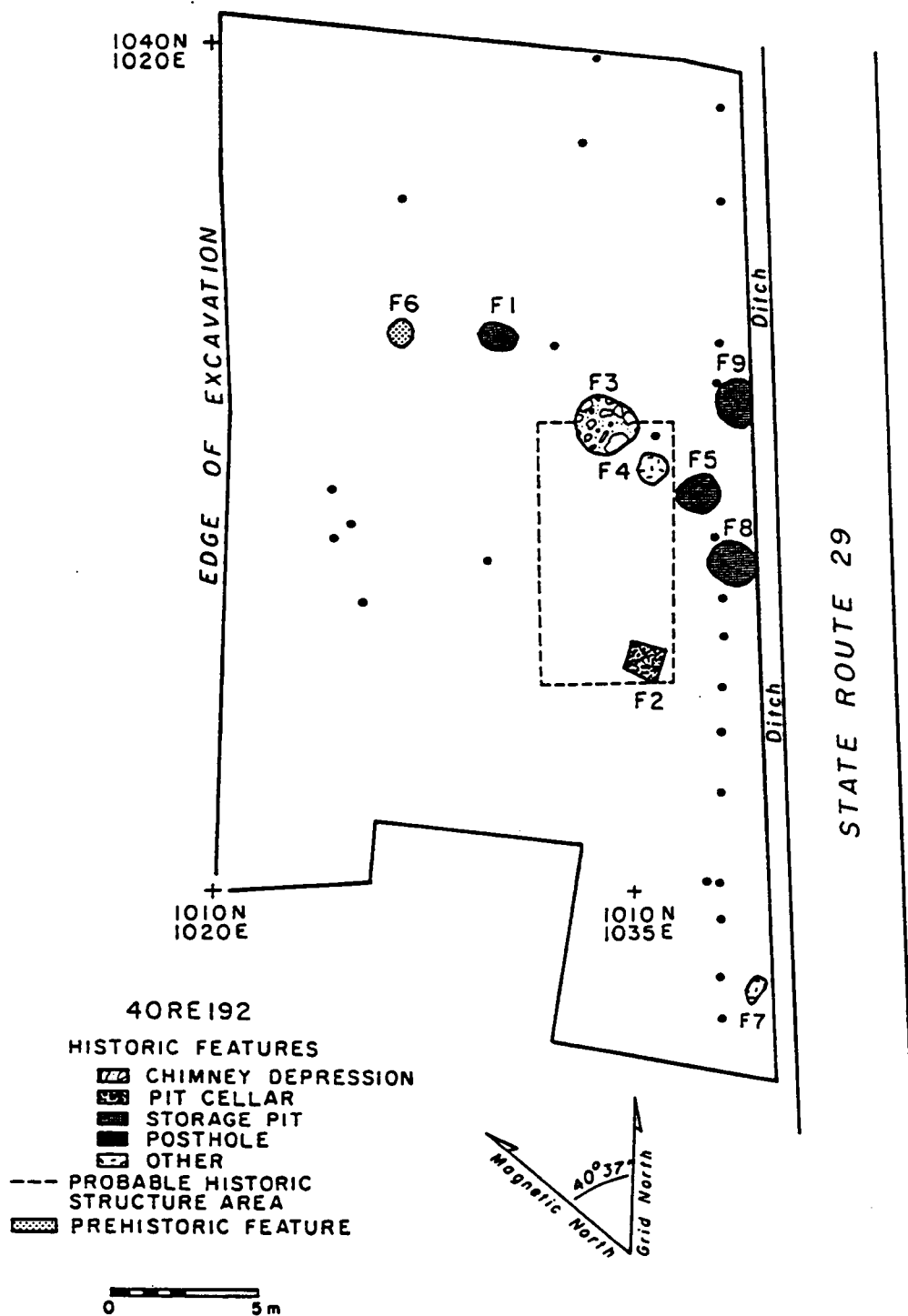


Figure 5. Site 40RE192 Features.

Dates

No accurately datable artifacts were recovered from Feature 1. Undecorated pearlware dates between 1780 and 1830 by the South (1977) scheme.

Feature 2

Feature 2 was an historic square pit cellar. Its dimensions were 130 cm N-S by 130 cm E-W by 16 cm in depth. Only one soil zone, a very dark brown silt loam, was observed in Feature 2. A total of 959 artifacts, including ceramics, nails, glass, beads, and faunal remains, was recovered from this feature. Feature 2 was the most important feature on the site for diagnostic purposes.

Group	Count	Percentage
Activity Group	14	1%
Architectural Group	43	4%
Arms Group	2	0.2%
Clothing Group	61	6%
Furniture Group	9	1%
Kitchen Group	792	83%
Medicinal Group	2	0.2%
Personal Group	36	4%
Total	959	100%

Activity Group (N = 14)

For Feature 2, this group consists of the stable and barn and hardware classes.

Stable and Barn (n = 8)

A large wrought iron pin, 250 mm in length and tapering from 26.1 to 12.1 mm in diameter, possibly a wagon kingpin, was recovered. In addition, six wrought horseshoe nails and a square iron harness buckle were found.

Hardware (n = 2)

A double-pointed iron pin 6.4 cm long and a small wire hook were found in the feature.

Miscellaneous Activity (n = 4)

A 48.6 mm long by 3.6 mm diameter lead rod, possibly a lumber marking pencil, was found in Feature 2, as was a small piece of sulfur. Sulfur was commonly used as a preserving agent for dried fruits as well as a disinfectant. Further finds from Feature 2 include two black hemispherical objects approximately 25 mm in diameter whose function and composition remain unknown.

Architecture Group (N = 43)

Mushroom-Head Wrought Nails	2
Rose-Head Wrought Nails	3
Wrought Spike	1
Wrought-Headed Cut Nails	1
L-Head Cut Nails	2
Fully Machine-Cut Nails	16
Indeterminate Nails	18

The presence of five wrought nails could indicate a fairly early date of construction for the structure which at one time stood over Feature 2, as their use decreased dramatically following the introduction of machine-cut nails to this area in the first quarter of the 19th century. The ratio of cut nails to wrought nails (3.16 to 1) could also indicate

recycling of boards from older structures, or a time lag in the replacement of wrought nails with cut nails in this area. However, the use of ratios is not very accurate since two thirds of the nails recovered cannot be identified as to method of manufacture. Wrought-headed cut nails date between 1796 and the late 1820s, when fully machine-cut nails replaced them in the area. 70.1g (0.15lb) of brick and mortar fragments were recovered from Feature 2.

Arms Group (N = 2)

A lead ball 7 mm (.28 in) in diameter and a piece of lead sprue were the only evidence of the use of firearms from site 40RE192.

Clothing Group (N = 61)

Buttons (n = 28)

Many buttons were found in Feature 2. The buttons have been divided into two groups for this analysis: metallic and non-metallic. The following listing of non-metallic buttons includes material, number of holes, type of center, diameter, and number of each type found:

Bone, 4-hole depressed center, 10.6 mm	1
Bone, 4-hole depressed center, 12.7 mm	3
Bone, 5-hole depressed center, 10.6 mm	2
Bone, 5-hole depressed center, 12.7 mm	1
Bone, 5-hole depressed center, 16.0 mm	7
Bone, 5-hole depressed center, 17.0 mm	4
Shell, 4-hole depressed center, 9.3 mm	1
White porcelain, 4-hole depressed center, 9.9 mm	1

Metal buttons have been sorted according to composition. "Yellow metal" is used as a material instead of any specific metal name due to the difficulty involved in the correct determination of oxidized metal. The following listing of metal buttons lists material, shape, diameter, decoration on front and back, and total count for each button.

Yellow metal, domed, 18.6 mm, plain face, "BEST QUALITY" on back	1
Yellow metal, domed, 18.6 mm, plain face, back illegible	1
Yellow metal, domed, 20.3 mm, plain face, "London Double Quality" with stamped wreath on back	1
Yellow metal, domed, 13.5 mm, plain face, back has reeded design	1
Gilded metal, flat, 12.3 mm, 8-pointed star on face, "superfine dolcis" on back	1
Yellow metal, flat, 18.1 mm, plain face, domed boss on back	1
Yellow metal, flat, 2-piece, 18.2 mm, plain face, no back	1
Yellow metal, flat, 2-piece, 12.5 mm, plain face, "double...gilt" on back	1

These button types are only datable to within a 65 year period from 1800 to 1865 (Olsen 1963; South 1964), since none of the authorities can agree on the median dates. For instance, the first metal button listed above is dated by Olsen (1963) from 1812 to 1820, while South (1964) dates it from 1837-1865! White glass buttons were in use by 1840 (Fink and Ditzler 1993). Commercial manufacture of shell buttons began in 1855 (Fontana and Greenleaf 1962), but the one from Feature 2 seems to be of local manufacture, and thus could date earlier.

Clothing Maintenance (n = 33)

Wound wire ball-headed tinned brass straight pins (n = 27) averaging 32 mm in length were found in Feature 2. This type of pin was only manufactured prior to 1824 (Noel-Hume 1970). Three tinned brass flat-headed straight pins and three fragments of iron straight pins were also recovered from Feature 2.

Furniture Group (N = 9)

Door Furniture (n = 4)

Four wrought iron mechanism parts, probably from a door latch, were recovered from Feature 2.

Mirror Glass (n = 5)

Five sherds of mirror glass, 1.05 mm in thickness and still retaining amalgamated mercury silvering, were recovered. This type of silvering dates from the early to mid 19th century (Roenke 1978:13).

Kitchen Group (N = 792)

The kitchen group is the most important group for purposes of dating and determination of status. Most artifacts of the kitchen group from site 40RE192 came from Feature 2. The group as a whole contains all items associated with the preparation, consumption, and storage of food.

Ceramics (n = 741)

Coarse Earthenwares and Stonewares:

Clear Lead Glazed Redware	63	(9%)
Iron Oxide Lead Glazed Redware	27	(4%)
Salt-Glazed Stoneware	1	(0.1%)
	91	(13.1%)

Refined Earthenwares:

Annular Wares: Common Cable	18	(2%)
Pearlware: Undecorated	28	(4%)
Pearlware: Blue Shell Edge	19	(3%)

Pearlware: Green Shell Edge	1	(0.1%)
Pearlware: Green Edge-Decorated	23	(3%)
Pearlware: Blue Transfer Printed	57	(8%)
Pearlware: Red Transfer Printed	3	(0.4%)
Pearlware: Fineline Underglaze Polychrome	13	(2%)
Transitional Wares: Undecorated	180	(24%)
Transitional Wares: Blue Edge Decorated	11	(1%)
Transitional Wares: Underglaze Blue Hand Painted	216	(29%)
Underglaze Polychrome Hand Painted	27	(4%)
Transitional Wares: Black Transfer Printed	11	(1%)
Whiteware: Undecorated	14	(2%)
Whiteware: Underglaze Polychrome Broadline	19	(3%)
Whiteware: Brown Transfer Printed	1	(0.1%)
Yellow-Glazed Refined Earthenware:	3	(0.4%)
	644	(87%)
Porcelains:		
Plain Oriental Hard Paste Porcelain	6	(1%)

The large number of redware sherds from Feature 2 indicates a date prior to 1830, as by that time salt glazed stoneware was beginning to replace redware in the Southeast (Zug 1986:23). The single sherd of salt glazed stoneware fits with this interpretation.

The amount of pearlware, transitional ware, and whiteware also points to the 1820s-1830s as an occupation date for the feature. The sherds of fineline underglaze polychrome pearlware saucer, however, date from 1795 to 1815 (South 1977). It is unlikely that the site was occupied that early, due to the absence of creamware. The saucer was probably an heirloom piece which was brought to the site by the first occupants in the 1820s. The whiteware is all early, with the possible exception of the single brown transfer-printed sherd. The yellow glazed refined earthenware sherds are most unusual. They are reminiscent of Whieldon ware, but undoubtedly date from the early 19th century. It is noteworthy that sherds of a similar ware were recovered from the James White Second Home Site, 40KN86, which was occupied from around 1790 until

around 1854 (Faulkner 1984:64). An indication of the status of the occupants of the site is the large amount of tea wares, which include all of the underglaze painted wares, some 42% of the total refined earthenwares.

The six sherds of porcelain are unusual for the time period in that there is no trace of decoration on them, not even a ghost image from overglaze enameling.

Glass (n = 24)

In this analysis, alcoholic beverage containers are included with the kitchen group glass.

Olive Green Wine Bottle Sherds:	2
Light Green Historical Flask Sherds:	2
Clear Historical Flask Sherds	5
Light Green Unidentified Container Sherds	4
Clear Unidentified Container Sherds	2
Indeterminate Glassware Sherds	9

The absence of canning jar fragments is another indication of a pre-Civil War date for site 40RE192. The vessels referred to above as historical flasks are sometimes known as banjo flasks (Munsey 1970). They are mold-blown bottles ranging in capacity from a half pint to a quart, generally depicting patriotic or historical scenes and designed for the purpose of holding distilled liquors (McKearin 1941; Munsey 1970). They were popular from the 1820s to the 1840s.

Metalware (n = 27)

This category includes any metal items used in the production, storage, or consumption of food. A table knife broken into two pieces has a rounded point, forged in-place bolsters, and a carved bone handle. It is stylistically similar to table knives of the

1820s illustrated in Noel-Hume (1970). An additional five table knife blade and handle fragments were found in Feature 2 as well.

Twenty-one fragments of tinware containers also came from Feature 2, including a handle for a tin cup complete with soldered end connections.

Medicinal Group (N = 2)

This group has only two representatives in Feature 2: sherds of very thin clear glass vials most likely used for holding medicine.

Personal Group (N = 36)

This group includes all items carried on or about the person that are not items of clothing, and also items used on an everyday basis.

Hygiene and Toiletry Items (n = 3)

Two perfume bottle bases, one of clear leaded glass with a fluted design and one apple green with no further decoration, belong in this category. Both bases bear the marks of a glass-tipped pontil rod, indicating a date prior to 1870 (Jones and Sullivan 1985:45).

An additional item of personal hygiene from Feature 2 is a double-sided comb cut from a large flat bone.

Tobacco Pipes (n = 1)

A single salt-glazed stoneware tobacco pipe bowl fragment is one of only two smoking-related artifacts from site 40RE192. Another pipe fragment was found in Feature 5.

Adornment Items (n = 32)

Thirty-two glass beads were recovered from Feature 2. They were classified according to the method developed by Kidd and Kidd (1970) for use in eastern Canada. A tabular description of the beads follows:

Table 2.
Beads from Feature 2

Type	Size	Glass (body/core)	Name of Color (body/core)	Sides/Shape	Bead Count
Ic13	4-6 mm	clear	Brite Navy	6	2
IIIf2	6-10 mm	clear/translucent	Ultramarine/Aqua	8	9
IIIf1	6-10 mm	clear/translucent	Lite Gray/Oyster White	8	9
Ic9	2-4 mm	clear	Apple Green	5	1
Ic12	4-6 mm	clear	Brite Copenhagen Blue	6	2
Wlb16	6-10 mm	clear	Brite Navy	round	3
Wlb11	4-6 mm	opaque	Robin's Egg Blue	round	1
Wld1	6-10 mm	clear	Amber	donut	2
Willia1	6-10 mm	translucent	White/opaque coral overlay	donut	3

Total Bead Count: 32

In the Kidd and Kidd system, types beginning with the letter I are of blown manufacture, and types beginning with the letter W are of wire-wound construction. The color names used in Table 2 are those used by Kidd and Kidd. These beads were probably made in Austria or Bohemia between 1780 and 1830 (Fogelman 1991:6).

Dates

Feature 2 was the richest in material for the entirety of site 40RE192. It yielded a great many datable artifacts, most of which suggest an occupation beginning in the 1820s and continuing through the 1830s, but no later than the early 1840s. The lack of window

glass to date is regrettable but expected, since the structure was undoubtedly a log cabin with shuttered rather than glazed windows. The Mean Ceramic Date (South 1977) is 1823.5. This date supports the apparent dates of the other artifacts from this feature. The buttons support an occupation in the early 19th century which continued until at least 1840.

Feature 3

Feature 3 was the remains of a stick-and-mud chimney. This interpretation is based on three characteristics of the feature: 1) the absence of any large stones or stone slabs, 2) the presence of an ash lens near the base of the feature, and 3) the presence of burned earth at the base of the feature. It measured 176 cm N-S by 206 cm E-W by 14 cm in depth. Feature 3 also contained cut nails, ceramics, some glass, and a straight pin.

Group	Count	Percentage
Activity Group	2	6%
Architectural Group	12	33%
Clothing Group	1	2.7%
Kitchen Group	21	58.3%
Total	36	100%

Activity Group (N = 2)

The only artifacts from this group in Feature 3 are in the miscellaneous hardware category. Two fragments of sheet iron or tinplate were found.

Architecture Group (N = 12)

This is an important group to the interpretation of this feature as a hearth or chimney base made of sticks and mud, since the great majority of the material is fired daub with the impressions of large sticks.

Cut Nails	10
L-head Cut Nail	1
Hammer-Dressed Limestone	1

The 79.5g (0.18lb) of brick fragments, if consolidated, would not be enough to compose one whole brick. The limestone flake weighed 217g (0.48lb), and was probably a by-product of stone-shaping activities conducted for the foundations of the house. 3442.6g (7.59lb) of fired clay daub was recovered.

Clothing Group (N = 1)

A single ball-head straight pin of the pre-1824 (Noel-Hume 1970) type was found in Feature 3.

Kitchen Group (N = 21)

Ceramics (n = 18)

Coarse Earthenwares and Stonewares:

Lead Glazed Redware	2	(11%)
Salt Glazed Stoneware	2	(11%)
	4	(22%)

Refined Earthenwares:

Pearlware: Underglaze Blue Hand Painted	3	(17%)
Pearlware: Underglaze Polychrome Broadline	1	(6%)
Pearlware: Blue Transfer Printed	2	(11%)
Pearlware: Undecorated	4	(22%)

Transitional Ware: Undecorated	2	(11%)
Whiteware: Underglaze Polychrome Broadline	2	(11%)
	14	(78%)

Almost all the refined earthenwares from Feature 3 are tea wares. The undecorated pieces may be sherds of the same vessels which produced the decorated sherds.

Glass (n = 3)

Two out of the three sherds from Feature 3 are from alcoholic beverage containers. The third is from an indeterminate container.

Dark Olive Green Wine Bottle Sherds	1
Light Green Historical Flask Sherds	1
Indeterminate Clear Container Sherds	1

Dates

The artifacts from Feature 3 support a date in the 1820s-1830s for the site. The Mean Ceramic Date of the feature is 1820.8, and the straight pin was manufactured prior to 1824.

Feature 4

Feature 4 is a depression hypothesized to be caused by an animal, possibly a family pet or a pig, nestling underneath the house near the hearth. It measured 128 cm N-S by 108 cm E-W by 4 cm in depth. The only artifact recovered from Feature 4 was a fragment of a hog mandible. No date is available for this feature.

Feature 5

Feature 5 was most likely an historic storage pit. It contained several large stones. Initially it appeared as though this might be another chimney pad; however, no evidence of burning was noted either on the stones or within the feature. An 1839 silver dime was recovered from Level 3 in the east half of Feature 5. Other artifacts included nails, ceramics, glass, and a stoneware tobacco pipe fragment. Feature 5 measured 128 cm N-S by 140 cm E-W by 25 cm in depth.

Group	Count	Percentage
Activity Group	5	12%
Architecture Group	5	12%
Clothing Group	2	5%
Kitchen Group	27	64%
Medicinal Group	1	2%
Personal Group	2	5%
Total	42	100%

Activity Group (N = 5)

For Feature 5 the only artifacts in this group are five pieces of sheet iron or tinsplate, categorized as miscellaneous hardware.

Architecture Group (N = 5)

Feature 5 contained the most architectural material outside the immediate house area, including 135.8g (0.30lb) of brick fragments.

Mushroom Head Wrought Nail	1
Fully Machine Cut Nails	3
Indeterminate Nail	1

Clothing Group (N = 2)

Two items of the clothing group were found in this feature: a small brass eyelet and an iron shoe tack.

Kitchen Group (N = 27)

Next to Feature 2, Feature 5 had the largest selection of kitchen group artifacts on site 40RE192.

Ceramics (n = 21)

Coarse Earthenwares and Stonewares:

Salt Glazed Stoneware	2	(10%)
	2	(10%)

Refined Earthenwares:

Annular Wares: Mocha Pearlware	3	(14%)
Pearlware: Blue Transfer Printed	1	(5%)
Pearlware: Underglaze Polychrome Broadline	1	(5%)
Transitional Wares: Undecorated	3	14%)
Annular Wares: Mocha Whiteware	1	(5%)
Whiteware: Undecorated	6	(29%)
Whiteware: Blue Shell Edged	1	(5%)
Indeterminate Burned Earthenware	1	(5%)
	17	(81%)

Ironstone:

Ironstone: Undecorated	2	(10%)
	2	(10%)

The ceramics are perhaps typical of the site in that most of them are from tea sets. The sherd of underglaze polychrome decorated pearlware is more useful for dating

purposes than many other ceramics from the site since it bears a maker's mark: that of the Davenport company of Longport, England. This particular mark was used between 1793 and 1810 (Godden 1964:189), thus adding another early date to the range for the site as a whole. The ironstone, however, could not date prior to 1814, and is most likely 20 or 30 years later than that date. The marked sherd may be another heirloom piece.

Glass (n = 6)

The kitchen group glass from Feature 5 consisted entirely of fragments of unidentifiable containers. They were placed in this category because they are most likely liquor bottles.

Indeterminate Clear Glass	2
Indeterminate Aqua Glass	1
Indeterminate Light Green Glass	3
	6

Medicinal Group (N = 1)

A single sherd of very thin blue-green container glass was found under a rock at the bottom of the feature, and is probably from a medicine vial.

Personal Group (N = 2)

The only two personal items recovered from Feature 5 were a stoneware tobacco pipe fragment and an 1839 U.S. dime which showed some wear.

Dates

Feature 5 had some interesting artifacts for dating purposes. The coin has an indisputable date of 1839, and as it shows wear it was not new when it entered the archaeological record. The Mean Ceramic Date of the feature is 1844. It is probable that the Mean Ceramic Date is close to the termination date of the feature. The Davenport sherd adds an early date of 1793-1810. The feature was probably filled in during the 1840s, but reflects the earlier occupation of the site.

Feature 6

Feature 6 was the only prehistoric feature identified during the testing. Its dimensions were 93 cm N-S by 89 cm E-W by 25 cm in depth. It appeared to be a small circular pit with insloping sides. A cursory examination of its contents revealed only a few bits of debitage and two calcined bone fragments, although a glass canning jar lid liner was found on the surface. This artifact was probably introduced by plow disturbance and as such represents surface trash, since no other lid liners were found in feature contexts on the site. No date is available for this feature.

Feature 7

Feature 7 was a small oval basin-shaped pit. Its function is unknown. It measured 85 cm N-S by 68 cm E-W by 25 cm in depth. Artifacts recovered from Feature 7 included ceramics, glass, and a jaw from a set of blacksmith's tongs. No other evidence of smithing activity was recovered from the site.

Group	Count	Percentage
Activity Group	2	20%
Kitchen Group	8	80%

Total	<u>10</u>	100%
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Activity Group (N = 2)

Feature 7 was the only feature on the site to yield up any evidence of manufacturing or repair activities. A fragment of the jaw portion of a pair of blacksmith's tongs and an iron plate, possibly a worn plow point, are the artifacts that support these activities. No other evidence of smithing was found in this or any other feature.

Architecture Group (N = 0)

The only architectural artifacts from Feature 7 were two small brick fragments with a combined weight of 12 grams.

Kitchen Group (N = 8)

Ceramics (n = 6)

Coarse Earthenwares and Stonewares:

Salt Glazed Stoneware	5	(83%)
	<u>5</u>	(83%)

Refined Earthenwares:

Transitional Ware: Underglaze Blue Hand Painted	1	(17%)
	<u>1</u>	(17%)

The stoneware sherds from Feature 7 can be refitted to form part of the side of an unidentified vessel. The refined earthenware sherd is from a teacup.

Glass (n = 2)

Dark Olive Green Wine Bottle Sherd	1
Indeterminate Clear Container Sherd	1
	2

The wine bottle sherd is the greater part of the base of the bottle. It has a deep kick-up and an iron pontil rod scar, indicating a date prior to the 1860s (Jones and Sullivan 1985).

Dates

The ceramics from Feature 7 are too small a sample to provide a good Mean Ceramic Date, but in combination with the glass a reasonable estimate may be made. Feature 7 falls within the 1820-1840 range established for the site as a whole.

Feature 8

Feature 8 appears to have been another storage pit. Its dimensions were 150 cm N-S by 160 cm E-W by 15 cm in depth. Artifacts recovered from this feature include fragments of sheet iron, ceramics, and glass.

Group	Count	Percentage
Architecture Group	1	5%
Furniture Group	9	47%
Kitchen Group	9	47%
Total	19	100%

Architecture Group (N = 1)

Rose-Headed Wrought Nail	1
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83.8g (0.18lb) of brick fragments were also recovered.

Furniture Group (N = 9)

Seven fragments of sheet iron or tinplate and a short curved iron strut 18.2 mm long were recovered from Feature 8. These items are interpreted as the remains of a tin box, with the strut being a leg for the box.

The flat glass from Feature 8 is of great importance if it is window glass, as the Moir formula can be applied to yield a date. The sherd is 1.1 mm thick. According to the formula, a date of 1805 is obtained. However, since this sherd is the only sherd of flat glass recovered from the entire site, it is likely that it is from an item of furniture, such as a mirror with the silvering worn off. If there were glass windows in the structure that once stood on the site, more window glass should have been present in the archaeological record.

Kitchen Group (N = 9)

The kitchen group artifacts from Feature 8 are typical for the site, if somewhat on the early end of the scale.

Ceramics (n = 7)

Coarse Earthenwares and Stonewares:

Clear Lead Glazed Redware	1	(14.5%)
Iron Oxide Tinted Lead Glazed Redware	1	(14.5%)
	2	(29%)

Refined Earthenwares:

Pearlware: Blue Shell Edged	3	(43%)
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Pearlware: Undecorated	2	(29%)
	5	(71%)

Glass (n = 2)

Dark Olive Wine Bottle Sherds	1
Indeterminate Clear Container Glass	1
	2

Dates

Feature 8 was filled in during the early part of the occupation of the site. The flat glass date of 1805 and the Mean Ceramic Date of 1809 both indicate that this is the case. However, Mean Ceramic Dates are just that: a statistical mean. The range of dates for the ceramics in this feature extend as late as 1830 at a minimum. The pearlware sherds appear to postdate 1820. In addition, the flat glass is probably not window glass, rendering the 1805 date suspect.

Feature 9

Feature 9 was heavily disturbed by tree roots. It had also been intruded upon by recent ditching due to its close proximity to the existing State Route 29. Only the unimpacted west half of this feature was excavated. Glass, ceramics, and a table knife blade were recovered. The existing dimensions of Feature 9 were approximately 120 cm N-S by 100 cm E-W by 8 cm in depth.

Group	Count	Percentage
Architecture Group	0	0%
Kitchen Group	9	100%
Total	9	100%

Architecture Group (N = 0)

19.9 g (0.04 lb) of brick fragments were recovered.

Kitchen Group (N = 9)

Ceramics (n = 3)

Refined Earthenwares:

Pearlware: Undecorated	1	(33%)
Burned Indeterminate Earthenware	2	(66%)
	3	(100%)

Glass (n = 5)

Indeterminate Blue-Green Container Sherds	5
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Metalware (n = 1)

A table knife blade with a rounded point and the remains of a bone handle were in the disturbed eastern profile of Feature 9. The shape of the blade is identical to those from Feature 2.

Dates

The artifacts from Feature 9 seem to date to the same range as those from the other features on the site: between about 1820 and 1840. It was unfortunate that the feature was so extensively disturbed, since there were so few features on the site.

Postholes

The postholes that were examined were determined to be unrelated to the structure and its occupation episodes, perhaps dating as late as the latter half of the 20th century. Unfortunately, not all of the postholes were examined. The small group to the west of the structure may have been related to another structure of some kind, perhaps an elevated corncrib.

CHAPTER 7

Discussion of Findings and Answers to Research Questions for Site 40RE192

Discussion of Findings

Site 40RE192 underwent Phase II and intensive Phase II testing in the late fall and early winter of 1994-1995. Investigations revealed a small historic house site with several associated features, all of which were excavated. Initial analysis of artifacts from site 40RE192 suggested an early 19th century Euroamerican habitation, but further analysis suggested other ethnic groups, particularly Native Americans, may have been present on the site. The presence of multiple basin-shaped pit features containing historic materials, combined with the unusually large number of glass beads, argue for an historic Native American presence as well.

All subsurface materials recovered from the site place the occupation period from around 1820 to about 1840, a time period when many Native American groups in the Southeast (particularly the Cherokee) were living in log cabins and using the same ceramics as Euroamericans (Hudson 1976:449).

The high frequency of shallow circular storage pits in this early 19th century context was not expected. It is possible that such features are common on similar sites, but no other early 19th century farmstead sites have been investigated in the western East Tennessee Valley region (with the exception of site 40RH156) for comparative purposes. Of all the domestic historic sites in East Tennessee, none is known to have the profusion of circular basin-shaped pit features found at site 40RE192 (Andrews 1992; Faulkner and

Andrews 1994; Faulkner 1984, 1988, 1989, 1991, 1995; McKelway 1994; Roberts 1986). Interestingly, such features are only known to the author to occur at early 19th century Pre-Removal Cherokee farmsteads in western North Carolina (Riggs 1996).

By the early 19th century, the Cherokees had embraced Euroamerican farming techniques and construction methods to such an extent that one Euroamerican historian has said that "they had developed a 'curiously pseudo-white agrarian culture' (Riggs 1996:13)." The use of square or rectangular pit cellars was widespread among many cultures in the Upland South, including the Cherokee, African-Americans, and Euroamericans (Phillippe and Walters 1986; Riggs 1996:97; Yensch 1991). A circular, basin shaped pit similar to the circular features at site 40RE192 was found at the Chewkeeskee Cabin site (31CE276), an early 19th century Cherokee farmstead in western North Carolina (Riggs 1996:93). Riggs mentions, however, that such features are not well represented in 19th century contexts, although they are abundant on late 18th century Cherokee sites (Riggs 1996:93; Schroedl 1986). The apparent size of the domestic structure at site 40RE192 may not fit the documented sizes of historic Cherokee cabins, however. If one assumes that Feature 2, the square cellar, was under one end of the house, the structure would have to have been at least 26 ft (8 m) long. This figure is far outside the range of cabin sizes of 10 to 14 ft square recorded for the Cherokee at the time of Removal (Riggs 1996). It is slightly longer even than typical lengths for Euroamerican rectangular cabins, which are 18 to 22 ft (Morgan 1990), although 26 ft long side walls are not unknown amongst Glassie's (1965) "type II" cabin, to which Glassie assigns an Irish origin (Glassie 1965:154). Morgan and Medford also note the occurrence, though rare, of pre-1840 26 ft long cabin walls in Grainger County, Tennessee (Morgan and Medford 1980:142).

Another possibility is that the cellar was not under the house, but rather was under an outbuilding. This was not an uncommon practice among the North Carolina Cherokee, particularly in the case of *asi*, or hot houses (Riggs 1996:30). These *asi* were small, tightly built log structures typically 14 ft square (Riggs 1996:30-31). If the cellar at site 40RE192 was beneath an *asi*, then the size of the cabin associated with the chimney base may not have been more than 14 ft square. This interpretation could also explain the apparent misalignment between the chimney base and the cellar. The apparent absence of outbuilding remains at site 40RE192 may also be an indicator of non-Euroamerican occupation. Fully half of the 707 Cherokee properties in Riggs' study (50%) had no outbuildings listed on the removal inventories. Of those farmsteads which had only one outbuilding listed (25%), that building was an *asi* 15% of the time and a corncrib 85% of the time (Riggs 1996 Appendix A:257-277). Of those Cherokee farmsteads that had two outbuildings (10%), 78% of the time those two structures were an *asi* and a corncrib (Riggs 1996 Appendix A:257-277).

Hays reported the possibility of historic Native American occupation at site 40RE192 in the Phase I archaeological reconnaissance survey report based upon a single artifact recovered from a shovel test: a thick clear glass sherd that appeared to have been worked into a scraper (Hays 1992:16). That is not conclusive proof, however, as the use of broken glass as scrapers to smooth wooden objects or to scrape hogs during the butchering process is a well-known phenomenon among all ethnic groups in southern Appalachia. Hays argues that the sherd in question shows evidence of deliberate retouching after the fashion of chipped stone tools. However, it is very common to find pieces of glass that have been both unifacially and bifacially retouched by the action of plowing on historic sites. Hays cites two examples of glass scrapers recovered from

historic Native American contexts (Hays 1992), but does not mention what kind of glass was used. The sherd from site 40RE192 is described as "thick clear glass"(Hays 1992:16). However, thick clear glass is not a common artifact of the early 19th century.

Thirty-two beads were found in the fill of Feature 2, the subfloor pit cellar. These beads were manufactured in Europe, probably in the early 19th century. Similar beads were often used as trade goods with Native Americans in the Northeast (Fogelman 1991; Kidd and Kidd 1971). Riggs states that the presence of glass beads cannot be taken as an ethnic marker in the Southeast due to the ubiquity of glass beads at all early to mid 19th century domestic sites in the region (Riggs 1996:110). However, Riggs then mentions that beaded belts were an important, common, and a highly valued part of the male Cherokee wardrobe (Riggs 1996:110). With this knowledge, it seems possible that the relatively large quantity of beads (The highest concentration in Riggs' study was four beads in one feature) from site 40RE192 could have been used in or intended for use in a beaded belt. In addition, twenty-two glass beads were recovered from a rectangular pit feature at the Bell Rattle site, an historic Cherokee cabin site in Monroe County, Tennessee dating from ca. 1800-1826 (Riggs n.d.:154). At some historic sites in Tennessee such as Castalian Springs (Smith 1984) and the First Hermitage (Smith 1976), similar beads are found in African-American slave contexts. It is known that the Hinds brothers, who owned the land where site 40RE192 is located, were active in the local slave trade in the early 19th century. Site 40RE192 itself, however, does not appear to have been a slave cabin, as there were no other structures found nearby as should have been the case for an Upland South slave habitation (Andrews 1992; McKelway 1994; Vlach 1990).

The presence of artifacts related to blacksmithing activities in Feature 7 at site 40RE192 has no bearing on the ethnicity of the occupants of the site, as blacksmithing debris has been found on sites connected with all ethnic groups in East Tennessee, including the historic Cherokee (Riggs n.d.: 155), African-American slaves (Andrews 1992), and Euroamerican settlers (Faulkner and Andrews 1994).

Ford (1982) compared artifact group frequencies from three different site types in an attempt to discern differences in sites occupied by the army, by Euroamerican settlers, and by historic Cherokee, respectively. The time span covered by Ford's comparison is 1792 to 1819, slightly earlier than site 40RE192. It is interesting, however, to compare site 40RE192 with Ford's results in Table 3. Site 40RE192 does not

Table 3. Artifact Group Frequencies

Artifact Group	Federal Government Pattern *	Frontier Settler Pattern *	Federal Cherokee Pattern *	40RE192 Pattern
Kitchen	19.95%	79%	48.77%	84%
Architecture	24.81%	15.45%	0.40%	6%
Furniture	0.48%	0.00%	0.00%	1%
Arms	0.28%	0.34%	0.24%	0.20%
Clothing	1.71%	0.40%	3.63%	6%
Personal	0.16%	0.07%	0.04%	3%
Tobacco Pipe	0.15%	0.07%	0.30%	NA
Activities	2.73%	4.44%	19.14%	3.02%
Subsistence Refuse	49.73%	0.23%	17.04%	NA

*Source: Ford, Thomas B.

1982 An Analysis of Anglo-American - Cherokee Culture Contact During the Federal Period, The Hiwassee Tract, Eastern Tennessee. Unpublished M.A. Thesis, The University of Tennessee, Knoxville.

compare favorably with any of Ford's artifact group frequencies. No two groups at site 40RE192 correspond with the same group from any of Ford's patterns. The discrepancies could be due to the different time ranges, however.

The single major discrepancy between the artifactual record at site 40RE192 and that of the historic Cherokee sites in Riggs' study is the absence of Cherokee pottery at site 40RE192. All of the sites in Riggs' study produced Cherokee pottery (Riggs 1996). The lack of it at site 40RE192 is difficult to explain if the occupants of the site were indeed Cherokees. A possibility is that the distance of site 40RE192 from the mountainous heart of 19th century Cherokee culture and the proximity of the site to Fort Southwest Point resulted in a more thorough acculturation of the inhabitants, as far as that acculturation was reflected in the selection of storage vessels. Riggs states that the ubiquity of small quantities of Cherokee ceramics on 19th century historic Cherokee sites is due to the traditional practice of making hominy, and that the sherds represent broken hominy pots (Riggs 1996). However, it is possible to make hominy in redware pots as well.

In conclusion, while it is impossible to conclusively determine the identities of the occupants of site 40RE192, it is very likely that at least one occupant was Native American in origin. The artifact assemblage, with the exception of the quantity of beads (small numbers of beads have been recovered from almost all historic sites in Tennessee), is similar to early 19th century occupation by all known ethnic groups in East Tennessee (Andrews 1992; Faulkner 1984; 1988; 1989; 1991, 1995; Faulkner and Andrews 1994; McKelway 1994; Roberts 1986). The assemblage is also similar to Removal-period Cherokee farmsteads (Riggs 1996), with the exception of Cherokee pottery. The similarities in spatial organization to historic Cherokee cabin sites in western North

Carolina are too strong to be dismissed, especially since southwestern Roane County was Cherokee land until 1819 (Ford 1982:4).

Answers to Research Questions

1. What effect does local environment have on historic settlement location, and do cultural factors help determine site location?

The local environment, a broad valley with abundant timber, water, and agricultural resources, would encourage settlement by any human population. In fact, there was a prehistoric occupation of the site. In addition to this, prehistoric site 40RE225 lies adjacent to site 40RE192 in the highway right-of-way. There is also a large prehistoric village site in the bottomlands of Black Creek immediately to the west of site 40RE192. Cultural factors do not appear to have had a specific influence on the location of site 40RE192. Some cultural groups such as the Swiss-French and the Pennsylvania Dutch tend to locate their farmsteads around certain topographical features in order to make use of traditional structures such as the bank barn, but historic Native Americans and Scots-Irish-English, the two most common cultures in the region, do not seem to have had marked preferences for any particular landscape feature other than water and arable land, both of which are available at site 40RE192.

2. What is the spatial arrangement of the farmstead, and does it change through time? How does it compare to other Upland South farmsteads? How does it compare to farmsteads settled by other cultural traditions?

As no outbuildings were discovered on the site, little can be said of the spatial arrangement of the farmstead at site 40RE192. The cabin which stood on the site during the occupation period was aligned roughly north-south, if it was a rectangular cabin, with the long axis parallel to both the Cumberland Escarpment and the trail that became U.S.

Highway 27 (Figure 5, p.37). It is not known which of these landscape elements (if either) was used to orient the house, but the route of U.S. Highway 27 is likely a path of some antiquity, following the natural corridor formed by the foot of the escarpment. Assuming the presence of a road in the present location of U.S. Highway 27 at the time of construction of site 40RE192, the only characteristic of the Upland South pattern known to be applicable is that the house faced the probable path of approach. The only visible change in the spatial arrangement of the site is its disappearance, followed by the construction of a fence across the site area at a much later date. As mentioned previously, the spatial arrangement of the features at site 40RE192 does not fit any known Euroamerican pattern.

If there was an historic Cherokee occupation on the site, the alignment of the cabin becomes much more difficult to determine. If the hypothesis that the cellar was actually under an outbuilding such as an *asi* is true, then the cabin may have been no more than 14 ft square, and thus could have been aligned with the features rather than with the road or the Cumberland Escarpment. It is unfortunate that no evidence of outbuildings was discovered at site 40RE192, because the presence of such information would have been of great importance in the study of the history of the Upland South pattern. If a family with enough Native American influence to be using the native pattern of storage pits also used the Upland South pattern of building and farm arrangement, an indication of the age, origin, and pervasiveness of the Upland South pattern would be established. A parallel case is that of the Nicholas Gibbs farm (40KN124) in northeast Knox County. Although Gibbs was German and his material culture preferences (at least in the matter of lead glazed redware table ceramics) were more German than not, the spatial arrangement of his farmstead appears to have been Upland South by 1800 (Faulkner 1988; 1991). If the

Upland South tradition was so pervasive as to be "the way things were done" in East Tennessee by all assimilated cultures by 1800, it is possible that site 40RE192 should also fit the pattern. From the archaeological evidence at hand, however, a possible Native American influence at site 40RE192 outweighed that of the Upland South tradition.

3. What dietary patterns and food preferences are evident in the artifacts recovered from the sites, and how do these compare with documented patterns for the Upland South tradition? Does the pattern change through time?

The residents of site 40RE192 followed the standard practice of the period in that they ate quite a bit of pork with a quantity of wild game for variety (Table 4) (Davenport and Klippel 1996). The botanical remains from site 40RE192 were sparse and mostly uninformative in the way of foodways information because the small sample size cannot produce reliable results. Corn, black walnuts, and rice were eaten on the site. The corn was probably used in the form of meal (Crites 1996), which is common in both the Upland South and Native traditions. The occurrence of rice was somewhat surprising, but may represent a luxury import. The Hinds brothers traded in slaves, and it is possible that the rice came from a trip to the slave markets at Charleston, where rice was grown in quantity. It is not known if rice was available locally, however. It is also not known how the foodways on the site changed through time, if at all, as the time depth of occupation is so short.

4. What socioeconomic conditions are indicated by the artifact assemblage? How do they compare to those of other similar sites?

The artifact assemblage from site 40RE192 indicates a status level typical of moderate-scale landowners, in comparison with other assemblages from other sites of the

Table 4. Taxa Present by Provenience, Site 40RE192

Provenience	Taxon	Common Name	Weight (g)	NISP
Feature 2	<i>Bos sp</i>	Cow	2.4	1
	<i>Campostoma sp</i>	Stoneroller (fish)	0.1	1
	<i>Odocoileus virginianus</i>	Deer	23.2	1
	<i>Sciurus carolinensis</i>	Squirrel	7.3	17
	<i>Didelphis marsupialis</i>	Opossum	2.7	1
	<i>Sus scrofa</i>	Pig	201.7	52
	<i>Sylvilagus floridanus</i>	Rabbit	1.8	7
	Cricetidae	Mouse	0.1	2
	Anatidae	Ducks/Geese	0.2	1
	Passeriformes	Small Birds	0.1	1
	<i>Gallus gallus</i>	Chicken	8.9	15
	<i>Rana sp</i>	Frogs	0.2	1
Feature 5	<i>Sus scrofa</i>	Pig	10.7	5
	<i>Sylvilagus floridanus</i>	Rabbit	0.6	1
Feature 7	<i>Sus scrofa</i>	Pig	2.2	1
Feature 8	<i>Equus sp</i>	Possible Mule	60.8	1
	<i>Sciurus carolinensis</i>	Squirrel	0.2	2
Feature 9	<i>Sus scrofa</i>	Pig	9.3	1
Totals	13 taxa		332.5	111

Source: Davenport, Christian and Walter Klippel

1996 Zooarchaeological Analysis of Site 40RE192. In *A Final Report on Phase II and Intensive Phase II Archaeological Testing on Site 40RE192, Phase II Archaeological Testing on Site 40RH155, and Phase II Archaeological Testing and Phase III Archaeological Data Recovery on Site 40RH156, Rhea and Roane Counties, Tennessee*, edited by C. Alan Longmire and Jay D. Franklin, pp.15-20. Transportation Center at The University of Tennessee, Knoxville. In Press.

same period in East Tennessee. The relative abundance of tea wares suggests a desire on the part of the occupants to display status objects for the benefit of visitors. However, the other wares recovered are moderate status items as well. The frequency of transfer-printed plate sherds suggests a moderate standard of living (Miller 1980; 1991). The relative scarcity of porcelain, however, indicates a less expensive assemblage overall than those from such high-status sites as James White's Second Home (Faulkner 1984) and the Ramsey House (Roberts 1986).

5. How does the occupation of site 40RE192 compare to McCorvie et al.'s (1989) model of Upland South occupations in southern Illinois and Rotentizer's (1992) model of Upland South occupations in Virginia and Kentucky? Does the evidence support the hypothesis that the Upland South tradition is comparable across its entire range?

Unfortunately, not enough information on spatial arrangement was found at site 40RE192 to allow direct comparison with these sites. In addition, the age of site 40RE192 relative to McCorvie *et al.*'s and Rotentizer's sites makes a valid comparison difficult. Finally, the apparent Native American influence on the site and the lack of truly meaningful connections with the Upland South pattern on this site is an answer in itself. Spatially, site 40RE192 does not seem to fit the Upland South pattern. It fits more closely with the historic Cherokee spatial pattern established in western North Carolina (Riggs 1996).

CHAPTER 8

Features : Site 40RH156

Six features were identified at site 40RH156 during the Phase II testing (Franklin and McIlvenna 1995b). Three of these were excavated - Feature 2, a pit cellar associated with Structure 1, was fully excavated; Feature 7, a pit cellar representing a probable outbuilding location, was partially excavated; and a 1 m x 1 m test unit was placed in a power unit trench in the midst of the Feature 3 area (Franklin and McIlvenna 1995b).

Phase III data recovery resulted in the identification and excavation of six additional features, and in the clarification of uncertainties surrounding some of the features identified in the Phase II testing (Figure 6).

In this analysis, weighed architectural materials such as brick fragments and daub are not included in the artifact counts or artifact group frequencies. Ceramic type frequencies for each feature appear in parenthesis following the count for each type.

Feature 1

Feature 1 consisted of a roughly rectangular group of limestone blocks and rubble with a few brick fragments, the entire feature measuring approximately 3.41 m E-W x 2.89 m N-S. It was originally interpreted as the remains of a central chimney/hearth area. Phase III data recovery revealed that the feature was in fact much smaller, approximately 2.53 m E-W x 1.03 m N-S. This fact, along with the lack of domestic debris from 1 m x 1 m test units placed to the north of the feature, resulted in the reinterpretation of the feature as the base of a gable end chimney. The excavation of the feature resulted in the conclusion that this chimney was a very late addition to Structure 1, circa 1916, perhaps

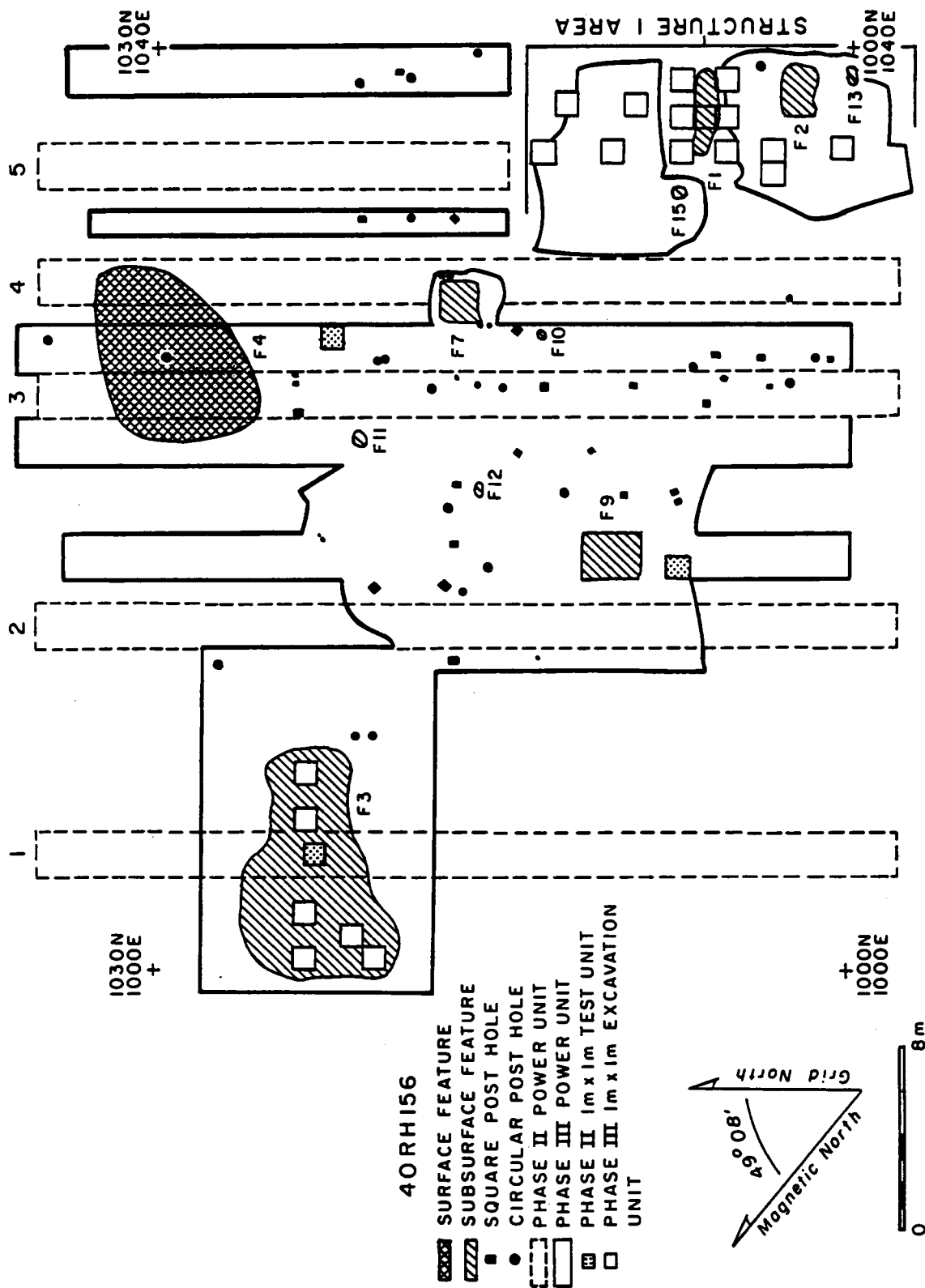


Figure 6. Site 40RH156 Features

replacing an earlier, less durable chimney. Feature 1 produced a total of 1175 artifacts. Feature 1 was hand excavated in seven 1 m x 1 m excavation units (Figure 7). Artifact group counts are listed below.

Group	Count	Percentage
Activity Group	131	11%
Architecture Group	594	51%
Arms Group	4	0.3%
Clothing Group	18	2%
Furniture Group	2	0.1%
Kitchen Group	228	19%
Medicine Group	181	15%
Personal Group	7	1%
Transportation Group	3	0.2%
Indeterminate Group	7	1%
Total	<u>1175</u>	100%

Activity Group (N = 131)

This group includes artifacts used in outdoor activities, such as building and maintaining structures, animal husbandry and farming, or fabrication in a workshop setting.

Farm Tools (n = 13)

This subgroup contains mowing machine teeth (n = 8), a pair of pliers (n = 1), files (n = 2), a long-handled square socket T-wrench (n = 1), and a scythe blade (n = 1).

Miscellaneous Hardware (n = 118)

This subgroup encompasses bolts and other fasteners (n = 21), bits of wire (n = 35), iron plate (cast, > 2mm thick, n = 1), iron sheet (< 2mm thick, n = 53), iron strapping

(n = 2), bar iron (wrought, > 10mm thick, n = 4), a steel ball bearing 12 mm in diameter (n = 1), and a machine-made strap hinge (n = 1)

There are no artifacts in the activity group which can be precisely dated, but the assemblage appears to represent scrap metal of the sort that might accumulate in, around, or under a shed on an early 20th century farmstead.

Architecture Group (N = 594)

This group includes nails, window glass, bricks, and limestone rocks, hammer-dressed and natural.

cut nails	154
wire nails	222
lead-head wire nails	11
indeterminate nails	14
window glass	175
limestone blocks	18

The ratio of wire nails to cut nails (1.44 to 1) suggests a date around the turn of the 20th century. The lead headed wire roofing nails indicate the presence of a metal roof on the structure associated with the chimney.

The 175 sherds of window glass can be divided into two thickness groups. The first group (n = 156) averages 2.2mm in thickness. The second group (n = 19) averages 1.75mm in thickness. The two samples yielded dates of 1898 and 1860, respectively. With the ceramic dates closely supporting this range, it would seem that this structure has a date range in the latter half of the 19th century through the early 20th century.

The brick sample (which is highly fragmentary) appears to be of handmade bricks of low quality, as the majority exhibit the crumbly, earthy texture associated with underfiring. 18.44 Kg (40.65 lb) of brick rubble and mortar were recovered. The

limestone blocks are dressed, but no hammer dressing flakes were recovered from this feature. This suggests that the stones were dressed elsewhere and brought to the site. The limestone blocks were not recovered from the field or weighed due to size and lack of time.

Arms Group (N = 4)

This group contains artifacts having to do with the use of firearms. Three brass cartridge cases were recovered from Feature 1: a .22 caliber long rimfire, a .22 caliber short rimfire (unfired), and a .32 caliber Smith and Wesson short rimfire. All three cartridges were introduced during the 1850s. Both .22 and .32 rimfire are still in production, although .32 rimfire is a specialty load. An unfired lead ball 7.36 mm in diameter (.28 caliber) was also recovered. It may be a pellet of #0000 buckshot, or it may be a rifle ball, as when wrapped with a cloth patch it would fit a .30 caliber muzzle loading rifle barrel, which was not an unusual size for small game hunting.

Clothing Group (N = 18)

This group includes artifacts which have to do with clothing, such as buttons and buckles. Ten types of buttons (n = 13) were recovered from Feature 1:

White porcelain, 4-hole depressed center, 10 mm:	3
Blue porcelain, 4-hole depressed center, 10 mm:	1
White porcelain, 2-hole depressed center, 9.9 mm	1
Iron, 4-hole two piece depressed center, 11.1 mm	1
Formed Synthetic Flower, 2-hole, 21.2 mm	2
Hard rubber, 4-hole depressed center, 16.8 mm	1
Hard rubber, 2-hole domed center, 14.2 mm	1
Hard rubber, 2-hole flat, 24.5mm	1
Shell, 2-hole flat, 16.1 mm	1
Shell, 4-hole flat, 20.3 mm	1

These button types are datable only over a wide time range. Porcelain concave-center buttons date from the 1840s to the 1950s (South 1964). The synthetic button may be of syroco, a pressed wood fiber composite dating to the 1920s (Fink and Ditzler 1993:30). Hard rubber buttons were invented in the 1850s and are still in use, although the flat two hole rubber button is stamped "Goodyear N R Co Pat 1851". The patent for Goodyear's button making process expired in 1870, so this button was probably manufactured prior to that date (Fink and Ditzler 1993:28).

Other Items (n = 5)

Other items in the clothing group recovered from Feature 1 are: hook and eye fasteners (n = 1), eyelets (n = 1), straight pin fragments (n = 1), a hollow brass stud (n = 1), and a two piece brass and iron stud button (n = 1). The straight pin is of the flat headed variety, indicating a post - 1824 date of manufacture (Noel-Hume 1970:254).

Furniture Group (N = 2)

Two items related to furniture were recovered from Feature 1: A gilded escutcheon plate and a sheet brass cog wheel 61.9 mm in diameter, which is probably from a clock.

Kitchen Group (N = 228)

Ceramics (n = 43)

Coarse Earthenwares and Stonewares:

Lead Glazed Redware	2	(5%)
Yellow Ware	1	(2%)
Salt Glazed Stoneware	1	(2%)
Albany Slip Glazed Stoneware	2	(5%)

	6	(14%)
Refined Earthenwares:		
Pearlware: Blue Shell Edged	2	(5%)
Pearlware: Green Shell Edged	1	(2%)
Transitional Wares: Underglaze Blue Hand Painted	2	(5%)
Transitional Wares: Mocha	1	(2%)
Whiteware: Embossed Plain	14	(33%)
Whiteware: Annular	1	(2%)
Whiteware: Red / Green Spatter	1	(2%)
Whiteware: Flow Blue Transfer Printed	2	(5%)
Whiteware: Red Transfer Printed	1	(2%)
Burned/Unidentified Refined Earthenware	1	(2%)
	26	(60%)
Ironstone:		
Plain White	5	(12%)
Embossed White	1	(2%)
	6	(14%)
Porcelains:		
Plain White	2	(5%)
Overglaze Pink Luster	1	(2%)
Overglaze Indeterminate	1	(2%)
Embossed Scalloped Rim	1	(2%)
	5	(11%)

The two redware sherds are probably from the same vessel; a small crock with a clear lead glaze inside and a shiny dark brown iron oxide lead glaze outside. The yellow ware sherd is from a mug and has a horizontal band of brown slip on the exterior. The salt glazed stoneware sherd is burned, and the two Albany slipped sherds are of late manufacture, being jiggered or press molded.

The refined earthenwares are mostly flatwares and tea wares.

Porcelain is difficult to date because most types are still being made. The plain white sherds appear to be oriental hard paste porcelain. The sherd with overglaze pink luster decoration appears to be from a teacup, circa 1830 to the present. Similar sherds were found in Feature 2.

Glass (n = 184)

Kitchen glass is divided into food canning jars, bottles, tableware, and indeterminate categories. The glass from the site is sorted by vessel type and glass color. The brown beer bottle glass is probably modern.

Blue-Green Canning Jar Sherds	7
Clear Canning Jar Sherds	4
Clear Indeterminate Vessel	80
Brown Beer Bottle Sherds	84
Blue-Green Bottle Sherds	4
Clear Pressed Tableware	1
Clear Tumbler Sherds	2
Indeterminate Solarized Sherds	2
	184

Metal Tableware (n = 1)

An iron spoon handle was recovered from Feature 1.

Medicine Group (n = 181)

Clear Panel Bottle Sherds	181
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This group consists entirely of glass bottle fragments which were probably medicine containers, mostly of clear embossed panel bottles. Panel bottles date after 1867 (Lorraine 1968:40).

Personal Group (N = 7)

This group encompasses those artifacts that were probably carried or worn on the person for constant or daily use, hygiene, recreation, and adornment.

Adornment Items (n = 1)

A single sherd of an apple green glass perfume bottle was present in Feature 1.

Daily Use Items (n = 2)

Two rectangular slate pencil leads were recovered. No dates are available for these items.

Recreational Items (n = 4)

Tobacco pipes have been placed into this group for this analysis. Two stub-stemmed tobacco pipe fragments were found in Feature 1, both of which are of unglazed redware. No dates are available for these artifacts due to their fragmentary nature. A porcelain figurine or doll head 15.56 mm high was also recovered, which appears by the hairstyle to date to the turn of the century. A clay marble 14.65 mm in diameter was also recovered from Feature 1.

Coins (n = 3)

A single United States cent was found within the sealed rubble fill of the chimney foundation. Since the 1916 date on this coin cannot be argued with as a *terminus post quem*, the chimney pad was built or rebuilt no earlier than that date. Two other coins were recovered from the builders trench surrounding the chimney pad, and may date to the

original construction of the house. These are also U.S. one cent pieces, one dated 1859 and the other 1889.

Transportation Group (N = 3)

Two spark plugs made by Champion and inscribed "twist-off" were found in front of the chimney base. No date of manufacture is known, although the plugs must postdate 1900. They may also be from a piece of farm equipment. A scrap of rubber inner tube was also found.

Indeterminate Group (N = 7)

This is the catchall category for those items that defy placement elsewhere. Five fragments of leather and two unidentifiable pieces of metal came from Feature 1.

Dates

Feature 1 is a chimney pad with a builders trench built on the location of an earlier chimney pad. The early ceramics, window glass, and coins recovered from the feature are most likely materials from the ground surface which were redeposited at the time of construction of the last chimney foundation. Since a 1916 coin was found within the rubble fill of the sealed center section of the feature, the latest foundation could not have been built prior to that date.

Feature 2

Feature 2, a subfloor pit cellar measuring 232 cm E-W X 182 cm N-S X 40 cm deep, was completely excavated during the Phase II testing. It produced a total of 1447 artifacts, plus 2 prehistoric chipped stone projectile points. Artifact group counts are listed below.

Group	Count	Percentage
Activity Group	239	17%
Architecture Group	616	43%
Arms Group	3	0.2%
Clothing Group	41	3%
Kitchen Group	465	32%
Medicine Group	55	4%
Personal Group	23	2%
Transportation Group	1	0.06%
Indeterminate Group	4	0.3%
Total	1447	100%

Activity Group (N = 239)

Farm Tools (n = 5)

This subgroup is represented by a mower tooth (n = 1) and plow parts (n = 4).

Stable and Barn (n = 10)

This subgroup is represented by the metal parts of a harness singletree (n = 3), a horseshoe (n = 1), machine-made horseshoe nails (n = 4), and iron harness buckles (n = 2).

Miscellaneous Hardware (n = 224)

This subgroup encompasses bolts and other fasteners (n = 9), bits of wire (n = 59), iron plate (> 2mm thick, n = 2), iron sheet (< 2mm thick, n = 120), iron strapping (n = 5),

latches and catches (n = 1), and materials that can only be explained as scrap iron of the sort which tends to accumulate around rural farmsteads (n = 8).

Architecture Group (N = 616)

cut nails	455
wire nails	22
indeterminate nails	3
window glass	57
limestone(natural)	75
limestone(dressed)	4

The ratio of cut nails to wire nails (20.7 to 1) indicates that the bulk of the construction activities on the site took place prior to the widespread use of wire nails in the area, or prior to 1890.

The 57 sherds of window glass can be divided into two thickness groups. The first group (n = 12) averages 2.572mm in thickness. The second group (n = 44) averages 1.577mm in thickness. One sherd was not included in the test because it had been warped by fire. The Moir formula was applied to the samples. The two samples yielded dates of 1929.31 and 1845.51, respectively. These dates could be explained by a long-term occupation beginning in the 1840s and being continued past the 1920s when a window was replaced. These dates correspond fairly closely with those from Feature 1.

The brick and the limestone blocks from Feature 2 represent foundation materials pushed into the cellar during demolition of the house. The brick sample appears to be of handmade bricks of low quality, as there are a few exceptional pieces which exhibit vitrification on one surface due to overfiring while the majority exhibit the crumbly, earthy texture associated with underfiring. The brick and mortar sample weighed 65.3 Kg (144 lb). The limestone blocks weighed 163.6 Kg (360.7 lb) and are for the most part

undressed, with only four hammer-dressed flakes, weighing 4.2 Kg (9.4 lb), recovered. This suggests that the stones were used "as-is" for either footer piles or as fill between brick footers. Three of the larger limestone blocks show evidence of having been burned, but are not otherwise modified.

Arms Group (N = 3)

Three brass cartridge cases were recovered from Feature 2: a .22 caliber long rimfire, a .32 caliber short rimfire, and a .36 caliber short rimfire. All three cartridges were introduced during the 1850s (Parsons 1957). The final production date for .36 rimfire is not known, but both .22 and .32 rimfire are still in production (although .32 rimfire is a fairly uncommon cartridge these days, it was in use in Smith and Wesson revolvers produced until the 1920s).

Clothing Group (N = 42)

Eleven types of buttons (n = 29) were recovered from Feature 2:

White porcelain, 4-hole depressed center, 10 mm	10
White porcelain, 3-hole depressed center, 8 mm	1
White Glass Plain Swirlback, pinshank, 5.5 mm	1
Red Glass Faceted Swirlback, pinshank, 5.7 mm	1
Bone, 5-hole depressed center, 17.1 mm	2
Bone, 4-hole depressed center, 16.5 mm	7
Iron, 4-hole two-piece depressed center, 11.1 mm	1
Plain yellow metal domed, pinshank, 17.2 mm	2
Plain yellow metal flat, pinshank, 14.3 mm	2
Iron, three piece fabric-covered, pinshank, 18 mm	1
Formed Synthetic Flower, 2-hole, 21.2 mm	1

These button types are datable only over a wide time range; for example, bone buttons date from around 1800 to around 1870 (South 1964), as do the yellow metal

examples (so called because brass, bronze, and copper are indistinguishable after long burial without metallurgical analysis, especially if the buttons were plated, gilded, or tinned, as was often the case). Porcelain concave-center buttons date from the 1840s to the 1950s (South 1964). Glass swirlback buttons (formed from a glob of glass pressed into a shallow depression and then swirled) date from the 1840s (Fink and Ditzler 1993:30). The synthetic button may be of syroco, a pressed wood fiber composite dating to the 1920s (ibid:59) and is identical to the two synthetic buttons from Feature 1.

Buckles (n = 3)

Three buckles were recovered that probably belong in the clothing group. One is brass of the plain centerbar type, one is brass with two tongues for use on webbing straps (a similar buckle was recovered from the James White Second Home Site, 40KN68 - see Faulkner 1984:181 fig.H), and the third is an elaborate nickel-plated spring-clip buckle of indeterminate metal, perhaps a belt fastener for a woman's dress. No dates are available for the buckles, although the stamped design on the nickel-plated example appears to be rather late.

Other Items (n = 9)

Other items in the clothing group recovered from Feature 2 are: hook and eye fasteners (n = 2), grommets (n = 4), straight pin fragments (n = 2), and an iron boot heel tap (n = 1). The straight pins are of the flat headed variety, indicating a post - 1824 date of manufacture (Noel-Hume 1970:254).

Kitchen Group (N = 465)

Ceramics (n = 248)

Coarse Earthenwares and Stonewares:

Lead Glazed Redware	5	(2%)
Salt Glazed Stoneware	9	(4%)
Bristol Glazed Stoneware	3	(1%)
	17	(7%)

Refined Earthenwares:

Whiteware: "Hotel Ware"	33	(13%)
Whiteware: Undecorated	116	(47%)
Whiteware: Blue Shell Edged	5	(2%)
Whiteware: Underglaze Blue Hand Painted	5	(2%)
Whiteware: Annular / Mocha	9	(4%)
Whiteware: Underglaze Polychrome Fineline (Sprig)	12	(5%)
Whiteware: Embossed Plain	3	(1%)
Whiteware: Red / Green Spatter	3	(1%)
Whiteware: Blue Transfer Printed	3	(1%)
Whiteware: Blue Transfer Printed / Hand Painted	1	(0.4%)
Whiteware: Brown Transfer Printed	5	(2%)
Whiteware: Flow Blue Transfer Printed	5	(2%)
Burned/Unidentified Refined Earthenware	22	(9%)
	222	(89.04%)

Porcelains:

Plain White	5	(2%)
Blue Underglaze	1	(0.4%)
Blue Sprig-Decorated	1	(0.4%)
Molded with Overglaze Pink Luster	2	(1%)
	9	(3.8%)

Eleven whiteware types were found in Feature 2. Undecorated whiteware is the most common (n = 116), but it is likely that many of these sherds are part of vessels which were at least partially decorated.

"Hotel ware" is sometimes considered a separate ware, but for this feature was included with the similar thick-bodied whitewares that are included with ironstone under the term "hotel ware", a heavy, thick-bodied plain white style of tableware which was popular from the 1870s to around 1910 (Moir 1987). Sherds of the "hotel ware" type (n = 33) were the third most common type recovered from Feature 2. Three sherds are marked, which is very helpful in the dating process. One sherd was produced by the Alfred Meakin company of England, established 1881. The appearance of the phrase "made in England" on the sherd indicates it was manufactured after 1891 (Godden 1964:425). Another sherd is impressed with the letters "OTE" preceded and followed by other letters which are partially broken away. If it said "HOTEL", it was produced by the Vodrey Pottery Company of East Liverpool, Ohio, between 1896 and 1928 (Lehner 1987:492). The other marked sherd is broken through the midst of the mark, with only "-Bros.....anite" remaining. It is probable that it once said "Vodrey Bros. Semi-Granite", in which case it was produced in the 1880s (Lehner 1987:492).

Porcelain is difficult to date because most types are still being made. The plain white sherds appear to be oriental hard paste porcelain. The blue underglaze sherd is oriental hard paste porcelain and appears by the thickness and vitrification of the blue to be fairly late. The blue sprig-decorated piece may be of domestic manufacture, and the type is still produced. The molded sherds with overglaze pink luster decoration appear to be from a teacup, circa 1830 to the present.

Glass (n = 211)

Blue-Green Canning Jar Sherds	7
Clear Canning Jar Sherds	5
Clear Indeterminate Vessel	27
Brown Bottle Sherds	38
Green Bottle Sherds	10

Clear Pressed Sherds	8
Olive Green Wine Bottle Sherds	3
Clear Pressed Tableware	2
Clear Indeterminate Glass	84
Cobalt Blue Indeterminate Glass	2
Green Indeterminate Glass	5
Burned Indeterminate Glass	16
Digested Indeterminate Glass*	4
*possible gizzard stones	
Total	211

Food canning jars, or Mason jars, are difficult to date from fragments, but are common on late 19th and early 20th century sites. The indeterminate jar category is made up of small sherds of curved glass impossible to ascribe to a particular type. The bottle glass category contains only those sherds large enough to determine vessel form. Most of the brown bottle sherds (n = 34, 89% of the category) are from a modern beer bottle with some of the foil label and paste remaining. The pressed glass sherds were not datable due to their fragmentary condition. The large quantities of indeterminate glass fragments from this feature are due to the extremely fragmentary nature of the sample. The sherds were simply too small to allow analysis.

Metal Tableware (n = 6)

Three complete table knife blades, two blade fragments, and part of a bone handle were recovered from Feature 2. One of the complete blades has a flat full tang pierced with a rivet hole to secure the handle scales, which were probably of bone. A similar knife is pictured in Smith (1976: figure 32b). The broken bone handle scale is of the type used on table knives. No date is available for the knife blades, as they are too badly corroded to determine the original blade shape.

Medicine Group (N = 55)

This group consists entirely of glass bottle fragments (n = 30) which were probably medicine containers, mostly (n = 28) sherds of small thin vials. One fragment is of a clear embossed panel bottle, and one is a fragment of a green embossed panel bottle, neither of which bear readable characters. One mold-blown flat sided vessel is represented by several sherds (n = 18), and could possibly be a container for either medicine or distilled spirits. A few sherds (n = 7) of a pale blue-green mold-blown flask could also represent a container for either medicine or distilled spirits.

Dates for this group are somewhat problematic: the small vial fragments do not include the bases, so the presence or absence of pontil marks is not known. The embossed panel bottles date after 1867 (Lorraine 1968:40). The flat mold-blown bottle does not bear a pontil mark, and thus postdates the Civil War (Lorraine 1968:40). The mold-blown flask sherds are too small to determine the pattern, and no basal sherds were recovered.

Personal Group (N = 23)

This group encompasses those artifacts that were probably carried or worn on the person for constant or daily use, hygiene, recreation, and adornment.

Daily Use Items (n = 14)

Three rectangular slate pencil leads and 10 pieces of slate were recovered. As the pieces of slate were of uniform thickness and such small quantity, they probably represent the remains of a writing slate rather than roofing slate. This theory is supported by the presence of the slate pencils. No dates are available for these items. Also in this subgroup

is a brass or copper umbrella or walking stick tip. It still contains wood, and while the end is dented, it shows no use wear.

Recreational Items (n = 5)

Tobacco pipes have been placed into this group for this analysis. Five fragments of stub-stemmed tobacco pipes were found in Feature 2, two of which are of salt-glazed stoneware; the remaining three are of unglazed redware. No dates are available for these artifacts due to their fragmentary nature.

Items of Personal Adornment (n = 4)

There are four items in this subgroup: a broken opaque black glass bead, a broken plastic or celluloid ornamental comb, and two hair pins made of gutta percha or hard rubber, one of which is broken. The bead is of mandrel-wound manufacture, dating after 1832, or possibly even after 1870, if wound in a single turn (Smith 1976:240). Celluloid and other brittle plastics were introduced in the 1870s, while hard rubber and gutta percha were in use for buttons and ornaments by the 1850s (Fink and Ditzler 1993:53).

Transportation Group (N = 1)

This group contains only one item, a screw-top spark plug made by Champion and inscribed "twist-off". It is identical to the two spark plugs from Feature 1. No date is available.

Indeterminate Group (N = 4)

This is the catchall category for those items that defy placement elsewhere. A simple listing follows: one chunk of rubber, one fragment of leather or gasket composition

with stitch holes, one fragment of flattened horn, and one flattened cylindrical piece of lead.

Dates

Many datable artifacts were recovered from Feature 2. The ceramics provide the clearest indicator of the age of the feature using South's (1977) Mean Ceramic Date formula as modified by Smith (1983) and the author for 19th century ceramics. The mean date of occupation by these indicators is 1862.9. It should be noted, however, that the only marked sherds date to the 1890s. The window glass dates of 1845 and 1929 bracket the mean ceramic date. The other datable artifacts, such as kitchen glass, nails, and buttons fit within this date range.

Size of Structure 1

From the evidence of Features 1, 2, and 13, the house which was associated with these features measured 6m to 8m long and 5m to 7m wide (20ft to 26ft long by 16ft to 21ft wide). The house had a metal roof, and was probably built of logs, as only 865 nails were recovered. The small amount of window glass and the probable date of construction (ca. 1860s) also argue for log construction (Morgan 1990).

Structure 1 Excavation Units

Seven additional 1m x 1m excavation units were placed around the Structure 1 area in an attempt to determine the location of the house and its windows and doors (Figure 6 p.72). Very little material was obtained from these units. The only information gained from the Structure 1 excavation units was that the house lay only to the south of Feature 1.

Feature 3

Feature 3 was the remains of a barn built in the late 19th-early 20th century. Many older area residents remember it as the only structure on the site. It was destroyed by fire before 1950, and had been abandoned for many years prior to its demise. As the feature was quite large, and had been heavily disturbed by plowing, a limited sample was excavated in an attempt to determine activity areas within the structure. This attempt was unsuccessful, perhaps due to most materials having been removed from the barn after it was abandoned but before it burned. It produced a total of 380 artifacts. Feature 3 was hand excavated in six 1 m x 1 m excavation units (Figure 8). One 1 m x 1 m unit was excavated in the feature during the Phase II testing. Artifact group counts are listed below.

Group	Count	Percentage
Activity Group	11	3%
Architecture Group	336	84%
Arms Group	2	1%
Clothing Group	2	1%
Kitchen Group	24	6%
Medicine Group	4	1%
Miscellaneous Group	1	0.2%
Total	380	100%

Activity Group (N = 11)

Miscellaneous Hardware (n = 10)

For Feature 3 this group encompasses bits of wire (n = 4), an iron plate (cast, > 2mm thick, n = 1), iron strapping (n = 1), and wire fencing staples (n = 4).

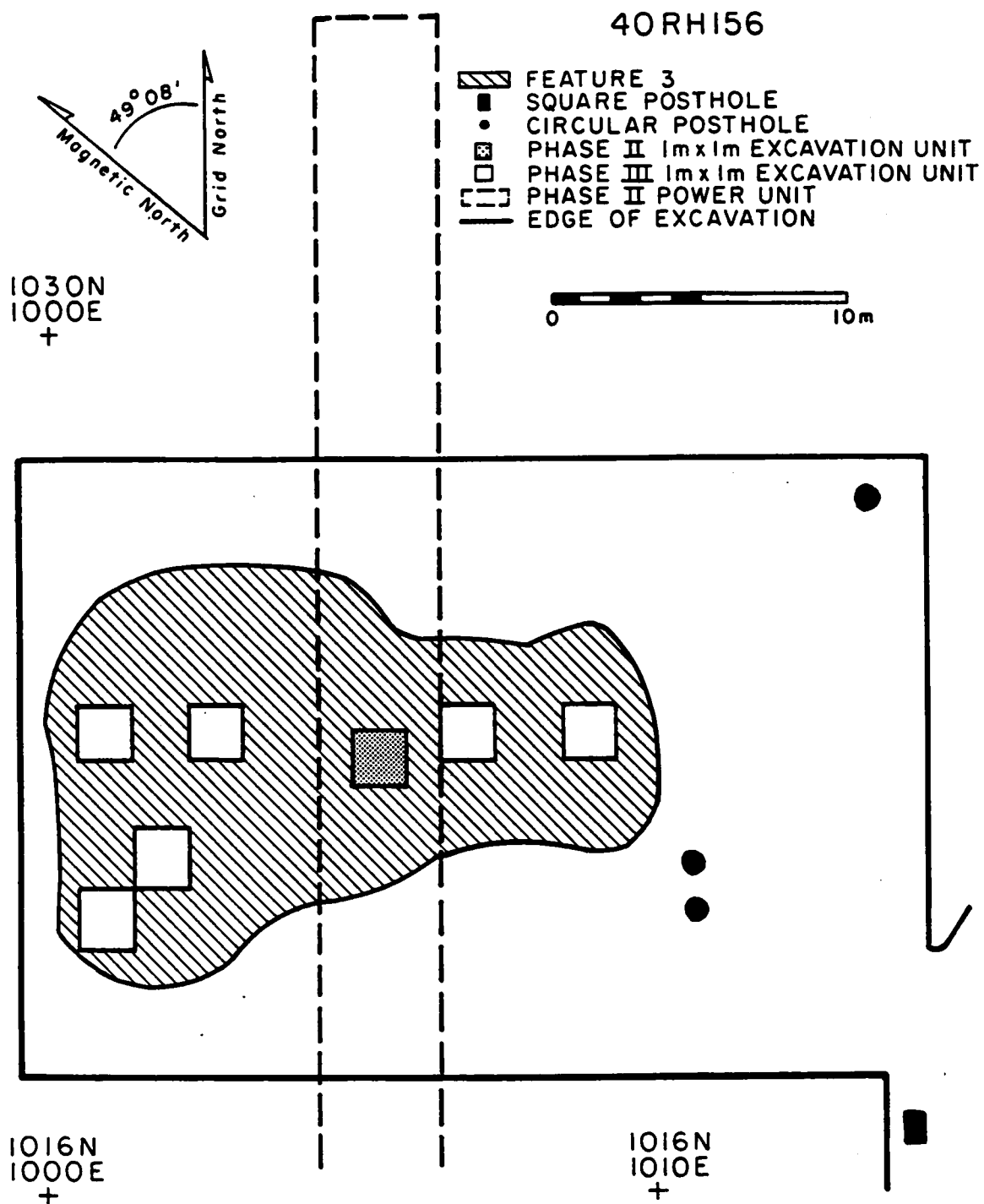


Figure 8. Feature 3 Plan View, Site 40RH156.

Stable and Barn (n = 1)

A single copper harness rivet which preserved a piece of thick leather was recovered from the feature.

Architecture Group (N = 336)

cut nails	36
wire nails	236
indeterminate nails	40
window glass	3
sandstone hammer-dressing flakes	21

The ratio of wire nails to cut nails (6.5 to 1) suggests a date around the turn of the 20th century.

Two of the sherds of window glass were 2.2 mm thick, and the third was 2.64 mm thick. The Moir formula was applied to the samples, which yielded dates of 1898 and 1935, respectively. The glass from this feature may not have been part of the structure, however, as all three sherds show heavy wear characteristic of being trampled by animals. This fact in combination with the small size of the sherds (1/4 inch size grade) suggests the sherds were accidentally introduced into the barn.

The highly fragmentary brick sample is from handmade bricks of low quality, similar to other brick found on this site. 248.2 g (0.547 lb) of brick rubble was recovered. The sandstone flakes (386.2g /0.851 lb) are all 1/2 to 3/4 inch in size, and may represent foundation or footer stone fragments. Conversely, they could also represent plow damage to footer stones.

Arms Group (N = 2)

One .22 caliber rimfire cartridge case bearing the "Super-X" headstamp was found in this feature. Winchester's use of the "Super-X" stamp dates to the 1950s. A second brass cartridge case was found here as well. The headstamp reads "U.S. .410 - 12 m/m ALL BRASS". Logically it was used in a .410 shotgun, but the 12 mm designation on such cartridges is unusual.

Clothing Group (N = 2)

An unidentifiable burned synthetic button and a black enameled metal snap were found in Feature 3. Both appear to be 20th century objects.

Kitchen Group (N = 24)

Ceramics (n = 5)

Coarse Earthenwares and Stonewares:

Lead Glazed Redware	1	(20%)
Bristol Glazed Stoneware	1	(20%)
	2	(40%)

Refined Earthenwares:

Burned/Unidentified Refined Earthenware	2	(40%)
	2	(40%)

Ironstone:

Plain White	1	(20%)
	1	(20%)

The redware sherd is clear lead glazed on the interior only, and appears to be from a small crock. The Bristol-glazed stoneware sherd is jiggered and is not identifiable as any

specific vessel form. The two burned whiteware sherds are not datable. The ironstone sherd is a small piece of footring which has a late 19th century profile.

Glass (n = 19)

Blue-Green Canning Jar Sherds	1
White Glass Lid Liner Sherds	2
Clear Indeterminate Vessel	15
Indeterminate Solarized Sherds	1
	19

Medicine Group (N = 4)

Clear Panel Bottle Sherds (n = 4)

This group consists entirely of glass bottle fragments which were probably medicine containers: clear embossed panel bottles. Panel bottles date after 1867 (Lorraine 1968:40).

Miscellaneous Group (N = 1)

A small tinned steel artifact that may be part of an umbrella stay was recovered. No date is available.

Dates

Feature 3 was the remains of a 20th century barn which was abandoned and later burned. Of the small number of artifacts recovered, none were precisely datable. The artifact group percentages were compared to those of the Ramsey House barn assemblage (Table 5)(Faulkner and Owens 1995).

Table 5: Barn Area Artifact Group Frequencies

Artifact Group	Ramsey Barnyard *	Feature 3, 40RH156
Kitchen	13.60%	6%
Architecture	51.70%	84%
Furniture	0.30%	0%
Arms	0%	1%
Clothing	0.30%	1%
Personal	0%	0%
Tobacco	0%	0%
Activities	33.90%	3%

*Source: Faulkner, Charles H. and Dalford Dean Owens, Jr.

1995 *Archaeological Testing of the Ramsey House Barnyard*. Report Prepared for the Tennessee Historical Commission and Association for the Preservation of Tennessee Antiquities: Knoxville Chapter.

The apparent lack of comparability of these two structures may be due to sampling bias. Another possibility is that barn assemblages may be highly variable, with an abundance of architectural materials being the only similar aspect.

Feature 4

Feature 4 was defined as an outbuilding area during Phase II testing based on surface collected materials and soil quality. Phase III data recovery found no subsurface evidence of this structure. Artifacts recovered from the controlled surface collection were predominantly canning jar fragments and utilitarian stoneware fragments with a minor amount of whiteware and window glass. Two solarized glass sherds were also recovered, indicating a date range of circa 1886-1915. As no subsurface evidence of this feature was found, a detailed analysis of artifacts was not conducted for Feature 4.

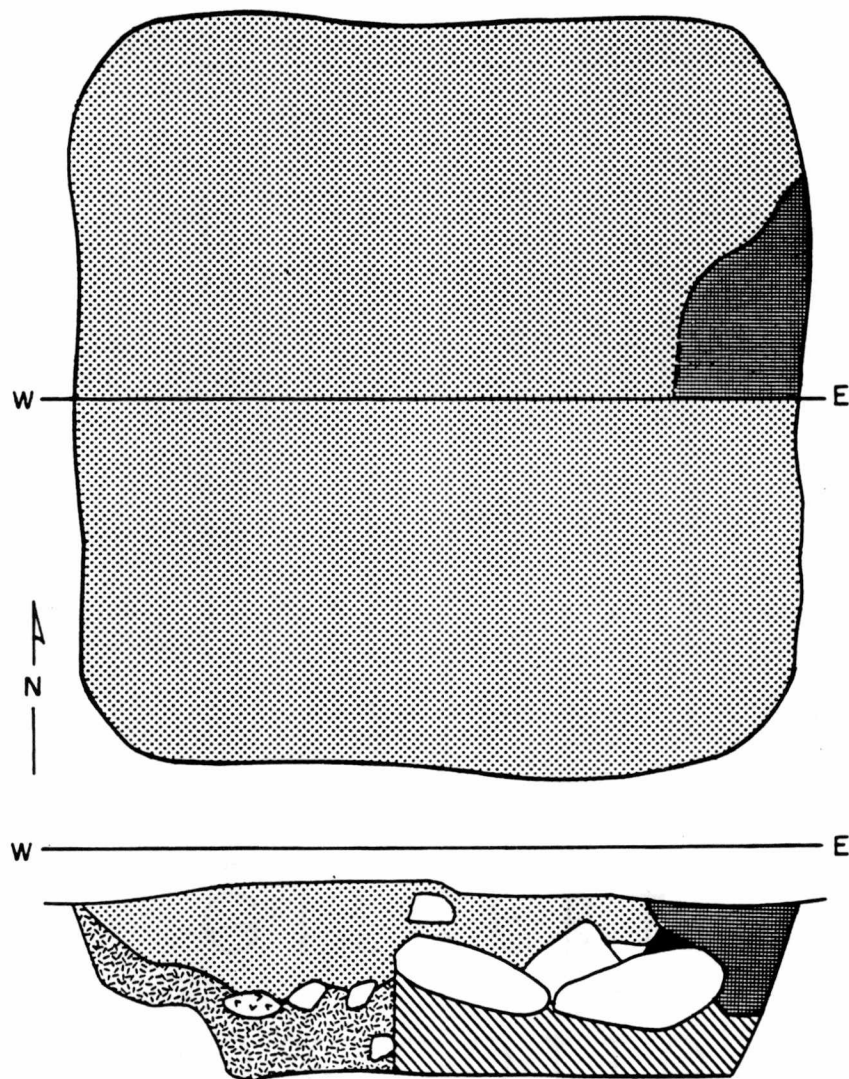
Features 5 and 6

Features 5 and 6 were determined to be the remains of an erosional gully crossing the northern part of the site as seen in two different backhoe transects.

Feature 7

Feature 7 was found and sampled during Phase II testing, and was completely exposed and excavated during Phase III data recovery. It was a square pit measuring 209 cm N-S x 196 cm E-W in plan view and was 50 cm in depth. The presence of an earthen step (Figure 9, bottom) cut into the west wall of the feature suggests it was either a root cellar under an outbuilding or a structure similar to a "flower kiln" or cold frame, used for overwintering tender perennial plants. The feature produced a total of 498 artifacts.

Group	Count	Percentage
Activity Group	44	9%
Architecture Group	283	57%
Arms Group	1	0.2%
Clothing Group	8	2%
Furniture Group	1	0.2%
Kitchen Group	152	31%
Medicine Group	3	1%
Personal Group	6	1%
Total	498	100%



40 RH 156
FEATURE 7

-  ZONE A - DARK YELLOWISH-BROWN (10YR 4/6) SILT LOAM
-  ZONE B - DARK YELLOWISH-BROWN (10YR 3/4) SILT
-  ZONE C - STRONG BROWN (7.5 YR 4/6) SILTY CLAY LOAM
-  ROCK
-  BRICK
-  METAL
-  DIRT BALK

NOTE: ZONE A AND ZONE B WERE INDISTINGUISHABLE BY COLOR ON THE SURFACE.

0 30 cm

Figure 9. Feature 7 Plan View and Profile, Site 40RH156.

Activity Group (N = 44)

Farm Vehicle (n = 3)

Strictly speaking this material belongs in the transportation group, but due to the context it is felt that these artifacts belong in the activity group. An iron wagon wheel hub band 22 cm in diameter and a large iron pin 33.5 cm in length, 5 cm in width, and 3.2 cm in thickness were recovered from Feature 7. The pin may be a wagon or plow part, or it may be a large drift punch.

Stable and Barn (n = 3)

Two iron harness buckles were found: a rectangular double tongue center bar 36.5 mm x 20 mm, and an oval single tongue heel bar 19 mm x 32.1 mm. A horseshoe was found in the feature during the Phase II testing.

Miscellaneous Hardware (n = 39)

This group encompasses bolts and other fasteners (n = 3), iron sheet (< 2mm thick, n = 20), bar iron (wrought, > 10mm thick, n = 1), an iron spike with a loop of chain (n = 1), six links of iron chain with a lead fusible link (n = 1), and an inordinately large amount of unidentifiable iron scrap, possibly machine parts (n = 13, mass 5719.1 g, 12.61 lb.).

Architecture Group (N = 283)

cut nails	150
wire nails	17
indeterminate nails	89
window glass	20
limestone (natural)	7

The ratio of cut nails to wire nails (8.82 to 1) indicates that the bulk of the construction activities on the site took place prior to the widespread use of wire nails in the area, or prior to 1890. However, the large unidentifiable nail sample makes this determination unreliable.

The window glass sample from this feature is similar to the others from this site in that there are two thicknesses present: 1.75 mm (n = 12, dating to 1860) and 2.2 mm (n = 8, dating to 1898). It is doubtful that the structure over this feature had glass windows, given the small sample size. It is interesting to note, however, that these dates are identical to those from Feature 2.

The small brick sample (8.99 Kg /19.84 lb.) probably represents simple disposal of old bricks. This hypothesis is strengthened by the presence of seven large unmodified limestone blocks in the pit, piled in such a manner as to suggest that the pit was deliberately filled in two or three episodes with as much bulky material as was readily available. The soil profiles in the feature corroborate this interpretation.

Arms Group (N = 1)

A single brass .22 caliber rimfire cartridge was found, of recent manufacture by the Remington Arms Company.

Clothing Group (N = 8)

Buttons (n = 3)

Two types of buttons were recovered from Feature 7: two white porcelain four-hole depressed center (11 mm diameter) and a one-piece hollow brass ball 6.5 mm in diameter with two holes in the base. This button may be a shoe button or a glove button.

Other Items (n = 5)

Other items in the clothing group recovered from Feature 7 are: brass shoe eyelets set in leather (n = 4), and a brass straight pin (n = 1). The straight pin is of the flat headed variety, indicating a post - 1824 date of manufacture (Noel-Hume 1970:254).

Furniture Group (N = 1)

This group is represented by a single sherd of mirror glass, blue-green in color and 1.2 mm in thickness. It does not have amalgamated mercury silvering, and thus dates later than the mid-19th century (Roenke 1978).

Kitchen Group (N = 152)

Ceramics (n = 68)

Coarse Earthenwares and Stonewares:

Lead Glazed Redware	4	(6%)
Unglazed Redware	2	(3%)
Salt Glazed Stoneware	4	(6%)
Albany Slip Glazed Stoneware	8	(12%)
	18	(27%)

Refined Earthenwares:

Whiteware: Underglaze Blue Hand Painted	1	(1%)
Whiteware: Underglaze Polychrome Broadline	2	(3%)
Whiteware: Blue Shell Edged	1	(1%)
Whiteware: Mocha/Annular	4	(6%)
Whiteware: Blue Transfer Printed	1	(1%)
Whiteware: Flow Blue Transfer Printed	1	(1%)
Whiteware: Flow Black Transfer Printed	1	(1%)
Whiteware: Hand-Painted over Blue Transfer Printed	1	(1%)
Whiteware: Undecorated	13	(19%)
Burned/Unidentified Refined Earthenware	4	(6%)
	29	(40%)

Ironstone:

Plain White	17	(25%)
Decalomania	1	(1%)
Blue Sprig	2	(3%)
	20	(29%)

Porcelains:

Plain White, Molded	1	(1%)
	1	(1%)

The redware sherds are mostly clear lead glazed inside and out and are from storage vessels. The unglazed sherds are probably from a flowerpot. The stoneware sherds are all from storage vessels. The predominance of Albany-slip glazed ware indicates a late 19th century date.

The whiteware assemblage from Feature 7, while varied, is small, with the predominant vessel form ($n = 16$, 55%) being the plate. The presence of so many different decorative types in such small numbers is difficult to interpret, unless these sherds were simply part of the fill used to cap the pit. The small size of the sherds (average size grade 1/2 inch) indicates secondary deposition.

The ironstone assemblage is similar to the whiteware assemblage in vessel form, with about half ($n = 9$, 45%) being plates. Another nine sherds seem to be from a vase. The disposition of the ironstone sherds is very similar to that of the whiteware sherds, and is indicative of secondary deposition.

The single sherd of porcelain is part of a thick cylindrical vessel, probably a shaving mug.

Glass ($n = 83$)

Blue-Green Canning Jar Sherds 10

Clear Indeterminate Vessel	30
Brown Bottle Sherds	10
Green Bottle Sherds	2
Blue-Green Bottle Sherds	20
Olive Green Wine Bottle Sherds	7
White Glass Lid Liner Sherds	2
Clear Tumbler Base	1
Solarized Tumbler Base	1
	83

Food canning jars, or Mason jars, are difficult to date from fragments, but are common on late 19th and early 20th century sites. The indeterminate jar category is made up of small sherds of curved glass impossible to ascribe to a particular type. The bottle glass category contains only those sherds large enough to determine vessel form. The large quantities of indeterminate glass fragments from this feature is due to the extremely fragmentary nature of the sample. The sherds were simply too small to allow analysis.

Metalware (n = 1)

A single iron spoon bowl 72 mm X 44 mm was found in this feature.

Medicine Group (N = 3)

This group consists entirely of glass bottle fragments (n = 3) which were probably medicine containers: sherds of panel bottles, two of which are of blue-green glass and one of which is of a clear panel bottle.

Personal Group (N = 6)

Daily Use Items (n = 3)

Two rectangular slate pencil leads and one piece of writing slate were recovered. No dates are available for these items.

Recreational Items (n = 2)

Two porcelain doll parts are in this group: an arm and a leg.

Adornment Items (n = 1)

A perfume bottle of ground and polished faceted clear glass with no neck was recovered from near the surface of the feature. The glass is leaded and may be optic molded instead of ground. It measures 3.56 cm across the flats and is 5.68 cm tall.

Dates

Feature 7 was constructed in the latter half of the 19th century. During its use life it was kept free of colluvial debris. Sometime after 1898 (the latest window glass date) the feature was filled in with two or three episodes of dumping over a short period of time. The presence of early 19th century ceramics is misleading, as they provide a Mean Ceramic Date of 1864.8. All of the datable non-ceramic artifacts suggest a date in the last decades of the 19th century for the terminal fill episodes of this feature. The early ceramics probably reflect secondary or tertiary deposition of fill into this feature, since the sherds are of such small size (1/2 inch or less). The ironstones and utility ware sherds are much larger overall, averaging 1+ inches in size grade. However, no reconstructable vessels are present. This also indicates secondary or tertiary deposition, since the relatively greater size of the ironstone and stoneware sherds may be due to these materials' intrinsically greater hardness relative to earthenwares.

Feature 8

Feature 8 was exposed and mapped during Phase II testing, and was thought to be a possible builders trench. Further work during data recovery revealed this feature to be a telephone cable trench placed along U.S. Highway 27 (State Route 29) in the 1970s.

Feature 9

Feature 9 was discovered during power trenching in the Phase III data recovery. It was a pit cellar measuring 250 cm N-S x 251 cm E-W and was 37 cm in depth (Figure 10). No associated features were found, perhaps because of heavy plow disturbance (the plowzone in this area was around 30 cm thick). The dates and disposition of the artifacts in this cellar indicate that it was beneath a domestic structure built by the 1830s and abandoned by the 1850s. It produced a total of 706 artifacts, plus 3 prehistoric chipped stone projectile points. Artifact group counts are listed below.

Group	Count	Percentage
Activity Group	119	17%
Architecture Group	219	31%
Arms Group	9	1%
Clothing Group	34	5%
Furniture Group	10	1%
Kitchen Group	294	42%
Medicine Group	7	1%
Personal Group	13	2%
Indeterminate Group	1	0.1%
Total	<u>706</u>	100%

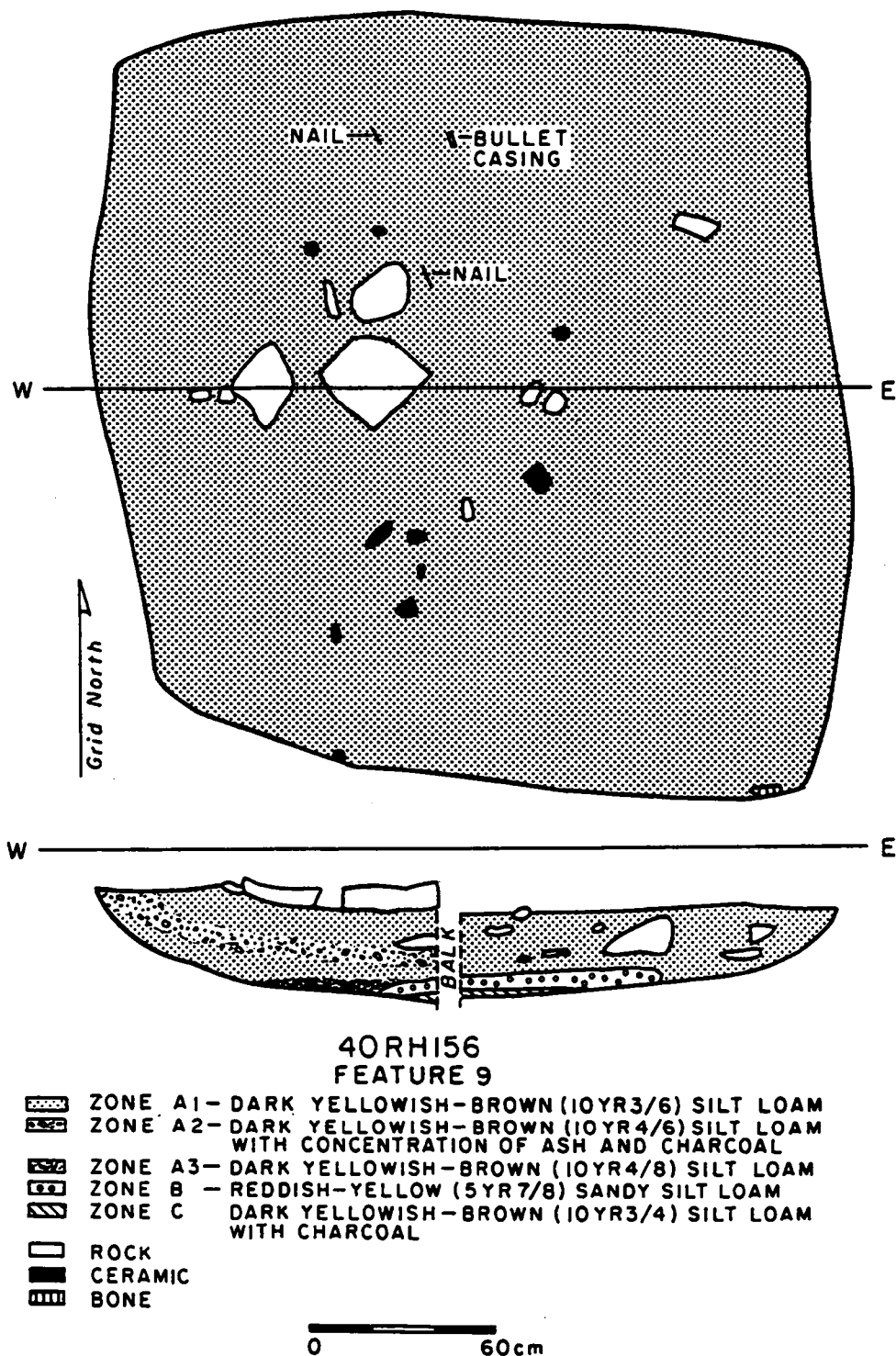


Figure 10. Feature 9 Plan View and Profile, Site 40RH156

Activity Group (N = 119)

Stable and Barn (n = 4)

Half a horseshoe (n = 1), a machine-cut horseshoe nail (n = 1), and two rectangular iron harness buckles (n = 2) were found in this cellar. One buckle, measuring 23.9 mm x 19.0 mm, is of the single-tongue heel bar type with a sheet iron roller. The other measures 28.5 mm x 20.4 mm and is also of the heel bar type. It is unusual in that the single tongue is mounted on a sleeve the width of the frame. Both buckles are badly deteriorated and the measurements are approximate.

Miscellaneous Hardware (n = 115)

This group encompasses an iron plate 56 mm x 99 mm x 3.8mm with a possible bullet hole (n = 1); indeterminate iron sheet (< 2mm thick, n = 83); sheet iron box fragments (n = 27); wrought iron strapping (n = 1); short wrought iron punches (n = 2); and an indeterminate piece of wrought iron which may be a tool part (n = 1)

Architecture Group (N = 219)

wrought nails	9
mushroom-head wrought nails	4
cut nails	175
L-head cut nails	9
wire nails	1
indeterminate nails	6
window glass	2
hammer dressed sandstone flakes	12
architectural hardware	1
	219

The wire nail may be a late discard. Wrought nails in East Tennessee generally predate 1810, with the possible exception of the mushroom-headed variety.

"Mushrooms," as they are known, were used to fasten thin planks such as shutters or doors until around 1830 (Sloane 1965) in New England, and probably later in East Tennessee. The ratio of cut nails to wrought nails (14.2 to 1) indicates an early 19th century date.

The two sherds of window glass have an average thickness of 1.69 mm. When the Moir formula (1987) is employed, a date of 1855 is the result. This date is coterminous with the latest ceramic dates from the feature. Since only two small sherds of window glass were recovered, it is doubtful that the structure above Feature 9 had glass windows. It is more likely that the structure was used as a shed after the construction of the later structure above Feature 2.

The brick (704.7g /1.55 lb) and clay chinking (145.1g /0.32 lb) fragments may be the remains of chinking between logs in the walls of the structure, or alternatively may be remains of a stick-and-mud chimney. The latter theory would explain the evidence of burning on most of the mortar and clay fragments, as there is no evidence that the structure itself burned.

Architectural hardware is present in the form of an iron latch hook 56 mm long.

Arms Group (N = 9)

Several artifacts related to firearms use were recovered from Feature 9. Three blobs of lead sprue, total weight 6.3 g, two cast lead balls 9.1 mm in diameter (.36 caliber, weight 4.1 g each), and a chunk of galena, a lead ore, attest to the casting of bullets on the site. A single spherical lead shot pellet 2.9 mm in diameter (.113 inch, weight 0.2 g,

approximately #4 shot) was also present, but is probably a recent addition to the feature, as it was swaged rather than drop-formed. A single rifle-size (21.7 mm x 18.6 mm x 6.96 mm) gunflint manufactured of English black flint in the English style attests to the presence of sporting flintlock firearms on the site, as military flints are wider than 25 mm (Woodward 1960:39). A later addition to the firearms group for this feature is a fired .32 Smith and Wesson Short Rimfire cartridge case, which was not in production until 1861 (Parsons 1957:29). More of these were found in feature contexts elsewhere on the site.

Clothing Group (N = 34)

Nine types of buttons (n = 18) were recovered from Feature 9:

White porcelain, 4-hole depressed center, 10 mm:	2
Bone, 5-hole depressed center, ~18 mm:	4
Bone, 5-hole flat, 17 mm	1
Bone, 5-hole flat, 20 mm	1
Ivory, 5-hole depressed center, 16.3 mm	1
Iron, three piece, fabric-covered, 21.5 mm	3
Iron, three piece, fabric-covered, 18 mm	1
Yellow metal, flat, see below	4
Yellow metal, two piece, flat, see below	1
	18

These button types are datable only over a wide range of time; for example, bone buttons date from around 1800 to around 1870 (South 1964), as do the yellow metal ones. Porcelain concave-center buttons date from the 1840s to the 1950s (South 1964). Of the yellow metal buttons, only one has no markings. It is 15.9 mm in diameter and 0.8 mm thick. Following is a list of diameters and markings on the metal buttons (all have plain fronts):

Yellow Metal, Solid, 17.75 mm, "RICH GOLD COLOR" on back	1
--	---

Yellow Metal, Solid, 12.5 mm, "RICH COLOUR" on back	1
Yellow Metal, Solid, 20.06 mm, ".R.....QUALITY....." on back	1
Yellow Metal, Two piece, 18.6 mm, "IMPROVED PLATED" on back	1

Straight Pins (n = 11)

Several straight pins were also found in Feature 9. All are made of tinned brass. Both the pre-1824 ball-head type (n = 5) and the post 1824 flat head type (n = 6) were present (Noel-Hume 1970:254).

Other Items (n = 5)

Other items in the clothing group recovered from Feature 9 are a flattened brass thimble (n = 1), hook and eye fasteners (n = 2), eyelets (n = 1), and an iron and brass snap 15.48 mm in diameter (n = 1).

Furniture Group (N = 10)

This group encompasses a single brass flathead wood screw, seven cut tacks (less than 2 cm long), and two wire furniture nails. The use of wire nails in furniture dates to the 1850s.

Kitchen Group (N = 294)

Ceramics (n = 204)

Coarse Earthenwares and Stonewares:

Clear Lead Glazed Redware	17	(8%)
Manganese Oxide Lead Glazed Redware	2	(1%)
Iron Oxide Lead Glazed Redware	3	(1%)
Copper Oxide Lead Glazed Redware	2	(1%)
Plain Early Yellow Ware	3	(1%)
	25	(12%)

Refined Earthenwares:

Creamware: Undecorated Late (1820s)	11	(5%)
Annular Wares: Indeterminate	7	(3%)
Annular Wares: Common Cable	1	(0.5%)
Annular Wares: Trailed Slip, refitted	10	(5%)
Pearlware: Undecorated	3	(1%)
Pearlware: Blue Shell Edge	13	(6%)
Pearlware: Green Shell Edge	1	(0.5%)
Transitional Wares: Undecorated	10	(5%)
Transitional Wares: Blue Edge Decorated		
Leaf and Scales Pattern	4	(2%)
Egg and Dart Pattern	1	(0.5%)
Transitional Wares: Underglaze Blue Hand Painted	10	(5%)
Underglaze Polychrome Hand Painted	7	(3%)
Whiteware: Undecorated	34	(17%)
Whiteware: Simple Stencil (green sprig)	6	(3%)
Whiteware: Blue Shell Edge	2	(1%)
Whiteware: Underglaze Blue Enameled Edge	2	(1%)
Whiteware: Sponge/Stick Spatter Polychrome	8	(4%)
Whiteware: Blue Transfer Printed	3	(1%)
Whiteware: Blue Transfer Printed/Hand Painted	1	(0.5%)
Whiteware: Blue Transfer Printed "Flow Blue"	3	(1%)
Whiteware: Brick Red Transfer Printed	1	(0.5%)
Whiteware: Mulberry Transfer Printed	6	(3%)
	144	(71%)

Ironstone:

Semivitreous Plain White	7	(3%)
Semivitreous Plain White Fluted Rim	1	(0.5%)
	8	(3.5%)

Porcelains:

Bone China Undecorated	7	(3%)
Bone China Undecorated Octagonal	2	(1%)
Bone China Undecorated Scalloped Rim	1	(0.5%)
Bone China Undecorated Octagonal Teacup, refitted	17	(8%)
	27	(12.5%)

The complete absence of stonewares from the utility vessel assemblage points to an early date, since stoneware displaced redware in East Tennessee during the first half of the 19th century. All but one of the redware sherds seem to be from storage vessels. The remaining sherd is somewhat refined and may be from a pitcher.

The variation in refined earthenware types from Feature 9 is truly staggering. Such an array of decorative patterns must have resulted in a very colorful table. Notice, however, that while the variety is large, the actual number of vessels is quite small, since the undecorated sherds are in all probability parts of other decorated vessels. Less than 30 individual vessels produced these sherds, with over 20 different decorative techniques represented. The plate is the most common vessel form, followed by saucers, cups, and bowls, in that order. One transitional sherd was recovered with the mark of Thomas Mayer of Stoke-on-Trent, which dates between 1826 and 1838 (Godden 1964:423).

Contrasting the overwhelming amount of earthenwares with the semivitreous wares, it is obvious that the filling of this cellar took place prior to the increasing popularity of ironstone after the 1850s.

The bone china found in Feature 9 seems to be the remains of a single cup and saucer. The cup has been reconstructed, and is handleless, tulip-shaped, and Irish-sized (Miller 1991). The saucer is too fragmentary for reconstruction. The overall style of the pieces is characteristic of an 1840s date.

Glass (n = 76)

Blue-Green Canning Jar Sherds	3
White Glass Lid Liner Sherds	1
Olive Green Wine Bottle Sherds	4
Free-Blown Soda Glass Bottle Sherds	52
Soda Glass Historical Flask Sherds	1
Clear Glass Tumbler/Stemware Sherds	5

Frosted Glass Faceted Tumbler Sherds	9
Cobalt Blue Indeterminate Glass	1
Burned Indeterminate Glass	3
Digested Indeterminate Glass*	1
*possible gizzard stones	

76

The glass from Feature 9 is characteristic of the 1830s-1840s, with the exception of the canning jar and lid liner fragments, which were on the plowzone interface. Large freeblown clear glass bottles such as the one found here are not common. It was probably used for the storage of distilled spirits. Historical flasks are mold-blown liquor containers popular from the 1820s to the 1840s.

Metal Tableware (n = 10)

Several metal utensils were found in Feature 9: an iron two-prong fork with an antler handle, three iron spoon handles without bowls, a tinned pewter spoon bowl with no handle, a table knife with antler handle scales, a table knife with ivory handle scales, and three table knife blades without handles. All of the knives have forged bolsters.

Medicine Group (N = 7)

This group consists entirely of glass bottle fragments (n = 7) which were probably medicine containers, as they are sherds of small thin vials. No date can be determined for these artifacts.

Personal Group (N = 11)

This group encompasses those artifacts that were probably carried or worn on the person for constant or daily use, hygiene, recreation, and adornment.

Daily Use Items (n = 3)

A pocketknife frame with a bit of blade left was recovered. Also, what may be a strike-a-light kit was found. This kit consists of a flat iron striker with an angled handle, and a large chert flake that shows retouching consistent with use in a strike-a-light kit.

Recreational Items (n = 6)

Tobacco pipes have been placed into this group for this analysis. Three fragments of stub-stemmed tobacco pipes were found in Feature 9, two of which are of redware; the third is unglazed stoneware. No dates were determined for these artifacts due to their fragmentary nature. Three clay marbles (14.75 mm average diameter) were also found in this feature.

Items of Personal Adornment (n = 4)

Four glass beads were found: one clear faceted, one blue faceted, one clear wire-wound, and one green wire-wound (Kidd and Kidd types If2, If5, wlb1, and wlb9, respectively).

Indeterminate Group (N = 1)

A brass washer-like disk 31.47 mm in diameter with reeded edges came from this feature.

Dates

Feature 9 was the earliest feature on the site, with items dating as early as the 1820s. Few artifacts from the feature postdate 1850. The Mean Ceramic date is 1843.2. From all the evidence, it appears that Feature 9 was dug in the late 1820s or early 1830s,

and was then allowed to fill in gradually while also being used as an occasional dump site. The presence of colluvial deposits and the absence of a toss zone in the pit support this hypothesis (Figure 10). Evidence of occasional dumping is indicated by the large size of some ceramic and glass artifacts found within it. The locations of the sherds of the reconstructed vessels support the low- impact dumping and colluvial filling hypothesis. The bone china teacup sherds were all within an area 8 cm in radius, and some of the sherds were post-depositionally broken in place. The slip-trailed annular bowl sherds, on the contrary, were scattered throughout the entire northwest quadrant of the cellar, from the surface to the subsoil. No rodent disturbance was evident.

Feature 10

Feature 10 was first thought to be a posthole, but careful troweling revealed the presence of numerous faunal remains. Feature 10 was a small circular pit 17cm in diameter and 11 cm deep that appears to be a duck burial. Its location behind the later house adjacent to the outbuilding above Feature 7, and the uncooked condition of the bones, suggests that this feature is the burial place of a child's pet.

Feature 11

Feature 11 was a shallow ovoid depression filled with nails. It may represent an animal wallow beneath an as yet unidentified outbuilding. The depression measured 96 cm E-W x 40 cm N-S and was 13 cm deep. It contained a total of 75 artifacts.

Group	Count	Percentage
Activity Group	2	3%
Architecture Group	69	92%
Kitchen Group	4	5%
Total	<u>75</u>	100%

Activity Group (N = 2)

Miscellaneous Hardware (n = 1)

For Feature 11 this group encompasses wire fencing staples (n = 1).

Stable and Barn (n = 1)

A single horseshoe nail was recovered from the feature.

Architecture Group (N = 69)

cut nails	23
wire nails	41
indeterminate nails	5

The ratio of wire nails to cut nails (1.78 to 1) suggests a date around the turn of the 20th century. 17.7 g (0.04 lb.) of brick fragments were recovered.

Kitchen Group (N = 4)

Kitchen artifacts in Feature 11 consist solely of container glass. No identifiable vessel forms were present in Feature 11.

Glass (n = 4)

Indeterminate Solarized Sherds	3
Indeterminate Burned Sherds	1
	4

Dates

Feature 11 contained no artifacts which could be precisely dated. Solarized glass dates between 1886 and 1915, and wire nails began making inroads on cut nails in this area by 1890. Feature 11 most likely dates to the turn of the 19th-20th centuries.

Feature 12

Feature 12 was a basin-shaped pit of unknown function measuring 32 cm E-W x 25 cm N-S x 12 cm deep. It contained a single unidentifiable flake of glass. Feature 12 can not be assigned a date based upon this single artifact.

Feature 13

Feature 13 was a long oval pit apparently located beneath or along the side of Structure 1. The artifacts it contained for the most part date from the 1850s to the 1890s with one notable exception: a silver Spanish coin dated 1803 with a hole punched in the upper rim. The dimensions of Feature 13 were 140 cm E-W x 35 cm N-S x 33 cm in depth. Feature 13 yielded 92 artifacts, plus one prehistoric chipped stone projectile point.

Group	Count	Percentage
Activity Group	6	7%
Architecture Group	42	46%
Clothing Group	9	10%
Kitchen Group	24	26%
Medicine Group	3	3%
Personal Group	8	9%
Total	92	100%

Activity Group (N = 6)

Miscellaneous Hardware (n = 6)

The only artifacts in this category from Feature 13 are three bits of rusty sheet iron (n = 3, which may actually belong in a different group as it is old rusty tinplate); two small pieces of shredded sheet brass (n = 2), and the broken shaft of a gimlet-point wood screw (n = 1). Gimlet pointed screws postdate 1846.

Architecture Group (N = 42)

cut nails	39
window glass	3

The complete absence of wire nails places this feature before the last quarter of the 19th century. The window glass sample from this feature is different from that from the other features on the site in that the thickness of the sherds is not 1.75 mm or 2.2 mm. Rather, it is 1.85 mm. When the Moir formula is applied, a date of 1868 is obtained. 1.75 Kg (3.86 lb.) of brick fragments were recovered.

Clothing Group (N = 9)

Buttons (n = 9)

White porcelain, 4-hole depressed center, 10.5 mm	1
Blue porcelain, 4-hole depressed center, 10.5 mm	1
Green porcelain, 4-hole depressed center, 10.5 mm	1
Iron, two piece fabric covered, 18 mm	2
Bone, 4-hole depressed center, 16.8 mm	1
Tagua nut (?), 4-hole depressed center, 16.8 mm	1
Hard rubber, domed, pinshank, 22.4 mm	1
U.S. Army Artillery officers' iron-backed brass, 13.37 mm	1

These buttons are all consistent with a mid-19th century date. The artillery officers' button is of the period 1845-1880 (Wyckoff 1984:44-45). The iron back of this button is unfortunately too corroded to reveal any backmark it may once have carried,

thus depriving us of a more specific date. The hard rubber button is backmarked "Goodyear's Pat. N.R. Co.", a mark which dates from 1851 to around 1870 (Fink and Ditzler 1993). A button with a similar mark was found in Feature 1.

Kitchen Group (N = 24)

Ceramics (n = 18)

Coarse Earthenwares and Stonewares:

Salt Glazed Stoneware	1	(6%)
	1	(6%)

Refined Earthenwares:

Whiteware: Underglaze Polychrome Broadline	2	(11%)
Whiteware: Flow Blue Transfer Printed	1	(6%)
Whiteware: Red/Green Spatter	1	(6%)
Whiteware: Undecorated	11	(61%)
	15	(83%)

Ironstone:

Plain White	1	(6%)
	1	(6%)

Porcelains:

Red Enameled Overglaze	1	(6%)
	1	(6%)

The stoneware sherd is of indeterminate vessel form. The predominant refined earthenware vessel forms are flat wares (39%), with the remainder being tea wares (22%) and indeterminate (22%). The single sherd of hard paste porcelain is probably a saucer.

Glass (n = 6)

Clear Indeterminate Vessel	1
Solarized Tumbler Sherds	3
Blue-Green Liquor Flask Sherds	2
	6

Medicine Group (N = 3)

Three clear panel bottle sherds were recovered. None of these have any diagnostic traits.

Personal Group (N = 8)

Daily Use Items (n = 7)

One rectangular slate pencil and six pieces of writing slate were recovered. No dates are available for these items.

Personal Adornment Items (n = 1)

A Spanish silver coin dated 1803 was recovered from this feature. This artifact, combined with the other two pierced coins from this site, is one of the most interesting aspects of this site. For a more detailed discussion of the meaning of these coins, see Chapter 10.

Dates

Feature 13 is problematic. The silver coin bears a date of 1803, but was obviously well-used long after that date. The nails, ceramics, and buttons span the mid-19th century. The window glass gives a date of 1868, but is a statistically insignificant sample. The Mean Ceramic Date of 1858.2 adds another mid-century date.

Feature 14

Feature 14 proved to be a taproot lying under the Structure 1 area.

Feature 15

Feature 15 was a shallow circular basin-shaped pit 25 cm in diameter adjacent to Feature 1, and was filled with ash, charcoal, and the remains of a leather boot heel. It was 10 cm deep.

Group	Count	Percentage
Architecture Group	12	29%
Clothing Group	29	71%
Total	41	100%

Architecture Group (N = 12)

cut nails	4
window glass	8

The complete absence of wire nails places this feature before the last quarter of the 19th century. The window glass sample from this feature is most similar to one of the sherds from Feature 9. It is blue-green in color and averages 1.43 mm in thickness. The Moir date for this sample, which is well represented, is 1833. Such an early date for this feature was unexpected, given the proximity of this feature to the later house. It is possible that this glass was removed from the Feature 9 structure and redeposited here, for the house represented by features 1 and 2 was certainly not in existence before 1850, and probably not until 1866. The size of the sherds suggests primary deposition. 295.8 g (0.65 lb) of brick fragments were recovered.

Clothing Group (N = 29)

An artifact which was apparently the remains of a leather shoe heel was found within the feature, but deterioration was so advanced it could not be removed intact. Twenty-eight cut tacks rusted to tiny fragments of leather are all that remain. A copper rivet with a bit of leather preserved was also removed from Feature 15. It is not known whether this rivet was associated with the shoe heel.

Dates

The window glass date of 1833 is the only date obtained for this feature.

Postholes

All postholes at site 40RH156 were bisected, and the excavated halves were trowel-sorted for artifacts. Many postholes contained brick fragments and nails, but two postholes contained additional artifacts. Posthole 32 contained four large sherds of a salt-glazed stoneware preserve jar. Posthole 27 contained the oldest historic artifact from the site: a pierced silver Spanish coin dated 1773.

The postholes can be divided roughly into two associated groups. One group is a clear alignment of round and square postholes corresponding with the inner yard-outer yard boundary of the later house. This fenceline was reconstructed at least twice, and corresponds with the locations of the outbuildings which produced features 4 and 7, both of which were on the inner yard side of the fence. The posts in this line were spaced 8 to 10 feet on center. The other group is a scattering of square postholes in the area between the later fenceline and the early house location. These posts were probably associated with the early house, but contained no artifacts to substantiate this assertion. In addition,

these older postholes do not produce a distinct pattern. Other postholes on the site were both spatially and chronologically associated with the barn.

CHAPTER 9

Discussion of Findings and Answers to Research Questions for Site 40RH156

Discussion of Findings

Site 40RH156 was an historic farmstead site with three distinct components: an early historic cabin site, represented by Feature 9, dating from the 1820s to the 1850s; a post-Civil War farmstead represented by the Structure 1 area and features 3, 4, 7, 10, 11, and 12, dating from the 1860s to the 1920s; and 20th century pasturage, represented by the remains of a livestock loading chute located just west of the proposed right-of-way immediately south of the site area as defined by the Phase I survey, dating from the 1930s to the present. The site is currently used as a hayfield.

These three components overlap one another in time as well as space, according to the artifactual record. Materials recovered from the top of Feature 9 indicate continued use of the domestic structure which once stood over the cellar as an outbuilding during the post-Civil War occupation of the site. In addition, artifacts found scattered in front of the chimney pad during mechanical stripping of the Structure 1 area indicate use of this house as a tool or equipment storage facility after the abandonment of the structure's domestic functions. Feature 3, the barn area, was constructed late in the second component of occupation, and survived long enough for the older residents of the area to remember this structure before it burned down, although none of the residents could provide a date for the event (estimates ranged from 1930 to 1955). Finally, the livestock chute outside the right-of-way was constructed in part with reused lumber from earlier structures, as many

peg holes were visible in some timbers which did not correspond to any structural components of the chute. It must be recognized, however, that since the presence of the chute indicates a post-motor vehicle date for the structure, the pegged timbers could have been easily transported from elsewhere.

The site as a whole presents some interesting questions. Like site 40RE192, the scarcity of historical documents relating to the site's occupants requires informed speculation to play a larger role than is usual in historical archaeology. The primary example of this speculative aspect of the investigations at site 40RH156 is the pierced coin problem. In addition to the pierced silver coin recovered from Feature 13, two more pierced coins were recovered from site 40RH156. One of these coins is a U.S. one cent piece dated 1861, found in a 1 m x 1 m excavation unit near Feature 1. The other is more interesting: it is a silver Spanish coin dated 1773, found in the fill of a posthole. Both silver coins are very worn, and were thus already old when they were lost or discarded. None of the other artifacts from the site reliably predate the 1820s. This part of Rhea County itself was not opened to Euroamerican settlement until 1819. Thus, the coins entered the archaeological record after that time. The connection between these coins is that they are all pierced. It is documented that African-American slaves and freedmen in the coastal islands of Georgia sometimes wore silver coins on thongs in order to ward off witchcraft or "conjure", the principle being that if the coin turned black one was being attacked by magical means (WPA 1940:92-93, 125, 136). While the pierced coins alone do not prove the presence of African-American slaves, freedmen, or tenants, they do argue strongly for it. However, people of many cultures may wear coins for ornament or keep old coins for luck (Dr. Leland Ferguson, personal communication). Another possibility is that the original residents of site 40RH156 were African-Americans. If one were to take

at face value the 1773 coin as an artifact used for protection with the date matching the owner's birth date (a common practice, Wilkie 1995:144-5), the owner of the coin would have been 93 years old at the time of Heiskell's purchase of the land. While this is certainly possible, it is not probable.

Another possible artifact class which could be tentatively associated with an African-American occupation, according to Wilkie (1995), are six chipped stone projectile points from the site. As there was no detectable prehistoric occupation of the site, the points recovered from historic feature context (3 from Feature 9, 2 from Feature 2, and 1 from Feature 13) were placed there by historic peoples. Curation of prehistoric stone projectile points by 18th and 19th century African-Americans has been documented at sites in the Deep South (Orser 1985) and in New Jersey (Geismar 1982). This activity has not been reported in the Upland South region, although people of many cultures still curate prehistoric stone points.

A study of the slave schedules of the 1850 and 1860 U.S. censuses revealed that Franklin Waterhouse was an active trader in slaves, as he had five juvenile slaves listed on the 1850 census and six juvenile slaves (not the same persons) on the 1860 census. He was also listed as owning one slave house in 1860. Since none of his slaves at the time of either census was over 18 years old, it is unlikely that the slave house was any great distance from the main house (Vlatch 1993:20,35). Therefore, it is highly unlikely that either of the structures on site 40RH156 were the dwelling place of either Franklin Waterhouse or his slaves.

In many places, ceramic vessel form frequencies have been used to help determine the cultural context of sites where non-Euroamerican occupation is suspected but not known. Unfortunately, these comparisons have not been shown successful in the Upland

South, perhaps because few studies of the phenomenon have been conducted in the region. Table 6 lists vessel form frequencies for several Tennessee historic sites. In examining Table 6 note that the frequencies from these ceramic assemblages spanning the 19th century, do not differ appreciably with the exception of the low frequency of cups and saucers during the later occupation of 40RH156. This low frequency may be attributed to both the later date of this assemblage and a possible status difference. Also, none of the sites compared in Table 6 are African-American sites, with the possible exception of the later occupation at 40RH156. Analysis of all artifacts indicates that no conclusive statement can be made regarding either the coins or the presence of African-Americans at site 40RH156.

The early occupation and the post-Civil War occupation do not appear to have been by the same people. This is likely because the site was sold after the war, the late house was built around that time, and the artifactual record changes dramatically. According to Miller's CC value charts (Miller 1980, 1991), ceramics from the early cellar are typical of a middle status assemblage, while ceramics from the late cellar are more indicative of a lower status occupation. This is not evident by casual examination, since a side-by-side comparison of ceramic types from these two cellars shows similar percentages of ware types. The discrepancy can be illustrated by examining the transfer printed ware values from each cellar. Feature 9 has 6% printed wares, and Feature 2 has 5.4% printed wares. This apparent equivalence of expensive refined earthenwares provides the evidence for different status through time, since the CC values for printed wares at the Mean Ceramic Date of each cellar changes. Feature 9 has a Mean Ceramic Date of 1843.2 and a printed ware CC value of 3.0. Feature 2 has a Mean Ceramic Date of 1862.9 and a printed ware CC value of 1.5 or less (there are no listed values for printed wares in the

Table 6: Refined Earthenware Vessel Form Frequencies

Vessel Form	Gibbs House* 40KN124	Roddy Site* 40KN85	Walker Site* 40KN121	Aenon Creek* 40MU493	Feature 2 40RE192	Feature 9 40RH156	Late Occupation 40RH156
Plate:	36%	23%	24%	26%	24%	30%	27%
Saucer:	30%	19%	13%	31%	28%	27%	11%
Cup:	13%	13%	16%	21%	14%	14%	5%
Bowl:	8%	6%	3%	21%	3%	10%	6%
Platter:	5%				4%	1%	9%
Dessert:		2%			7%	2%	
Serving Items:	2%						
Unidentifiable Flatware:	2%	5%	31%		18%	8%	28%
Unidentifiable Hollow ware:	3%	31%	13%		3%	9%	14%

*Source: Faulkner, Charles H.
 1995 Historic Component. In *The Aenon Creek Site(40MU493): Late Archaic, Middle Woodland, and Historic Settlement and Subsistence in the Middle Duck river Drainage of Tennessee*, edited by Charles Bentz, Jr, pp.126-138. Tennessee Department of Transportation Environmental Planning Office Publications in Archaeology No. 1.

1860s, so the 1855 values were used). Therefore, while the percentage of transfer printed wares at the site holds nearly constant through time, the relative value of these wares drops by half or more. There could be many reasons for this decline in status. Franklin Waterhouse owned the property on which site 40RH156 is located from 1827 until 1866. It is known that Waterhouse kept slaves (Franklin and McIlvenna 1995b). However, it is not known where Waterhouse lived in the thousands of acres he owned, nor where he and his slaves actively farmed. It is most likely that the structure on site 40RH156 belonged to a tenant or squatter on Waterhouse's land. The Confederate sympathies of Rhea County in general and of the Waterhouse family in particular insured that the area would be impoverished after the Civil War (Harris 1992). It is likely, therefore, that the sale of the land containing site 40RH156 to Luther Heiskell, a Missourian, in 1866, just after the war, was due to financial or political reasons. It is doubtful as well if Heiskell ever lived on the particular acre of his 450 acres that contained site 40RH156. It is more likely that the Heiskell family lived closer to the river in the area demarcated by Heiskell Lane and Heiskell Branch, a mere $\frac{3}{4}$ mile from site 40RH156 near a much more reliable water source. Under Heiskell's ownership it seems probable that site 40RH156 remained a tenant farm.

U.S. Census records from 1870 and 1880 revealed some interesting data. In 1870, there were no African-Americans in the northern part of Rhea County except for former slaves of the Waterhouse family. The Heiskell house was the 28th house visited by the census takers, and the former Waterhouse slaves (most likely: an African-American family named Waterhouse at any rate) were the 46th house visited. It is not likely that their house was site 40RH156 due to the apparent lack of proximity to the Heiskell house. In 1880, however, an African-American family named Robinson was listed immediately after

the Heiskells. Their occupations are listed as "farm laborer". It is possible that the Robinsons were tenants or sharecroppers on Heiskell's land, and lived at site 40RH156.

The evidence suggests that the early occupation of site 40RH156 was probably by Euroamericans who may or may not have owned slaves. The break in this pattern during the Civil War was possibly due to the abandonment of the site at that time. The post-Civil War occupants of the site may have been African-Americans.

Answers to Research Questions

1. What effect does local environment have on historic settlement location, and do cultural factors help determine site location?

The environment at site 40RH156 is very much like that at site 40RE192, with the exception of the size of the water supply. Any location in the valley would be suitable for an agricultural settlement. Why, then, do two early 19th century farmsteads that could be located anywhere in the valley happen to lie in the right-of-way of U.S. Highway 27? Because what is now a highway was once a path of some sort, even as early as 1820. No other explanation fits the distribution of sites along the corridor between the Cumberland Plateau escarpment and the Tennessee River. As for cultural factors at site 40RH156, the spatial patterning fits the Upland South model. This may or may not have to with the later occupation of the site, as no evidence of early outbuildings were found on the site. All outbuilding remains date to the later occupation. This fact raises some other interesting questions. For instance, if the post-Civil War occupation was at least partially by African-Americans, does the Upland South pattern of the farmstead reflect the African-American cultural landscape of East Tennessee, or was the layout of the farm due to Euroamerican construction or influence? Or is this something which can even be recovered

archaeologically? The absence of excavated African-American farmsteads in East Tennessee precludes addressing these questions.

2. What is the spatial arrangement of the farmstead, and does it change through time? How does it compare to other Upland South farmsteads? How does it compare to farmsteads settled by other cultural traditions?

As mentioned above, the early house at site 40RH156 has no associated outbuildings and cannot be measured by the Upland South model. This finding is of some significance, as it may indicate that the Upland South pattern was not in use in Rhea County at such an early date. However, the later farmstead has all the characteristics of the pattern.

The second phase of occupation at this site agrees closely with the Upland South pattern. The outbuilding areas were scattered about the site, and if the earlier house was used as an outbuilding by the residents of the later house, the outbuildings were definitely serving multiple functions. If there was a well or cistern it was never located, but there is a small but adequate creek about 500 feet (150 m) from the second house which may have served as the water supply. No privy was located either, and it seems likely that if one were indeed present it was located outside of the site area as defined by the Phase I survey. The Feature 7 pit cellar may have been under a storage shed or smokehouse, and the Feature 4 outbuilding area left no subsurface traces, making identification of function difficult. The surface collected artifacts from this area are mostly utilitarian ceramics and canning jars, which imply an association with female activities. Other evidence supports the Upland South model on site 40RH156 as well. Excavation units placed to the north of the second house area contained very few artifacts, which is consistent with a swept yard area. The remains of the barn area were further from the dwelling, accessible by an old

farm road outside the yard. The later dwelling faced the probable path of approach, as U.S. 27 was certainly an extant road by the time of construction of the dwelling. Log construction was almost certainly used on the later dwelling, based on the number of nails recovered from the features. The later house possibly had a weatherboarded exterior, and certainly had a metal roof before it was torn down. Finally, the probable size of the later house is consistent with that of a "typical" rectangular pen of 18 to 26 feet long by 15 to 20 feet wide (Glassie 1965; Morgan 1990:28). The outbuildings, on the other hand, were almost certainly frame. All three outbuilding areas (not including the early cellar) are characterized by an abundance of nails, both cut and wire.

The early dwelling at site 40RH156 is problematic because there is too little evidence to compare it with the Upland South pattern. Architectural debris such as a chimney or hearth or footer stones has been plowed away. The site has two distinct socioeconomic components. The early occupation is well represented by ceramics of moderate value as well as two luxury items: a bone china teacup and a large freeblown transparent glass bottle. Table knives, a fork, and a tinned pewter spoon are present as well. The later occupation of the site took place at a lower economic state, based on the ceramics from the cellar under the later house. It is on this evidence that tenancy is suspected.

3. What dietary patterns and food preferences are evident in the artifacts recovered from the sites, and how do these compare with documented patterns for the Upland South tradition? Does the pattern change through time?

Faunal evidence indicates a heavy reliance on pigs for protein, with a smattering of small birds and fish as a supplement (Table 7). The lack of beef is somewhat puzzling.

Table 7. Taxa Present by Provenience, Site 40RH156

Provenience	Taxon	Common Name	Weight (g)	NISP
Feature 1	<i>Blarina brevicauda</i>	Shrew	<0.1	1
	Cricetidae	Mouse	4.7	40
	Ictaluridae	Catfish	0.3	2
	<i>Meleagris gallopavo</i>	Turkey	1.2	1
	Phasianidae	Quail or Bantam Chicken	<0.1	1
	Sciuridae	Squirrel	0.7	4
	<i>Sus scrofa</i>	Pig	21.8	7
	<i>Sylvilagus floridanus</i>	Rabbit	7.8	15
	Talpidae	Mole	0.3	1
Feature 2	<i>Anas sp.</i>	Duck	0.3	4
	Cricetidae	Mouse	17.9	113
	<i>Ovis aries</i>	Sheep	83	3
	Sciuridae	Squirrel	1.8	4
	<i>Sus scrofa</i>	Pig	170.5	58
	<i>Sylvilagus floridanus</i>	Rabbit	34.5	54
	Phasianidae	Quail or Bantam Chicken	50.4	201
	<i>Gallus gallus</i>	Chicken	5.4	6
	<i>Rana sp.</i>	Frog	1.3	7
	Testudines	Turtle	15.4	43
Feature 7	Cricetidae	Mouse	1.1	2
	<i>Ovis aries</i>	Sheep	4.2	1
	<i>Sus scrofa</i>	Pig	17.4	13

Tessaro, Toni

- 1996 Zooarchaeological Analysis of Site 40RH156. In *A Final Report on Phase II and Intensive Phase II Archaeological Testing on Site 40RE192, Phase II Archaeological Testing on Site 40RH155, and Phase II Archaeological Testing and Phase III Archaeological Data Recovery on Site 40RH156, Rhea and Roane Counties, Tennessee*, edited by C. Alan Longmire and Jay D. Franklin, pp. 40-46. Transportation Center at The University of Tennessee, Knoxville. In Press.

Table 7 (continued)

Provenience	Taxon	Common Name	Weight (g)	NISP
Feature 9	<i>Anas sp.</i>	Duck	5	6
	Cricetidae	Mouse	1.1	12
	Ictaluridae	Catfish	1	5
	<i>Meleagris gallopavo</i>	Turkey	3	2
	Phasianidae	Quail or Bantam Chicken	0.8	8
	Sciuridae	Squirrel	2.2	13
	<i>Sus scrofa</i>	Pig	238.6	86
	<i>Sylvilagus floridanus</i>	Rabbit	2.4	11
	Testudines	Turtle	0.6	4
Feature 10	<i>Anas sp.</i>	Duck	11	24
	Cricetidae	Mouse	2.4	15
Feature 13	Phasianidae	Quail or Bantam Chicken	2.8	2
	<i>Sus scrofa</i>	Pig	9.4	7
Totals	14 taxa		698.68	767

Tessaro, Toni

- 1996 Zooarchaeological Analysis of Site 40RH156. In *A Final Report on Phase II and Intensive Phase II Archaeological Testing on Site 40RE192, Phase II Archaeological Testing on Site 40RH155, and Phase II Archaeological Testing and Phase III Archaeological Data Recovery on Site 40RH156, Rhea and Roane Counties, Tennessee*, edited by C. Alan Longmire and Jay D. Franklin, pp. 40-46. Transportation Center at The University of Tennessee, Knoxville. In Press.

Botanical analysis indicates that corn was a major crop, which is not surprising. However, the botanical sample came solely from the early component of the site and is not representative of the later occupation (Crites 1996). The prevalence of pork and corn in the diet is entirely consistent with the Upland South model, as are the minor amounts of wild protein present on the site. A large number of bantam chicken remains were recovered. This may be because bantams require less care and feed than full-sized chickens, an important point for impoverished families. Faunal analysis does not indicate any great change in foodways between the early component and the late component at site 40RH156 (Tessaro 1996).

4. What socioeconomic conditions are indicated by the artifact assemblage? How do they compare to those of other similar sites?

This question is difficult to answer, as the two site components have different status connotations. The early occupation was of moderate status, with most of the ceramic wares being painted. Some transfer printed wares were present as well, but not in such quantity as at 40RE192. The remains of a single bone china cup and saucer probably represent a status display which may not have been used on a regular basis, as most of the teawares from the early component are blue hand-painted earthenware. A large clear glass handblown bottle was recovered from the early component, which may also indicate higher status. Large glass bottles were rare and expensive items in the backcountry prior to the Civil War (Brett Riggs personal communication). The status of the later occupants appears to have been lower than that of the earlier residents, although this is difficult to determine precisely due to the shifting fashions of ceramics in the late 19th century. By the 1870s, undecorated white table ceramics were quite fashionable, and have remained so

even up to the present. Undecorated ceramics are also cheaper than decorated, which makes determination of status a bit more difficult. Semivitrified wares (such as ironstone) were more expensive than earthenwares for all categories of decoration until the 1890s, and thus their presence may be used as a relative indication of status. Of the plain wares from the later occupation of the site, most (98%) were of earthenware until after 1890, which leads one to suspect a lower level of prosperity than during the earlier occupation. Several reasons are possible for a lower economic level during the post-Civil War years. Rhea County was impoverished after the war, and it is possible that very few people could afford finer items. If the residents of the site were tenant farmers, as is suspected, a lower socioeconomic status would be expected as well. If the residents were not only tenants or sharecroppers but African-American as well during the period of Reconstruction, it is very likely indeed that they were not overly conspicuous consumers. Unfortunately, no other Upland South farmsteads of this later period have been excavated in East Tennessee, so there is no standard of comparison.

5. How does the later occupation of site 40RH156 compare to McCorvie et al.'s (1989) model of Upland South occupations in southern Illinois and Rotenizer's (1992) model of Upland South occupations in Virginia and Kentucky? Does the evidence support the hypothesis that the Upland South tradition is comparable across its entire range?

The later occupation at site 40RH156 corresponds closely to manifestations of the Upland South tradition in Illinois, Virginia, and Kentucky. Of course, the Upland South pattern is so internally variable that most all farmsteads of the post Civil War era to the present within the Upland South region fit the pattern. Of importance in the case of 40RH156 is the ethnicity of the builder-occupants at the site during this time. No rural farmsteads belonging to or occupied by African-Americans of this time period have been

excavated in the Upland South. The late component of site 40RH156 does indeed support the comparability of the Upland South pattern across its entire range, even when the cultural affiliation of the builders is not known.

CHAPTER 10

Summary :Ethnicity and the Upland South Pattern

Site 40RE192 provides an interesting counterpoint to site 40RH156. The two serve to point out the differences in socioeconomic status and consumer choice in the 19th century in the western East Tennessee Valley region. The two sites are separated by approximately 12 miles of geographical and up to 10 years of temporal difference at their earliest occupation stages. However, they also may reflect the difference between landowner and tenant; and possibly even Native American and African American. The perspective chosen to compare and contrast these sites is the Upland South model of rural farmstead adaptation as expressed through a culture history of 19th century sites.

Site 40RE192

It is difficult to apply the Upland South pattern to site 40RE192 using direct evidence, since there are no outbuildings in the sample. Based on the information available, we cannot conclude that the house faced the probable path of approach, which is now U.S. Highway 27. The house was almost certainly built of logs, since the few nails that are present do not suggest use in a frame structure. There is no archaeological evidence to indicate that this was other than a single-pen structure. Preliminary analysis suggests that the occupants of the site were relatively wealthy, as they used pieces of at least two matching hand painted tea sets. The presence of many table knives and other flatware also indicates an occupation by persons of some status. The foodways of the occupants of the site seem to fall within the norm for the Upland South region, since most of the identified faunal remains are pig (*Sus scrofa*). Hunting evidently played a role as

well, since the second most common species is white-tailed deer (*Odocoileus virginianus*)(Davenport and Klippel 1996). Nevertheless, there are as many similarities to the historic Cherokee pattern of western North Carolina. Site 40RE192 does not readily fit the Upland South pattern.

Site 40RH156

The second occupation of site 40RH156 had classic Upland South pattern features, in addition to evidence of African-American use of the site. The early occupation of the site provided even less data relative to this pattern than site 40RE192. This is significant, because it suggests, as appears to be the case in Roane County, that the Upland South pattern may not have existed in early 19th century Rhea County as well. The apparent status differences between the first and second occupations of the site, along with the apparent abandonment of the site during the Civil War suggest that two different groups of people were responsible for the archaeological record. It is probable that at least one person during at least one of the occupations was African-American.

Conclusion

In conclusion, the Upland South pattern for 19th century farmsteads is present in the latter half of the 19th century in the western East Tennessee region. The diversity of material culture (e.g. the beads from site 40RE192 and the pierced coins from site 40RH156), suggesting a possible non-Euroamerican occupation, implies that the Upland South pattern may not be restricted to Euroamerican farmsteads in this area; a possibility which could have interesting consequences for the interpretation of apparent Upland South farmsteads in East Tennessee. In the past it has been tacitly assumed that the Upland South pattern is primarily associated with Euroamericans of Scots-Irish ancestry

(e.g. McCorvie 1989; Wagner and McCorvie 1992), although there are examples of Euroamericans of other national heritages using the pattern (Faulkner 1988; Rotenizer 1992). In recent years it has become fashionable in historical archaeology to assign different ethnicities different patterns of spatial utilization, and indeed differing patterns of spatial utilization are sometimes evident in the archaeological record. However, these differences are usually noted at sites which are known to have been occupied by the target ethnicity, resulting in self-fulfilling data recovery. As Binford stated in 1968, "Fitting archeological remains into ethnographically known patterns of life adds nothing to our knowledge of the past. In fact, such a procedure denies to archeology the possibility of dealing with forms of cultural adaptation outside the range of variation known ethnographically" (Binford 1968:13). If the Upland South pattern is truly pervasive in the socialization of many ethnicities in the region, one may expect to find more sites which display Upland South characteristics but contain artifacts consistent with non-Euroamerican occupation. In other words, the Upland South pattern may actually be a cross-cultural pattern which is regional in scope.

REFERENCES CITED

REFERENCES CITED

Ahlman, Todd Michael

- 1996 Backward Farmers or Modernizing Farms? The Tennessee Valley Farms of East Tennessee in the Early Twentieth Century. Unpublished M.A. thesis, The University of Tennessee, Knoxville.

Andrews, Susan C.

- 1992 Spatial Analysis of an East Tennessee Plantation Houselot. Unpublished M.A. Thesis, The University of Tennessee, Knoxville.

Binford, Lewis

- 1968 Archaeological Perspectives. In *New Perspectives in Archaeology*, edited by S.R. and L.R. Binford, pp.5-33. Aldine, Chicago.

Braun, E. Lucy

- 1950 *Deciduous Forests of Eastern North America*. Hafner, New York.

Broyles, Betty J.

- 1991 *History of Rhea County, Tennessee*. Rhea County Historical and Genealogical Society, Dayton, Tennessee.
- 1982 *Rhea County, Tennessee, Census, Marriage, and Tax Records, 1850 through 1900*. Rhea County Historical and Genealogical Society, Dayton, Tennessee.

Burrison, John A.

- 1983 *Brothers in Clay: the Story of Georgia Folk Pottery*. University of Georgia Press, Athens.

Crites, Gary

- 1996 Analysis of Botanical Materials from Site 40RE192 and Site 40RH156. In *A Final Report on Phase II and Intensive Phase II Archaeological Testing on Site 40RE192, Phase II Archaeological Testing on Site 40RH155, and Phase II Archaeological Testing and Phase III Archaeological Data Recovery on Site 40RH156, Rhea and Roane Counties, Tennessee*, edited by C. Alan Longmire and Jay D. Franklin, pp.20-22. Transportation Center at The University of Tennessee, Knoxville. In Press.

Davenport, Christian and Walter Klippel

- 1996 Zooarchaeological Analysis of Site 40RE192. In *A Final Report on Phase II and Intensive Phase II Archaeological Testing on Site 40RE192, Phase II Archaeological Testing on Site 40RH155, and Phase II Archaeological Testing and Phase III Archaeological Data Recovery on Site 40RH156, Rhea and Roane Counties, Tennessee*, edited by C. Alan Longmire and Jay D. Franklin, pp.15-20. Transportation Center at The University of Tennessee, Knoxville. In Press.

Dice, Lee

- 1943 *The Biotic Provinces of North America*. University of Michigan Press, Ann Arbor.

Faulkner, Charles H.

- 1984 *An Archaeological and Historical Study of the James White Second Home Site*. Report of Investigations No. 28. Department of Anthropology, The University of Tennessee, Knoxville.
- 1988 *Archaeological Testing at the Nicholas Gibbs House: Season 1*. Prepared for the Nicholas Gibbs Historical Society, Knoxville, Tennessee.
- 1989 *Archaeological Testing at the Nicholas Gibbs House: Season 2*. Prepared for the Nicholas Gibbs Historical Society, Knoxville, Tennessee.
- 1991 *Archaeological Testing at the Nicholas Gibbs House: Season 3*. Prepared for the Nicholas Gibbs Historical Society, Knoxville, Tennessee.
- 1995 Historic Component. In *The Aenon Creek Site(40MU493): Late Archaic, Middle Woodland, and Historic Settlement and Subsistence in the Middle Duck River Drainage of Tennessee*, edited by Charles Bentz, Jr, pp.126-138. Tennessee Department of Transportation Environmental Planning Office, Publications in Archaeology No. 1.

Faulkner, Charles H. and Susan C. Andrews

- 1994 *An Archaeological Study of Sharp's Fort, Union County, Tennessee*. Report Prepared for the Tennessee Historical Commission.

Faulkner, Charles H. and Dalford Dean Owens, Jr.

- 1995 *Archaeological Testing of the Ramsey House Barnyard*. Report Prepared for the Tennessee Historical Commission and Association for the Preservation of Tennessee Antiquities; Knoxville Chapter.

- Fenneman, Nevin M.
1938 *Physiography of the Eastern United States*. McGraw Hill, New York.
- Ferguson, Leland G.
1995 Personal Communication.
- Fink, Nancy, and Maryalice Ditzler
1993 *Buttons*. Courage Books, Philadelphia.
- Fontana, B.L. and J.C. Greenleaf
1962 Johnny Ward's Ranch. *The Kiva* 28 (1-2).
- Fogelman, Gary L.
1991 *Glass Trade Beads of the Northeast*. Pennsylvania Artifact Series, Booklet No. 70.
- Ford, Thomas B.
1982 An Analysis of Anglo-American - Cherokee Culture Contact During the Federal Period, The Hiwassee Tract, Eastern Tennessee. Unpublished M.A. Thesis, The University of Tennessee, Knoxville.
- Franklin, Jay D. and Noëleen McIlvenna
1995a *A Preliminary Report on Phase II and Intensive Phase II Archaeological Testing of Site 40RE192, State Route 29, Roane County, Tennessee*. Transportation Center at The University of Tennessee, Knoxville.

1995b *A Preliminary Report on Phase II Archaeological Testing of Sites 40RH155 and 40RH156, State Route 29 (U.S. Route 27), Rhea County, Tennessee*. Transportation Center at The University of Tennessee, Knoxville.
- Geismar, Joan H.
1982 *The Archaeology of Social Disintegration in Skunk Hollow: A Nineteenth Century Rural Black Community*. Academic Press, New York.
- Glassie, Henry
1965 Southern Mountain Houses: A Study in American Folk Culture. Unpublished M.A. Thesis, The University of Pennsylvania, Philadelphia.

1968 *Pattern in the Material Folk Culture of the Eastern United States*. University of Pennsylvania Press, Philadelphia.

- Godden, Geoffrey A.
1964 *Encyclopedia of British Pottery and Porcelain Marks*. Crown, New York.
- Greer, Georgianna H.
1981 *American Stonewares*. Schiffer, Philadelphia.
- Harris, William C.
1992 East Tennessee's Civil War Refugees and the Impact of the War on Civilians. *The Journal of East Tennessee History* (formerly the East Tennessee Historical Society Publications) 64:3-19.
- Hays, Christopher T
1992 *A Phase I Archaeological Reconnaissance of the Proposed Impact Areas Along State Route 29 from Dayton to State Route 1, Rhea and Roane Counties, Tennessee*. DuVall and Associates, Inc., Franklin, Tennessee. Submitted to Tennessee Engineering, Inc. and Tennessee Department of Transportation, Nashville, Tennessee.
- Hudson, Charles
1976 *The Southeastern Indians*. The University of Tennessee Press, Knoxville.
- Jones, Olive and Catherine Sullivan
1985 *The Parks Canada Glass Glossary for the Description of Containers, Tableware, Flat Glass, and Closures*. National Historic Parks and Sites, Canadian Parks Service.
- Jordan, Terry and Matti Kaups
1989 *The American Backwoods Frontier: an Ethnic and Ecological Interpretation*. Johns Hopkins University Press, Baltimore.
- Kellogg, Remington
1939 Annotated List of Tennessee Mammals. *Proceedings of the United States National Museum* 86(3, 051):245-303.
- Ketchum, William C., Jr.
1981 *The Collector's Guide to American Bottles*. Henry Holt, New York.

1991 *American Redware*. Henry Holt, New York.

Kidd, Kenneth E. and Martha Ann Kidd

- 1970 A Classification System for Glass Beads for the Use of Field Archaeologists. *Canadian Historic Sites: Occasional Papers in Archaeology and History*-No.1, 46-89.

Lee, Ruth Webb

- 1931 *Early American Pressed Glass*. Published by the author, Northboro, Massachusetts.

Lehner, Lois

- 1987 *Lehner's Encyclopedia of U.S. Marks on Pottery, Porcelain, and Clay*. Collector's Books, Paducah, Kentucky.

Longmire, C. Alan and Jay D. Franklin (editors)

- 1996 *A Final Report on Phase II and Intensive Phase II Archaeological Testing on Site 40RE192, Phase II Archaeological Testing on Site 40RH155, and Phase II Archaeological Testing and Phase III Archaeological Data Recovery on Site 40RH156, Rhea and Roane Counties, Tennessee*. Transportation Center at The University of Tennessee, Knoxville. In Press.

Lorraine, Dessamae

- 1968 An Archaeologist's Guide to Nineteenth Century American Glass. *Historical Archaeology* 2:35-44.

Luther, E.T.

- 1977 *Our Restless Earth: The Geologic Regions of Tennessee*. The University of Tennessee Press, Knoxville.

McCorvie, Mary R. *et al.*

- 1989 *Archaeological Investigations at the Fairview Farm Site: A Historic Farmstead in the Shawnee Hills of Southern Illinois*. Cultural Resources Management Report No. 135. American Resources Group, Ltd., Carbondale, Illinois.

McKearin, George S. and Helen McKearin

- 1941 *American Glass*. Crown Publishers, New York.

McKelway, Henry S.

- 1994 *Slaves and Master in the Upland South - Archaeological Investigations at the Mabry Site*. Unpublished Ph.D. Dissertation, The University of Tennessee, Knoxville.

- Miller, George L.
1980 Classification and Economic Scaling of 19th Century Ceramics. *Historical Archaeology* 14(1):1-40.

1991 A Revised Set of CC Index Values for Classification and Economic Scaling of English Ceramics from 1787 to 1880. *Historical Archaeology* 25(3):1-25.
- Moir, Randall W.
1987 Socioeconomic and Chronometric Patterning of Window Glass. In *Historic Buildings, Material Culture, and People of the Prairie Margin: Architecture, Artifacts, and Synthesis of Historical Archaeology*, edited by Randall W. Moir and David H. Jurney, pp. 73-81. Richland Creek Technical Series Vol. 5. Archaeology Research Program, Institute for the Study of Earth and Man, Southern Methodist University, Dallas, Texas.
- Morgan, John
1990 *The Log House in East Tennessee*. The University of Tennessee Press, Knoxville.
- Morgan, John and Joy Medford
1980 Log Houses in Grainger County, Tennessee. *Tennessee Anthropologist* 5(2):146-158.
- Munsey, Cecil
1970 *The Illustrated Guide to Collecting Bottles*. Hawthorne Books, New York.
- Noel-Hume, Ivor
1970 *A Guide to Artifacts of Colonial America*. Alfred A. Knopf, New York.
- Olsen, Stanley J.
1963 Dating Early Plain Buttons by their Form. *American Antiquity* 28 (4): 551-554.
- Orser, Charles E, Jr.
1985 Artifacts, Documents, and Memories of the Black Tenant Farmer. *Archaeology* (6):48-53.
- Otto, John Solomon
1989 *The Southern Frontiers, 1607-1860: the Agriculture of the Colonial and Antebellum South*. Greenwood, New York.

Parsons, J.E.

- 1957 *Smith and Wesson Revolvers: The Pioneer Single-Action Models*.
Norrow, New York.

Phillippe, Joseph S. and William D. Walters, Jr.

- 1986 Rats, Damp, and Foul Miasma: Some Thoughts on the Literature and
Archeology of Pioneer Cellars. *Wisconsin Archeologist* 67 (1):37-46.

Price, Cynthia R.

- 1979 *19th Century Ceramics in the Eastern Ozark Border Region*. Monograph
Series Number 1, Center for Archaeological Research, Southwest
Missouri State University, Springfield, Missouri.

Ramsey, J.G.M.

- 1853 *The Annals of Tennessee History to the End of the Eighteenth Century*.
Walker and James, Charleston.

Riggs, Brett H.

- 1996 *Removal Period Cherokee Households and Communities in Southwestern
North Carolina*. Department of Anthropology, The University of
Tennessee, Knoxville. Submitted to the North Carolina State Historic
Preservation Office, Division of Archives and History, Department of
Cultural Resources, Raleigh, North Carolina.

- n.d. Archaeological Contexts and Assemblages at the Bell Rattle Cabin Site
(40MR211). MS in possession of the Author.

Roberts, Wayne D.

- 1986 *Archaeological Excavations at the Historic Ramsey House, Knox County,
Tennessee*. Prepared for the Knoxville Chapter of the Association for the
Preservation of Tennessee Antiquities.

Roenke, Karl G.

- 1978 Flat Glass: Its Use as a Dating Tool for Nineteenth Century Archaeological
Sites in the Pacific Northwest and Elsewhere. *Northwest Anthropological
Research Notes*, Memoir No. 4 (Vol. 12, No. 2, Pt. 2) Moscow, Idaho.

Rotenizer, David E.

- 1992 In the Yard: An Examination of Spatial Organization and Subdivision of Activity Areas on Rural Farmsteads of the Upland South. In *Proceedings of the Tenth Symposium on Ohio Valley Urban and Historic Archaeology*, edited by Amy L. Young and Charles H. Faulkner, pp. 1-22. Miscellaneous Paper No. 16, Tennessee Anthropological Association, Knoxville.

Schroedl, Gerald F. (editor)

- 1986 *Overhill Cherokee Archaeology at Chota-Tanasee*. Report of Investigations No. 38. Department of Anthropology, The University of Tennessee, Knoxville.

Schuyler, Robert L

- 1987 Archaeological Remains, Documents, and Anthropology: a Call for a New Culture History. *Historical Archaeology* 22(4):36-42.

Sloane, Eric

- 1965 *A Reverence for Wood*. Wilfred Funk, Inc., New York.

Smith, Carlyle S.

- 1960 Two 18th Century Reports on the Manufacture of Gunflints in France. *The Missouri Archaeologist* 22:40-49.

Smith, Samuel D.

- 1984 Excavation of a Mid-Nineteenth Century Trash Pit, Wynnewood State Historic Site, Sumner County, Tennessee. *Tennessee Anthropologist* 8(4):133-181.

Smith, Samuel D. (editor)

- 1976 *An Archaeological and Historical Assessment of the First Hermitage*. Research Series No. 2. Division of Archaeology, Tennessee Department of Conservation, Nashville.

- 1993 *Fort Southwest Point Archaeological Site, Kingston, Tennessee: A Multidisciplinary Interpretation*. Research Series No. 9. Division of Archaeology, Tennessee Department of Conservation, Nashville.

Smith, Samuel D. and Stephen T. Rogers

- 1979 *A Survey of Pottery Making in Tennessee*. Tennessee Department of Conservation, Division of Archaeology, Research Series 3. Nashville.

South, Stanley

1964 Analysis of Buttons from Brunswick Town and Fort Fisher. *Florida Anthropologist* 17(2):113-133.

1977 *Method and Theory in Historical Archaeology*. Academic Press, New York.

Tennessee State Archives

n.d. *Rhea County, Tennessee Deed Book A*. On microfilm at the McClung Historical Collection, Knoxville.

n.d. *Rhea County, Tennessee Deed Book J*. On microfilm at the McClung Historical Collection, Knoxville.

n.d. *Rhea County, Tennessee Deed Book 159*. On microfilm at the McClung Historical Collection, Knoxville.

n.d. *Rhea County, Tennessee Will Book A*. On microfilm at the McClung Historical Collection, Knoxville.

Tessaro, Toni

1996 Zooarchaeological Analysis of Site 40RH156. In *A Final Report on Phase II and Intensive Phase II Archaeological Testing on Site 40RE192, Phase II Archaeological Testing on Site 40RH155, and Phase II Archaeological Testing and Phase III Archaeological Data Recovery on Site 40RH156, Rhea and Roane Counties, Tennessee*, edited by C. Alan Longmire and Jay D. Franklin, pp. 40-46. Transportation Center at The University of Tennessee, Knoxville. In Press.

Thomas, Prentice M. Jr. (editor).

1977 *Archaeological Investigations at Fort Southwest Point (40RE119) Kingston, Tennessee*. Department of Anthropology, The University of Tennessee, Knoxville.

Trigger, Bruce G.

1989 *A History of Archaeological Thought*. Cambridge University Press, Cambridge.

United States Bureau of the Census

- 1840 *U.S. Census Population Reports: Rhea County, Tennessee.* On microfilm at The University of Tennessee, Knoxville.
- 1840 *U.S. Census Population Reports: Roane County, Tennessee.* On microfilm at The University of Tennessee, Knoxville.
- 1850 *U.S. Slave Census Records.* On microfilm at The University of Tennessee, Knoxville.
- 1860 *U.S. Slave Census Records.* On microfilm at The University of Tennessee, Knoxville.
- 1870 *U.S. Census Population Reports: Rhea County, Tennessee.* On microfilm at The University of Tennessee, Knoxville.
- 1880 *U.S. Census Population Reports: Rhea County, Tennessee.* On microfilm at The University of Tennessee, Knoxville.

Vlach, John Michael

- 1993 *Back of the Big House: the Architecture of Plantation Slavery.* The University of North Carolina Press, Chapel Hill.

WPA Georgia Writers' Project, Savannah Unit

- 1940 *Drums and Shadows: Survival Studies Among the Georgia Coastal Negroes.* University of Georgia Press, Athens.

Wagner, Mark J. and Mary R. McCorvie

- 1992 *The Archaeology of the Old Landmark: Nineteenth-Century Taverns Along the St. Louis-Vincennes Trace in Southern Illinois.* Center for American Archaeology, Carbondale.

Wilkie, Laurie A.

- 1995 Magic and Empowerment on the Plantation: An Archaeological Consideration of African-American World View. *Southeastern Archaeology* 14(2):136-148.

Woodward, Arthur

- 1960 A History of Gunflints. *The Missouri Archaeologist* 22:30-39.

Wycoff, Martin A.

- 1984 *United States Military Buttons of the Land Services 1787-1902: a Guide and Classificatory System*. McLean County Historical Society, Bloomington, Illinois.

Yensch, Anne

- 1991 A Note on a 19th Century Description of Below Ground "Storage Cellars" Among the Ibo. *African American Archaeology* No. 4:3-4. Smithsonian Institution, Washington.

Young, Amy Lambeck

- 1991 *Nailing Down the Pattern*. Unpublished M.A. Thesis, The University of Tennessee, Knoxville.

Zug, Charles G. III

- 1986 *Turners and Burners: the Folk Potters of North Carolina*. University of North Carolina Press, Chapel Hill.

VITA

Charles Alan Longmire was born in Knoxville, Tennessee in 1970. He is a product of the Knox County, Tennessee public school system, graduating from Gibbs High School in 1987. Alan became interested in Historical Archaeology as a senior in high school, but rejected it as a career choice because there was no money in it. After an abortive attempt to major in Physics as an undergraduate at The University of Tennessee, Knoxville, shaken to the very core of his being by a two year long fight to the near-death with the evil forces of calculus, he remembered that long-ago interest in the gentle and calculus-free world of Archaeology. Two and a half years and a much higher GPA later, Mr. Longmire graduated from U.T. with a B.A. in Anthropology, class of 1991. Alan had been employed as a carefree drone of Cultural Resource Management companies since 1990, and realized that one had to have a higher degree in order to advance up (or down, as the case may be) the archaeological career ladder. He enrolled in the graduate program in Anthropology in the fall of 1992, hoping for a better life in two years or so. Four years later, Alan finally defended his thesis, which you now hold in your hands. Mr. Longmire is saddened to report that there is still no money in Historical Archaeology. He is, however, accepting charitable donations.