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CHAPTER SIX

LATE PREHISTORIC AND EARLY HISTORIC PERIOD CATAWBA VALLEY CHRONOLOGY

It is clear that the sand- or soapstone-tempered, complicated-stamped, plain, and burnished pottery of the upper Catawba River valley are, in fact, representative of the late prehistoric and protohistoric pottery of the entire Catawba valley in North Carolina. The Catawba valley assemblages are quite distinct from most North Carolina Piedmont ceramics and are more similar to Lamar and Pee Dee ceramics to the south and Qualla ceramics to the west. While these affinities have been noted before (Coe 1952a; Keeler 1971; Wilson 1983) there has been no attempt to create an integrated chronology for the Catawba valley based on the ceramics or other data.

This chapter establishes a preliminary chronology for the late prehistoric and early historic periods in the Catawba valley. The chronology is based on the ceramic analysis presented in the preceding chapters, radiocarbon dates, and the occurrence of temporally diagnostic artifacts. In this chapter I first consider other regional chronologies and then review the radiocarbon dates associated with Burke and Cowans Ford ceramics. Finally, the Catawba valley chronology is presented.

As discussed in the Chapter One, the phase is the most commonly employed temporal unit in the Southeast today. This is particularly true in Lamar pottery studies. As Williams (Williams and Shapiro 1990:18) states,

> One of the greatest advances of the last 10 years has been the subdivision of Lamar into smaller units of time using pottery traits. The system adopted to implement this refinement is that of Phillips (1970), which consists of defining *phases* within the Lamar *period* as finer space-time units.

Williams (Williams and Shapiro 1990:6) further defines Lamar as "the name we conveniently apply to the later South Appalachian Mississippian cultures that produced certain pottery types." I will argue in Chapter Seven that the late prehistoric Catawba valley societies are clearly part of the South Appalachian Mississippian culture area (Ferguson 1971). Therefore, given the obvious and now well-established occurrence of Lamar style pottery in the Catawba valley, I will adopt the Lamar phase methodology (Williams and Shapiro 1990) for the region.

However, as the preceding chapters have shown, we are still limited in our ability to define or date archaeological phases in the Catawba valley. A few small excavations provide a minimum of information about site structure and material culture. Ceramics from surface collections still make up the largest quantity of data for the region.

Keeping in mind Phillips's (1970:3-4) cautions concerning the use of surface collections as temporal units, I do not intend to establish narrow temporal phase limits. Further refinement of the chronology will require additional excavations to provide radiocarbon dates and to define more temporally diagnostic ceramic assemblages as well as to detail other aspects of material culture and settlement systems. However, comparisons of other regional chronologies, combined with the small but increasing numbers of radiocarbon dates for the late prehistoric period, makes it possible to date the Catawba valley ceramics more reliably than in the past; dating the ceramics provides the first step to establishing a useful regional cultural chronology.

NORTH CAROLINA PIEDMONT PHASES

It should be clear from Chapters Three, Four, and Five that the Catawba valley ceramics are quite distinct from the ceramics generally found on the central North Carolina Piedmont. While it appears that during the Woodland period small quantities of Piedmont types such as Badin, Yadkin, and Uwharrie are present; such is not the case for the late

prehistoric and historic periods. During these periods it is clear that the Catawba valley pottery tradition was quite distinct from that of the well-known Piedmont Siouan tradition.

Therefore, the regional chronologies established for the central Piedmont (Coe and Lewis 1952; Coe 1964; Wilson 1983; Ward 1983; Davis and Ward 1991; Ward and Davis 1993) are not useful guides to framing the Catawba valley chronology. Similarly, the central Yadkin valley ceramic tradition is firmly a part of the greater Yadkin-Uwharrie-Dan River continuum (Marshall 1988:1). However, before leaving any consideration of the Piedmont ceramics, it is important to look at some of the ways in which Catawba valley ceramics have been viewed and compared with the general Piedmont pattern in the late prehistoric period (Dan River phase) and the historic period.

The Dan River pottery series was first defined as "the ceramic complex of the Sara Indians in the Dan River area along the Virginia-North Carolina boundary between 1625-1675" (Coe and Lewis 1952:1). The Dan River series is now recognized to include a lengthy period of time from the late Woodland (A.D. 1200) to the early Historic period and perhaps as late as A.D. 1700 (see Gardner 1980; Wilson 1983). The series is characterized by sand tempered, net-impressed pottery. Plain surface treatments are also common and cob-impressed is an important minority type (Coe and Lewis 1952:1-4).

Dan River Net-Impressed sherds occur in very small numbers in the Catawba valley. Net impressing does occur throughout the valley, however, and I feel that its presence reflects a minor Dan River influence in this area between A.D. 1400 and A.D. 1600. Similarly, Dan River Cob-Impressed, Plain, and Cord-marked sherds occur in small numbers. However, it should be remembered that all three of these surface treatments occur within the Burke and Cowans Ford series.

Wilson (1983:315) states very clearly how late prehistoric Catawba valley ceramics differ from those on the Dan River:

> the pottery from the Catawba River during the Late Prehistoric period is markedly different from that of the Dan River region. Bowl forms, surface finishes and

> decorations differ significantly between the two areas. The presence of burnished and complicated stamped surfaces, cazuela and hemispherical bowl forms, the use of circular reed punctations to create 'pseudo-nodes', and applique rim strips, all illustrate the direct influences that emanated from the Pee Dee, and Pee Dee related, culture (cf. Reid 1965, 1967) of the Wateree River in South Carolina, and the Little River section of the Pee Dee River in south-central North Carolina.

Although Wilson's observations were based only on an analysis of pottery from 31ID31, this study has fully confirmed his evaluation of the respective ceramic traditions. However, his interpretation of cultural influences will be discussed more fully below.

Wilson (1983:490) observes a closer similarity between the two areas in the protohistoric period. He describes the Oldtown series as the "end-product of the changes within the ceramics of the Dan River Ware from the Protohistoric period to through the late 1600s." By the time of the late protohistoric and early Historic periods, complicated incised decorations are common within the Oldtown series and there is an increase in non-fingertip punctations as decoration, as well as the appearance of cazuela and hemisphere bowl vessel forms.

Davis and Ward (1989:11-15; 1991; also Ward and Davis 1993:418-426) present further refinements of the Piedmont chronology (Ward and Davis 1993:408). They date the Dan River phase to A.D. 1000 - 1450. This is followed by the protohistoric and historic Saratown phase. The Saratown phase is divided into three subphases (Ward and Davis 1993:419-426): the Early Saratown Phase (A.D. 1450-1620), the Middle Saratown Phase (A.D.1620-1670), and the Late Saratown Phase (A.D. 1670-1710).

Early Saratown phase pottery is characterized by the Oldtown series (Wilson 1983:386-413). Ward and Davis (1993:421) describe the Early Saratown phase ceramic vessel assemblages from the William Kluttz and the Early Upper Saratown sites as primarily smoothed or burnished with net impressed also well represented. Also present are simple-stamped and complicated-stamped exterior surface treatments. Ward and Davis (1993:421) also remark on the change in vessel forms with the appearance of cazuela and hemispherical bowls:

> Both of these are new vessel forms within the Dan River drainage and, along with the presence of burnishing, carved-paddle stamping, and new decorative techniques employing fillet applique strips, reflect an introduction of new pottery styles, probably from the Catawba drainage to the south. The fact that net impressing continued to be a predominant method of surface treatment suggests that these new styles blended with the indigenous Dan River pottery-making tradition to form the Oldtown series.

The late prehistoric chronology for the Eno, Flat, and Haw River drainages is summarized from Ward and Davis (1993:407-416) . The late prehistoric Haw River phase dates to A. D. 1000-1400. The pottery of the early Haw River phase is viewed as a late form of the Uwharrie series, while later Haw River phase pottery is characterized by the Haw River series (Ward and Davis 1993:408).

The succeeding Hillsboro phase is dated to A.D. 1400-1600. Hillsboro ceramics include smoothed bowls, simple-stamped jars, and checked-stamped jars, along with new cazuela bowl and carinated jar vessel forms.

The historic period is represented by the Mitchum (A.D.1600-1670), Jenrette (A.D. 1600-1680), and Fredricks (A.D. 1680-1710) phases. These phases are attributed to the historic Sissipahaw, Shakori, and Occaneechi Indians respectively (Davis and Ward 1991:44-45).

Fredricks phase pottery from the Fredricks site is generally tempered with sand or fine crushed feldspar. Exterior surface treatments include check stamped, plain, and brushed (Davis 1987:214). Mitchum phase pottery from the Mitchum site is similar with sand or fine crushed feldspar temper and plain, simple stamped, or brushed exterior surfaces (Davis 1987:214).

The late prehistoric and early historic period Catawba valley ceramics represent a tradition unlike the general North Carolina Siouan ceramics of those periods. However, it is likely that the north central Piedmont region is influenced by the Catawba valley ceramic tradition as seen in the Oldtown and Hillsboro series. Therefore, the existing Piedmont chronologies are of little direct use in establishing more chronological refinement for the Catawba region. In fact, the converse has already occurred. Ceramic attributes attributed to

the Catawba valley directly (Davis 1987, Davis and Ward 1991) or to the Pee Dee via the Catawba valley (Wilson 1983)-- i.e., folded rims, complicated stamping and plain and burnished and incised cazuela bowls-- have been used as protohistoric markers within the general Piedmont Siouan chronology. Today, the chronology established by Ward and Davis (1993) confirms the relative temporal relationship of the Catawba patterns. However, though the Piedmont chronologies have become increasingly sophisticated, and show quite clearly the regional influence from the Catawba, they are of little utility in establishing firm chronologies within the Catawba valley itself. Therefore, I turn next to a discussion of regional Lamar phases.

LAMAR PHASES

We have seen that, traditionally, the Catawba valley wares have been compared with Lamar ceramics found to the south. Therefore, in order to make more useful chronological comparisons, Lamar ceramics are discussed below in the context of regional chronologies from Georgia, the Appalachian Summit region, the Pee Dee River valley, the Savannah River valley, and the Wateree River valley.

The term "Lamar" is derived from the Lamar site in Macon, Georgia. Hally's (1994:144-151) recent overview of Lamar culture provides a comprehensive review of the history of Lamar studies, the Lamar pottery complex, and regional Lamar ceramic variation and chronologies. Hally summarizes the temporally diagnostic features of the pottery complex as follows:

> Lamar Complicated Stamped, with its distinctive thickened and pinched/punctated rim, appears in the archaeological record during the latter half of the 14th century. Lamar Incised does not appear for another 100 years, but with relatively few exceptions the two types co-occur throughout the area...into the seventeenth century. Plain-surfaced pottery is also common..., and along with Lamar Complicated Stamped and Lamar Incised is one of the three basic types constituting the Lamar pottery complex [Hally 1994:145].

Hally also reviews temporal phase distinctions based on temporally diagnostic ceramic attributes. These include: "the presence/absence of Lamar Incised; changes in the motifs characteristic of Lamar Incised; stylistic changes in the way these motifs are portrayed; changes in the motifs characteristic of Lamar Complicated Stamped; and changes in the form of thickened jar rims" (Hally 1994:147). According to Hally (1994:147) these changes occur throughout the Lamar area; "they occur in the same relative order and are roughly contemporaneous throughout the Lamar area (Anderson et al 1986; DePratter and Judge 1990; Hally 1979; Hally and Rudolph 1986; Rudolph 1986; Smith 1981; Williams 1984; Williams and Shapiro 1990)."

The following summary of ceramic attributes from the Early Lamar (A.D. 1350-1450), the Middle Lamar (A.D. 1450-1550), and the Late Lamar (A.D. 1550-1800) phases is based on Hally's (1994) overview and the multi-authored chapter, "Phase Characteristics," in Williams and Shapiro (1990). The characteristics are presented in some detail since few chronologies have made their ceramic attributes so explicit. It will be clear that there is a great correspondence with Catawba valley ceramic attributes. Tables 52 and 53 provide detailed ceramic characteristics for selected Lamar phases.

Hally (1994:147) characterizes Early, Middle, and Late Lamar ceramics as follows:

> Early Lamar pottery is best known from the Rembert, Duvall, Little Egypt, and Irene phases. Lamar Incised is absent or very uncommon and is characterized by a limited number of simple designs executed in two or three broad lines. Complicated stamping is fairly well executed although motifs may be difficult to identify. Filfot cross, figure-9, and figure-8 are common motifs. Temper is fine and uniform in size. Jar rims are decorated with either large individually molded nodes or narrow thickened strips that are notched, punctated, or pinched.
>
> Middle Lamar pottery is best known from the Barnett, Dyer, Tugalo, and Cowerts phases. Lamar Incised is common and characterized by a greater variety of more complex designs that are carried out with narrower lines and a greater number of lines. Temper particles are large and often protrude through the vessel surface. Complicated stamping is generally poorly executed. Motifs are large, overstamped, and frequently lightly impressed. Jar rims are usually thickened by the addition of a strip or by folding. The width of the thickened rim is greater and modification is predominately pinching along the lower edge of the rim.

> Late Lamar pottery is best known from the Bell, Ocmulgee Fields, Estatoe, and Atasi phases. Incising is present in most phases with lines continuing to decrease in width and increase in number. Incising disappears, however, in the Appalachian portion of North and South Carolina, Piedmont South Carolina, and northern Georgia. Complicated stamping continues in most phases but is replaced by brushing in the lower Chattahoochee, Coosa, and Tallapoosa drainages. Check stamping becomes common in the Appalachian portion of North and South Carolina, Piedmont South Carolina, and northern Georgia. Thickened jar rims continue to increase in width, and new forms -- rolled, "L"-shaped, and filleted strip--appear in the Appalachian area (Hally 1986).

The Catawba valley assemblages (Burke and Cowans Ford types) include many of the attributes described for Early Lamar phases. Complicated stamping is common and often occurs in large numbers. In general, the filfot cross, and figure-8's and 9's are relatively infrequent and in contrast to the Little Egypt phase, rectilinear designs are usually uncommon. Lamar style incising with 2 to 4 lines occurs on less than 1 percent of Burke and Cowans Ford Plain and Burnished sherds at numerous sites. Also, plain and burnished surfaces account for large portions of most assemblages. Finally many sites include narrow to medium width (10-15mm) folded or thickened jar rims.

However, the Catawba valley assemblages bear even more similarities with the middle Lamar phases, and especially with the Tugalo phase. Burke Complicated Stamped accounts for as much as 50 to 60 percent of the assemblage on most of the sites where it occurs in large numbers and Cowans Ford Complicated Stamped accounts for 40 to 50 percent at many sites. In both cases, curvilinear designs far outnumber rectilinear, and many of the motifs have large elements. Lamar style incising occurs at numerous sites where it accounts for 2 to 6 percent of the assemblage. However, designs are limited to the loops and brackets and although they occur with four to nine lines, these are less common than 2- or 3-line designs. Also, numerous examples of the wide (17-20 mm) folded/thickened jar rims occur.

Finally, Catawba valley assemblages have less in common with Late Lamar phases such as Estatoe. It is possible to identify late ceramic attributes such as very wide folded

Table 52. Ceramic attributes for early Lamar phases.

Little Egypt phase A.D. 1400-1500

Upper Coosa River (Hally 1990:43)

1. Lamar Complicated Stamped accounts for 10 percent. Motifs include filfot cross, concentric circle, figure eight, and nested rectangles. Rectilinear motifs are slightly more common than curvilinear motifs.
2. Lamar Incised accounts for less than 1 percent. Motifs include simple broad line designs with two or three parallel lines encircling bowl rims, interrupted by pendant festoons and loops.
3. Narrow forms of folded and pinched rims are present.
4. Simple stamping is present.

Iron Horse phase A.D. 1450-1520

Piedmont Oconee River (Smith and Williams 1990:61)

1.Bold incised (< than 2 mm) motifs have two to four lines.
2. Medium width (14-15 mm) pinched or folded applique rims occur on jars.

Rembert phase A.D. 1300-1450

Upper Savannah River (Hally 1990:53)

1. Lamar Complicated Stamped accounts for 50 percent. Motifs include concentric circles, figure-eight, figure-nine, filfot cross, line block.
2. Lamar Incised accounts for less than 1 percent. Motifs include simple broad line designs with two or three parallel lines encircling bowl rims, with pendant festoons and loops.
3. Lamar Plain accounts for 34 percent; Lamar Burnished Plain accounts for 8 percent and Lamar Coarse Plain accounts for six percent.
4. Minority surface treatments (1 percent each) include check stamping, cob impressing, and cord marking.
5. Jar rims are a) unmodified and decorated by cane punctations or rosettes, and b) thickened and decorated with punches, notches, or cane punctations.

Table 53. Ceramic attributes for middle and late Lamar phases.

Barnett Phase A.D. 1500-1625

Upper Coosa River (Hally 1986:44)

1. Lamar Complicated Stamped motifs include concentric circles, bisected oval, figure eight, filfot cross. Rectilinear motifs are slightly more common than curvilinear motifs.
2. Lamar Incised accounts for 9 percent. Designs have increased number of lines and include spirals, concentric "U"s, pendant festoon, guilloche, and interlocking scrolls.
3. Simple stamping is present.
4. Wide folded and pinched rims are present.

Dyer Phase A.D. 1520-1580

Piedmont Oconee River (Smith and Williams 1990:62)

1. Bold Incised (less than 2 mm) motifs with four or more lines occur.
2. Wide (17-20 mm) pinched folded/applique rims occur on jars.

Tugalo Phase A.D. 1450-1600

Upper Savannah River (Hally 1990:52)

1. Lamar Complicated Stamped accounts for 62 percent. Motifs are difficult to identify but include concentric circles and figure-nines.
2. Lamar Incised accounts for 8 percent. Motifs have more than two or three lines and include concentric circles, ovals with brackets, and line filled triangles.
3. Lamar Plain accounts for 12 percent. Lamar Coarse Plain accounts for 16 percent. Lamar Burnished Plain accounts for 1 percent.
4. Rims of jars are thickened and decorated with pinches, notches, and cane punctations at bottom of rim.

Estatoe phase A.D. 1650-1750

Upper Savannah River (Hally 1990:54)

1. Lamar Complicated Stamped accounts for 68 percent. Motifs difficult to identify but include concentric crosses, line block, concentric circles, figure nine, keyhole.
2. Lamar Incised accounts for 4 percent. Check Stamping accounts for 6 percent. Lamar Plain accounts for 11 percent. Lamar Coarse Plain accounts for 7 percent. Lamar Burnished Plain accounts for 4 percent.

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rims and concentric cross complicated stamps but these are rare. Also, the highly complex, many-lined, incised designs from phases like Bell (Smith and Williams 1990:61-62), Cowerts and Ocmulgee Fields (Williams 1990:64), are absent. It is also significant that Appalachian region attributes such as check stamping and the L-shaped or filleted rim are very rare.

While there is a close similarity of Burke and Cowans Ford ceramics to general Lamar characteristics, these similarities are strikingly close for the Middle Lamar Tugalo phase. It is important now to compare the Burke and Cowans Ford types with regional Lamar pottery that is closer to the Catawba Valley; i.e. the Wateree, Pee Dee, and Appalachian summit areas.

Wateree River

Since the Wateree River is essentially the lower portion of the Catawba River in South Carolina, I initially expected to find considerable similarities between the Wateree ceramics and those upriver on the Catawba. This expectation was also predicated on the developing models of the geographical expanse of the chiefdom of Cofitachequi. In fact, there was less similarity between these areas than there was for the Tugalo phase pottery. The dissimilarity is clear in the following examination of the full Wateree ceramic chronology. The chronology is summarized from DePratter and Judge (1990:56-58) and presented in Figure 14.

I must repeat the caution that the Catawba River assemblages are primarily surface collections and I assume them to represent mixed temporal periods, hence the concentration on attributes rather than assemblage frequencies. The Wateree chronology is also based primarily on surface collections and for this reason I think it is likely that the phase characteristics and temporal boundaries will be altered as more pottery from excavated sites is analyzed.

Burke and Cowans Ford assemblages are similar to the Wateree valley assemblages in the overall presence of complicated stamped and plain exterior surfaces as well as the

Table 54. Ceramic attributes for Wateree Valley Lamar phases.

Daniels phase A.D. 1550-1675 [Lamar]

1. Sloppy "exploded" stamping present.
2. Wide applique rim strips.
3. Thick vessel walls are present.

Mulberry phase A.D. 1450-1550 [Lamar]

1. Complicated Stamping is present.
2. Lamar-like incising is present.
3. Segmented or punctated applique strips are present.
4. Vertical ticks present on vessel shoulders.

McDowell phase A.D. 1350-1450 [Lamar]

1. Complicated Stamping accounts for 45 percent; filfot cross predominates; stamping is bolder and motifs larger.

Town Creek phase A.D. 1300-1350 [Lamar]

1. Complicated stamped accounts for 30 percent; motifs are mostly filfot cross and line block.
2. Plain accounts for 30 percent; Burnished plain accounts for 19 percent.
3. Rim forms include simple (43 percent), segmented applique strips (17 percent), punctated applique strips (13 percent), rosettes (8 percent), and nodes (4.5 percent).

Adamson phase A.D. 1250-1300 [Savannah]

1. Complicated stamped accounts for 23 percent; motifs are primarily filfot cross and line block.
2. Plain accounts for 45 percent; Burnished plain accounts for 14 percent.
3. Rim forms include simple (53 percent), notched (13 percent), punctations below lip (13 percent), and rosettes (3 percent).

Belmont Neck phase A.D. 1200-1250 [Etowah]

1. Complicated stamped accounts for 43 percent. Motifs mostly concentric circles and undefined concentric curvilinear forms; Etowah cross-bar diamond present but rare.
2. Incising is absent.
3. Plain accounts for 31 percent; Burnished plain accounts for 9 percent.
4. Simple rims account for 86 percent.
5. Notched rims account for 7 percent.

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presence of Lamar incised. However, the details of the distributions of attributes make the Wateree chronology of surprisingly little utility upriver on the Catawba.

This appears to be true for two basic reasons. First, the upper and middle Catawba valley assemblages contain very little rectilinear (including Etowah related styles) complicated pottery such as the line block common to the Adamson and Town Creek phases. The filfot cross is also much less prevalent on the Catawba. Secondly, the segmented applique strips that figure so prominently in the Wateree chronology are virtually absent from the Catawba; punctated applique strips occur but in much smaller numbers.

Interestingly, the attributes that are most similar are those listed for the Daniels phase (A.D. 1550-1675). Though few in number, wide thickened rims, thick vessel walls, and "exploded" stamping is present especially in the middle and lower Catawba valley. These are believed to represent late attributes and their presence on the Wateree and the lower to middle Catawba may be related to the presence of protohistoric Catawba Indians (or Catawba related; see Chapter Seven). These attributes are noticeably present at 31MK85, 31LN19, and 31ID51.

To summarize, the Wateree chronology shows some similarity with the Catawba assemblages but except for the late Daniels phase it offers little that is helpful for establishing or confirming the Catawba sequence.

Pee Dee Phases

The Pee Dee culture was one of the first Protohistoric archaeological cultures described in the North Carolina Piedmont (Coe 1952a:308-309). It has been viewed traditionally as an intrusive culture that established itself in the Pee Dee valley in the early protohistoric period. However, recent research at the Leak (31RH1) and Teal (31AN1) sites provided an abundance of new radiocarbon dates for a more developed chronology (Oliver 1992).

The Town Creek Pee Dee pottery was originally thought to date to the protohistoric period ca. A.D. 1550 - 1650 (Coe 1952b). Reid (1967) expanded the chronology to A.D.

1450-1650. Dickens (1976:198) provides four radiocarbon dates from Town Creek ranging from the twelfth to fifteenth centuries A.D., suggesting a longer, and earlier, lifespan for Pee Dee culture.

In fact, Mountjoy (1989:15-19) suggested even earlier temporal contexts for Pee Dee ceramics. He cites three eleventh and twelfth century dates from the Payne site. The two earlier dates (A.D. 1040 ±60 and A.D. 1090 ±70) were obtained from features that included Pee Dee and Uwharrie pottery. The later date (A.D. 1130 ±70) was obtained from a feature that contained a few pieces of pottery thought to postdate Pee Dee.

In his discussion of the Town Creek dates, Mountjoy (1989:18) states that:

> It appears significant that the earliest radiocarbon date from Town Creek comes from premound humus and that this humus layer contained a higher frequency of Pee Dee complicated stamp pottery than the overlying deposits formed by Mound construction and use (Reid 1967:57). This earliest date from Town Creek overlaps on its early end the two dates on Pee Dee pottery from the Payne site, and raises the possibility that the intrusion of people responsible for the Pee Dee pottery in south central North Carolina occurred in the period A.D. 980-1160. Furthermore, it also is possible that this intrusion was not accomplished by first establishing a political and religious center at Town Creek and radiating out from that base. Instead, there may have been an initial population expansion into south central North Carolina and then 100 years or so later the Town Creek site was turned into a ceremonial center to serve an already fairly large resident population.

Mountjoy's interpretation of Pee Dee origins appears to be compatible with the idea discussed in the previous chapter that Pee Dee culture and Catawba valley Mississippian culture expanded into the Piedmont of North Carolina in unison.

DePratter and Judge (1990) have presented a slightly modified view of Pee Dee chronology. Their work on the Wateree valley ceramics confirms the similarity of Pee Dee material with other Lamar ceramics in the Wateree valley. However, they tend to date this material in the Savannah culture Adamson phase (A.D. 1250-1300) and the Lamar culture Town Creek phase (A.D. 1300-1350). These dates seem more consistent with Mountjoy and place the Pee Dee ceramics within the general Lamar chronology (Williams and Shapiro 1990).

Finally, Oliver (1992) has proposed further changes in the Pee Dee chronology. His model is consistent with both Mountjoy's and DePratter and Judge's interpretation as it affirms a much earlier date for the origins of Pee Dee culture. Oliver (1992:240) defines the Teal Phase (A.D. 950-1200) as:

> a time of exploration, frontier settlement, and developing ceremonialism by early Pee Dee, or perhaps "pre-Pee Dee," populations. These people, and their associated culture, represented the northernmost extension of an expanding chiefdom that traced its roots through coastal South Carolina and Georgia.

Teal phase pottery includes complicated-stamped, plain, fine cord-marked and simple-stamped vessels (Oliver 1992:240).

The Town Creek Phase (A.D. 1200-1400) evolved from the Teal phase and is characterized by plain pottery, filfot cross complicated-stamped pottery, and textile-impressed pottery (Oliver 1992:247). The Leak Phase (A.D. 1400-1600) is characterized by complicated stamping, plain, filfot cross, and textile-impressed pottery (Oliver 1992:145).

Previous researchers have cited the influence of Pee Dee ceramics on the late prehistoric ceramics of the Dan, Yadkin, and Catawba River valleys (Wilson 1983). For the Catawba valley, at least, I believe that influence was minimal and, as Ward and Davis (1993) suggest, it is more likely that Lamar-style ceramic attributes appear in the north central Piedmont as a result of influence from the Catawba valley as opposed to the Pee Dee region.

Reid's (1967) original statement on Pee Dee pottery from the Town Creek site mound was the first comprehensive description for Pee Dee pottery in North Carolina. In general, Reid (1967:3) observed that the Town Creek ceramic assemblage included 71 percent complicated-stamped pottery. Although complete designs are difficult to define, he provided the following percentages (of total sample) of identifiable complicated stamp designs (Reid 1967:4-6): concentric circles, 6.7%; filfot cross, 5.6%; herringbone, 2.0%; quartered circles, 1.8%; arc-angle (unique to Pee Dee), 1.6%; split diamond, 0.5%; and line block, 0.1%. Oliver (1992) observed some change from these overall distributions with respect to the frequencies at the Leak and Teal sites.

These figures show little similarity with the Catawba valley complicated stamped patterns, which tend to be large concentric circles joined by angled and straight lines. Filfot cross and scroll are present in small numbers but the remaining patterns are absent in the Catawba assemblages. Perhaps most significantly, incised cazuela bowls are not present in the Pee Dee pottery. Similarities are close between the areas in a design illustrated by Reid (1967:Plate V) as "undefined curvilinear stamp," but the frequency of this design is unknown. Finally, Reid (1967:4) notes the Pee Dee complicated stamped sherds rarely show the impression of wood grain, a characteristic he says is common in the Qualla ceramics in the mountains. This is also common among Burke and Cowans Ford ceramics and may be another temporal indicator of later ceramics.

Appalachian Summit Phases

The final region to be examined is the Southern Appalachian Mountains. The late prehistoric Pisgah phase (A.D. 1000 - 1550) and historic Qualla phase (A.D. 1550 - 1800) are well defined in the mountains of western North Carolina (Dickens 1970, 1976; Egloff 1967; Keel 1971, 1976). However, since their formulation there has been little temporal refinement within the phases. As described in the previous chapter, Pisgah ceramics have a prominent but restricted distribution in the upper Catawba valley. Based on stylistic characteristics, most of the upper Catawba Pisgah ceramics appear to date to the late Pisgah phase, ca. A.D. 1300-1500 (Dickens 1976:177-178).

The Qualla phase represents the culture of the protohistoric and historic Cherokee Indians and is dated to ca. A.D. 1450-Removal (Dickens 1976:14-15; Keel 1976:214-216). Qualla ceramics are defined by Egloff (1967:34).

> The [Qualla] series possesses the basic attributes of the Lamar style horizon: folded finger impressed rim fillets; large, sloppy, carved stamps, and bold incising. The complicated stamped motifs illustrating Lamar Complicated Stamped exhibit a greater degree of regularity and symmetrical design than is found on Qualla Complicated Stamped (Jennings and Fairbanks 1939). The same holds true with the incised cazuela bowls, though to a lesser degree. Incising accompanied by reed punctations, which is common upon Lamar Bold incised vessels, was absent in the

> material analyzed. These differences are very striking and have led to the definition of the Qualla Series as a distinctive ceramic complex..

There has been no further analysis of Qualla ceramics in western North Carolina but a brief examination of Egloff's summary of Qualla types shows that the major similarity with the Catawba valley assemblages is found in the high frequency of complicated-stamped pottery.

Egloff (1967:35-36; 72) summarizes the Qualla ceramics as follows:

> 1. Complicated Stamped, smoothed over complicated stamped, and roughened complicated stamped account for 75 percent of total sherds. Most common motifs are concentric loops and circles; some concentric squares, wavy lines, and zigzags.
> 2. Qualla Plain accounts for 5 percent; never more than 17 percent at any site.
> 3. Qualla Check Stamped accounts for 3 percent; not more than 5 percent at any site.
> 4. Qualla Burnished accounts for 1 percent; never more than 6 percent at any site.
> 5. Qualla Cord Marked accounts for 1 percent.
> 6. Qualla Corncob impressed accounts for less than 1 percent (only 9 sherds were identified).
> 7. Incised sherds accounted for 3 percent.

Egloff's collections were also primarily surface collections and are subject to the same cautions expressed above. In fact, Hally (1994:147) feels that the series encompasses a great period of time:

> The Qualla ceramic series, as defined by Egloff (1967) for the Appalachian area almost certainly spans three to four centuries, although most of the pottery Egloff illustrates in his thesis dates to the late Lamar period.

Qualla pottery closely resembles the Burke pottery series. I believe that as the dating of these two ceramic series is refined more similarities will be found among the later material that features wider folded/thickened rims, large complicated stamp motifs, and moderate frequencies of incised bowls. However, once again, on an assemblage basis, the Burke and Cowans Ford series are quite dissimilar from the Qualla series with a greater frequency of curvilinear complicated stamped motifs, higher frequency of Lamar incised and plain surface and a complete absence of check stamping.

CATAWBA VALLEY PHASES

I fully expect that continued research will demonstrate that the general course of temporal changes found throughout the Lamar region (Hally 1994) are repeated in the Catawba valley. As Hally also points out, the periods of origin and rates of change may be somewhat different. Nonetheless, it is clear that most of the chronologically diagnostic characteristics of the Burke and Cowans Ford pottery support a middle and late Lamar time frame. However, it is also important that the Catawba valley ceramics be temporally grounded in the Catawba valley. As will be seen in the following section, the radiometric data for the Catawba valley and related areas also support a middle and late Lamar time frame for the Burke and Cowans Ford ceramics.

Radiocarbon Dates

Recent investigations have provided twelve radiocarbon dates (Table 55) from four Catawba valley sites; the Berry (31BK22) and McDowell (31MC41) sites in the upper valley and the Crowders Creek (31GS55) and Hardins II sites (31GS30) in the lower valley region. It is unfortunate that no dates are available for middle valley sites; it would be particularly helpful to have additional dates from sites such as 31ID31, 31CT1, 31CT115, and 31LN19.

However, there are several additional dates from contexts associated with Burke and other soapstone-tempered pottery that can also provide temporal data for our use. These include dates from 31CW8 (Kimball et al.1996), 31WK33 (Idol 1996), 31WT22 (Senior 1981, Boyd 1986a), and 31JN89 in upper east Tennessee (Boyd 1986b).

There are now five dates directly associated with definite Burke ceramic assemblages. These include the two dates from the Berry site (31BK22), two from the Jones site (31WK33), and one from the Broyhill Mound site (31CW8). There are also six dates associated with assemblages that include Burke types or related soapstone-tempered sherds. These include two dates from the Ward site (31WT22), one date from 40JN89, two dates from the McDowell site (31MC41), and one from the Tyler-Loughridge site (31MC139).

Table 55. Catawba valley and related calibrated radiocarbon dates.

Site and Context	Sample No.	Uncalibrated Age (years BP)	Lower Limits 2	Lower Limits 1	Calibrated Dates (years A.D.) Intercepts	Upper Limits 1	Upper Limits 2
Tyler-Loughridge (31MC139), Fea. 102-1	Beta-32927	970+/-70	894	999	1028	1164	1227
McDowell (31MC41), Structure A	Beta-21818	890+/-50	1019	1041	1168	1226	1279
Hardins II (31GS30), Fea. 12c	Beta-23587	860+/-80	1013	1043	1214	1277	1296
Hardins II (31GS30), Fea. 24	Beta-20947	770+/-100	1028	1183	1278	1301	1405
Crowders Creek (31GS55), Fea. 13	Beta-13287	600+/-70	1280	1298	1328, 1333, 1395	1419	1445
Ward (31WT22), Fea. 21	UGa-683	555+/-90	1282	1305	1406	1441	1614
Hardins II (31GS30), Fea. 20	Beta-20946	540+/-60	1298	1322	1410	1438	1472
Crowders Creek (31GS55), Fea. 12	Beta-20945	520+/-70	1299	1329	1421	1446	1613
Berry (31BK22), Fea. 8	Beta-21817	520+/-50	1307	1400	1421	1441	1473
Hardins II (31GS30), Fea. 15	Beta-23089	520+/-80	1294	1323	1421	1448	1623
Berry (31BK22), Fea. 13	Beta-21816	500+/-60	1308	1403	1431	1448	1614
McDowell (31MC41), Fea. 3	GX-11057	460+/-75	1321	1412	1441	1480	1638
Hardins II (31GS30), Fea. 19	Beta-23088	430+/-80	1325	1422	1449	1625	1654
40JN89, Fea. 1 (Boyd 1986b)	GX-10244	350+/-130		1422	1562	1702	
Crowders Creek (31GS55), Smudge Pit	Beta-13917	350+/-50	1438	1461	1516, 1591, 1621	1644	1663
Broyhill Mound (31CW8), Fea. 3	Beta-97657	320+/-70	1440	1475	1535, 1545, 1635	1655	1675
Ward (31WT22), Fea. 21	UGa-684	310+/-165	1306	1436	1638	1954	1955
Jones (31WK33) (Idol 1995)	Beta 84449	510+/-80*					
Jones (31WK33) (Idol 1995)	Beta 84450	400+/-60*					

*uncorrected

All dates as reported in Eastman (1994a, b) unless otherwise noted.

The two earliest of these are from the nearby McDowell and Tyler-Loughridge sites. It is likely that they represent Pisgah components or components with early Burke pottery. The second date from the McDowell site and the early date from the Ward site overlap at one sigma in the fourteenth and fifteenth centuries, while the second date from the Ward site and the date from 40JN89 overlap at one sigma from the mid-fifteenth century to the early seventeenth century.

Thus it seems clear that there is now solid radiometric data to support a range of production of Burke ceramics from at least as early as the fourteenth century to at least as late as the sixteenth century.

A look at Table 55 also suggests that there appear to be three groups of dates. The first grouping shows that each of the four Catawba valley sites appears to have a component dating from the early to mid-fifteenth century. This includes three dates from 31GS30, both dates from the Berry site, and one date each from the McDowell site and the Crowders Creek site. This would correlate well with the proposed contemporaneity of the Burke and Cowans Ford ceramic series pottery.

One date from 31GS55 is late fifteenth to early seventeenth century (corrected at one sigma). Considered at one sigma, two additional sites, 31GS30 and 31MC41, range into the sixteenth century. It should be noted that for this date from 31MC41 (Gx 11057) Boyd (1986:67) provides additional corrections of A.D. 1458 and A.D. 1434 ± 75.
Finally, two dates from 31GS30, one date from 31GS55, and one date from 31MC41 range from the twelfth to fourteenth centuries. Clearly, these dates suggest that multiple components are present at the McDowell site, the Hardins site, and the Crowders Creek site. The Berry site dates are extremely close and viewed by themselves argue for a single component at the site (although I believe that additional work will demonstrate that to be incorrect). I fully expect that future radiocarbon dates will help date additional phases that prior to the fourteenth century, just as those reported by Mountjoy (1989) and Oliver (1992) did in the Pee Dee region.

The preceding discussion reviewed the regional chronologies that are relevant to the Catawba valley assemblages. This chapter concludes with the formulation of preliminary phases for the Catawba valley and the Upper Yadkin River valley. These phases have been developed with respect to the occurrence of temporally diagnostic Lamar ceramic attributes from dated contexts when possible, and otherwise rely on the distribution of temporally significant ceramic attributes and historic European artifacts. It should be made clear that the omission of named phases for earlier periods in the middle and lower valley regions does not imply a lack of occupation. I have only attempted to define phases in those areas that I feel are clearly supported by current data.

I have proposed four phases in the upper Catawba region (Table 56; Figures 11 and 12). These are the Pitts phase (ca. A.D. 1200-1400), the Pleasant Garden phase (ca. A.D. 1400-1600), the Burke phase (ca. A.D. 1400-1600), and the Happy Valley phase (ca. A.D. 1600-1700). The Burke phase and Happy Valley phase are also represented in the upper Yadkin valley, as is the Elkin phase (ca. A.D. 1400-1600). Two phases are defined for the middle Catawba region: the Low phase (ca. A.D. 1400-1600) and the Iredell phase (ca. 1600-1700). Finally, the Belk Farm phase (ca. 1680-1725) is defined for the lower Catawba valley.

UPPER CATAWBA VALLEY PHASES

Pitts Phase A.D. 1200-1400

The Pitts phase is named for the Pitts site, 31BK209, and is defined solely on the basis of the ceramic assemblage there. The Upper Creek assemblage is predominately plain/smoothed and complicated-stamped Burke series pottery. However, the frequency of curvilinear complicated-stamped motifs is very low, rectilinear complicated stamped and Pisgah motifs are relatively well represented. Also, Burke Burnished is present in relatively low numbers and Burke Cob-impressed is absent. Finally, there are only three Burke Incised sherds. The low number of Burke Incised sherds does not necessarily support a thirteenth- to fourteenth-century date but it is perhaps even more significant that these three

Table 56. Chronological framework for the Catawba River and upper Yadkin River in the late Prehistoric and early Historic Periods.

REGION **Archaeological Phase**	Estimated Time Range	Source of C-14 Date	Calibrated Intercepts (years A.D.)
UPPER CATAWBA RIVER			
Pitts Phase	**A.D. 1200-1400**		
Burke Phase	**A.D. 1400-1600**	*Berry (31BK22), Fea. 8*	1421
		Berry (31BK22), Fea. 13	1431
Pleasant Garden Phase	**A.D. 1400-1600**	*McDowell (31MC41)*	1441
Happy Valley Phase	**A.D. 1600-1700**	*Broyhill Mound (31CW8)*	1535, 1545, 1635
UPPER YADKIN RIVER			
Burke Phase	**A.D. 1400-1600**	*Jones (31WK33)*	1440*
		Jones (31WK33)	1550*
Elkin Phase	**A.D. 1400-1600**		
Happy Valley Phase	**A.D. 1600-1700**	*Broyhill Mound (31CW8)*	1535, 1545, 1635
MIDDLE CATAWBA RIVER			
Low Phase	**A.D. 1400-1600**		
Iredell Phase	**A.D. 1600-1725**		
LOWER CATAWBA RIVER			
Belk Farm Phase A.D.	**A.D. 1680-1725**		
			* not calibrated

sherds are the only definite examples of carinated or hemisphere bowls. I believe that the appearance of these vessel forms occurs in the fourteenth century. Therefore the lack of representation here, especially in contrast to their high frequency at the nearby Berry site, argues for an earlier date for the Upper Creek assemblage.

It is difficult to identify additional Upper Creek components from the mixed ceramic assemblages available, however, I expect that a component will be identified at the Berry site. I suggest that a coeval phase should be established for the extreme upper Catawba valley where Pisgah assemblages predominate (with few McDowell type sherds represented). However, I have not been able to determine how these assemblages are characterized. Future work at sites like the McDowell and Tyler-Loughridge sites should clarify this situation.

Pleasant Garden Phase A.D. 1400-1600

The Pleasant Garden phase is named for the early colonial settlement near the McDowell site (31MC41) in McDowell County and it is defined by the late prehistoric component at the McDowell site. Pleasant Garden phase sites are found on the upper Catawba River in McDowell County. The phase dates are provisional but are based on the occurrence of Burke, Pisgah, and McDowell ceramics, a calibrated radiocarbon date of A.D. 1441 (Table 6.1), and a possible fragment of sixteenth-century Spanish chain mail (Appendix A). A second calibrated date of A.D. 1168 reflects an earlier Pisgah occupation at the McDowell site.

The Pleasant Garden phase is characterized by the presence of both Pisgah and Burke ceramics and a blending of their respective attributes of surface treatment, temper, and form. The Pisgah pottery is primarily rectilinear complicated stamped and plain with soapstone, grit, and coarse sand temper and the Burke pottery is primarily curvilinear complicated stamped, plain, and burnished with soapstone and sand temper. Grit-tempered McDowell Complicated-stamped and Burnished pottery also occurs.

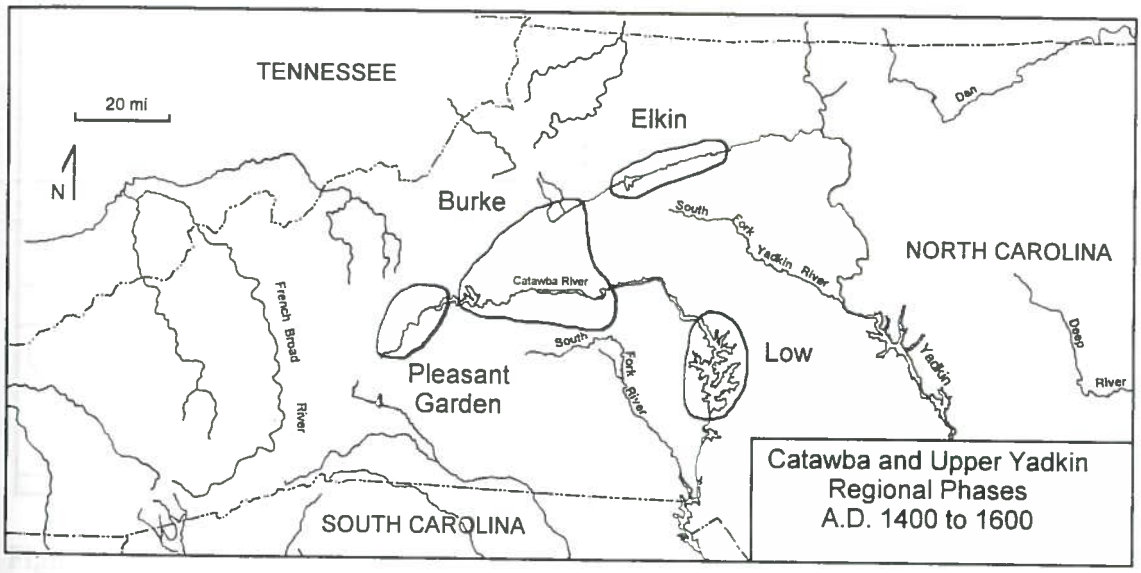

Figure 11. Locations of Catawba and Yadkin valley phases, A.D. 1400 to 1600.

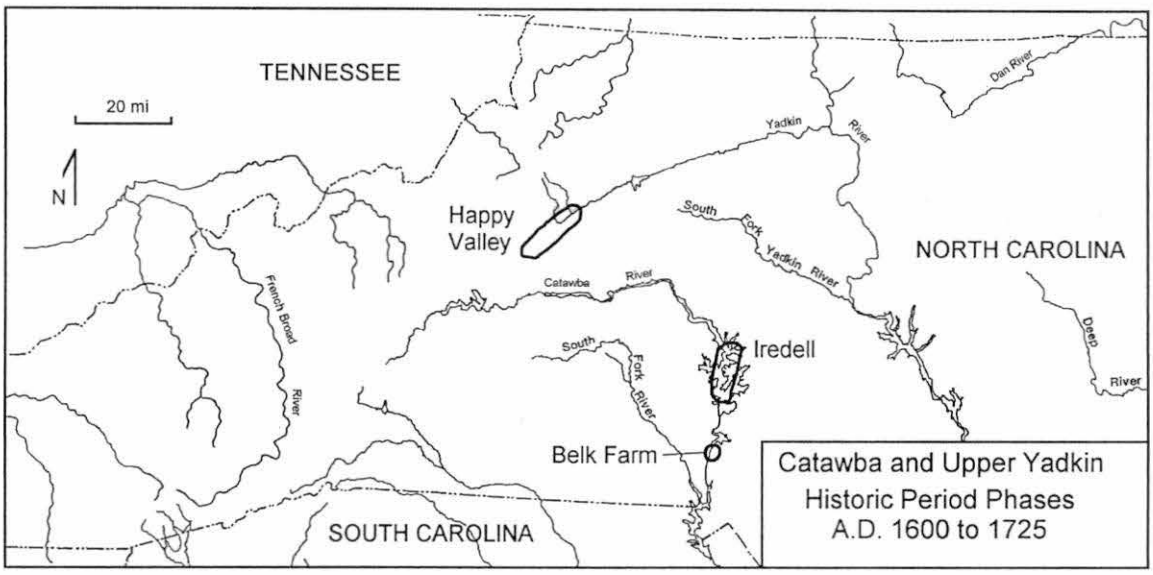

Figure 12. Locations of Catawba and Yadkin valley phases, A.D. 1600 to 1725.

The Pleasant Garden phase component at the McDowell site consists of a palisaded village with a probable substructure platform mound. At least one Pisgah-style structure has been identified as a domestic structure. In addition, a possible public structure has been identified.

Burke Phase A.D. 1400-1600

The Burke phase is named for the predominance of the Burke ceramic pottery on sites on Upper Creek and John's River in Burke County and in the Happy Valley area of the upper Yadkin River valley in Caldwell County.

The major known Burke phase component is present at the Berry site (31BK22; Appendix B)) located on Upper Creek in Burke County. The ceramic assemblage from the Berry site is nearly exclusively Burke series pottery. Two radiocarbon dates from the Berry site provide a solid fifteenth-century site context. However, the ceramic attributes and sixteenth-century Spanish artifacts support a mid- to late sixteenth-century occupation as well. The high frequency of curvilinear complicated stamping, carinated bowls with Lamar incising, and medium-to-wide thickened and punctated jar rims is most similar to Tugalo phase (A.D. 1450-1600) pottery in the upper Savannah River (Anderson et al. 1986; Hally 1990, 1994).

The Berry site is a large town with a substructure platform mound. Mound construction is assumed to occur in the Burke phase but unfortunately, no further structural information is available. Investigations of the site have not revealed many details of site structure; the presence of a palisade is possible but is not demonstrated. A partial circular posthole pattern was identified in the mound vicinity but it is uncertain whether this represents a domestic structure.

Other aspects of Burke phase material culture include ground stone and pottery disks, small triangular projectile points usually made from chert, and small ceramic elbow pipes.

Burke phase mortuary practices are not well documented; but two burials excavated at the Berry site provide some insight. Both burials were placed in shaft and chamber type

pits. These are characteristic of the Pisgah phase in the North Carolina mountains (Dickens 1976:102-132) and are also common in the Dan River and Eno River area from as early as the fifteenth century into the early eighteenth century (Wilson 1983; Navey 1982; Hogue 1988; Ward and Davis 1993:407-432).

Burial 2 was a standard circular shaft and chamber pit. Two individuals were interred within the single chamber. This is not a common practice among either the Pisgah phase or the historic period Piedmont Siouans; Milner (1980:48) and Smith (1987:61) suggest that multiple bodies interred in the same burial pit may result from European disease epidemics of the sixteenth and seventeenth centuries.

Burial 1 was a fully extended adult male placed in a rectangular pit with a full-length, side chamber. This type of extended interment is rare among the Piedmont Siouans and is also rare during the prehistoric Cherokee Pisgah phase. A burial bundle consisting of a possible turtle shell container, clay pipe, projectile points, and stone abraders accompanied the individual. Similar assemblages of artifacts have been found at the King site in Georgia (Hally 1975) and at the Cherokee site of Toqua in east Tennessee (Polhemus 1987) where they are dated to the sixteenth century. An iron knife was also placed across the upper chest.

A final characteristic of Burke phase mortuary practice is the occurrence of Citico style shell gorgets. Although none were found at the Berry site, two were recovered from a disturbed burial at 31BK56 (Ward 1980b). In addition, a collector reportedly recovered one Citico style gorget at 31BK18, the Edwards Nursery site, although I have been unable to confirm this. These gorgets are known from Alabama to North Carolina and are generally accepted as sixteenth- to early seventeenth-century markers (Smith 1987:108-112).

Other sites with probable Burke phase components are present at sites 31BK1, 31BK12, 31BK17, 31BK18, 31BK23, 31BK24, 31BK39, 31BK44, 31BK56, 31CT115, the Nelson Mound (31CW1) and Triangle, the Davenport Mound, the Lenoir Indian Burial Pit, and the Broyhill-Dillard Mound (31CW8), and the Jones site (31WK33).

Happy Valley Phase A.D. 1600-1700

The Happy Valley phase is extremely provisional. It is distinguished from the Burke phase on the basis of the late radiocarbon date and "late" ceramics from the Broyhill Mound site. At this time, there is some evidence in the upper valley of ceramic attributes that suggest a seventeenth century date for certain characteristics of Burke pottery. There are a few examples of "exploded" complicated stamped motifs from the Berry site, 31BK17, and 31BK18, and a few examples of Lamar incised designs with more than four lines. If the Lamar pottery temporal patterns observed elsewhere are also consistent in the Catawba valley these will be the seventeenth-century pottery attributes. In addition, the Broyhill Mound site ceramic assemblage also features an extremely high percentage (15.5%) of the large, "exploded", curvilinear complicated stamped motifs which are believed to be late Lamar attributes.

I suggest that this phase is represented by several site components including the Nelson Mound (31CW1) and Triangle, the Davenport Mound, the Lenoir Indian Burial Pit, and the Broyhill-Dillard Mound (31CW8). The Berry site, 31BK17, and possibly the sites in the Michaux Farm vicinity. It's geographic range is restricted to this small area that spans potions of the upper Yadkin and Catawba valleys.

UPPER YADKIN VALLEY PHASES

Elkin Phase A.D. 1400 to 1600

A provisional phase, the Elkin phase, is proposed to represent upper Yadkin River valley sites that date ca. A.D. 1400-1600. These sites feature Dan River and Smyth ceramics as well as ceramics with attributes of the Burke series and/or Pisgah series. The Porter site (31WK6) is one example of an Elkin phase site. The use of this term also resurrects the Elkin term that was proposed earlier by Coe and Lewis (1952) to represent protohistoric Catawba pottery. The name was apparently used with reference to a large site in the Elkin vicinity at which Burke ceramics were found. These may be the materials with which Coe

first made the association between the soapstone-tempered pottery and the Historic Catawba Indians. Without trying to confirm or deny that association, the use of the name and its association with Burke series pottery in the Yadkin valley assures some historical continuity of the term.

Burke Phase and Happy Valley Phase

These phases (described above) also are represented at upper Yadkin valley sites.

MIDDLE CATAWBA VALLEY PHASES

Low Phase A.D. 1400-1600

The Low phase is applied to sites in the middle Catawba valley which feature ceramic assemblages consisting primarily of Cowans Ford Complicated Stamped, Cowans Ford Plain, and Cowans Ford Burnished pottery types, with a minority of Burke types. Incised carinated and hemisphere bowls are common. These ceramics are believed to be basically coeval with the upper valley Burke series since they differ only in temper and paste characteristics.

The ceramic assemblage from the Low site, 31ID31, is characteristic of this phase. As discussed earlier this assemblage has been viewed as representing protohistoric Catawba Indian pottery (Wilson 1983; also see RLA site form for 31ID31). Low phase sites are located on the floodplain and terraces of the middle Catawba River valley. They include 31CT1, 31CT18, 31CT30, 31CT94, 31CT94A, 31CT96, 31ID31, 31ID46, and 31ID51.

Iredell Phase A.D. 1600-1700

The Iredell phase is represented by several components in the middle Catawba valley. It is characterized by the presence of Cowans Ford Complicated Stamped with large, "exploded" motifs and wide, folded and punctated jar rims. It is expected that further investigations of Iredell phase sites will reveal limited presence of European artifacts.

Iredell phase sites are located on the middle Catawba River. They include 31CT94, 31CT94A, 31ID31, 31ID42, 31ID46, 31ID51, and 31LN19.

LOWER CATAWBA VALLEY PHASES

I hesitate to establish even preliminary phases in the lower Catawba valley for three reasons. First, the number of sites and analyzed ceramic assemblages is extremely low. Second, I believe that the ceramics of this area will be found to be more similar with upper Wateree River valley assemblages. This is within the critical region of historic Catawba coalescence and I believe that it is more appropriate to withhold phase designation until the sites and ceramics of the area are better understood. It is likely that current research by Janet Levy, Alan May, and Rita Kenion at the Spratt's Bottom and other sites in York County, South Carolina will provide relevant data.

Third, the formulation of lower valley phases should proceed cautiously since these phases will be more closely linked with the Historic Catawba Indians. Before these phases can be reliably established it is necessary to have explicit research conducted on sites attributed to the Catawba Indians. This problem will be addressed in more detail below.

However, until such work is accomplished, the Belk Farm site remains the best-documented early historic period site in the lower valley. Therefore, I propose the Belk Farm phase for the latest component at the site.

Belk Farm Phase A.D. 1680-1725

The Belk Farm phase is defined as the early historic period component at the Belk Farm site, 31MK85. The ceramic assemblage features Cowans Ford Complicated stamped, Burnished, Plain smoothed, and corncob impressed. It also includes Rock Island Fine cord marked pottery. Glass trade beads are present.

HISTORIC PERIOD CATAWBA PHASES

One of my stated goals of this study was to try to identify links between the makers of protohistoric period ceramics and the Historic period Catawba people. This has proved impractical given the lack of archaeologically documented Catawba sites. However, given the ubiquity with which an ethnic or tribal affiliation has been used for Catawba valley ceramics, I feel it is necessary to consider some of the issues involved in establishing further archaeological phases for early historic period archaeological components that are believed to represent the "Catawba Indians."

In Chapter Two I discussed the terminological problems surrounding the use of the term "Catawba." In order to understand the relationship of the greater Catawba valley aboriginal populations with the historic period Catawba Indians, it is necessary to establish preliminary working hypotheses which describe not only what Catawba Indian culture might have been protohistorically in the sixteenth century, but also at the time of the founding of Charles Town (1670), at the time of Lawson's description (1702), and after the turmoil of the Tuscarora and Yamasee Wars (ca.1720).

I also cautioned that, considering the variety of referents applied to "Catawba," it is possible that the association of the major Catawba valley region with the Catawba Indians is a function of the activities of peoples of the mid-eighteenth century Catawba Nation and does not necessarily reflect a prehistoric or even protohistoric reality.

This issue has been discussed by others but usually with reference to the use of the term "Catawba" pottery (of various sorts). Burke (Keeler 1971, Dickens 1976), Elkin (Coe and Lewis 1952), and Chicora (South 1973) ceramics have been attributed to the protohistoric Catawba Indians. Also, Wheaton et al. (1983:226-229) define the *Catawba* type as an Indian-made version of Colono ware. Ferguson (1989) argues that in the case of the Catawba-Colono ware it is inappropriate to use the Catawba name due to the implied association with Catawba Indians. I agree with Ferguson. While Wheaton et al. (1983) may be absolutely correct in having identified an Indian-made Colono ware, the Catawba

appellation confuses the issue of both origin and tradition. Clearly, this study shows that there existed in the Catawba valley an indigenous ceramic tradition of plain and burnished pottery. It should not be surprising that it continues into the historic period within the Catawba/Wateree drainage. But the automatic Catawba label is a problem; it should not be used without a demonstrated cultural link.

To avoid this difficulty I would like to propose a new terminology to separate the Catawba/Wateree region chronological phases and ceramic types from inadvertent cultural implications. These divisions may be criticized as being arbitrary but they are proposed only as structural aids in understanding Catawba Indian culture and its archaeological manifestations. The proposed terms are: Catawba Valley Mississippian; Protohistoric Catawba; Sugar Creek Catawba; and Catawba Nation/Reservation.

Catawba Valley Mississippian is proposed to refer to the cultures of the Catawba River valley that may be classified as similar in material cultural, economy, and sociopolitical complexity to other cultures referred to as South Appalachian Mississippian. The Pleasant Garden, Burke, Happy Valley , Iredell, and Low phases are representative of Catawba Valley Mississippian.

Protohistoric Catawba is proposed to refer to specific sites or phases sharing similar material cultural, economy, and sociopolitical complexity and that are suspected of having direct linkages with the historic Catawba Indians circa A.D. 1550 - A.D. 1670.

Sugar Creek Catawba is proposed to refer to specific sites or phases that can be identified as documented Catawba Indian towns circa A.D. 1670 - A.D. 1720. The name is derived from the location for the Catawbas reported by John Lawson in 1700.

The final term, Catawba Nation/Reservation, refers to sites or phases postdating A.D. 1720 and believed to correlate to the remnant groups that coalesced around the Catawba Indians in the wake of the Yamasee and Tuscarora Wars.

An objection could be raised that these proposed Historic Catawba phases are nothing more than empty terms with no heuristic value. However, given the confusion over

the use of the term Catawba in the past, I suggest that any tool is useful if it allows us to communicate about, compare, or contrast cultural patterns more clearly. I believe these terms provide that potential for Catawba studies.

The above phases should all be considered preliminary phases. I have tried to suggest relatively broad time spans that reflect the differing regional variations of Lamar style ceramic attributes as well as the occurrence of Historic period European artifacts. I have no doubt that continuing research, particularly at the Berry site and in the upper Yadkin valley, will establish a finer-grained chronology in the near future.

CHAPTER SEVEN

DISCUSSION

I was motivated to begin this study to examine the proposition that a resident Catawba valley Native American population interacted with, and were possibly affected by interaction with, sixteenth-century Spanish armies under Hernando De Soto and Juan Pardo. At the time, it was uncertain whether any sixteenth-century Native American occupation could be documented (archaeologically) in the region; thus, my primary goal was a preliminary cultural chronology without which any discussion of cultural patterns or cultural change was impossible. My secondary goals were to develop hypotheses for future investigation regarding a) the sociopolitical structure of the Late Prehistoric and Early Historic period Catawba valley peoples and b) their relationship to the Historic period Catawba Indians.

My major goal has been accomplished. The Catawba Valley chronology presented in Chapter Six is based on radiocarbon dates associated with Burke and Cowans Ford series pottery as well as a comparison between the attributes of these pottery types and other pottery types from dated Lamar phases in Georgia and South Carolina.

The identification of the Burke and Cowans Ford pottery as a regional variant of Lamar pottery raises the question of what cultural relationship existed between the Catawba valley societies and other Lamar cultures. Hally (1994) has emphasized the polythetic nature of Lamar culture as it manifests regional variation in artifacts, settlement patterns, polity size, and linguistic expression. Clearly, then, the answer to that question can hardly begin to be answered given the level of data available to us at this time. However, it is the urge to

explore this issue that leads to my secondary goals of understanding the regional sociopolitics as well as the relationship to the Historic Catawba peoples.

So, in this chapter I explore the larger questions, not so much to answer them but to look at some of the ways we may try to study them in the future. I will briefly discuss the following topics: the relationship of Catawba valley phases to other Lamar phases and the sociopolitical character of Catawba valley Mississippian groups; the Chiefdom of Cofitachequi, sixteenth-century Spanish exploration, and the possible consequences of European-introduced diseases; and the origins of the historic Catawba Indians. Each of these topics is of immense scope; it is my intention merely to examine some of the parameters of the issues in the hope of developing hypotheses for future research. In the meantime, the overwhelming conclusion is clear: without much additional archaeological evidence there will be no resolution of any of these issues.

CATAWBA VALLEY MISSISSIPPIAN AND LAMAR

Although we have but limited archaeological data from which to draw, it seems clear that at least two major portions (the upper and middle) of the Catawba River valley were relatively heavily occupied during the fourteenth, fifteenth, and sixteenth centuries A.D. Less dense occupation is suggested in the lower portion of the valley. It is also certain that less dense occupation occurred throughout the valley as early as the twelfth century and as late as the eighteenth. However, only one site, the Belk Farm site (31MK85), is known from the early eighteenth century and it is still difficult to clearly define any sites from the seventeenth century.

I refer to the people living in the Catawba valley from ca. A.D. 1100 to A.D. 1500 as Catawba Valley Mississippians, a term I derive from Ferguson's (1971) concept of South Appalachian Mississippian, of which the Lamar phases are a part. I use it as a descriptive tool to distinguish the people of this region from the better-known North Carolina Piedmont Siouans. I also use it to distinguish the Catawba valley people from other Lamar groups

with the intention of developing a clearer picture of what and who the Catawba valley people were.

Ferguson views South Appalachian Mississippian as a geographical, temporal, and cultural framework for describing late prehistoric cultures in the southeast. Combining Holmes's (1903:130) South Appalachian province with its distinctive stamped ceramics and Griffin's (1967) temporal divisions, Ferguson (1971:243) sees South Appalachian Mississippian as

> those cultural systems of the [South Appalachian] Province that were beginning to place a significant amount of emphasis on an agriculturally related economy and also beginning to pick up organizational and ideological characteristics, such as large villages and temple mound ceremonialism, consistent with agriculturally based economies.

Ferguson created a framework of cultural units to combine similar archaeological phases throughout the South Appalachian Province and examines the regional distribution of cultural traits, especially ceramics. He explicitly links the spread of Lamar ceramics and similar cultural elements.

> I do not see the expansion of the new and sophisticated Lamar style ceramics as associated with a drastic alteration of the cultural systems; rather I think the expansion of Lamar is representative of the close association that cultural constituents of Southern Appalachian Mississippian had developed (Ferguson 1971:246).

Thus, the first two questions I wish to ask are: What was the relationship of Catawba Valley Mississippians to peoples of the other Lamar phases? What was the mechanism by which the Catawba valley manifested a regional variant of Lamar culture? Again, I will not attempt to answer these questions but will look at some of the ways in which they can be studied.

There are at least two broad categories of models that are used to explain the distribution of cultural traits. One is diffusion and the other is cultural replacement. In North Carolina, for instance, the Town Creek site has usually been interpreted as an intrusive Muskogean or Mississippian culture in the Siouan-dominated Piedmont. One

might also say that the expansion of Lamar pottery into the Catawba valley resulted from a migration of Lamar culture people. However, I prefer to examine the possibility that such mechanisms of change are extremely complex and in this case may involve aspects of both diffusion and migration.

Throughout Lamar studies, much of the focus has been on pottery (Hally 1994). I have the same focus in this study. Therefore, I wish to look at the question of ceramic similarities between Lamar phases. Similarities between coeval ceramics are generally viewed as the result of interaction between the makers of the respective potteries. Often measures are employed to describe the degree of interaction. Rather than trying to measure the degree of interaction, I view the distribution of ceramic attributes exhibited in the Burke series as a function of diffusion. Diffusion is not seen here as an explanation of the distribution but as a process, the explanation of which involves the social context of innovation adoption (Davis 1983).

Davis (1983:75) offers three hypotheses describing the role of social context of diffusion:

> H1. In general, diffusion of pictorial styles should occur more readily between societies with similar degrees and levels of social stratification...
> H2. As a corollary to (H1), diffusion of more complex configurations of stylistic elements between societies should be directly related to congruence of social stratification...
> H3. Spatial boundaries between societies with dissimilar degrees of social stratification should be marked by rather sharp differences in structures of art styles, regardless of which individual stylistic elements diffuse across the boundaries...

For the purpose of this study ceramic decoration and vessel form is considered analogous to the concept of art or pictorial styles for which these hypotheses were developed. Admittedly, one must be cautious about the use of untested hypotheses. However, I suggest that Davis' hypotheses may generate several additional useful

implications or preliminary hypotheses concerning Burke, Cowans Ford, and Lamar ceramics.

From hypotheses H1. and H2., one could argue that Burke, Cowans Ford, and other Lamar ceramics were produced by peoples sharing a relatively similar degree of social stratification. Under this assumption one could analyze the diversity of exterior surface treatments and vessel forms as indicators of more or less congruence. For instance, it is interesting that exterior surface treatments are similar but that Georgia Lamar vessel forms are more diverse than the Catawba valley forms. This may merely reflect the limited Catawba valley samples but it may also reflect some divergence in the complexity of stratification between the two areas.

Hypothesis H3. presents a rather striking implication, i.e.; the Catawba valley societies are distinct from the nearby Piedmont Siouan groups in terms of social stratification. For instance, despite the occasional presence of incised cazuela vessels and complicated stamped surface treatments on Siouan assemblages (both of which are believed to be protohistoric phenomena), the overall assemblage compositions are nearly as dissimilar as is possible.

Both implications suggest that the Catawba valley pottery is produced by groups that resemble Lamar chiefdoms but are dissimilar to Piedmont Siouans (generally regarded as having less complex sociopolitical organization; cf. Wilson 1983; Coe 1952a; Hudson 1970).

What is the significance of these implications? Many researchers have observed the wide geographic extent of "Lamar" and "Lamar-like" pottery. Ferguson (1971:264) clearly views the transmission of South Appalachian cultural traits within Lamar culture to be the product of diffusion. Hally (1986) also believes it is a result of diffusion. This in itself is not significant; it is akin to arguing that it occurs as a result of "interaction." However, from Davis' model we can argue that the process of diffusion occurs readily because of the similar

levels of cultural complexity and that the widespread transmission of Lamar pottery reflects the extent of political complexity of Lamar chiefdoms.

I do not intend to simplify a complex issue. Obviously, different theoretical perspectives could be brought to bear on this question to suggest other explanations. It is interesting, however, that this model is somewhat complementary with others. David et al. (1988:378) suggest that pottery decoration among the West African Mafa and Bulahay consists of "condensed symbols that express the cosmological assumptions that underpin social action." In other words, design may reflect aspects of ethnicity. This is somewhat similar to information exchange theory (Wobst 1977), in which one might suggest that the pottery decoration is a means of transmitting organizational messages. Both of these views seem to complement Davis' model in that they may explain motivation for innovation adoption while Davis' model provides an explanation for the ease of transmission and a possible boundary-regulating mechanism.

Even so, it is necessary to observe extreme caution when trying to develop a model based on these theoretical assumptions. For instance, Evers and Huffman (1988:740) differentiate between sharing a design and its meaning and also introduce the question of language:

> Even if we do not know the meaning of any design in any context we can still recognize a group's existence. The size and kind of group is another question. Since ceramic style and the larger design field are part of culture, in the sense of a cultural meaning system ...they are learned and transmitted verbally. Members of a group who share a design and a cultural meaning system must therefore speak the same language, although the converse is not automatically true.

David et al. (1988:381) are more emphatic concerning the potential complexity:

> Styles caused by shared meaning, by unreflective copying, by common descent... or by random convergence, by quoting, parodying, rendering homage... are very different sorts of effects - although often morphologically indiscernible in a formal analysis. Only some could be indices of "ethnicity' although all are indices of phenomena of production.

Clearly, even this cursory examination demonstrates the difficulty of correctly deciphering the meaning or function of ceramic decoration. However, given the lack of other archaeological indicators in the Catawba region, I prefer to rely on the perspective of Davis (1983) and David et al. (1988). With their ideas in mind, I offer the following preliminary model or hypothesis concerning the relation of the Lamar ceramic tradition and sociopolitical organization among the Catawba Mississippian societies.

The Late Prehistoric period and Early Historic period ceramic attributes of the Catawba valley exhibit closer similarities to the ceramic attributes of the Georgia and South Carolina piedmont than to those of the North Carolina Piedmont. The similarity reflects a congruence of sociopolitical organization among these areas; that is, information flow between chiefdoms or ranked societies found within these regions resulted in a more homogeneous ceramic style. The information flow was motivated by a desire to incorporate a well-understood symbolism; i.e. the Lamar incised decoration. It is possible that this decoration is related to other circle or sun symbolism.

It is also possible that spatially discrete or distinctive patterns of ceramic attribute distribution in the Catawba valley may be seen as patterns of interaction between independent, ranked societies. The regional homogeneity, as expressed in the Burke and Cowans Ford ceramic series, will reflect the influence of other chiefdom level Lamar societies from the south and west.

CATAWBA VALLEY CHIEFDOMS?

Since I suggest that sociopolitical organization is important to understanding our regional relationships, it is also important to look at the question of chiefdoms. Many researchers (for example: Larson 1971; Hudson 1994; DePratter 1983; Smith and Kowalewski 1981; Smith 1987; Anderson 1986, 1989, 1990a, 1990b, 1994) have defined late prehistoric and protohistoric southeastern chiefdoms. The chiefdom has been variously defined in terms of processes of formation, structures, and hierarchical organization and

leadership (Service 1962; Fried 1967; Earle 1987; Steponaitis 1978; Peebles and Kus 1977; Carneiro 1981; Wright 1984; Johnson and Earle 1987). Hally (1994:167-172) has described Lamar polities as chiefdoms on the basis of settlement patterns and the documentary evidence of sixteenth-century Spanish chroniclers.

It is important to keep in mind that chiefdoms are extremely variable in character and complexity. For the purposes of this discussion I use the very general characterization by Earle (1987) that a chiefdom is a centralized polity that organizes a regional population and features some degree of heritable social ranking and economic stratification.

It is difficult, if not impossible, to analyze the late prehistoric Catawba valley societies in terms of any chiefdom models due to the lack of comprehensive settlement data and extensive excavation data. Therefore, this discussion is not viewed as an attempt to characterize the Catawba valley societies but to consider some of the features of the region that correspond to chiefdom level societies. In other words, we should not a priori now assume that Burke phase polities are chiefdoms, but we have to ask to what extent do the Catawba valley societies conform to our expectations of a southeastern chiefdom society? Given the limited archaeological record I consider three areas that correspond to the archaeological correlates of ranked societies proposed by Peebles and Kus (1977:431-433): hierarchical settlement, monument construction, and markers of elite status.

Settlement

Peebles and Kus (1977:431-432) describe two types of settlement variability that are distinctive of ranked societies. The first is that a hierarchy of settlement types and sizes exists and that for any particular site, its location should reflect its position within the hierarchy. Secondly, settlements should be located in areas that assure a high level of local subsistence sufficiency.

Catawba valley settlement data are extremely limited but it is clear that settlement patterns are based in productive floodplain settings and limited subsistence data show that an active maize agricultural system was operative. Beck's (1997a) survey data from the Upper

Creek/Warrior Fork area strongly suggest that the local settlement system contains at least three different sizes of sites. It is unclear how functionally discrete these sites are, but Beck (1997a:50) argues that the existence of one mound site and two smaller classes of sites supports the characterization of a complex chiefdom for this locale.

We also see, in the upper Catawba and upper Yadkin valley (and possibly elsewhere), that these groups built and used substructure mounds and corporate mortuary facilities, the implication being that there existed structural and/or functional differences between sites. Unfortunately, it is unclear whether the substructure mounds were used for elite residences or other purposes. However, though it cannot be definitively demonstrated, the distribution of mounds in the headwaters of the Catawba and Yadkin valleys may represent a hierarchical settlement system.

The known mound sites (Berry site, McDowell site, and the Nelson site) feature several common elements with respect to their location. First, the mounds that have been identified, as well as the mounds reported by Thomas, are confined to a relatively restricted area: the large headwater valleys. With only three exceptions, mounds are not reported downstream. Thomas (1891:153) reported one unconfirmed mound in the Lake Norman area and Ferguson (1971:148) reports one mound on the Yadkin River in Davie County. The third is the well-known Town Creek site in the Pee Dee valley (Reid 1967; Oliver 1992). These upland valleys represent a major ecotone at the juncture of the Piedmont and the Blue Ridge Escarpment. Ecotone settings for Lamar chiefdoms have been emphasized by Larson (1971:24-25) and Hally (1979:10-11, 1994:163) as offering both subsistence and economic advantages. Hally (personal communication 1987; see also general reference to this phenomena Hally 1994:163) has suggested that the floodplains in this particular ecotone may be especially desirable due to the dramatic change in stream grade whereby flood waters deposit coarser (more easily tilled) sediments here than they do downstream.

Second, it is perhaps noteworthy that both the Nelson mound and the Berry mound are located as far upstream as practical to allow access to both large fields of easily tillable

soil and natural routes into and through the mountains. These locations confer not only economic and subsistence advantages but also possibly play a role in defining or defending polity boundaries as well.

Of course, evidence for elite structures on mound summits would provide more compelling evidence for the existence of chiefdoms and some level of hierarchy. Unfortunately, through earlier excavations and plowing has effectively destroyed that potential evidence. Nonetheless, though much more work is necessary to analyze the distribution of these mound sites, there appears some potential for a hierarchical settlement system in the region.

Elite status

Peebles and Kus (1977:431) derive evidence from mortuary contexts for two dimensions of ascribed ranking of individuals; a superordinate dimension that is ordered by symbolic objects and a subordinate dimension that is ordered by age and sex. While mortuary data is nearly non-existent in the region there are several examples of one high-status artifact associated with chiefly elites: the spatulate axe (Smith 1987:98; Hatch 1975). Spatulate axes have been found in burial contexts at the Nelson site (Thomas 1887) in the upper Yadkin valley, the Hardins site, 31GS29 (Keel 1990), in the lower Catawba valley, and at the Porter site, 31WK6, (Rogers 1993:205) located on the Yadkin River about 35 miles downstream from the Nelson site. Such a sample is interesting but, of course, hardly evidence of ascribed ranking in the region.

Mound construction and part-time craft specialization

The final correlate of ranked societies is evidence of organized productive activities that transcend the basic household unit (Peebles and Kus 1977:341). Such activities include mound-building and the support of part-time craft specialization. Mound-building is well documented in the region, especially in the headwaters area of the upper valley. Part-time craft specialization is less well documented but numerous examples of Citico gorgets have been found. The Citico gorget, while not marking ascribed status (Hatch 1975:133), is

considered to be the product of skilled shell-working specialists. They date from the fifteenth to the early seventeenth century (Smith 1987:108-112). Citico gorgets have been found in burial contexts at the Nelson site (Thomas 1887 and see Appendix) and at 31BK56 (Ward 1980b), located on the Catawba River about 12 miles southwest of the Berry site. It should also be pointed out here that Citico gorgets are found at several sites in the Appalachian summit region of North Carolina (Moore 1990) as well as in the Piedmont (Ward and Davis 1993). This distribution argues against the use of the Citico gorget as a marker of the chiefdom of Coosa (Smith 1989:139).

The presence of Citico gorgets throughout western North Carolina is not necessarily indicative of local production of these artifacts. Steponaitis (personal communication 1998) suggests that these are imported items and thus not indicative of craft specialization.

Obviously, it is difficult to make definite conclusions based on the usual archaeological correlates. However, I feel that the characteristics described for the Catawba valley are similar to those described for other southeastern chiefdoms. The question of Catawba valley chiefdoms is further explored in the following section which considers the documentation of the sixteenth-century Spanish explorers Hernando De Soto and Juan Pardo.

THE SIXTEENTH CENTURY CATAWBA VALLEY: COFITACHEQUI, SPANISH EXPLORERS, AND EPIDEMIC DISEASE

The sixteenth century is perhaps the most critical period in the history of the Catawba valley peoples. There now seems little doubt that it is the time of contact between native Catawba valley cultures and Spanish explorers. Therefore, one way to view the region is specifically in terms of ethnohistoric reconstructions of the sixteenth-century Native groups encountered by the Spanish explorers. As discussed in Chapter Two, this involves a number of assumptions, most of which revolve around the geographic placement of the actual route or "route corridor" followed by De Soto and Pardo. This has major

implications for the Catawba region since the Hudson et al. (1984) route interprets direct Spanish presence in the valley while the earlier Swanton route prefers the Savannah River.

Some have questioned the basic premise of reconstructing individual historical events such as the De Soto or Pardo expeditions (Boyd and Schroedl 1987:843). However, I believe it is a legitimate exercise which allow us to view the Spanish documents as a window through which we may glimpse the dynamic interaction of polities and populations that characterized many of the Mississippian cultures of the sixteenth-century southeast. These documents (and the reconstructed route) enable us to begin to explore and recognize the archaeological manifestation of the towns, villages, and polities encountered by the Spanish.

I prefer to view the reconstructed routes as hypotheses that can only be tested by archaeological means. Regardless of whether the route is ever proved beyond doubt (an unlikely event), archaeological investigations of the proposed regions will eventually provide data on populations and settlements that will enable us to interpret the type of cultural geography Hudson envisions. This is not to say that testing entails proving the veracity of individual site designations but rather demonstrating that the settlement types and relationships, populations, and other cultural features correspond to those described in the documents. It may indeed prove impossible to identify individual locations but it is possible that regional examinations will reveal cultural landscapes in which the events were likely to have occurred.

Therefore, this discussion is not an attempt to prove or disprove either of the major interpretations of the De Soto and Pardo routes. Rather it is a brief examination of the Catawba valley at the time of Spanish contact regardless of whether Joara was located at the Berry site, the McDowell site, or even on the Hiwassee River. Regardless of the exact location of Joara, there were Spaniards among the sixteenth-century Catawba valley Mississippian peoples.

In a sense, an ethnohistoric view of the sixteenth-century Catawba valley begins and ends with the Chiefdom of Cofitachequi. Numerous scholars have explored the chiefdom and, not surprisingly, one's view of the chiefdom tends to predict one's view of the Catawba valley populations. Baker's (1972a, 1974) Wateree River location for Cofitachequi and his interpretation of the chiefdom's territorial extent to include possibly the entire Catawba valley has influenced the work of Hudson et al. (1984), Anderson (1994), and Merrell (1989). Baker (1974) assumes that the chiefdom exerted major control over Catawba valley societies during the early-to-mid sixteenth century. While this view is generally followed by Hudson et al. (1984) and Anderson (1994), DePratter (1990), and Merrell (1989) view the chiefdom's Catawba valley influence as modest, at best, and certainly fluctuating with time (see also Levy, et al. 1990).

One's view of Cofitachequi's power and influence is also a function of one's interpretation of the results of disease among the Catawba valley peoples. Baker (1974), Hudson et al. (1984), DePratter et al (1983), and Anderson (1994), accept the proposed waning of Cofitachequi's influence between 1541 and 1565 as the result of disease brought by De Soto. Under this interpretation, one might argue that there might also have been devastating effects throughout the Catawba valley. DePratter (1994) on the other hand, questions whether such a catastrophic impact was ever felt in the region. Clearly, the relative impact of sixteenth- and seventeenth-century epidemics would significantly affect the Catawba population both in size and probably in distribution.

Despite considerable debate regarding the timing, the mechanisms of transmission, and its ultimate effect, there is little doubt that the introduction of European diseases is one of the major factors in population dynamics among protohistoric and early historic period southeastern Native Americans (see Dobyns 1983; Smith 1987; Ramenofsky 1987; Milner 1980; Snow and Lanphear 1988; Ward and Davis 1993; Blakely and Detweiler-Blakely 1989; Storey 1985). It is also clear that the late prehistoric and protohistoric aboriginal populations of the southeastern United States were irreversibly disrupted by the arrival of

European explorers in the sixteenth century. That epidemic diseases devastated many of the native populations has long been recognized; it is only recently through a number of population studies that we have begun to understand the full scale of the devastation.

It is clear that any discussion of the effect of disease and population changes in the Catawba valley must consider the variables of chronology, settlement patterns, and village populations defined by Ramenofsky (1987). Ward and Davis (1989, 1993:430-432) emphasize this point. They argue that the Siouan populations of the nearby North Carolina Piedmont suffered minimal effects of European diseases until the late seventeenth or early eighteenth century. However, it would be equally dangerous to assume that the effects in the Catawba region should be similar given the proximity of the Catawba region to the Piedmont Siouans. It is at least equally plausible that the Catawba populations were more directly affected by the epidemics due to their proximity to Cofitachequi and the probability of direct contact with the Spanish. The issue will only be settled with extensive regional settlement studies. At this point it is best to understand that there are a range of opinions and data regarding the transmission of epidemics that cannot be evaluated in the Catawba valley. In time it is possible that settlement and chronological data will allow more productive investigation.

Despite the uncertainty over the power of Cofitachequi or the effect of epidemic diseases, it is still possible to generate useful models of regional polities based on the Spanish accounts. Levy et al. see a relatively autonomous and dynamic region that features several small polities:

> which are probably affiliated with the main center of Cofitachequi but maintain a high degree of autonomy. These polities were not egalitarian; at least two kinds of stratification were present. First, the chief of Cofitachequi, in times of expanding influence, probably could require tribute, labor, and allegiance from much of the region. The De Soto documents hint that the early 1540s were such a period. Second, within the smaller polities, elite individuals probably had authority over a general population, both in the chief's town and in surrounding subsidiary communities, even when the influence of the elite at Cofitachequi was minimal. In fact, the influence of local chiefs may have expanded as the influence of the chief at Cofitachequi waned. This seems to have been the case at the time of the Pardo

> expeditions. We cannot, at this point, be more specific about the degree or organization of stratification within the region. In any case, the political situation in the Catawba-Wateree Valley in the fourteenth to sixteenth centuries was probably a shifting one (1990:164).

There is no reason to suspect that the shifting political situation was solely dependent on the fortunes of Cofitachequi or any other single polity. Ethnohistoric and archaeological evidence (Anderson 1986; Hally and Rudolph 1986; Wright 1984) suggests that chiefdom polities are unstable and undergo regular or cyclical organizational fluctuations. Therefore one would expect fluctuation of polity size and degree of control from centers to frontiers regardless of which polity (or polities) hold the central authority. It seems likely that similar processes occurred in the Catawba valley. In the absence of an overarching regional chiefdom, the same fluctuations could occur as the result of self-aggrandizing of small chiefs.

It is hazardous to interpret the sixteenth-century Catawba valley purely in terms of the relative influence of Cofitachequi or of the impact of the De Soto and Pardo expeditions. What I have done in this study is to provide the beginning of archaeological data to complement the ethnohistoric information and to try to build a model of the sixteenth century Catawba Valley peoples in their own right.

HISTORIC CATAWBA INDIANS

I suggest above that the Burke and Cowans Ford phases represent chiefdom level societies within Lamar culture and I have applied the general term Catawba Valley Mississippian to apply to this culture area. In this section I propose that it is most appropriate to view Catawba Indian prehistory and protohistory in terms of the Catawba Valley Mississippians and in terms of explicit temporally based definitions of Historic Catawba Indians. I propose this model as an alternative to the prevailing view of Catawba origins as tied to the fortunes of Cofitachequi; the new model is also more compatible with

Merrell's (1989) view of Catawba beginnings. This model employs the prehistoric and protohistoric Catawba chronology presented in Chapter Five.

Catawba Valley Mississippian is proposed to refer to the cultures of the Catawba River valley dating circa A.D. 1300-1500 that may be classified as similar in material cultural, economy, and sociopolitical complexity to other cultures referred to as South Appalachian Mississippian. The Burke and Low phases are Catawba Valley Mississippian phases. These phases are believed to be represented by numerous sites and relatively large populations in the lower, middle, and upper valley. The level of social and political complexity among the Catawba Valley Mississippians is uncertain but it is possible that some level of interaction occurs on a regional level. It is also likely that secure trade routes connected the Catawba valley with other Lamar cultures of Georgia and South Carolina as well as possible routes to the western mountains.

The lack of clear archaeological evidence of post-sixteenth century historic period aboriginal occupation suggests that the upper valley and possibly most of the middle valley were effectively depopulated by the middle of the seventeenth century. The mechanism of this demographic shift is not understood. It may have resulted directly or indirectly from contact with the Spanish and their infectious diseases. Or it may have occurred in response to changes from outside the immediate region. One possible explanation: Following the mid-to-late sixteenth century the Catawba valley populations may have suffered political instability caused by the disruptions, on even a small scale, brought about by the effects of disease. This may have set in motion fragmentation of populations, at the very least. Consolidation of populations may have occurred at new locations such as the lower Catawba region. I do not believe it is coincidence that the trail followed by Lawson reached the lower Catawba and then moved east. By the end of the seventeenth century, there may have been only small fragments of population left on the middle and upper Catawba River. Perhaps the population had moved south for political reasons, for example to form new alliances. Or perhaps the existing trade routes formed a convenient locus in the lower Catawba, and

people moved here to secure the economic advantage that began to accrue to aboriginal groups trading with Europeans in the mid-to-late seventeenth century. This region certainly became important to the Charles Town settlers after 1670.

In any event, I suggest that the Catawba Valley Mississippians were in some way direct antecedents of the historic Catawba Indians. This does not imply that each and all of the Berry or Low phase peoples were direct ancestors but that the people who came to be called Catawba were descendants of a long Catawba valley cultural history.

Protohistoric Catawba

Protohistoric Catawba is proposed to refer to specific sites or phases sharing similar material cultural, economy, and sociopolitical complexity and that are suspected of having direct linkages with the historic Catawba Indians circa A.D 1550 - 1670. It is represented by a limited distribution of smaller populations in poorly defined areas of the middle and lower valley, perhaps the result of depopulation. The specific locations or relationships of those who came to be known as Esaw, Kadapau, and Sugaree are uncertain but they are believed to be in this area in the protohistoric period.

Sugar Creek Catawba

Sugar Creek Catawba is proposed to refer to specific sites or phases that can be identified as documented Catawba Indian towns circa A.D. 1670 - 1720. The period is represented by the historic Esaw and Kadapau/Catawba described by Lawson as occupying the Sugar Creek vicinity. This period may also include representatives of Wateree groups such as Congarees, Waxhaws, and Sugarees. "Catawba" was the all-encompassing name (Merrell 1989:94).

Catawba Nation/Reservation

The final term, Catawba Nation/Reservation refers to sites or phases postdating A.D. 1720 and believed to correlate to the remnant groups that coalesced around the Catawba Indians in the wake of the Yamasee and Tuscarora wars. According to Merrill (1989:92-95) this is the period in which Esaw was transformed to Nassaw. The historic component at the

Spratt's Bottom site (38YK3) near Fort Mill, South Carolina, may represent this phase (J. Levy, personal communication 1987).

One of the benefits of this model will be the opportunity to discuss sites and material culture in explicit temporal frameworks. This will not be simple in an area in which many of the archaeological sites will be expected to include multiple components. However, at the very least it will enable researchers to define which "Catawba" they refer to in discussing settlements, pottery, etc.

Equally important, this model allows for a theoretical framework embracing the prehistoric and protohistoric cultures of the entire Catawba valley and provides an avenue to investigate the linkage of these cultures with the historic Catawba Indians. Attempting to link the historic period with the elusive protohistoric period is a murky undertaking and I suggest that it may ultimately rest on theoretical foundations. As the beginning of such underpinnings I offer the following.

I have suggested that a chiefdom level society occupied the upper Catawba valley in the late fourteenth to the mid-to-late sixteenth centuries. This culture is manifested by the Burke phase, but without more data on settlement patterns, economy, and social stratification, it is not possible to determine its relative strength or complexity. I also suggest that a similar (if not the same) polity occupied the upper Yadkin valley and that during this time, related polities (Low and Iredell phases) existed in the middle and lower Catawba valley.

In Chapter Five I discussed the problem of establishing a terminal date for the Burke phase. However, it is quite clear that the region is depopulated by the early historic period. Regardless of the cause of the population shift, we may ask whether there exists a connection between the sixteenth-century Catawba valley population and the eighteenth-century Catawba Indians? The origins of the Historic period Catawbas are not at all clear. Chapter Two described the historical and ethnohistorical background concerning Catawba origins. However, I would like to propose a somewhat different interpretation, one that may

make sense of the relationship between the extensive archaeological cultures of the late prehistoric upper, middle, and lower Catawba valley and geographically restricted population of Catawba Indians of the eighteenth century.

I view the Catawba origin story (as described in Chapter Three) not as a poorly documented retelling of an early historic period event, but as a hazy recollection of a different world and a different time: a late prehistoric chiefdom society. The story of a powerful Catawba tribe that forces the Cherokees to sue for peace and establishes well-understood territorial boundaries is actually a metaphor for a chiefdom which held relations with similar chiefdoms who recognized respective territories, boundaries, and no-man's lands.

I refer to Fogelson's treatment of the Cherokee tradition of the Ani-Kutani to explicate this view. According to Cherokee legend, the Ani-Kutani were "a priestly class or hereditary clan whose members were massacred in a public uprising in response to their corruption and sexual impropriety" (Fogelson 1984:355). Fogelson discusses the various theories regarding the origin of the Ani-Kutani but concludes

> It is unimportant whether the events recounted in the legend actually occurred: what does seem important, however, is that the narrative neatly captures, summarizes, and symbolizes significant processes of culture change (Fogelson 1984:360).

In this case, the larger issue expressed in the legend is, "the conflicting tension between tendencies toward hierarchy and movements toward egalitarianism" (Fogelson 1984:360). The larger issue in the Catawba story is power and territory. Perhaps it is less important whether the events portrayed occurred in the historic or prehistoric past than the fact that the story demonstrates an understanding of territories and how their boundaries are established and maintained.

Let us assume that the Catawba ancestral population is indeed represented by chiefdom societies located in the Catawba valley and the upper Yadkin valley during the

fifteenth and sixteenth centuries. Regardless of whether these societies were subservient to another regional power such as Cofitachequi, we can also assume that these groups participated to some degree with other members of the general Lamar culture and possessed at least some of the characteristics of other chiefdoms of this period. According to DePratter (1983:20-43), southeastern chiefdoms held recognizable territories and maintained their boundaries against neighbors and enemies through political alliances and warfare. It seems likely that the Catawba valley peoples were familiar with these mechanisms. Competition for territory may have come from nearby polities or even from more distant groups located in the mountains to the west (though the latter seems less likely).

The dissolution of the Catawba valley chiefdoms, for whatever reasons, resulted in a regional depopulation. I believe that the major depopulation resulted from a population loss through disease rather than migration out of the region. However, as a result of depopulation the remnant groups gradually reformed in the lower Catawba valley probably to take advantage of trade on developing networks (or to seek the shelter of larger groups, i.e. moving to groups with power [Mark Williams, personal communication 1989]). The dissolution of the Catawba valley chiefdoms may have occurred within a generation or it may have lasted several generations. In either case the level of social and political complexity was greatly reduced. During the changes of the seventeenth century it is likely that much knowledge of earlier times may have been lost and some of the tradition of those times may have become incorporated into myth.

Thus we find that in the eighteenth century, Catawba Indians recognize a no-man's land between themselves and the Cherokee. But perhaps this type of boundary was easily understood and accepted not because of battle with the Cherokee but because these types of buffers existed for centuries between chiefdoms in the valley. The origin story recalls a former time and a former power but the true nature of the earlier chiefdom society is lost.

The advantage of this model is that it preserves a degree of continuity between the historic Catawba people and their prehistoric ancestors. It bridges the archaeological data of the late prehistoric period with the historic period.

CONCLUSION

The discussion above is extremely broad and preliminary but it is hoped the ideas presented here will lead to productive future research. It appears to me that three competing (but hardly mutually exclusive) hypotheses may be formulated on the basis of this discussion. These are not testable hypotheses as yet. Perhaps they should be described as conceptual models at this stage, or perhaps merely as stories with which we tell Catawba Indian history. In any case I will briefly describe them.

The first is based on Ferguson's (1971) South Appalachian Mississippian model and views Catawba history as the result of in situ development of the Catawba valley Mississippians followed by structural and political changes that result in less complex groups in the historic period. The second is based on the ethnohistoric accounts of the chiefdom of Cofitachequi and follows Baker's (1974) view of the Catawba emerging as the survivor of the northern constellation of the chiefdom. This version assumes direct Spanish/Indian contact period in the sixteenth century. Finally, the third is based on Levy et al. (1990). This story combines elements of both previous stories but is more flexible. It views the Catawba valley independently from Cofitachequi yet provides room to accommodate some degree of relations.

I hope that testable hypotheses will be developed from these and other stories. I also hope that these hypotheses avoid the potential problem of circular logic; if Spanish accounts describe chiefdom societies then contemporary archaeological phases found along the routes must also be chiefdoms. I believe these stories can be used to avoid the problem of circularity by employing the chronological terminology described above.

APPENDIX A

THE MCDOWELL SITE

This Appendix briefly describes the results of field work conducted at the McDowell site in 1977 (Ward 1977) and by the author in 1986 during the Upper Catawba Archaeological Project. The McDowell site (31MC41) is located on the floodplain of the Catawba River west of Marion in McDowell County (Figure 5). The alluvial bottoms surrounding the site encompass more than 200 acres, while the site itself is limited to an area of about three to four acres, 250 feet south of the river. Today, a narrow, flood-prone, abandoned channel separates the site from the river. The site is known locally as the location of a large "mound," which is actually a conical monadnock more than 60 feet high. The archaeological site is approximately 1000 feet east of the monadnock. However, the site includes what has generally been interpreted as the remnant of an earthen substructure mound (Ward 1977:5). This mound is hardly impressive as more than 150 years of cultivation has reduced it to a low rise about 100 feet in diameter and less than four feet high.

EXCAVATION RESULTS - 1977 AND 1986

The following sections include excavation results from Ward's work in 1977 and my work in 1986. The report on field investigations in 1977 (Ward 1977) described artifacts scattered over nearly a two acre area (about 250' by 300'). Within these boundaries higher concentrations of surface material were noted in the east-central and southeastern sections of the site, while very little material was found on or south of the mound (Ward 1977:4-5). The 1986 investigations suggested that the site is somewhat larger than originally described, perhaps covering three to four acres based on the extent of surface material. However,

consistent with earlier observations, the surface south of the mound showed fewer artifacts.

In 1977, a permanent grid was established by placing iron pipes at the corners of a 200-foot by 200-foot block. Test excavations revealed a plowzone of brown silty loam 0.5 feet to 0.9 feet in depth overlying a tan silty clay B-horizon (Ward 1977:5).

Plowzone was removed from about 750 square feet of the site in 1977. This included four 5- by 5-foot units and a 10 by 50-foot trench designated Block A (Figure 18). Twenty-eight postholes and four features were identified in Block A. The postholes included portions of a possible house structure (Structure No. 1) and a palisade running west to east across the trench (Ward 1977:6-8).

Further investigations at the McDowell site were carried out as part of the Upper Catawba Archaeology Project from September 12 to October 12, 1986. The original goal of the short field season was to mechanically strip the plowzone from several large areas of the site. By doing so, we hoped to identify and map house structures, palisades, features, and obtain a general picture of the site structure. Unfortunately, the landowner did not allow the use of machinery on the site, and our investigations were further limited by crop cover to a narrow 80-foot transect which bisected the site but did include the mound. We did not have time to screen all plowzone contexts but expected that feature assemblages would provide more data from undisturbed contexts (this turned out not to be the case, unfortunately).

To begin the 1986 investigation, an attempt was made to locate the permanent datum rods placed along the woods just north of the site in 1977, so that recording could continue within the original grid system. Unfortunately, the edge of the wooded area had been graded to realign a dirt road and we were able to locate only one of three datum's; though hit by the bulldozer blade and badly bent, it appeared to be in its original location. Therefore, the relationship of the 1986 excavation grid to the 1977 grid is based on only this single point. It is likely that some error occurred in attempting to replicate the grid's north-south orientation from the single point. The site map (Figure 13) is based on Ward's 1977 topographic map. Without the accurate datum points or a new topographic map I have

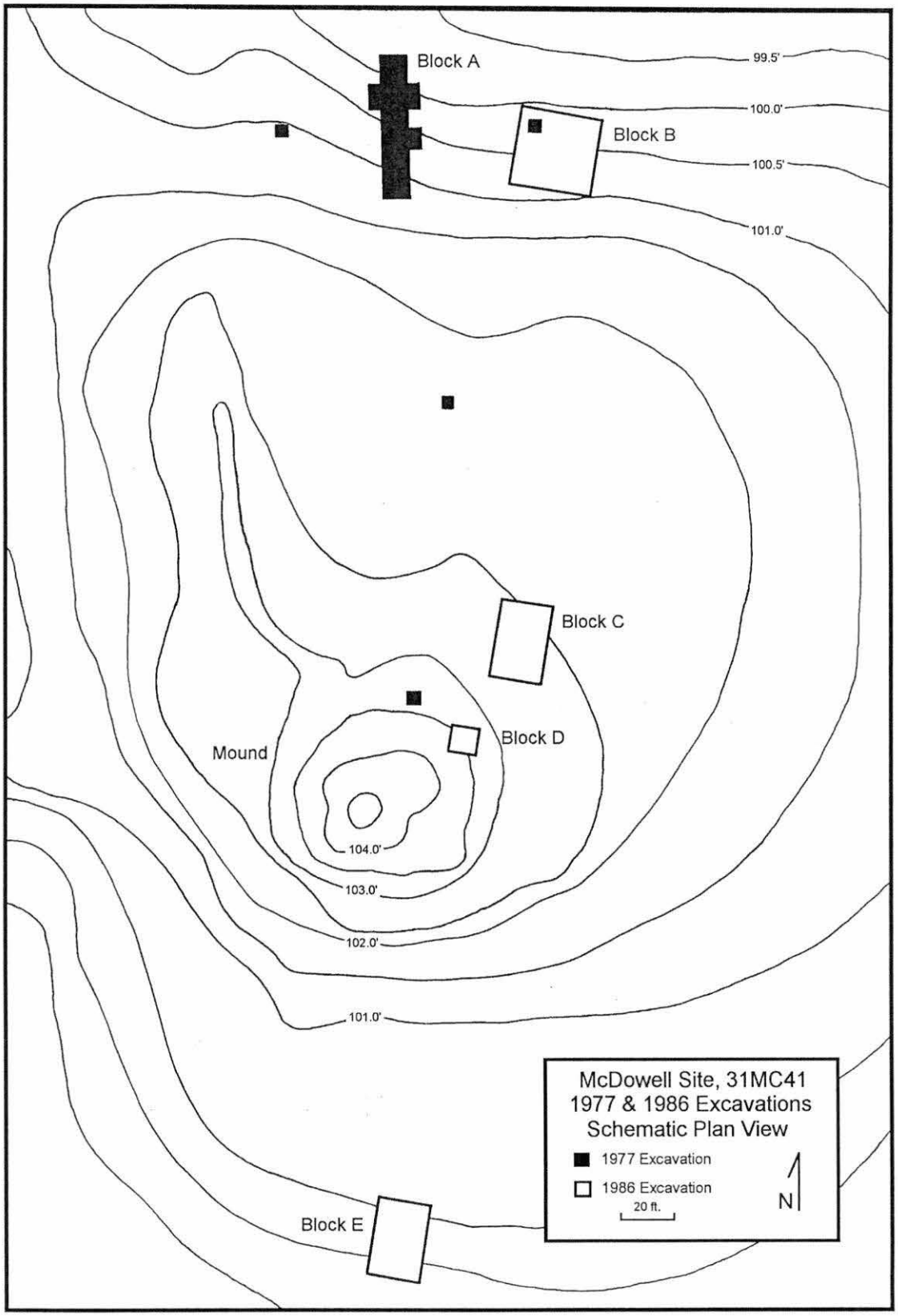

Figure 13. Plan view of the 1977 and 1986 excavation area at the McDowell site (31MC41).

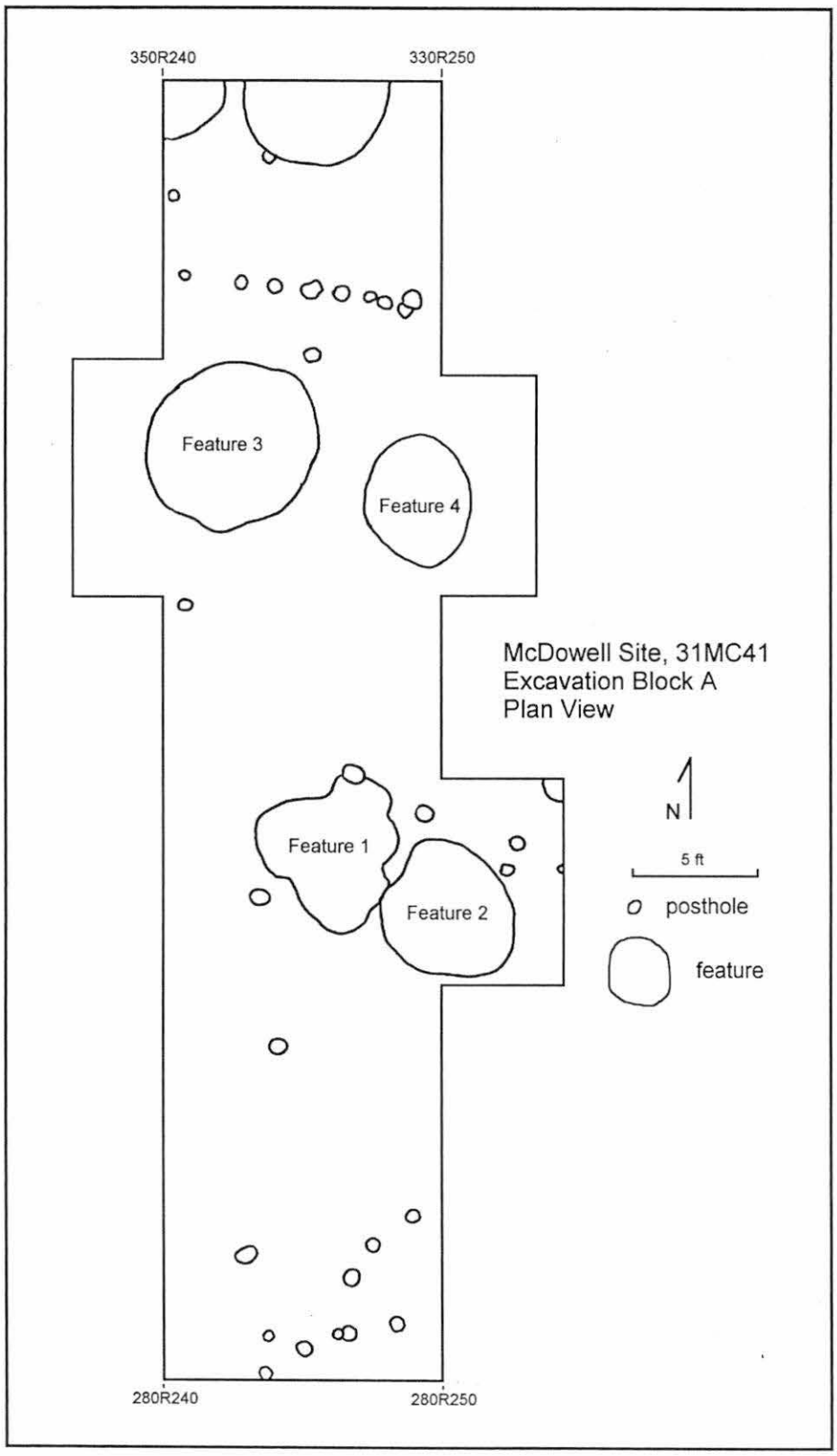

Figure 14. Plan view of Excavation Block A at the McDowell site.

placed the 1986 grid as accurately as possible relative to the 1977 grid. While I made this placement as carefully as possible with respect to the existing datum, the mound, and the farm road, the relationship of the 1977 units to the 1986 units is still subjective.

Four areas (Blocks B-E) totaling 2200 square feet were excavated in 1986. Each block was shoveled to remove the plowzone but due to time limitations the entire plowzone was screened for artifacts in Block C and D only. In Blocks B and E, for those units in which the plowzone was not completely screened, a 100-liter soil sample of plowzone was waterscreened to obtain a sample of artifacts from these units. Although the plowzone character and depth appeared to be consistent from that reported in 1977, there since had been a significant change in the plowing practice. On two occasions a chisel plow had been utilized to break the subsoil to a greater depth. The resulting plow scars occurred at five-foot intervals north-south and east-west. Though narrow (0.2-0.3 feet wide) these scars penetrated the subsoil at least 0.6 feet below the normal plowing level.

Table 57 provides a comparison of the artifact density from several excavation squares in Blocks A, B, C, and D. It is perhaps not surprising that ceramics are heavily represented, but the paucity of lithic remains is striking. The use of ½ inch-screen is certainly a factor in that smaller flakes are not represented, but aside from hammerstone fragments there are almost no lithic tools either. It is difficult to draw any conclusions from these distributions except that there is clear increase in the quantity of ceramics on the mound and to the northeast in Block C. Similarly, Block C shows a striking concentration of daub representing the remains of Structure 3 (described below).

Although 21 features were identified, limited time allowed the excavation of only three. Numerous postholes were recorded; several from alignments that represent a palisade and a domestic structure (No. 2). Another, possibly public, structure (No. 3) was represented by Feature 12. Finally, the low mound was determined to consist partially of basket-loaded fill, confirming its cultural origin.

Table 57. Distribution of artifacts in Excavation Blocks A, B, C, and D at the McDowell site.

Excavation Unit	280R250 Block A	290R250 Block A	300R250 Block B	310R250 Block B	320R250 Block B	90R350 Block D	90R350 Block D	120R360 Block C	130R360 Block C	140R360 Block C	140R360 Block C
Level	Plowzone	Plowzone	Plowzone	Plowzone	Plowzone	Plowzone	Moundfill	Plowzone	Plowzone	Plowzone	Fea. 12
Approx. volume (Cubic feet)	85	85	85	85	85	85	45	95	95	80	15
Contents											
Lithics											
CSPP	-	-	-	1	-	-	-	-	-	-	-
Biface/misc. tool	3	1	2	1	1	2	2	1	2	4	-
Hammerstone	2	2	4	8	2	2	2	1	-	-	-
Disk	-	-	2	1	2	-	-	1	-	1	2
Pipe	-	-	-	-	-	1	-	-	-	-	-
Polished object	4	-	-	-	-	-	-	1	-	-	-
Flakes	5	5	5	-	2	5	-	4	-	-	-
Ceramics											
Potsherds	763	616	670	688	436	1129	279	945	1124	1086	109
Disk	-	1	-	1	-	-	-	2	2	1	4
Pipe	-	1	2	-	-	-	-	1	1	-	1
Daub (#)	-	-	-	-	-	3	-	3	82	113	40
wt. (g)	-	-	-	-	-	5	-	3	184	240	242

Block B (900 square feet; Figure 15) was located at the north edge of the site adjacent to the dirt road. This area was located about 100 feet east of Block A and was selected for investigation in the hope of extending the palisade identified in 1977. Block B revealed a density of features and postholes similar to that of Block A. Seven features were observed; the three excavated features (5-7) are described below. Two posthole patterns were also observed (see Figure 15). The first was a row of 16 posts running 25 feet west to east across the unit. This is undoubtedly a palisade and may represent the same palisade observed in Block A in 1977. The second pattern is clearly a domestic structure (Structure 2). It is represented by at least 19 postholes forming approximately 60% of the structure. This pattern appears to be similar to the house patterns described by Dickens (1976:32) at the Warren Wilson site, a Pisgah phase site located 30 miles west of the McDowell site:

> Houses at the Warren Wilson site were constructed of vertical posts that were set individually in the ground, except for the vestibule entrances where they were set close together in short trenches. The buildings were square or slightly rectangular [usually with slightly rounded corners] in plan, with an average measurement along the outer walls of about 20 feet.

Structure 2 fits this pattern very closely; the west side outer wall is approximately 20 feet in length and both the southwest and northwest corners are slightly rounded. The palisade line intrudes Structure 2, but it is not possible to determine which precedes the other temporally.

Although the Block B plowzone soils were not sifted, it was clear that a large quantity of material, primarily ceramics, was present. Interestingly, the waterscreened plowzone samples from three of the excavation squares yielded small fragments of ferrous metal. Three metal fragments (Plate A.2) were recovered from the waterscreened materials by the use of a magnet. Each piece resembles a thin wire and two of them are slightly twisted and curved. Based on descriptions of chain mail fragments recovered from the Governor Martin site in Tallahassee, Florida, it was proposed that these fragments might represent chain mail also. However, though they are the same size and exhibit the same

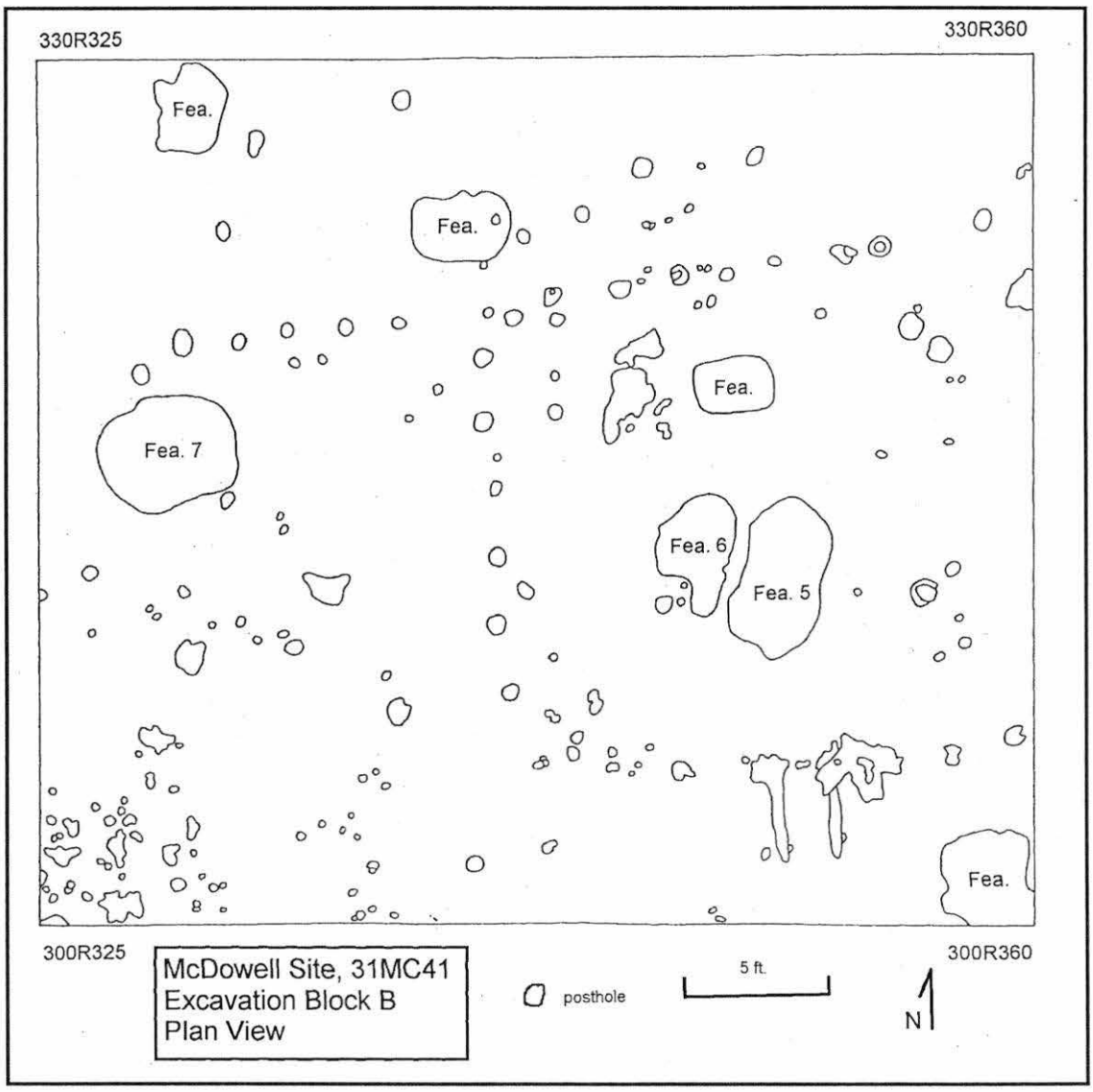

Figure 15. Plan view of Excavation Block B at the McDowell site.

curve and twist as examples of chain mail from the Martin site, they lack the diagnostic rivet. According to Charles Ewen (personal communication: 1987), these pieces would be included among the chain mail sample but, lacking the diagnostic rivet, they could not be identified as chain mail pieces on their own.

The presence of chain mail, if confirmed, could indicate a connection to the sixteenth-century Spanish explorers, De Soto and Pardo. It is known that De Soto's men wore chain mail but it is also suspected by many that they had abandoned its use by the time they left Florida due to its weight and negligible protective powers against cane arrow shafts. Nonetheless, even if the McDowell site pieces represent chain mail, their presence does not confirm a Spanish presence. They could as easily represent a piece of chain mail that was gathered elsewhere by McDowell site inhabitants or obtained by them in trade. Finally, given the lack of archaeological site context, they may date to a later time.

Block C (600 square feet; Figure 20) was located adjacent to and just northeast of the mound. This area was selected for investigation due to a heavy surface concentration of pottery and large chunks of charcoal in mixed dark loam soils. In addition, reconnaissance coring conducted in April, 1986, identified what were believed to be undisturbed midden or mound-fill soils here. Due to the high concentration of materials, all plowzone soils were screened through 1/2-inch hardware cloth to recover artifacts.

Once the plowzone was removed, it was clear that an enormous feature of some sort was present. Rather than the mottled tan subsoil encountered in the other excavation areas, the level beneath the plowzone in Block C consisted of a variety of light and dark compact soils, sands, burned soils, burned daub, and charred wood. However, the recent deep chisel plowing had severely disturbed this area, and it was necessary to skim off about .1' to .2' of feature soil to obtain a clear view of the feature (Figure 16, Plate 48). The archaeological feature (No. 12) that emerged from the skimming covered approximately 340 square feet.

Only a portion of the feature was exposed but it appears to have a core of dark brown and black loamy soil at least 20 feet in diameter. Within this core area were concentrations

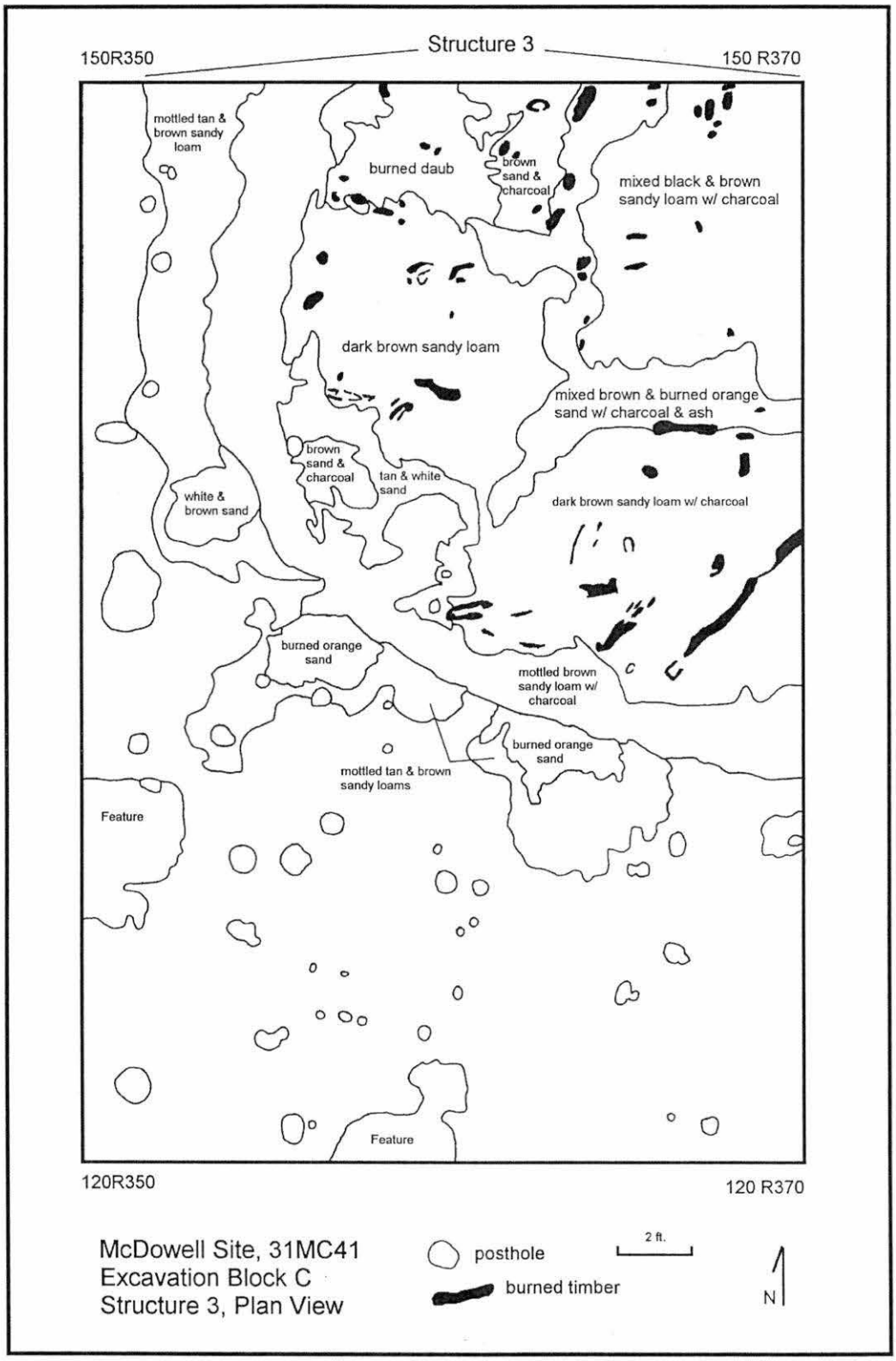

Figure 16. Plan view of Excavation Block C at the McDowell site.

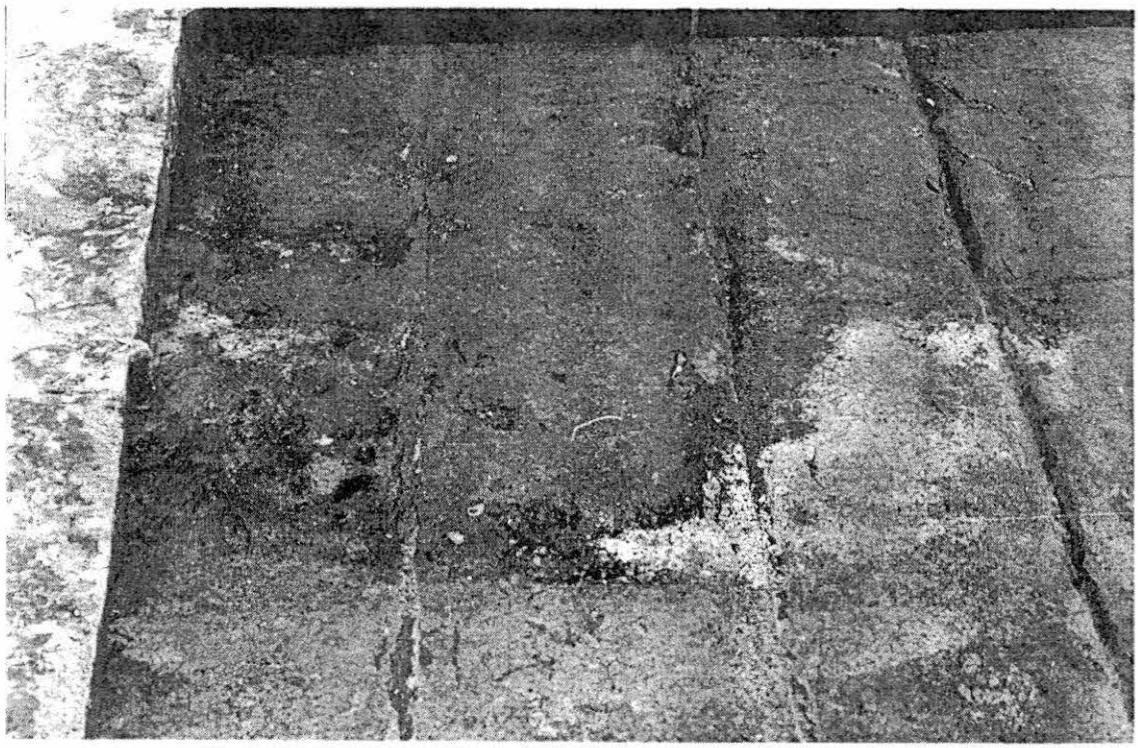

Plate 48. Portion of Excavation Block C showing Feature 12, Structure 3 (view to east).

Plate 49. Volunteers working in Excavation Blocks B (foreground), C, D, and E at the McDowell site (view to the south).

of ash, burned soils, orange and brown sand, charcoal, and chunks of burned timbers. Surrounding the core were two bands of mottled brown soil, each about 2 feet wide. This feature is believed to represent the remains of a burned structure (No. 3). Due to time constraints, excavation of the feature was not attempted. Therefore, the size and configuration of the structure are uncertain. By projecting the curve of the core and the concentric bands, the final diameter is expected to be at least 25 feet to perhaps as much as 50 feet. It is also impossible to determine if the structure is square or round.

The position of Structure 3 next to the mound (recognizing that contemporaneity of the two is not established) and its potentially large size suggests that the structure may have had a public or ceremonial function, as opposed to Structure 1 which probably served as a domicile. Such a public structure would not be unusual (see Rodning 1996:20 for an example of such a structure at the Coweeta Creek site, 31MA34, in Macon County).

The overall characteristics of this feature/structure are unusual but it is possible that the outlying concentric bands of soil represent the plowed remnants of earthen embankments, perhaps representing an earth lodge. Rudolph (1984:33) states that at least 19 earth lodges are reported in the southeastern United States including three in North Carolina: At the Town Creek site (Coe 1952a and 1995); at the Garden Creek site (Dickens 1976), and at the Peachtree site (Setzler and Jennings 1941). Rudolph (1984:33) defines an earth lodge as "as above-ground building that had either an earth covered roof or an earth embankment buttressing the walls." A comparison of Structure 3 with Rudolph's (1984:37-39) Figures 3 and 4 shows that a heavily plowed earth embanked structure could look much like Structure 2 at the McDowell site with its concentric bands surrounding the dark core. It should be noted that this description differs from Dickens (1976:87) description of semi-subterranean earth lodges at the Garden Creek site.

Although we were unable to excavate this feature, several samples of charcoal were selected from the burned structure timbers. One of the burned timbers yielded

a radiocarbon age of 890±50 B.P. (Beta-21818) and a calibrated date of A.D. 1168. At one sigma, the age range is AD 1041 - 1226. At two sigma's, the range is from AD 1019 - 1279.

Excavation Block D consisted of a single 100 ft^2 unit (90R350) placed on the mound to determine whether the mound was a natural or cultural feature. The crest of this low rise is three to five feet above the surrounding field. However, at least 1.5 ft of this elevation seems to be accounted for by the presence of an eroded terrace or knoll that incorporates much of the site area. Soils from this unit were also screened through 1/2-inch hardware cloth.

A zone of mixed dark, loamy soils, representing probable basket-loaded mound fill, was found beneath the plowzone (Plate 50). However, this zone was only about 0.5 ft thick before subsoil was encountered. An examination of the profiles of the respective excavation areas thus suggests that the mound was placed on a natural rise such as a terrace remnant as described above. It is impossible to determine the original height of the mound although elderly residents in the area claim that it was once six to eight feet tall.

Despite previous observations that few artifacts were found on the mound, Table 57 shows that the plowzone in this unit contained a relatively large quantity of artifacts. Of particular interest was a soapstone pipe (Plate 51, Figure 17) found in the plowzone soil. Carved around the pipe bowl is an image of a creature, first thought to be Uktena, the mythical Cherokee creature:

> Those who know say that the Uktena is a great snake, as large around as a tree trunk, with horns on its head, and a bright, blazing crest like a diamond upon its forehead, and scales glittering like sparks of fire. It has rings or spots of color along its whole length (Mooney 1982(1900):297).

Hudson (1976:131-132) also describes the Uktena as:

> a creature combining features of all three categories of normal animals. It had the scaly body of a large serpent, as big around as a tree trunk, with rings or spots of color along its entire body, but it had deer horns on its head, and it had wings like a bird. On its forehead it had a bright diamond-shaped crest that gave off blinding flashes of light.

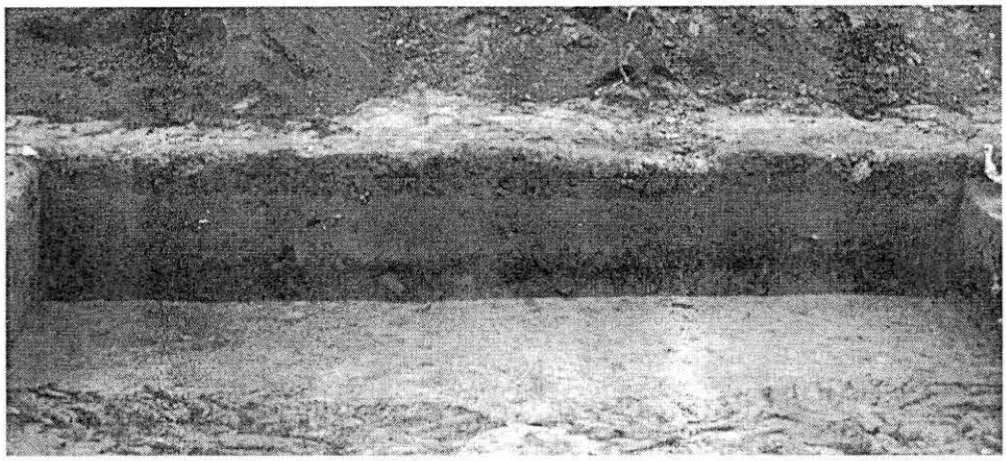

Plate 50. West soil profile of Block D (note dark band of mound fill).

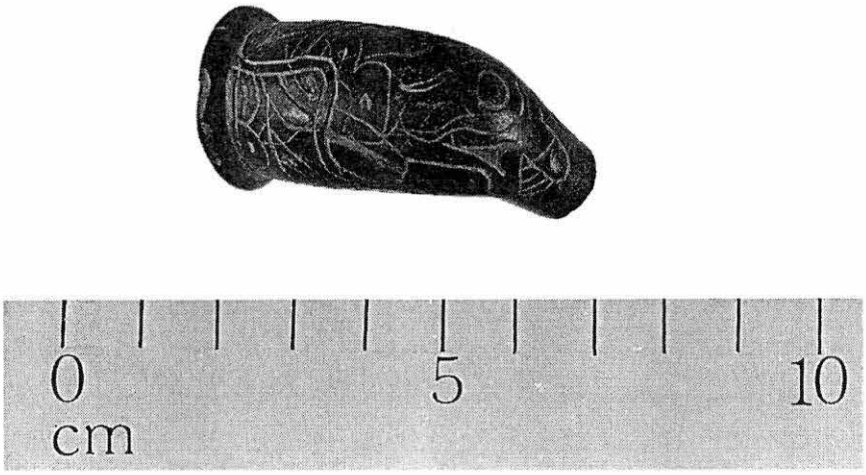

Plate 51. Carved soapstone pipe from square 90R350 at the McDowell site.

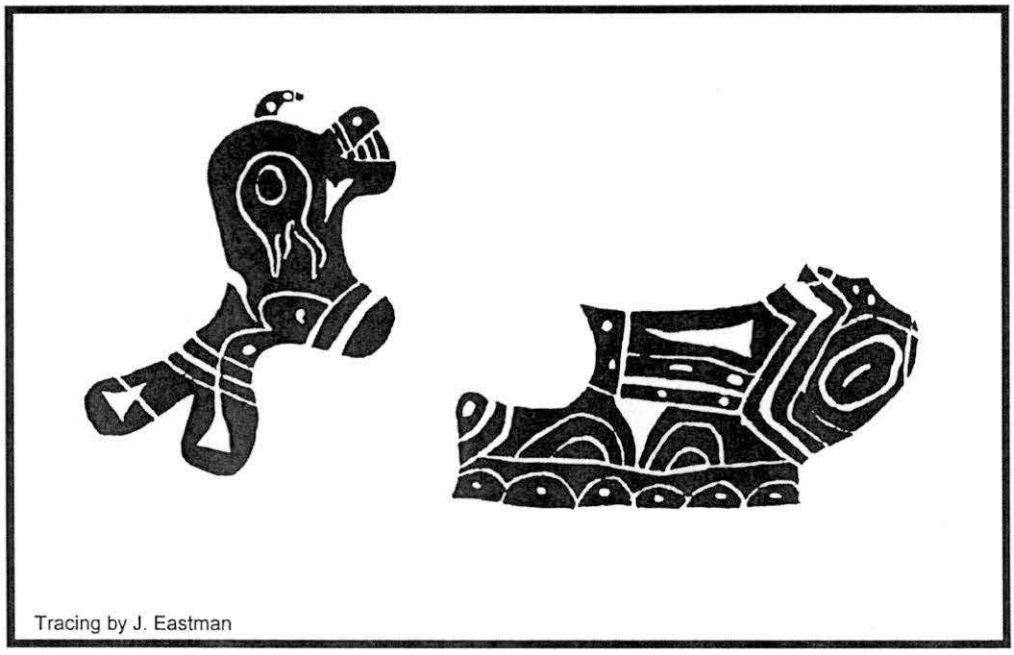

Figure 17 Zoomorphic design traced from carved stone pipe at the McDowell site.

However, the creature engraved on this pipe has a body that is somewhat serpentine but more mammal-like, and it has a single horn, a large mouth with teeth and a weeping eye. Stylized wings or scales surround the body. Hudson (1986:145) also states that the Uktena was sometimes portrayed with the head of a cougar, representing the Water Cougar, another anomalous creature of the Under World. Though the creature depicted is unlike the usual Uktena symbol, it is possible that it is some sort of anomalous Under World creature.

Excavation Block E (600 square feet; Figure 22) was placed 200 feet south of the mound, where a falloff in surface material indicated the southern limits of the site. Ward reported a surface scatter of artifacts that covered an area approximately 250 feet north-south and 300 feet east-west (Ward 1977:4). Though we were unable to conduct a surface collection over the entire site in1986, the surface scatter covered nearly 400 feet north to south. It is possible that an additional 10 years of plowing (as well as deeper plowing) is responsible for this discrepancy. However, this unit yielded several vague features (some of which may be natural as opposed to cultural features) and a limited number of postholes. It is uncertain what the relative paucity of postholes and cultural material means with respect to the overall village structure.

Features

Seven archaeological features were excavated at the McDowell site (Features 1 through 4 in 1977 and Features 5 through 7 in 1986). The feature contents are summarized in Table A.2. A brief description of the features follows below.

Feature 1 (Ward 1977:7)

Feature 1 (Figure 23) was an oval-shaped shallow basin, 6.7 feet by 5.5 feet in diameter and less than .3 feet deep. The mottled brown silty fill included a small amount of pottery and a few lithic artifacts, and small bits of animal bone and charcoal. No function was assigned to this feature.

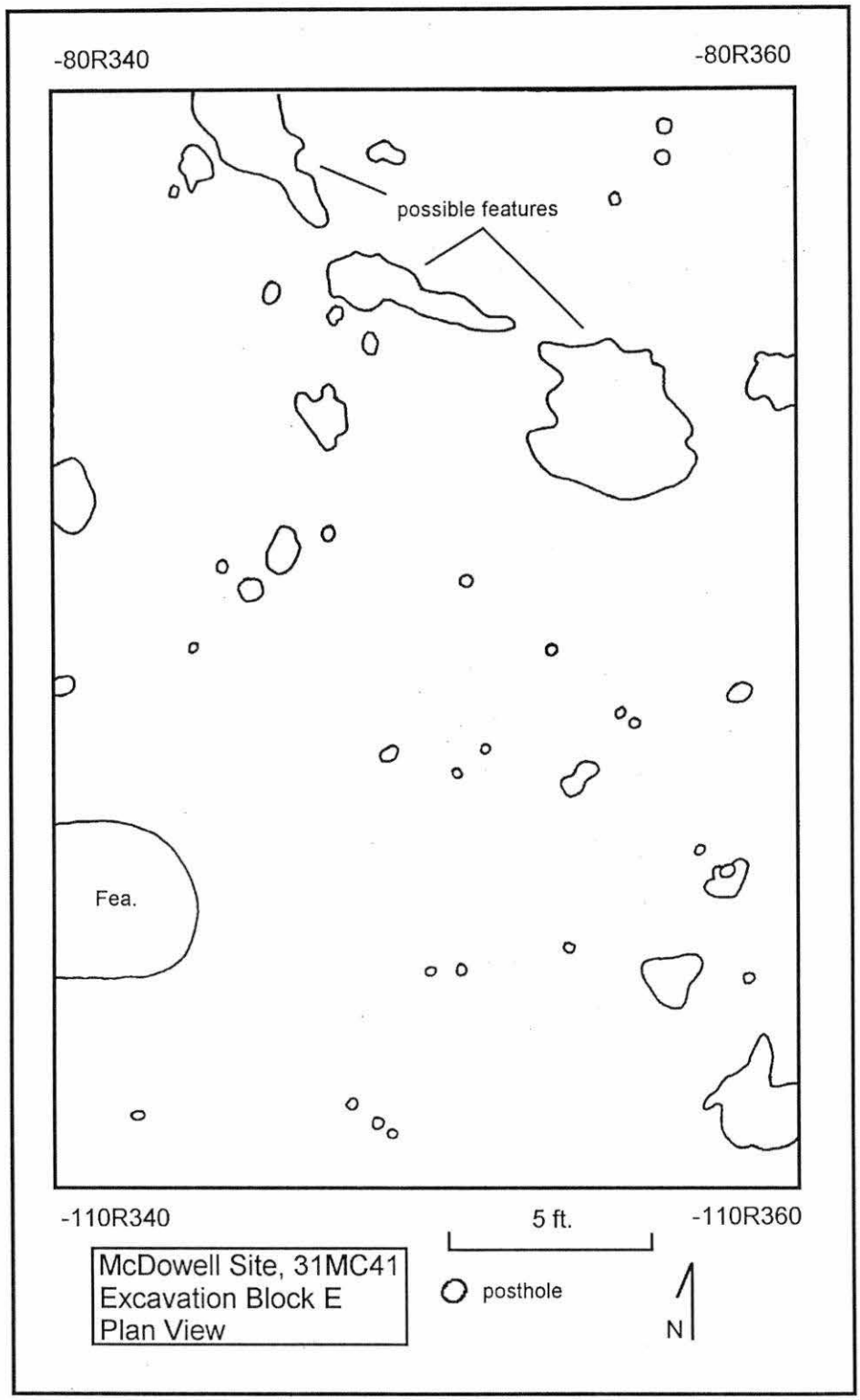

Figure 18. Plan view of Excavation Block E at the McDowell site.

Table 58. Distribution of artifacts in features at the McDowell site.

Feature No.	1	2	3	4	5	6	7
Feature Contents							
Lithics							
CSPP	-	-	1	-	-	-	-
Hammerstone	2	1	1	-	-	-	-
Disk	-	1	-	-	-	-	-
Ground stone	-	-	5	2	-	-	-
Flakes	2	2	2	-	-	1	1
Ceramics							
Potsherds	25	34	206	35	15	10	18
Disk	-	-	3	-	-	-	-
Animal bone (present*)	*	*	*	-	-	-	-
Fire-cracked rock	-	1	6	-	1	-	-
Daub	-	-	-	-	-	-	1

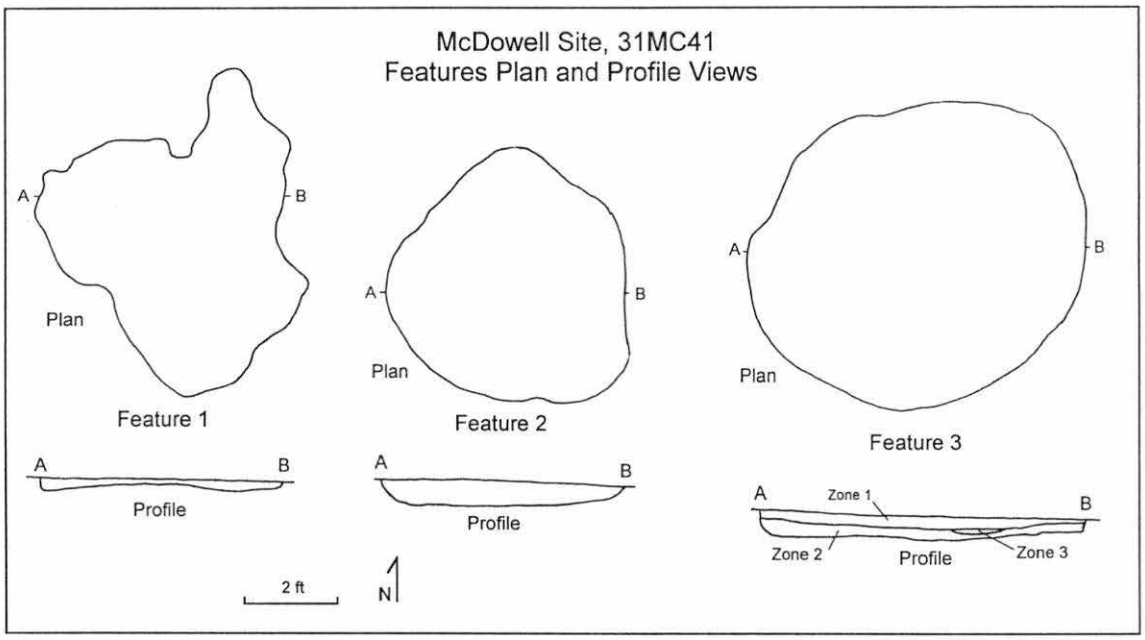

Figure 19. Excavation plan and soil profiles for Features 1, 2, and 3 at the McDowell site.

Feature 2 (Ward 1977:7)

Feature 2 (Figure 23) was a shallow basin similar to Feature 1, but nearly circular in shape with a diameter of about 5.2 feet and a depth of .4 feet. The mottled brown sandy clay fill contained potsherds, chert flakes, and small bits of animal bone and charcoal. The feature function is uncertain.

Feature 3 (Ward 1977:7-8)

Feature 3 (Figure 23) was the largest feature identified. It was nearly circular with a diameter of almost 6.7 feet and a depth of 0.5 feet. The fill consisted of three levels. The first was a dark brown zone with large potsherds and charcoal; the second was a black fill containing an abundance of charred corn kernels and cobs, beans, squash seeds, and nut shell. Zone 3 was a thin lens of red burned clay that covered a small portion of Zone 2. The base of the feature was covered with large chunks of wood charcoal and cane among pockets of burned silty clay and ash. The feature was believed to have served some function in food preparation.

Feature 3 was the only feature to contain a substantial number of potsherds. It also included 3 clay disks and the largest number of lithic artifacts.

Wood charcoal from Feature 3 yielded a radiocarbon age of 460±75 BP (GX 11057; Boyd 1986:67). Boyd provides two corrections to obtain radiocarbon dates of A.D. 1458 and A.D. 1434 ±75. Additional calibrations yield a calibrated date of A.D. 1435. At one sigma there is a 91% probability of an age range from A.D. 1394 -1509. At two sigmas there is a 71% probability for an age range from A.D. 1386 -1531 and a 17% probability of an age range from AD 1543 -1636.

Feature 4 (Ward 1977:8)

Ward interpreted Feature 4 as a modern agricultural remnant. The shallow, oval pit (5.1 feet by 3.8 feet in diameter and .4 feet deep) contained "a very black, "greasy", somewhat fibrous fill that produced little in the way of artifacts or food remains." (Ward

1977:8). However, in terms of artifactual contents it is similar to each of the other features except Feature 3.

Feature 5

Feature 5 was oval shaped, 5.5 feet long by 3.5 feet wide. It consisted of a dark brown loam that extended to a depth of about .3 feet. Beneath this was a zone of light tan silty clay. The configuration of the feature form and soil zones and its association with Feature 6 suggested the possibility of a shaft and chamber burial. However, Feature 5 evidenced relatively straight-sided walls to a depth of nearly 3 feet where subsoil was reached without any indication of the presence of a burial or a definite association with Feature 6. A small amount of pottery was found scattered throughout the fill.

Feature 6

Feature 6 was located adjacent to Feature 5 and was thought initially to represent the burial chamber of a shaft and chamber burial. Its surface fill was mottled but was less than .5 feet deep. This feature was excavated to a depth of 3 feet below subsoil level, without any evidence of the presence of a burial. Very little artifactual material was present. The feature walls and bottom were extremely difficult to trace, leading to an ultimate uncertainty about the integrity of the pit as it was excavated.

Feature 7

Feature 7 was a slightly oblong pit 5 feet by 4 feet across with a mottled dark silty loam fill. Unfortunately, lack of time prevented more than a cursory examination of the feature. The feature was bisected and the eastern half excavated only to a depth of about .5 feet. Few artifacts were recovered.

SUMMARY

The McDowell site excavations of 1977 and 1986 determined that this site is a relatively large village whose major component probably dates to the Pleasant Garden Phase, A.D. 1400-1600. At least two domestic structures and one possible public structure were discovered as well as the small remnant of a possible sub-structure mound. Based on

the ceramic attributes found on Pisgah, McDowell, and Burke pottery from the site, it is likely that the people occupying this site during the Pleasant Garden Phase participated in regional activities with peoples to the west (Pisgah Phase) and peoples to the east (Burke Phase).

APPENDIX B

THE BERRY SITE

This Appendix describes the 1986 field work conducted at the Berry site (31BK22) by the author as a part of the Upper Catawba Archaeological Project. The Berry site is located on Upper Creek, a tributary of the Catawba River, about eight miles north of Morganton in Burke County (Figure 5). The site is situated on the extreme northeast margin of a 200-acre alluvial bottomland formed by the confluence of Upper Creek and Irish Creek. Warrior Fork flows south to the Catawba River from this confluence. The site is named for the Berry family, property owners of the site and its surroundings for four generations.

The Berry site was first identified in Cyrus Thomas's 1891 report where it is described as "Mound on the west Bank of Upper Creek 8 miles north of Morganton (about 15 feet high and unexplored)" (Thomas 1891:151). The mound and surrounding site were regularly plowed and in 1964 the mound was bulldozed by the landowner to provide fill for low-lying areas of the field west of the mound. This area was often subject to flooding. A human skeleton was reportedly unearthed at this time but no further details are known. A cracked, but complete clay pot was also recovered at this time. After bulldozing, the mound remained about two feet above the level of the surrounding field.

Charles Cary and Robert Keeler recorded the site in the State Site files in 1970, noting an earlier designation as 31BK2 on the basis of the mound report in Thomas (1891). However, the village site was renumbered as 31BK22 due to the uncertainty of the identification. At a later date the mound is identified on the site form as a "refuse mound" due to the high concentration of artifacts, charcoal, and faunal remains found on the surface

of the mound. The entire site covers at least twelve acres based on the extent of surface artifacts (Beck 1997).

The Berry site was selected for excavation in 1986 due to its large size, the presence of the mound, and surface indications of abundant artifactual, floral, and faunal remains. The site was especially important due to the overwhelming presence of Burke ceramics, and I hoped that test excavations would yield productive chronological information regarding the age of the Burke ceramic series.

In 1986 most of the site was covered with a corn crop and a permanent alfalfa crop that restricted the investigations to a block 120 feet wide and nearly 400 feet long. Fieldwork began on June 9 and was completed September 11, 1986. The goal of the investigation was to remove the plow zone from several large block excavation areas, and to record and excavate as many features as possible. However, the unexpected depth of the archaeological deposits encountered around the mound considerably reduced the area excavated and, consequently, the quantity of features found.

EXCAVATION RESULTS

The mound dominated the study block; therefore, two areas were selected initially for excavation trenches (Figure 20). The first trench (A) was placed across the mound from west to east. We hoped to determine the western edge of the mound and to investigate the area at the center of the mound where large amounts of pottery, charcoal, and faunal remains were usually visible from the surface. The second (B) was located about fifty feet south of the mound. This area was selected to discover whether intact features existed in the area adjacent to the mound. This trench would also be extended north toward the mound to define the edge of the mound and the original ground surface to determine how much of the mound remained intact.

The two areas included 2,000 square feet. The first (A) totaled 700 square feet and was placed across the mound from west to east. The second (B) was located about 50 feet

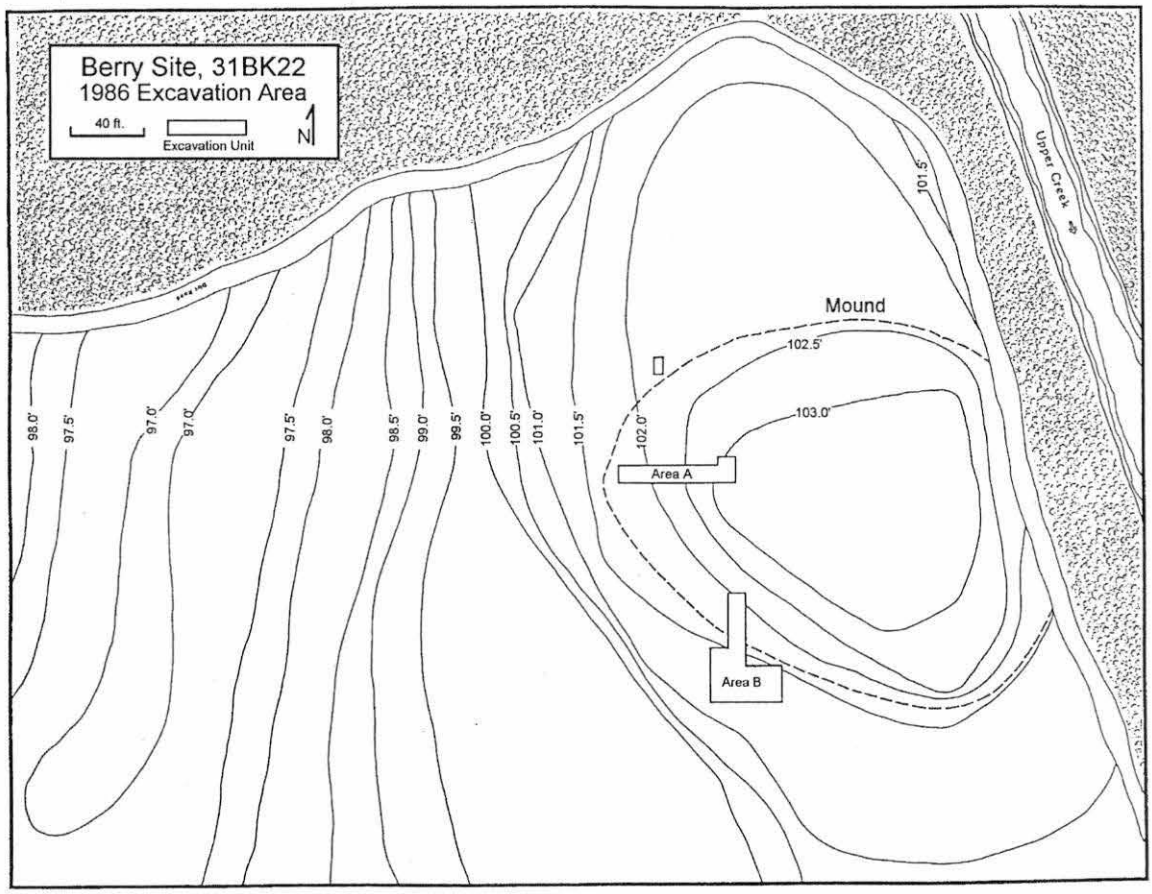

Figure 20. Plan view of 1986 excavation area at the Berry site.

south of the mound and totaled 1,300 square feet. Investigations of other areas had been planned but were precluded by the unexpected deep stratigraphy of the deposits found in Area B.

All excavation levels were removed by shovel in 10 foot by 10 foot units and the soil dry-screened through one-half inch hardware cloth. Ten liter soil samples and ten liter water-screened samples were also obtained from each level. The base of each level was flat-shoveled and then troweled to reveal posthole and feature stains. Each level was photographed and drawn to scale.

Area A consisted of seven units placed in a 10-foot by 70-foot trench. Excavation here was generally limited to the removal of the plow zone which varied in depth from about 0.8 feet to 1.1 feet. Beneath the plowed soil, mixed soils represented an undisturbed, basket-loaded, mound fill (Plate 52). Each basket-load was clearly visible and there appeared to be at least two depositional episodes based on changes in soil deposition. Soils included light grey to brown sands, light brown to dark brown sandy loams, and light yellow to orange sandy clays. A deeper five-foot by five-foot unit excavated at the west end of this trench demonstrated that over one foot of basket-loaded mound fill remained despite the bulldozing of the mound. In this small unit, the basket loaded fill was underlain by three soil horizons that together were nearly one foot deep (Figure 21). All three horizons consisted of sandy loams with the upper being a mixed brown to grey color, the middle being reddish-brown, and the lower being a mottled tan-brown. Based on the small area excavated, it is unclear whether or not these soil zones also reflect episodes of mound construction.

There are at least two likely sources for the mound fill. The Berry family reported that originally there existed a large "sink-hole" in the woods about 500 feet northwest of the mound. It is possible that this pit was actually a borrow pit. Secondly, it is possible that soil was borrowed from an area 200 to 300 feet west of the mound. This was a low-lying area prone to flooding and was, in fact, partly filled in 1964 after leveling the mound. If this were the original borrow area, it is sadly ironic that the mound was leveled to fill it to reduce

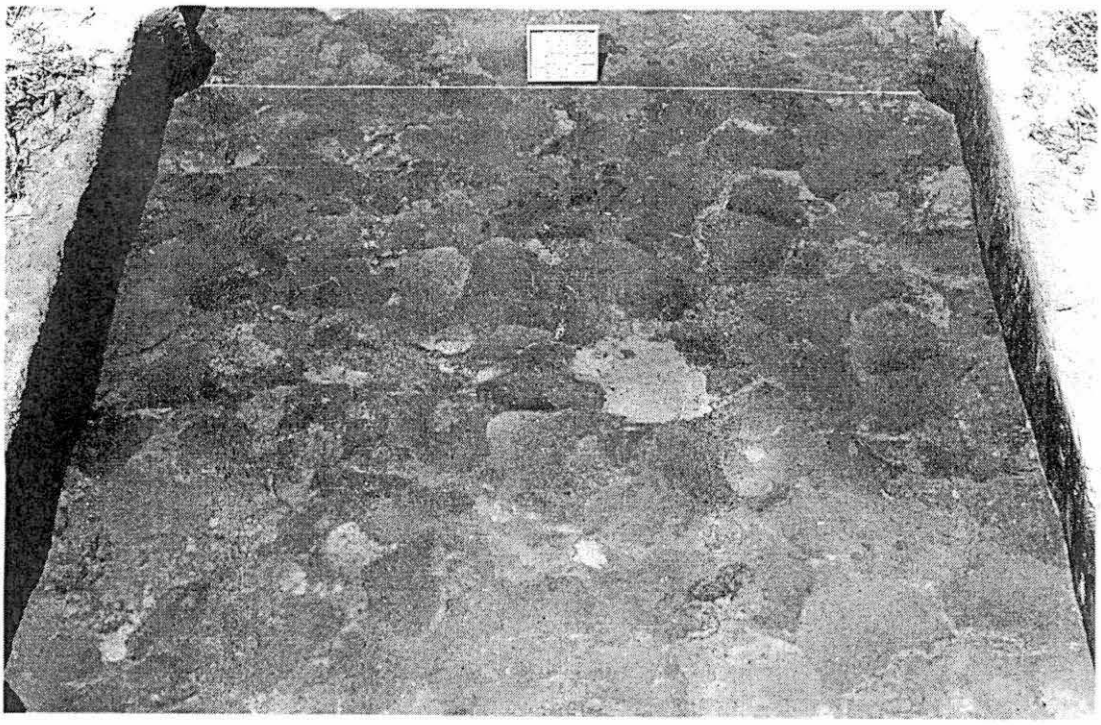

Plate 52. Plan view of basket-loaded mound fill in excavation unit 380R290 at the Berry site.

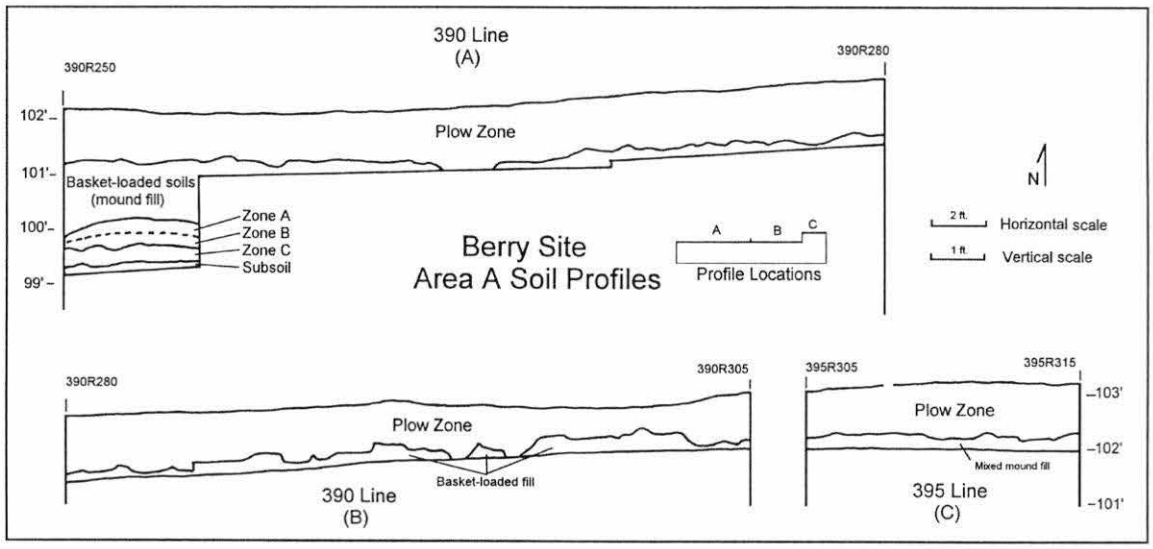

Figure 21. Soil profiles for Area A at the Berry site.

the problem of standing water in the field. Unfortunately, excavation was impossible in this area but future excavation could determine whether and to what extent borrowing had occurred here.

The plowed soils of Area A contained large quantities of pottery, charcoal and animal bone. Table 59 shows the distribution of plow zone level materials in four excavation units of Area A. Squares 380R270, 380R290, and 380R310 are each 100 square feet in area and are located at the west margin, the mid-slope, and the crest of the mound, respectively. Square 380R315 is also located at the crest of the mound but is only 25 square feet in area.

Although most materials are represented in each unit there is a heavier distribution of pottery, flakes, and animal bone at the crest of the mound where an abrupt transition from basket fill to a mottled fill occurred. The mottled-fill corresponded to the area on the mound surface marked by organic remains and the mottled fill reflected a similar distribution. Whereas the plow-zone over the basket-loaded soils contained a moderate amount of pottery and lithic artifacts, the mottled soil plow zone contained larger amounts of pottery as well as charcoal and animal bone. In fact, this area contained the only significant faunal remains recovered from the site. It should be noted that the pot-hunting episode reported above also produced large quantities of animal bone.

The area of mottled fill is believed to represent an additional feature of mound construction distinct from the basket loading. It is this area that apparently contributed to the earlier interpretation of the mound as a refuse mound though the presence of the basket-loading argues for an intentionally constructed mound. Since early reports describe the mound as 12 to 15 feet tall it is likely that the mound was built as a substructure platform mound. It is possible that further excavation could determine whether any internal features such as an earth lodge are present.

Table 59. Distribution of artifacts from Area A excavation levels at the Berry site.

Excavation Unit	380R270			380R290				380R310				380R315 (5X10')		
Level	PZ	PZ & Moundfill		PZ	PZ & Moundfil	Mound-fill		PZ	PZ & Moundfil	Mound-fill		PZ	PZ & Moundfill	
Contents	n	n	Totals	n	n	n	Totals	n	n	n	Totals	n	n	Totals
Lithics														
CSPP	-	-	0	-	-	-	0	1	1	-	2	-	-	0
Biface/misc. tool	1	-	1	1	-	-	1	3	2	-	5	1	-	1
Hammerstone	-	-	0	-	-	-	0	-	-	-	-	-	1	1
Anvil	-	-	0	-	-	-	0	-	-	-	-	-	-	0
Pipe	-	-	0	-	-	-	0	-	-	-	-	-	1	1
Disk	1	-	1	-	-	-	0	-	-	-	-	-	1	1
Polished object	-	-	0	-	-	-	0	1	-	-	1	-	-	0
Flakes #	4	2	6	8	3	-	11	14	3	-	17	4	7	11
Flakes (g)	11	5	16	42	5	-	47	136	18	-	154	16	51	67
Soapstone #	17	5	22	17	4	1	22	10	3	-	13	2	3	5
Soapstone (g)	110	29	139	121	28	3	152	64	11	-	75	8	7	15
Ceramics														
Potsherds	290	41	331	441	164	23	628	754	-	22	776	243	330	573
Disk	-	1	1	1	3	-	4	1	-	-	1	-	3	3
Pipe	-	1	1	1	-	-	1	3	-	-	3	-	-	0
Bead or effigy	-	-	0	-	1	-	1	-	1	-	1	-	1	1
Fired clay #	-	-	0	-	-	-	0	-	2	-	2	-	1	1
Unfired clay (g)	-	-	0	-	-	-	0	-	-	-	0	-	2	2
Animal bone #	1	-	1	56	3	-	59	90	22	-	112	153	195*	348*
Animal bone (g)	1	-	1	106	2	-	108	202	33	-	235	342	417	759
Shell bead	-	-	0	-	-	-	0	-	-	-	0	-	1	1
Shell #	-	-	0	-	-	-	0	1	-	-	1	-	7	7
Shell (g)	-	-	0	-	-	-	0	1	-	-	1	-	4	4
Fire-cracked rock	2	-	2	5	5	-	10	3	-	-	3	-	2	2
Fire-cracked rock (g	117	-	117	350	351	-	701	64	-	-	64	-	220	220
Daub #	2	-	2	-	-	-	0	-	-	-	0	-	-	0
Daub (g)	3	-	3	-	-	-	0	-	-	-	0	-	-	0

* Indicates presence of small uncounted fragments.

Table 60. Distribution of artifacts from selected Area B excavation units and levels at the Berry site.

Excavation Unit	260R320						310R320								
Level	1	2	3	4	Subsoil		1	2	4	5	6	7	8	Subsoil	
Contents	n	n	n	n	n	**Totals**	n	n	n	n	n	n	n	n	**Totals**
Lithics															
CSPP	-	-	5	1	-	6	3	1	1	-	-	-	1	-	6
Biface/misc. tool	1	2	-	1	2	3	9	-	5	1	1	2	2	2	22
Hammerstone	-	1	3	-	-	3	3	1	-	-	1	-	-	-	5
Anvil	-	-	-	-	-	0	-	-	-	-	-	-	-	-	0
Pipe	-	-	-	-	-	0	2	-	-	-	-	-	-	-	2
Disk	-	-	1	-	-	1	-	-	1	-	-	1	-	-	2
Polished object	-	-	-	-	-	0	-	-	-	2	-	-	-	-	2
Flakes #	6	2	3	4	3	10	21	15	15	4	3	5	8	1	72
Flakes (g)	250	4	20	43	3	66	216	105	121	3	47	32	224	3	751
Soapstone #	3	-	8	1	-	9	13	6	8	2	-	2	6	1	38
Soapstone (g)	100	-	111	29	-	140	76	52	137	33	-	10	58	7	373
Ceramics															
Potsherds	341	100	362	117	48	527	709	199	490	144	137	153	176	46	2054
Disk	-	-	1	-	-	1	-	-	-	-	-	-	1	-	1
Pipe	1	-	2	1	-	3	1	2	2	1	2	-	-	-	8
Bead or effigy	-	-	-	-	-	0	-	-	-	-	-	-	-	-	0
Fired clay #	-	-	-	-	-	0	-	-	-	-	1	-	-	-	1
Unfired clay (g)	-	-	-	-	2014	2014	-	-	-	-	-	60	1054	675	1789
Animal bone #	-	-	-	3	-	3	1	*	-	-	-	7	-	-	8
Animal bone (g)	-	-	-	1	-	1	4	10	-	-	-	10	-	-	24
Fire-cracked rock	4	-	16	3	-	19	9	5	20	10	7	4	29	-	84
Fire-cracked rock (g)	2699	-	1020	49	-	1069	569	399	734	812	322	298	4214	-	7348
Daub #	-	1	-	-	1	1	2	1	4	1	4	-	-	-	12
Daub (g)	-	8	-	-	2	2	5	2	6	6	13	-	-	-	32

* Indicates presence of small uncounted fragments.

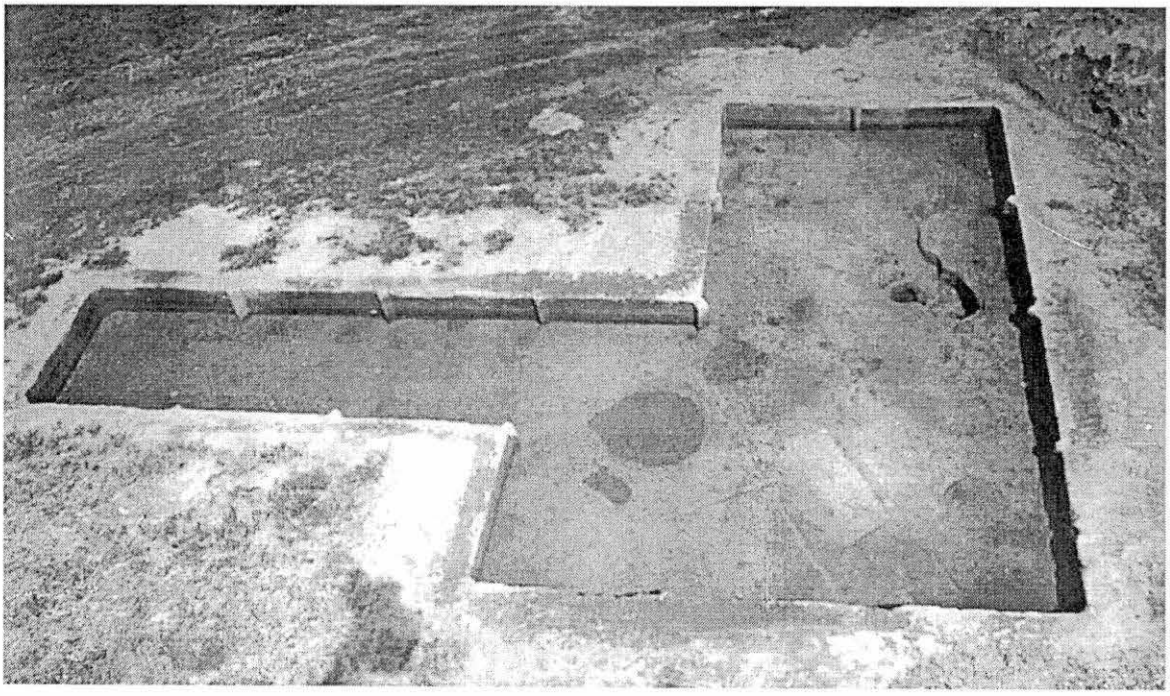

Plate 53. Berry site excavation area B (view to the east).
(Note: Features 1, 2, and 3, and Burial 1 are shown after excavation and back-filling. Excavation of Features 17 and 18 is underway.)

Excavation Area B (Figure 22; Plate 53) included 13 100 square foot excavation units and yielded an unexpected but not surprising stratigraphy. Four separate levels (Figure 23; these levels were referred to as Plow zones 1-4 in the field) were encountered, each representing different formation processes. Table 60 illustrates the contents of two excavation units in Area B.

Zone 1, a dark brown sandy loam, which varied from 1.2 to 2.2 feet deep. Zone 1 artifacts included large amounts of pottery and minor amounts of lithics and represents the current plow zone. This most recent plow zone was underlain by Zone 2, a light grey to light tan sandy soil. Zone 2 appeared to be a relatively recent alluvial deposit ranging from .1 to.6 feet in depth. Zone 2 occurred in every excavation unit in Area B, however, it appeared to be nearly plowed away in square 310R320. The age of this deposit is unknown but it probably resulted from flooding in either 1914 or 1940 during which thick sediments were deposited in other areas of the Catawba drainage (Mike Ortosky and Roy Mathis, Soil Conservation Service, personal communication, 1986).

Zone 3, a dark brown sandy loam, underlay Zone 2 and varied from .5 to 1.4 feet in depth. The artifact density generally was higher in Zone 3 than any other level. This zone probably resulted from a soil accumulation caused by plowing and erosion of the mound; erosion that had been accelerated by plowing on and around the mound. Zone 3 had nearly the appearance of a midden but was clearly plowed in its entirety.

Plow zone 4, on the other hand, was only partially plowed. This dark brown to black sandy loam varied from .2 to 1.0 feet in depth, but was usually about .3-.4 feet thick. In some cases it was difficult to separate Plow zone 3 from Plow zone 4; however, the texture of the latter was more compact and the looser plow scars of Plow zone 3 could be scraped away with care. Plow zone 4 represented a disconformity above the mottled subsoil which appeared to be a buried A horizon with normal soil development over a B horizon (Ortosky and Mathis, SCS, personal communication, 1986). Therefore, Plow zone 4 is interpreted as a cultural deposit, probably a combination of mound use and aboriginal living surface.

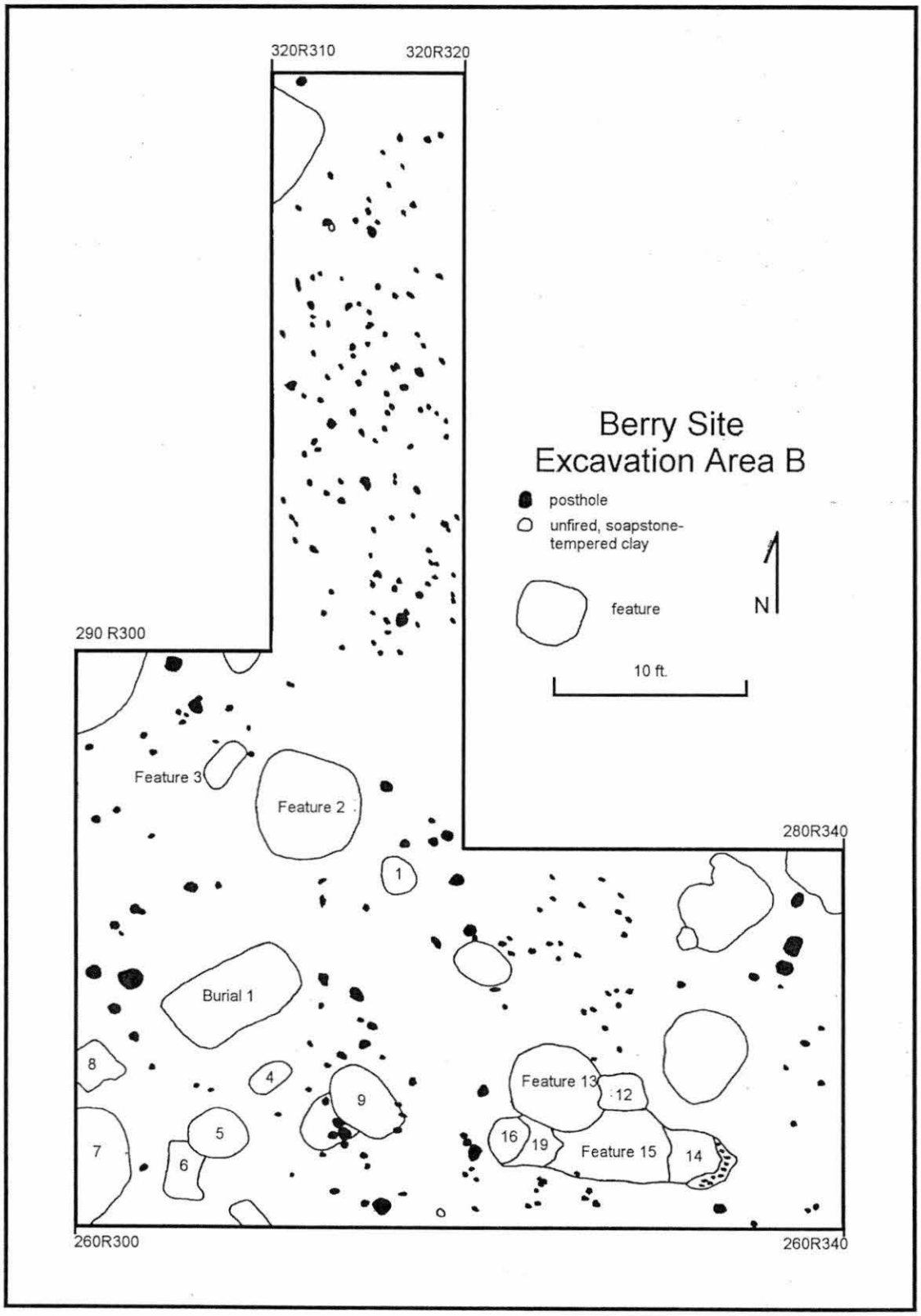

Figure 22. Excavation plan for Area B at the Berry site.

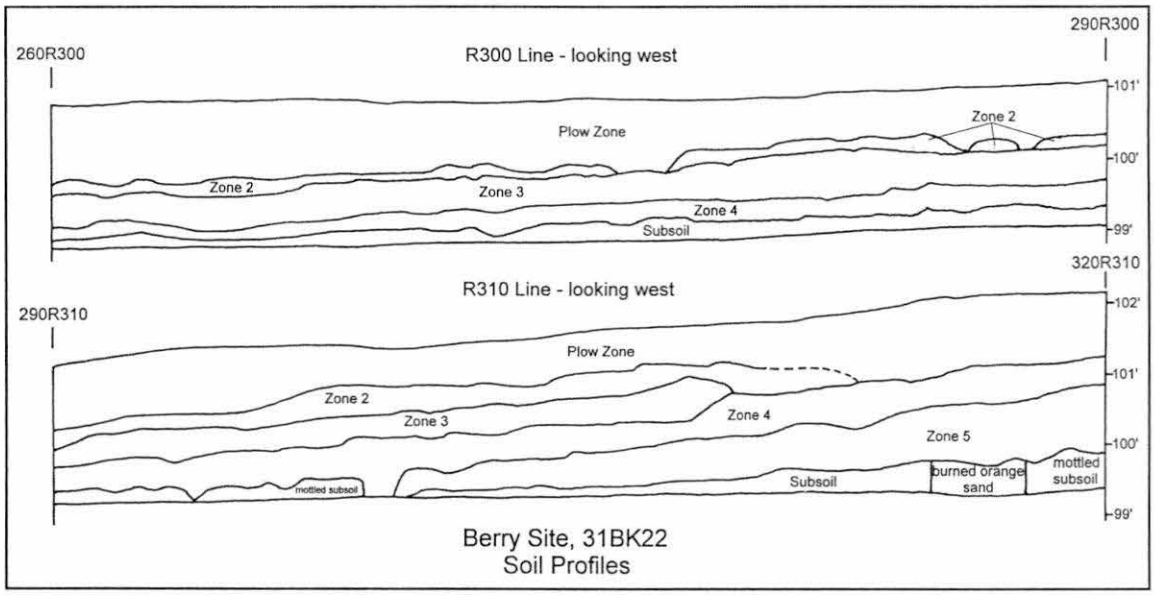

Figure 23. Soil profiles for Area B at the Berry site.

Plate 54. Volunteers excavating plowzone soils from units 260R340 and 270R340 in Area B at the Berry site.

However, this level was labeled in the field as a plow zone since distinct plow scars were found in the subsoil below it. Interestingly, these scars were narrow (.1'-.2') and shallow (.1'-.3') suggesting a horse or mule drawn plow as opposed to the broader and deeper plow scars seen on the surfaces of Plow zones 2, 3, and 4. Though it was labeled a plow zone it was not entirely disturbed by the plowing. In almost all cases features were visible within this level. While the plow had occasionally passed through these soils the basic integrity of the level was not destroyed. Unfortunately, within the zone, it was impossible to distinguish plow scars from the undisturbed soils, hence the entire level was labeled and treated as plow zone.

Plate 55 shows excavation completed in units 270R310, 270R320, 280R310, and 280R320 (view to the west). Burial 1 and Feature 2 are clearly visible through the dark mottling at the bottom of Plowzone 4. Clearer subsoil is apparent through the middle of the photograph. One can also see plowzones 1 – 4 in the profiles of 270R310 and 280R310 (this profile section is represented in Figure 23 on the R300 line).

Zone 5 was located beneath Zone 4 in 300R320 and 310R320. Figure A.5 shows that this level is deeper to the north and that Zone 4 rises over it to the north. The level consists of dark brown to black sandy gravel. These quartz sediments with sand and gravel were inconsistent with the fine sands of the subsoil and as a result, Zone 5 is believed to be a cultural deposit associated with the construction of the mound. The possibility that these soils represented a natural terrace or sand bar was discounted due to the irregularity of the deposition. The sands and gravels did indicate alluvial deposits and must have been gathered from the floodplain (Ortosky and Mathis, SCS, personal communication: 1986). Zone 5 was excavated in arbitrary 0.2 foot levels. These are reflected in the Tables as Levels 5 - 8. However, no natural stratigraphy was observed within the level either during excavation or by an examination of the profiles after excavation.

Although it is not possible to correlate Zone 5 with the mound fill soils from Area A, it seems reasonable to assume that this level equates to the three sub-mound fill soil zones

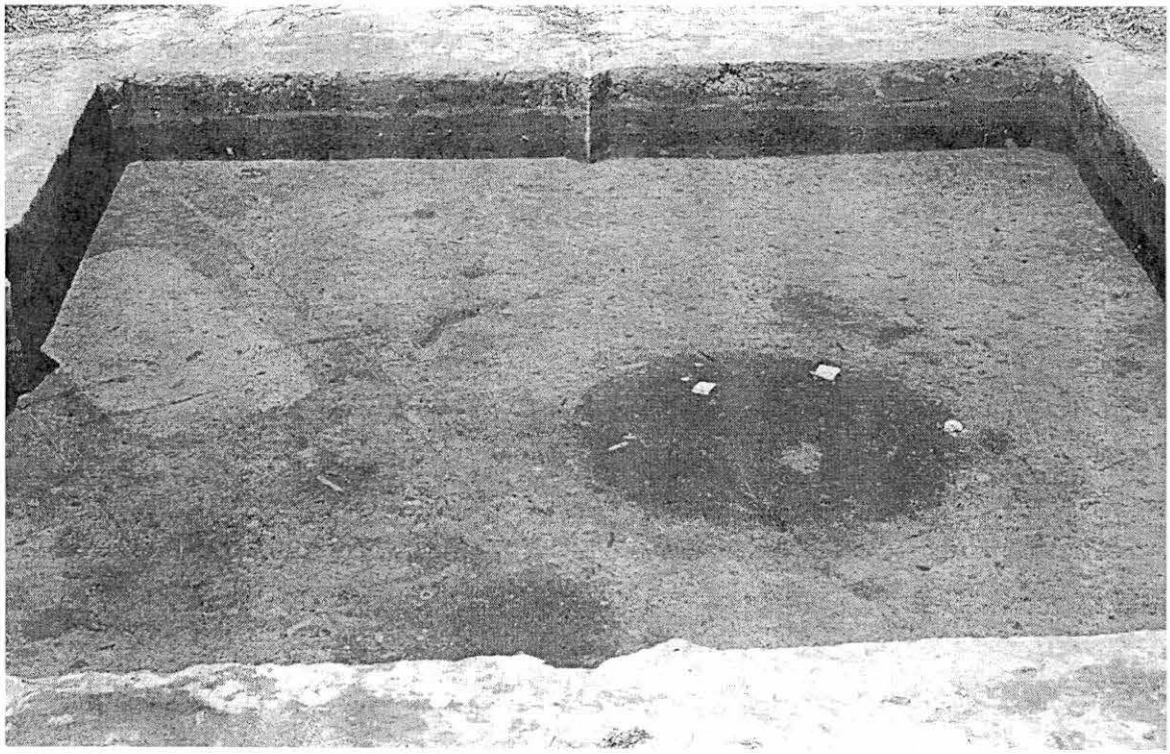

Plate 55. Plowzone soils removed from excavation units in Area B at the Berry site.

identified at the west edge of the mound. Each occurs at a similar elevation and each is approximately one foot in depth.

In sum, the stratigraphy in Areas A and B is quite complex. Levels 5 through 8 represent undisturbed mound deposits while Zone 4 represents a cultural deposit that is associated with mound construction or use. It was plowed during the earliest plowing of the site. The depth and intensity of the early plowing was probably much lower than that of modern plowing since, although plow scars are present in the subsoil, features can still be seen extending from this zone into the subsoil.

Zone 3 is a thicker plow zone that represents a longer period of plowing. This zone probably developed as plowed soils were pushed or eroded off the mound surface. At some point, Zone 3 was covered by the alluvial deposits observed in Zone 2. Since Zone 2 is of variable depth, I suggest that the flood deposits were covered with soil that was eroded and ultimately bulldozed off the mound and plowed, thus reducing its depth. Thus, Zone 1, today's plow zone, is a heavily plowed zone of soil that was formerly mound fill.

The interpretation of stratigraphy presented above is preliminary. Additional testing around the mound and, more importantly, away from the mound will provide better additional data to determine whether this interpretation is accurate.

Site Structure

Unfortunately, very little can be said about site structure based on the 1986 excavations at the Berry site. One probable circular structure (see Figure 22) is represented by a set of postholes that curves around and immediately north and east of Burial 1. Clearly the density of postholes in excavation Area B suggests that additional structures were present adjacent to the mound. Also, the large quantity of postholes beneath Zone 5 in 310R320 suggests the possibility of structures that pre-date the mound construction.

Little else can be said of overall village structure including the number or arrangement of domestic structures or public structures, the presence of palisades, a plaza, or any other features. However, Beck (1997a) suggests that the overall size of the Berry site

may be as large as 12 acres. He bases his estimate on the results of a systematic surface collection in which artifacts were found distributed over nearly 12 acres. The density of artifacts (gathered from 25-meter^2 units), primarily potsherds, was relatively consistent across the site, although lower densities were found southwest of the mound. However, the density of the three (3) collection units which included the mound was ten times higher than the average density. This is probably a function of the fact that midden soils were used to build the mound and these same soils have been spread around it as described above.

Features

Twelve of 19 recorded archaeological features were excavated. These features consisted of pits representing a variety of functions including roasting pits, gaming post-holes, and burials. Table 61 presents an inventory of the contents of the excavated features. A number of soil stains representing other possible features were observed during the excavations but feature numbers were only assigned to well-defined features.

Features were selected for excavation to provide as large a sample as possible of the various feature forms. Therefore features were selected based on an evaluation of their form, fill, presence of artifacts, and presence of animal bone or charcoal for subsistence data (plant foods and faunal remains) and radiocarbon dating. Unfortunately, time limitations prevented excavations of all the identified features.

Feature 1. (Figure 24): Feature 1 was a roughly circular soil stain located at 278R317. The fill was dark brown sandy soil with charcoal inclusions. Surrounding the dark circle was a less well defined, mottled, brownish-yellow soil. Artifact density was low but a relatively large amount of fire-cracked rock was present possibly suggesting a hearth area. At the subsoil level, the circular area did appear to be distinct from the surrounding soil. However, the feature edges and bottom were indistinct.

Feature 2. (Figure 25, Plate 56): This large circular feature was located at 282R311.75. It was easily observed in the subsoil level with a dark brown sandy fill. Potsherds, charcoal, and fire-cracked rock were observed at the surface. Two major

Table 61. Distribution of artifacts from features at the Berry site.

FEATURE #	1	2	3	5	9	11	12	13	14	16	17	18	Burials 1	Burials 2
CONTENTS														
CSPP	1	3	-	-	1	-	-	-	-	-	-	-	2	-
BIFACE	-	2	-	-	2	1	-	-	-	-	-	-	-	1
HAMMERSTONE	1	-	-	-	3	-	-	2	-	-	-	-	-	-
ANVIL	-	-	-	-	1	-	-	2	-	-	-	-	-	-
DISK	-	-	-	-	-	-	-	1	-	-	-	-	1	-
SOAPSTONE #	3	12	1	18	8	4	-	-	1	-	2	8	6	-
SOAPSTONE (g)	4	133	4	97	85	18	-	-	8	-	4	122	11	-
FLAKES #	-	10	-	4	6	8	-	4	-	-	2	2	73	1
FLAKES (g)		6	-	5	4	13	-	5	-	-	3	3	54	1
POTSHERDS	30	358	5	101	149	183	2	274	6	32	69	124	63	11
CLAY DISK	-	4	-	1	1	-	-	-	-	-	-	-	-	-
CLAY PIPE	-	-	-	-	-	-	-	1	-	-	1	-	-	-
CLAY BEAD	-	-	-	1	1	-	-	1	-	-	-	-	-	-
UNFIRED CLAY (g)	-	-	-	-	68	13	-	-	-	-	-	549	-	-
DAUB #	-	-	-	-	-	14	-	7	-	-	-	-	6	-
DAUB (g)	-	-	-	-	-	9	-	7	-	-	-	-	5	-
FCR #	14	209	1	-	35	-	-	-	-	-	-	2	-	-
FCR (g)	1110	13,374	10	-	910	-	-	-	-	-	-	1050	-	-
ANIMAL BONE #	-	7*	-	-	1*	80	-	2	-	-	1	-	-	-
ANIMAL BONE (g)	-	23	-	-	4	57	-	15	-	-	11	-	-	-
WOOD POST FRAG.														
(uncarbonized #)	-	-	-	-	-	-	-	-	-	-	2	10	-	-
(g)	-	-	-	-	-	-	-	-	-	-	165	43	-	-

* Includes numerous uncounted small fragments.

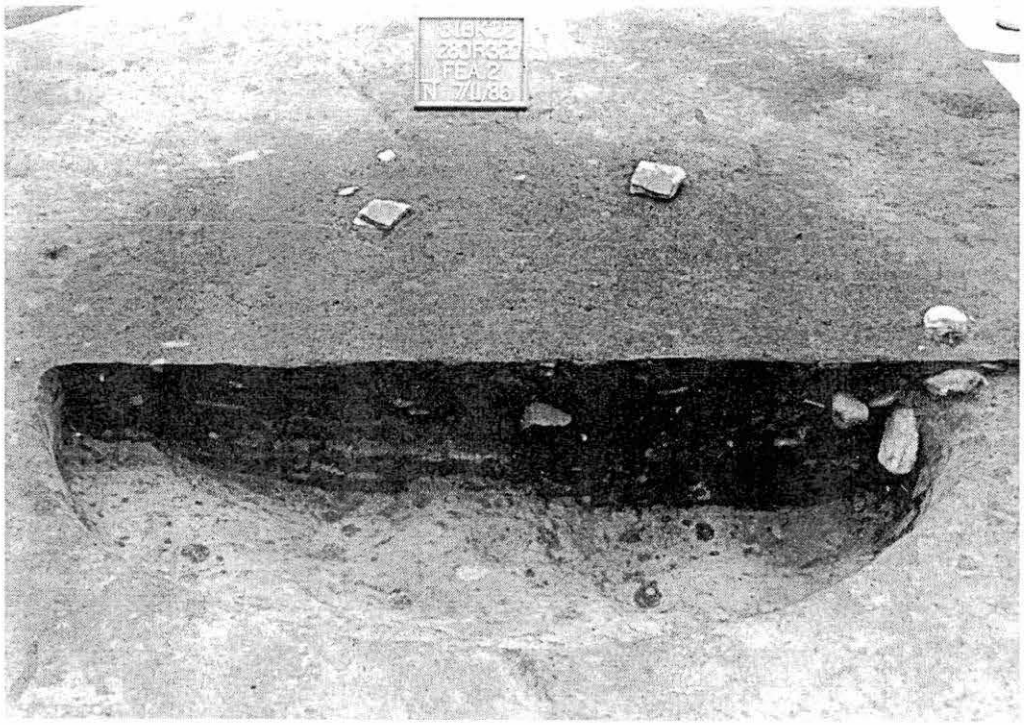

Plate 56. Feature 2 at the Berry site. East half excavated (view to the west).

depositional levels were revealed, the uppermost of which included a cluster of more than 20 fragments of fire-cracked rock and nearly two dozen potsherds. This feature contained the most ceramics and fire-cracked rock of all the excavated features. An irregular soil stain at the north end of the pit also included fire-cracked rock and may represent an earlier pit hearth intruded by Feature 2.

Level 1 (0.2 ft deep to 1.0 ft deep) consisted of a dark brown sand mixed with occasional thin lenses of light tan sand. The majority of artifacts, fire-cracked rock, and charcoal was found within the first 0.5 feet of the feature surface in a cluster located just west of the center of the pit. The second level was less homogenous. The south side of the pit was filled with a light brown mottled soil and occasional artifacts while the northeast portion of the pit was filled with a reddish-brown sand, more fire-cracked rock and a greater abundance of charcoal. The pit edges were relatively distinct but the bottom was less so. There was no apparent hardening or color change from fires in the pit. As a result this pit is interpreted as a shallow basin utilized in short-term roasting episodes.

Feature 3. (Figure 24): This small (2.9 ft by 1.4 ft) feature was located at 284R308.25 and was quite distinct at the subsoil level. However, the mixed dark and light sandy soil matrix appeared more as a stain than as a pit. The feature was excavated to a depth of 0.6 ft and the fill graded into the subsoil without any discernible pit walls or bottom. No artifacts or charcoal was recovered. This feature may be of a natural rather than cultural origin.

Feature 4: This feature occurred as a lens of bright orange-red (burned) sand in Plow zone 4. It remained intact within the Plow zone level but appeared to be merely a thin lens of mixed red and brown sands at the subsoil level. One ceramic elbow pipe was recovered from the feature in Plow zone 4. The feature was not excavated into the subsoil level and its function is uncertain.

Feature 5. (Figure 24): Feature 5 was a circular pit 3 ft in diameter located at 267.5R305.75. Two soil levels were observed in excavation. The first (0.3 ft deep) was

filled with a mottled dark brown to dark yellowish brown sandy (10YR4/3-4/4-3/3) soil with potsherds, charcoal, and ocher. Below this level the soil was mottled with a light colored sand that also contained potsherds, charcoal, and ocher. The base of the pit was well-defined at a depth of about 0.8 feet. Despite the relative abundance of charcoal, fire-cracked rock was scarce and there was no evidence of firing on the walls or pit bottom. Therefore, this pit is interpreted as a trash-filled storage pit.

Feature 6: This featured was located at the south end of, and was intruded by, Feature 5. The feature was shaped in an irregular oblong shape 3 ft long and 1.5 ft wide. It is possible that the irregular outline included postholes that could not be discriminated. The feature fill was similar to that of Feature 5 though it did not exhibit artifacts at the surface. This feature was not excavated and its function is uncertain.

Feature 7: This feature was observed at the top of Plow zone 4. It was located in the southwest corner of square 260R310 and continued into the south and west profiles of the square (Figure B.4). Though it was not entirely exposed it appeared to be a large pit at least 7 feet long by 5 feet wide. The dark brown sandy soil contained fire-cracked rock and charcoal. Its size suggests that this pit served as a storage pit or as a roasting pit. It was not excavated.

Feature 8 (Figure 22): Feature 8 was also observed within Plow zone 4. This was a small feature about three feet in diameter which was located on the west side of 260R310 and continued into the west profile (Figure x). Its fill was light tan sand with fine gravel. Feature 8 was not excavated and its' function is uncertain.

However, the east side of the feature was intruded by a large cluster of charred hickory nuts in a dark brown soil. Though Feature 8 was not excavated, the hickory nuts were removed for further analysis. The charred nuts were radiocarbon-dated and yielded a radiocarbon age of 520 ± 50 BP (Beta-21817). The calibrated intercept is AD 1421. The one-sigma range is AD 1400-1441 and the two-sigma range is AD 1307-1473.

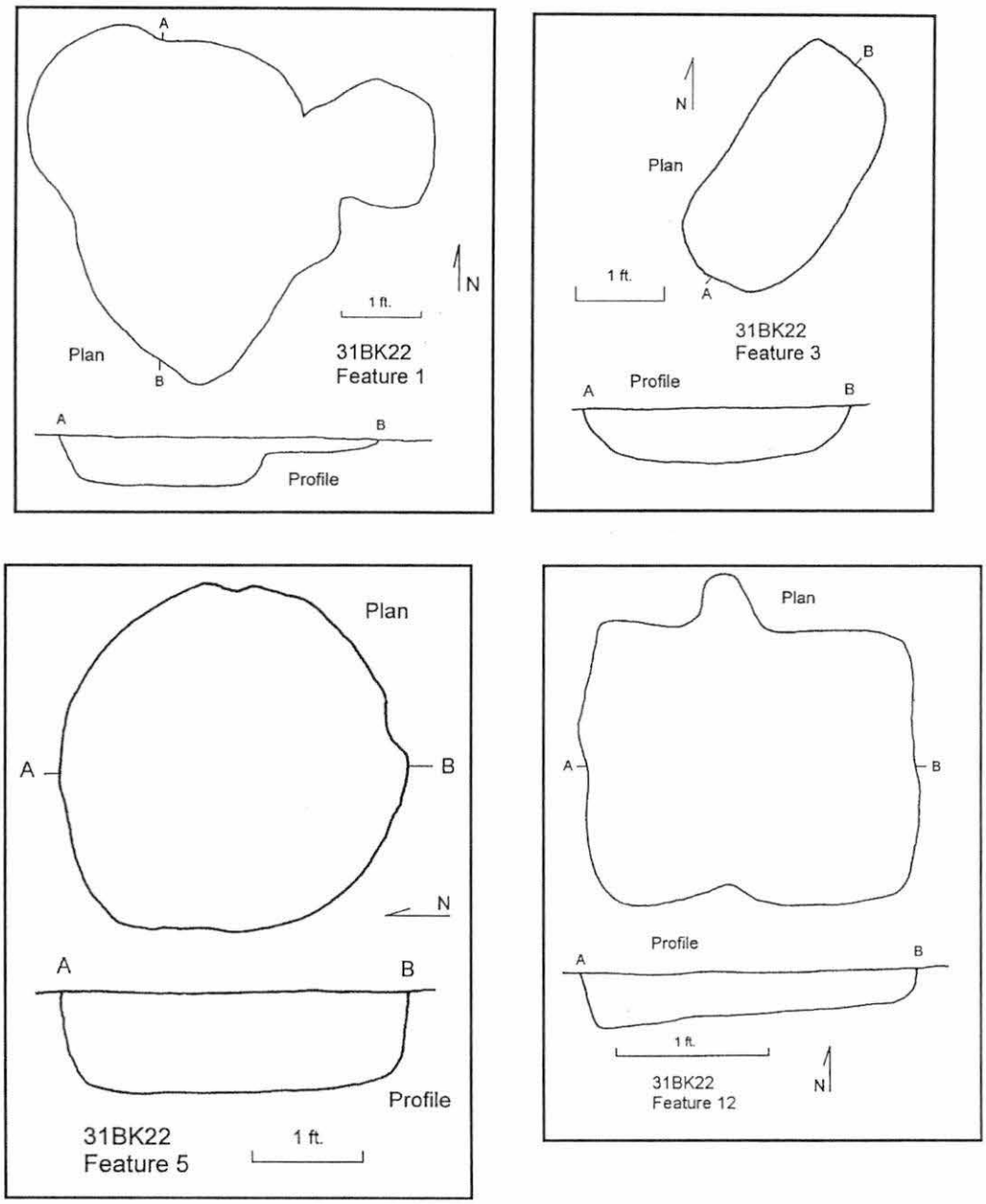

Figure 24. Plan view and profile drawings for Features 1, 3, 5, and 12 at the Berry site.

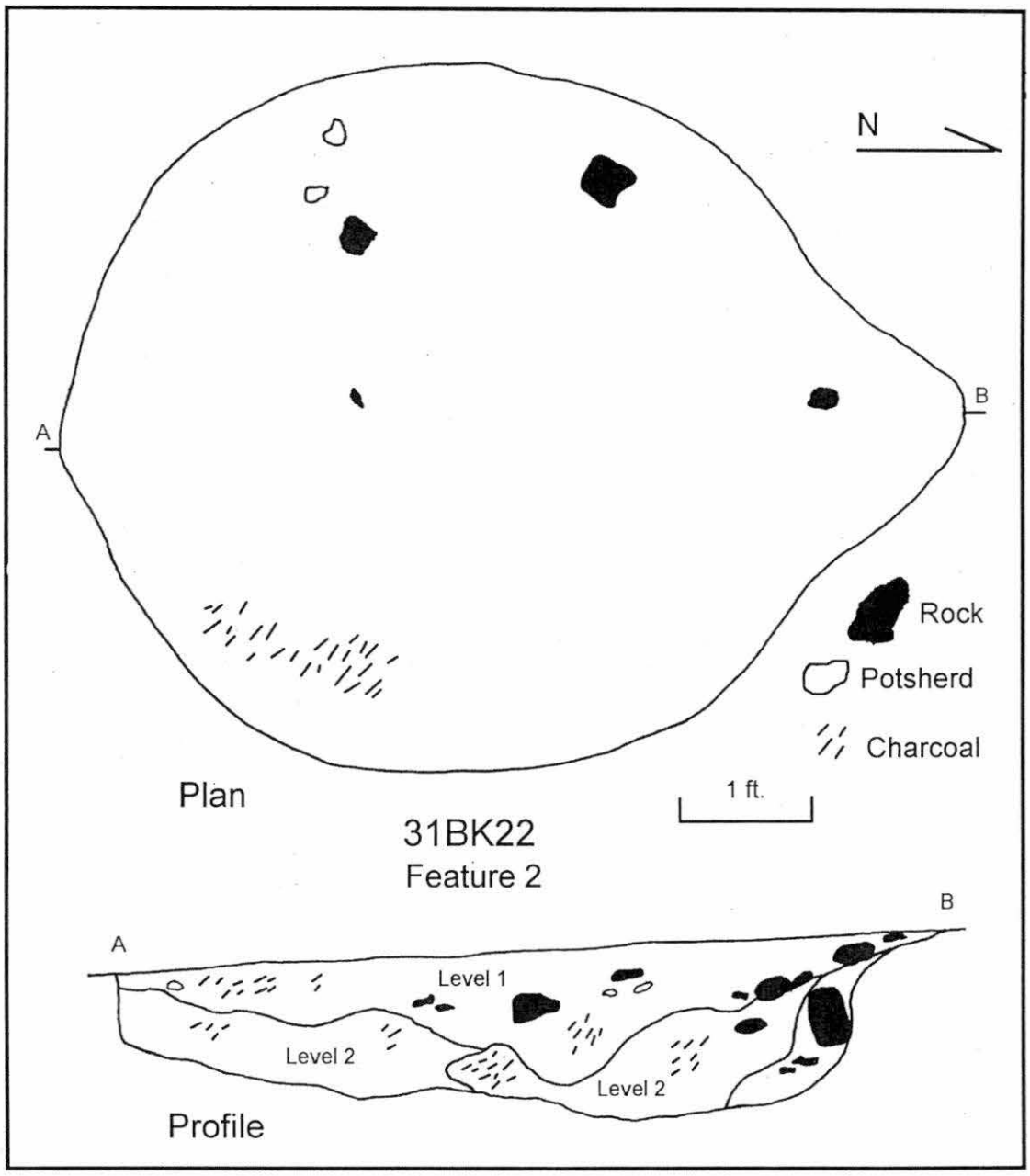

Figure 25. Plan view and profile drawings for Feature 2 at the Berry site.

Feature 9: This feature is described under Burial 2 below.

Feature 11: This feature was located within the midden-like deposit at the east end of Trench A. The feature appeared to be well-defined beneath the plow zone. It had an oval shape and was 4.5 ft by 3.5 ft in diameter. The fill was distinct from the midden matrix being mottled dark and light tan/brown soil that contained an abundance of pottery and other materials. However, excavation of the feature proved to be problematical. It was extremely difficult to determine either walls or a floor for this feature. The excavation units in which the feature was located were expanded to try to find the feature edges but we were not successful in doing so. We eventually abandoned work in this feature after deciding that the feature represented a disturbance (pothole) of the mound and that we were excavating disturbed mound fill. Interestingly, this is the only feature that contained more than a few fragments of faunal material, corroborating the overwhelming presence of faunal material scattered across the surface of the mound.

Features 12-19 - Feature Group (Figure 26; Plate 57)

Features 12-19 occurred as contiguous features and are termed a feature group as a result. The group was located in excavation units 260R330 and 260R340 and was first observed and drawn as Features 12-17. Feature 18 was defined beneath Feature 13 during excavation and Feature 19 was defined beneath Feature 16 during excavation. The entire cluster was approximately 14 feet long and 7 feet wide and was especially noteworthy for the variety of soil fills observed. Portions of the features were quite distinct but certain areas were obscured by surrounding mottled soils. This was particularly true at the east and west ends of the group. Another unusual aspect of the feature group was the common southern edge shared by Features 14, 15, and 17.

The feature group was initially observed at the base of Plow zone 4. However, it was extremely difficult to define the pit edges at the initial subsoil level; therefore the subsoil was flat-shoveled in several thin layers until the individual feature outlines were more distinct. At this point the two excavation units were cleaned by trowels and drawn. The

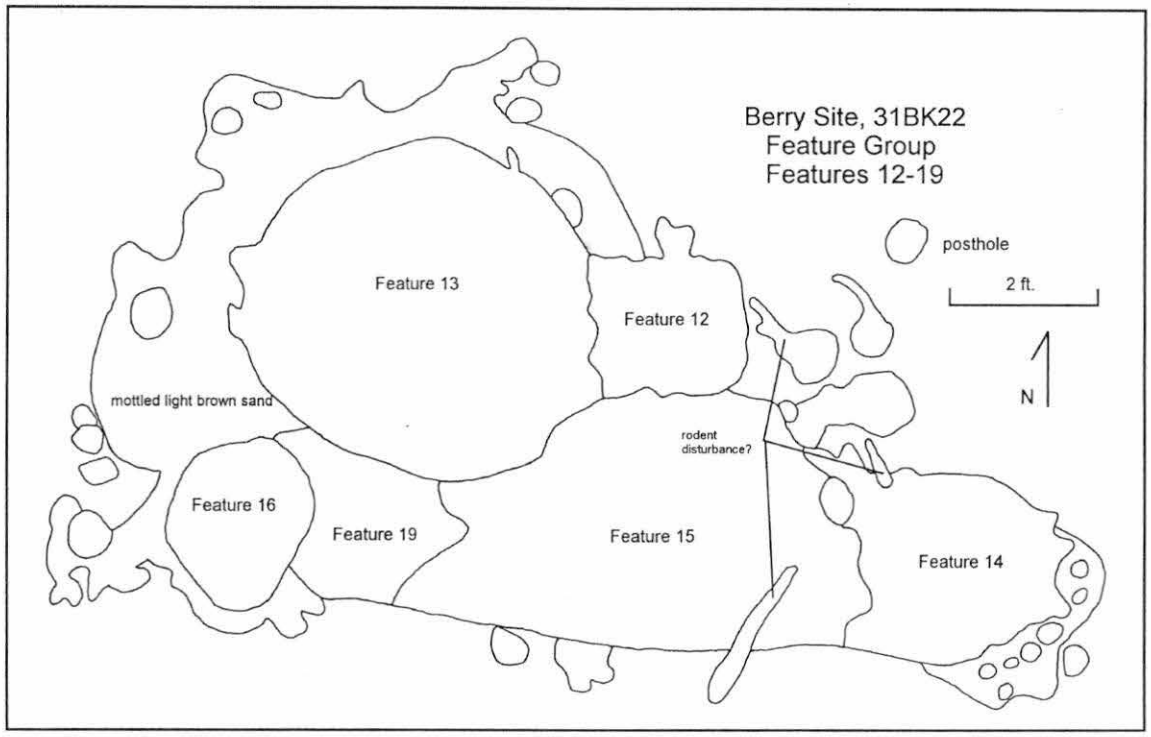

Figure 26. Plan view of the Feature Group (Features 12-19) at the Berry site.

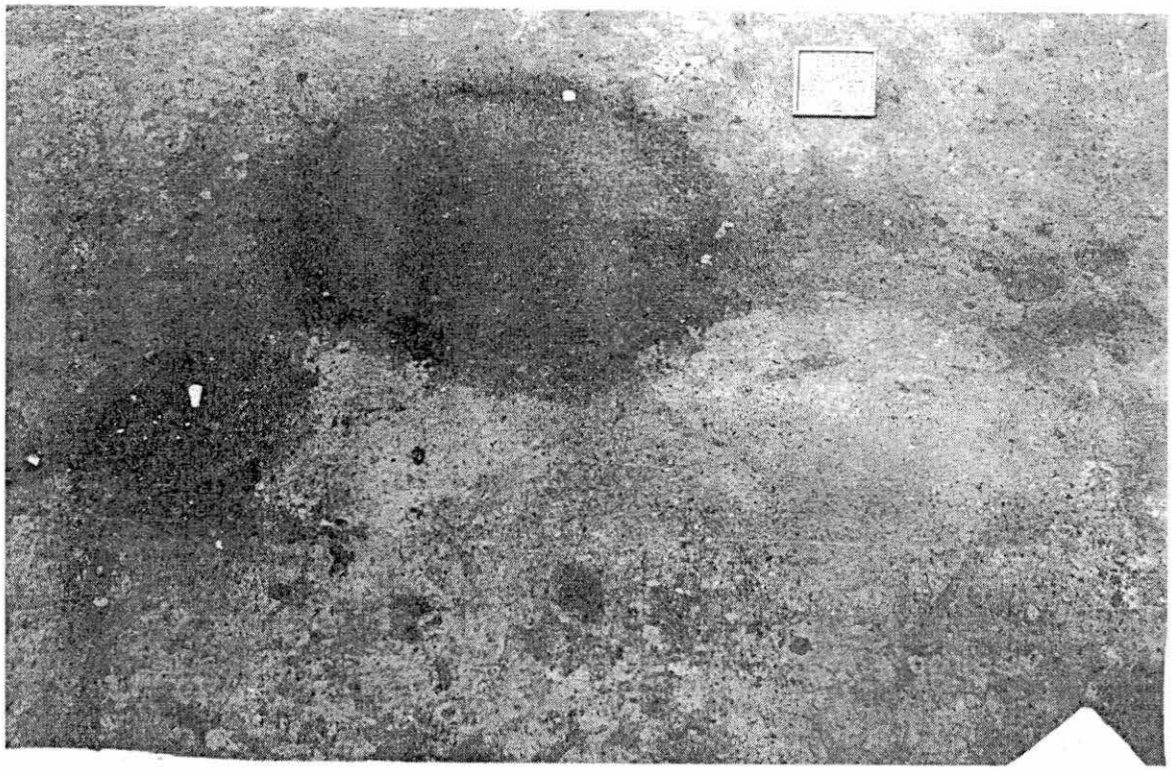

Plate 57. Berry site features 12-19 before excavation.

complexity of the feature group was such that several trowelings were completed before we drew a final plot of the entire group. At this point additional mottling had been removed and we were left with a more simplified picture of the individual features.

It was not possible to excavate the entire feature group due to its size and the time available. However, we felt it necessary to try to determine the nature of the group or of individual pits as best as possible. We therefore determined to excavate those features whose edges were most distinct and/or least complicated by intrusions. Features 12, 13,and 16 were selected. However, due to the subsequent developments, Features 17 and 18 were excavated as well. The excavated features are described below, not in numerical order, but by their excavated order due to their associations.

Feature 12: (Figure 24) Feature 12 was nearly square-shaped with a diameter of about 2 feet. It intruded the east edge of Feature 13. The shallow feature (less than 0.2 ft deep) consisted only of a dark greyish brown clayey sand fill, a fill unique for color and clay content among all those observed at the site. No artifacts were present. The function of Feature 12 is uncertain.

Feature 13 (Figure 27; Plate 58): Feature 13 was the focal point of the group due to its size and color; it seemed to anchor the entire feature group. Its large size (circular: nearly five feet in diameter) and distinct dark fill dominated the other features. The east side of the feature was excavated first. The pit edges were distinct and several depositional levels were observed (Figure X, Profile drawing). The uppermost was a dark brown and grey sand with lighter-colored sand inclusions. The quantity of sand in the fill was such that it blocked the 1/16" screens at the waterscreening table. Charcoal was abundant and moderate amounts of pottery and fire-cracked rock were present. A charcoal sample from this level yielded a radiocarbon age of 520 ± 50 B.P. (Beta-21817). The calibrated age is AD 1415. A second correction yields a 75% probability for the age range AD 1392 to AD 1435 (Stuiver and Becker 1986). This soil level covered the entire pit; below this a series of shifting levels included dark black/purple sand with charcoal, a grey sand and ash, a mottled grey brown

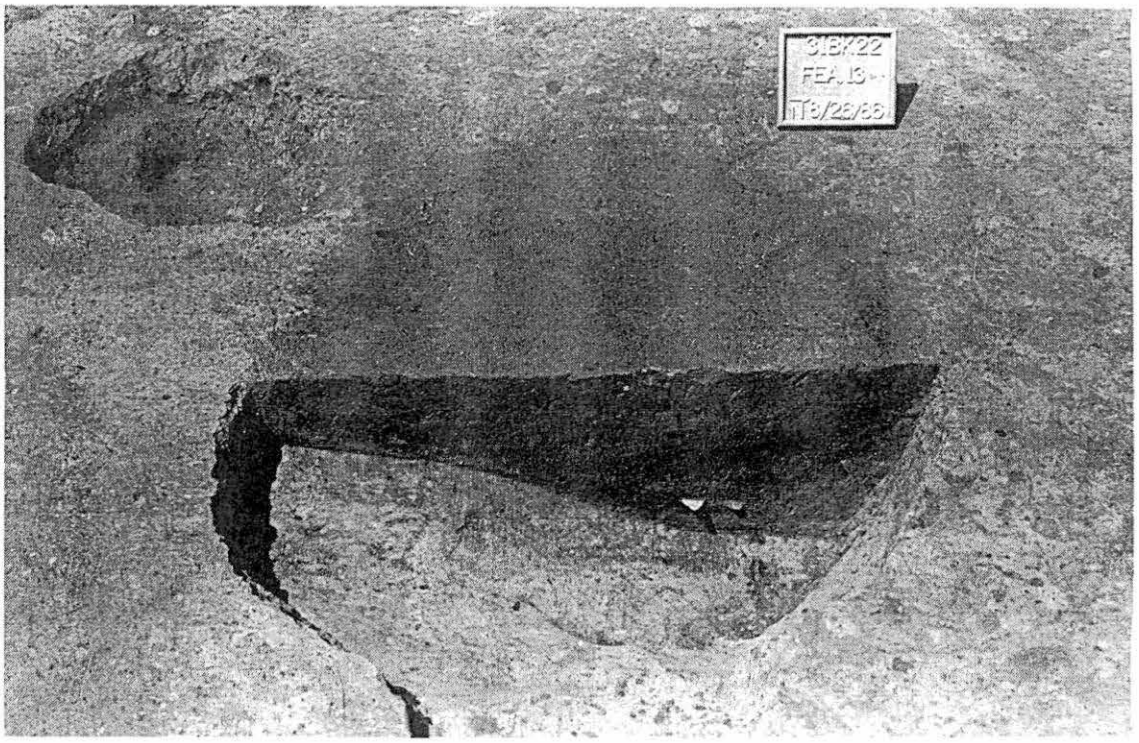

Plate 58. Berry site Feature 13, east half excavated. (Note Feature 18 exposed beneath Feature 13.)

sandy soil, and a mottled light brown soil. The depth of the pit sloped from about 1.0 foot at the south end to more than 1.5 feet at the north. Similar levels and artifact content occurred on the west side of the feature.

Feature 13 is believed to be a trash or roasting pit. However, this feature also coincides with the uppermost portion of Feature 18 (see below), a posthole for a large gaming post. Feature 13 appears to postdate Feature 18 based on the stratigraphy seen in Figure A.12 and Plate . However, its placement over Feature 18 suggests that it may be related to the removal of the game post or to the point in time that the game post was no longer used.

Feature 18 (Figure 27; Plates 59, 60)

When the excavation of Feature 13 was completed, we observed a mottled dark stain that did not conform to the base of the feature. Initially, this stain was viewed as being distinct from Feature 13 and as a result was assigned a new number, Feature 18. It extended from the western edge of the pit bottom to just beyond the midpoint of the feature. The soil was lighter colored, less sandy, and more mottled than the fills excavated from the feature. The darker mottled soil was surrounded on the north, east, and south sides by a ring of lighter mottled soils. Within the dark soils was a concentration of loose black soil, some of which had collapsed into small holes. The combination of fills and the collapsed holes were interpreted as the top of a collapsed burial chamber. Since a similar configuration of fills and collapsed soil had been observed in the adjoining Feature 16 it was thought that both features represented burials or that one large burial chamber was located beneath both of them.

Feature 18 was excavated in arbitrary levels of about 0.1 feet and discrete fills were kept separated. At a depth of about 1.8 feet, the mottled soils on the northern edge of the pit appeared more clearly as a series of small posthole. Also, at this depth a small fragment of decayed wood was observed on the edge of one of the collapsed holes within the loose black fill area. After removing the next 0.1 feet of fill, a second small hole collapsed revealing a

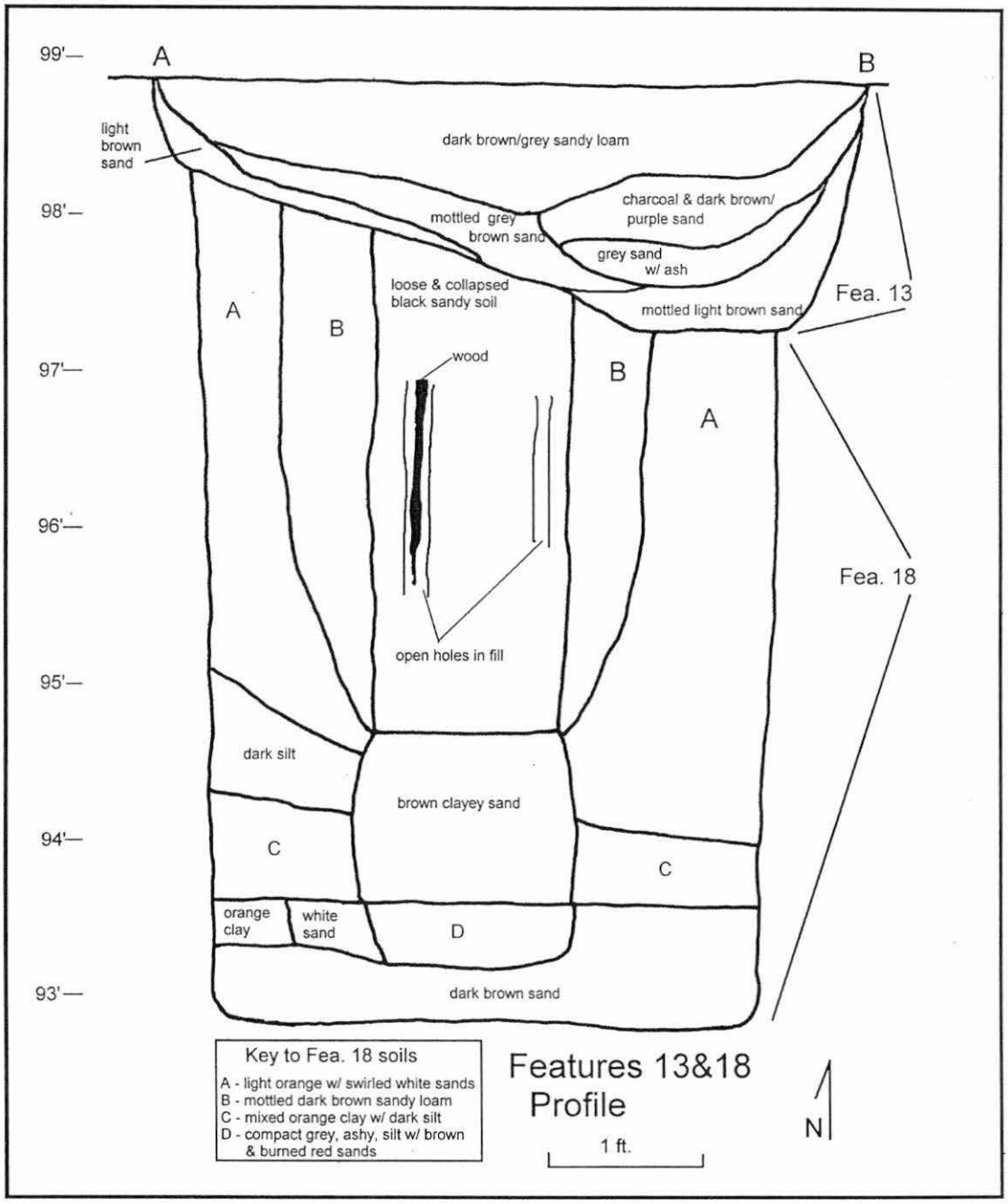

Figure 27 Soil profiles for Features 13 and 18 at the Berry site.

small piece of wood standing vertically within the hole. The hole seemed to be a cast of what might have been a stick nearly 0.1 ft thick. The small piece of wood was removed and turned out to be a decayed stick more than 1 foot long. An additional 0.1 ft of the dark fill was removed and three more open holes appeared, each with a piece of wood standing vertically within them. The sticks were left in place while an additional 0.3 ft of fill was removed around them. Feature 18 was cleaned, photographed and drawn at this point. Leaving the sticks in place we continued to excavate Feature 18 by 0.1 ft levels keeping all fills separate. By this time a ring of 16 postholes was clearly visible around the northern edge of the pit. These represented posts, 0.2 ft- 0.4 ft in diameter, that slanted slightly to the east. These postholes turned out to be more than 1.5 feet deep and the wooden sticks also turned out to be 1.0 - 1.5 feet in length. The bottom of the sticks was at a depth of about 3.4 feet. The loose black fill continued to a depth of 4.15 ft, at which point an irregular shaped cavity appeared filled with a red/brown clayey fill. The surrounding brown fill remained intact to a depth of 5.0-5.4 ft. Beneath this depth no central column was discernible. A variety of fill was encountered to a depth of 6 feet where fine and medium sands and river gravel marked the base of the feature.

Feature 18 is interpreted as a posthole for a large gaming post. The central column of brown fill surrounded the post itself which, based on the width of the black, loose, fill, is believed to have been about 1.0-1.5 feet in diameter. Coe (1995:93-96), using the examples from town Creek, provides a vivid description of the techniques used to raise such a large pole. A stepped ditch is dug beside hole prepared for the post. The post is then placed into the base of the trench at an easily managed low angle and gradually pulled to a vertical alignment with the help of a supporting wooden frame. It is possible that the common border of Features 14, 15, and 19 represents the edge of such a stepped trench. The ultimate function of the entire feature group can only be determined with complete excavation.

Feature 14 (Figure 26): Feature 14 represented the easternmost portion of the feature group. It was not excavated but the light tan fill suggests burial fill if it is not otherwise associated with Features 17 and 18.

Feature 15 (Figure 26): Feature 15 was not excavated but it resembled Feature 14 and may represent a burial if it is not associated with Features 17 and 18.

Feature 16 (Figure 26, 28): Feature 16 was located at 264.5R332.5 on the southwestern edge of the feature group. It appeared as a dark circle (2 ft in diameter) surrounded by indistinct mottled soils. The surface of the feature was notable for the large quantity of heavy sands and gravel mixed in the dark brown (10YR3/2 - 3/3) sandy soil. On excavation, we found the feature fill consisted of nearly 20% gravel and sand. Several potsherds were recovered from the feature.

The bottom of the gravely matrix was reached at a depth of 0.9 feet. As the last of the gravel was removed the bottom of the small pit collapsed revealing several inches of loose fill below. As there had been no indication of any recent disturbances at the surface this was interpreted to be a collapsing burial chamber. The new feature was designated Feature 17 and was thought to represent the remainder of the burial pit. This turned out not to be the case as will be seen below.

Feature 17 (Figure 28; Plate 59)

Instead of being a burial, Feature 17 turned out to have the same configuration as did Feature 18. The feature consisted of a small circular column of loose black fill (1 ft in diameter) surrounded with a ring of mottled soils all of which filled a pit 2.5 ft in diameter. At a depth of 1.9 feet a series of fifteen postholes .2 ft-.4 ft in diameter became apparent in the surrounding mottled soils (Figure X). A small piece of wood was encountered in posthole 3 at a depth of 2.5'. This turned out to be 1.1 ft in length and nearly .2' in diameter despite obvious decay. The fill and the postholes continued to a depth of 4 feet. At this level the postholes were located close together against the edge of the pit indicating that they

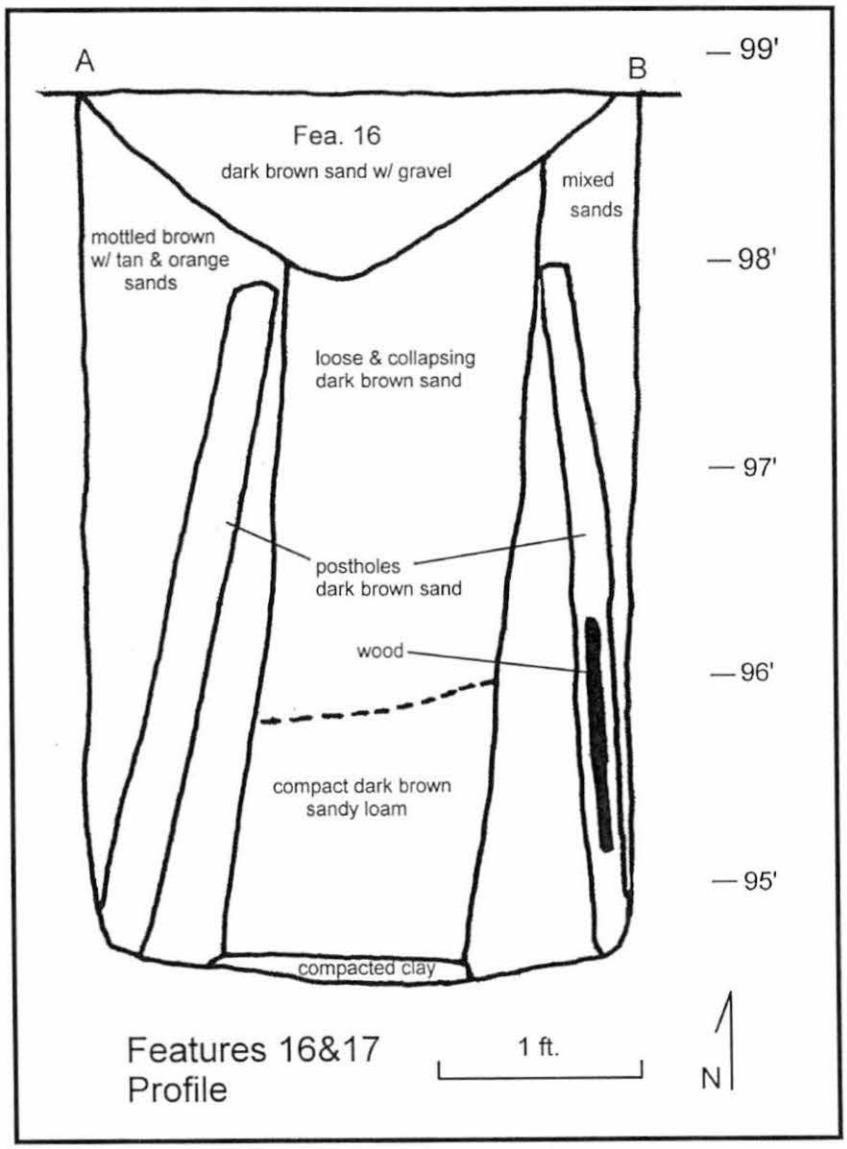

Figure 28. Soil profiles for Features 16 and 17 at the Berry site.

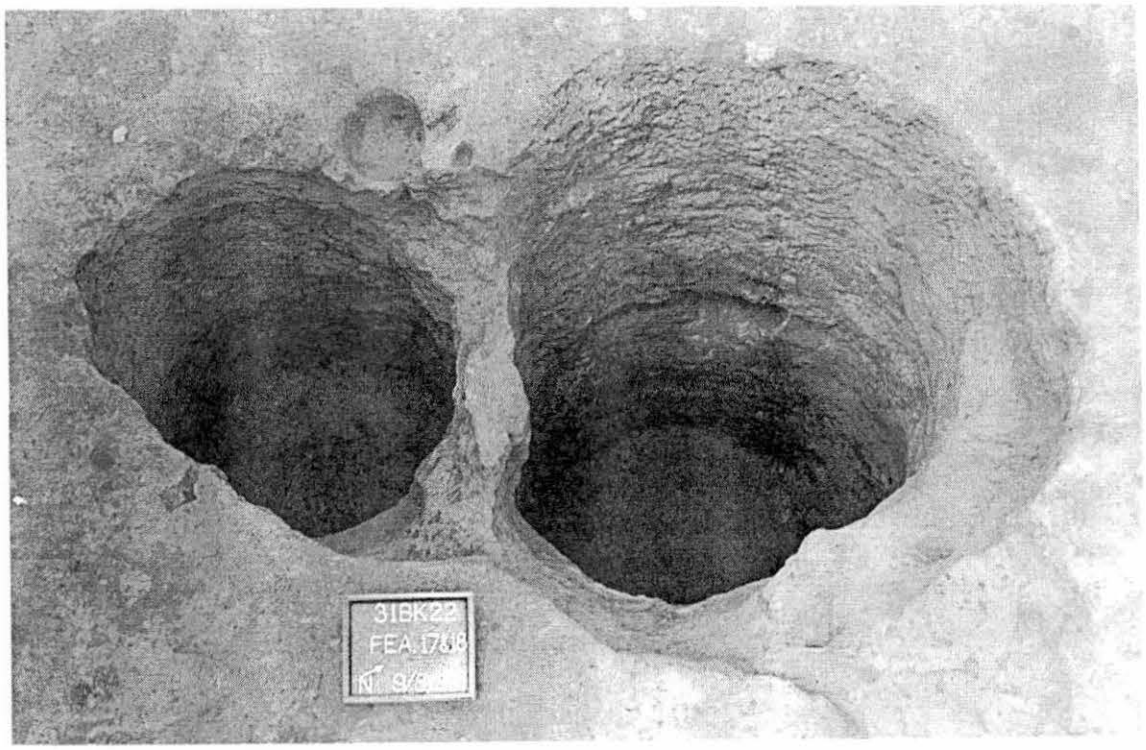

Plate 59. Features 17 and 18 after excavation completed.

had all leaned inward toward the central column. Beneath this level a compact clayey base was found over intact sand.

Feature 17 is believed to represent a smaller version of Feature 18. Each of these features includes a column of dark loose fill surrounded by a mottled fill in which are found a series of posts flanking the outside wall of the pit. It is suggested that the interior column represents the pole and the remainder of the pit represents the hole dug to receive the pole. The wooden posts may have been placed on the edge of the pits to help provide a grip to the base of the pole as it was lowered into the pit by bumping against the pit wall (Joffre Coe, personal communication: 1986). In the case of Feature 18, the posts found in the interior collapsed fill are believed to be placed at the side of the main pole to stabilize it as the fill was placed into the pit. According to Richard Yarnell and Kristen Gremillion (personal communication 1986), the wood sticks are most likely to be heart pine.

Burial 1 (Figure 29)

Burial 1 was first observed at the subsoil level in 270R320 (Plate 57). The light tan sandy fill immediately suggested burial fill but the pit was unusual in its large size (6.5 ft by 3.5 ft) and rectangular shape. Based on the size and shape, we initially considered it possibly an Historic Period grave. However, excavation revealed a shaft and chamber burial. The interior dimensions were equally large; 3.24 feet from the top of the pit to the bottom of the shaft and .86 feet to the bottom of the chamber for a total depth of 4.1 feet. Few artifacts were found in the fill. One extended individual was interred in the chamber. The skeleton was intact but the bones were extremely fragile; none were removed from the ground intact and many were reduced to mere fragments upon being exposed. The interred individual is an older adult male but the poor condition of the bone prohibited any further analysis (Weaver 1988). It was also impossible to determine the effect on the individual of the stone projectile point recovered next to the left innominate. Field observations suggested that the point was embedded in the body though perhaps not in the bone. It is uncertain if the wound contributed to the death of the individual. Despite the paucity of biophysical

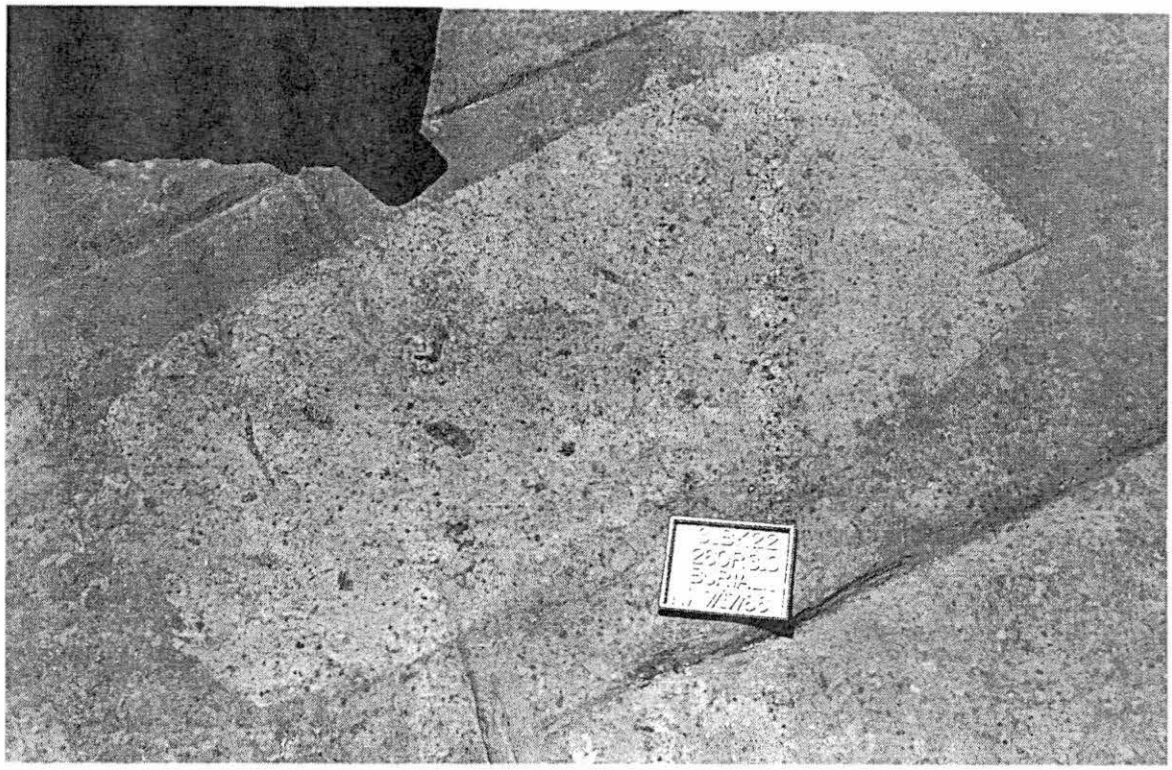

Plate 60. Burial 1 at the Berry site before excavation (view to south).

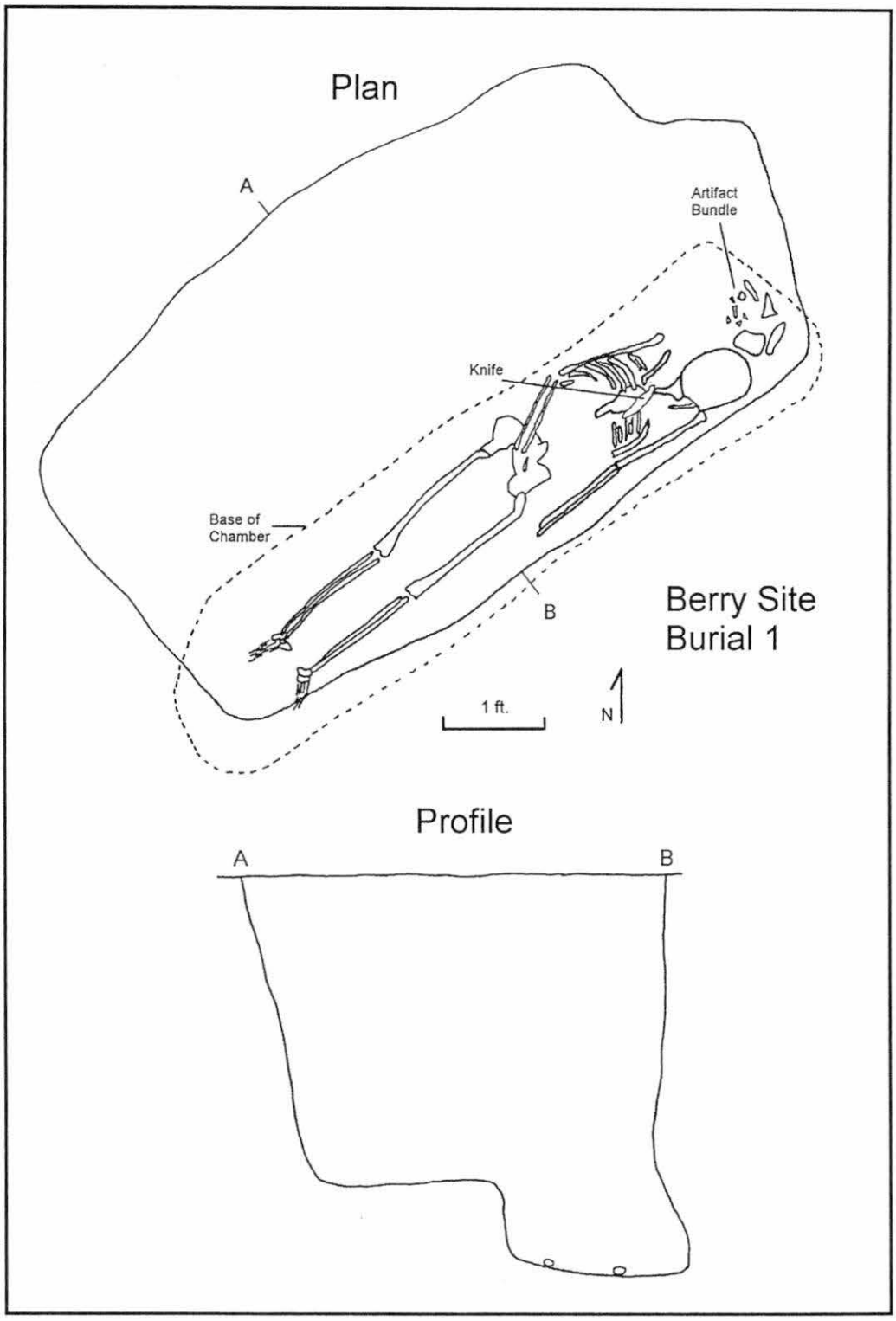

Figure 29. Plan view and profile of Burial 1 at the Berry site.

information, Burial 1 contained examples of personal adornment and striking examples of burial furniture. Copper disks were located above each parietal bone. Also, a bundle of artifacts was located on the floor of the chamber just above the skull. A dark organic stain, probably representing the remains of a container of some sort, surrounded the artifacts. The artifacts were clustered around an intact turtle carapace that held a ceramic elbow pipe made from soapstone-tempered clay. A large, early Archaic, corner-notched point lay on one side of the carapace and a stone-working toolkit lay on the other. Included in the tool kit were two stone abraders, one small quartz cobble, one chert chunk, four small triangular projectile points, one thumbnail scraper, and eight flakes. All of the lithic artifacts were made on Knox chert except for the quartz cobble.

In addition to the artifact bundle, an iron knife, was located across the upper chest of the individual. It is uncertain whether the knife was placed on the individual or was perhaps hung from the neck. The knife is approximately 14.5 cm long with a short (2.1 cm), apparently intact, tang (Plate 61). The blade is straight-backed with a slightly tapered tip and a beveled edge.

Dating this knife style is difficult. Its style most closely resembles the Type C knife dated by Hagerty (1963:98-101) to the late sixteenth to early seventeenth century. However, according to Jonathan Leader (personal communication: 1988), the knife resembles "a popular style of utility knife manufactured in Europe prior to the contact period and [which] continues to be used to the present." Leader feels that the short tang argues for its manufacture as a trade item rather than a standard utility blade. Other opinions of its age range from sixteenth century (Marvin Smith, personal communication: 1986) to eighteenth century (Greg Waselkov, personal communication: 1987).

Despite the occurrence of sixteenth-century Spanish artifacts at the Berry site (see below), the above discussion makes it difficult to associate the knife with those other artifacts. The presence of the knife blade can be explained by at least two alternative hypotheses concerning the age of the burial. In the first, the age of the knife is accepted as

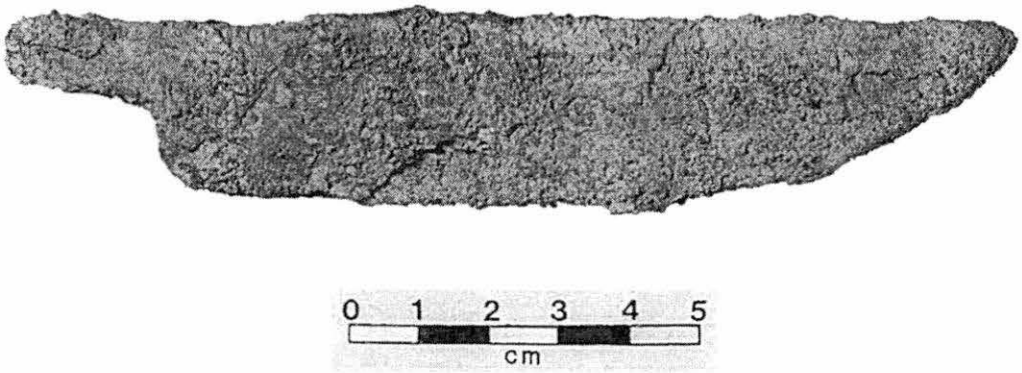

Plate 61. Iron knife from Burial 1 at Berry site.

late seventeenth to early eighteenth century, probably obtained in trade from the Carolina traders. However, the major component of the site appears to date 100 to 300 years earlier. Also, based on the otherwise total absence of European artifacts from that period, there is little evidence for a late seventeenth to eighteenth century occupation at the Berry site. It may be necessary by this hypothesis to view the burial of this individual as a later, intrusive burial; perhaps that of an important high-status individual at an unoccupied but revered location of ancient ceremony.

The second hypothesis accepts a sixteenth-century date for the knife as consistent with the other articles buried with the individual. The only source of such a knife in the sixteenth-century is directly or indirectly from the Spanish explorers. Under this hypothesis, it is possible that this knife was one of the many knives distributed by Pardo in 1566 (DePratter and Smith 1980). According to Worth (1994) and Beck (1997b), this is a possible scenario. Given this hypothesis, it is still impossible to know how the knife came to be in the possession of this individual. It may have been obtained directly from a Spanish source at the Berry site or some other location, or it may have been obtained through trade with other aboriginal groups. Unfortunately, neither hypothesis can be tested without extensive excavation of the Berry site including a much larger sample of burials. However, the presence of other sixteenth-century artifacts at the site leads me to lean towards a sixteenth-century date for the knife and the burial.

Burial 2/Feature 9: (Figure 30)

This feature was originally observed and drawn as a dark circular pit about 3 ft in diameter with associated mottling on the southwest side. The dark brown/black sandy fill included rock, pottery, and charcoal. However, after several re-trowelings we defined a series of small postholes on the east side of the pit and a cluster of larger postholes in the mottled area on the southwest side of the pit. The postholes on the east side turned out to be very shallow (0.1 ft - 0.3 ft) but those on the west side were deeper (to 1.1 ft) with well defined sides and bottoms.

We suspected that the southeastern area of mottling might include additional postholes but we also suspected the area might represent a collapsed burial chamber. We therefore began excavation of the larger, dark fill portion of the feature. This pit contained numerous pieces of rock, pottery, mica, and abundant charcoal. The sides of the pit were all clear except on the west where a stain on the floor of the pit extended into the mottled wall of the pit indicating that the mottled area was either intrusive or represented the chamber portion of a shaft and chamber burial. We believed it to be the latter since there was no evidence of an intrusive feature at the surface.

A human skull was encountered very near the surface of the mottled area. Continued cleaning exposed two flexed individuals within the small (2 ft by 3 ft) chamber. Bone preservation was extremely poor. Each individual was tightly flexed and the condition of the bone made it impossible to determine their exact relationship to one another. However, it appeared that the first individual had been pushed as far into the chamber as possible so that the head was pushed up against the south wall. The second individual was forced into the remaining portion of the pit. An abundance of decayed organic material on the east edge of the chamber suggests that wood or bark was probably placed over the chamber before the shaft was re-filled with soil.

David Weaver analyzed the skeletal remains at Wake Forest University (Weaver 1988). The condition of the bones was poor due to postmortem ground damage. No measurements were obtainable on axial or appendicular skeletons. The crania were relatively intact; both individuals appear to be adult males. No age estimate was made for Individual 1 but Individual 2 appears to be less than 25 years of age based on the lack of occlusal wear on dentition. No other details of stature, robusticity, pathologies, or indications of probable cause of death were determinable (Weaver 1988:7).

No artifacts were found within the burial chamber and though this burial was located in the vicinity of Burial 1 there is no direct evidence of contemporaneity with Burial 1.

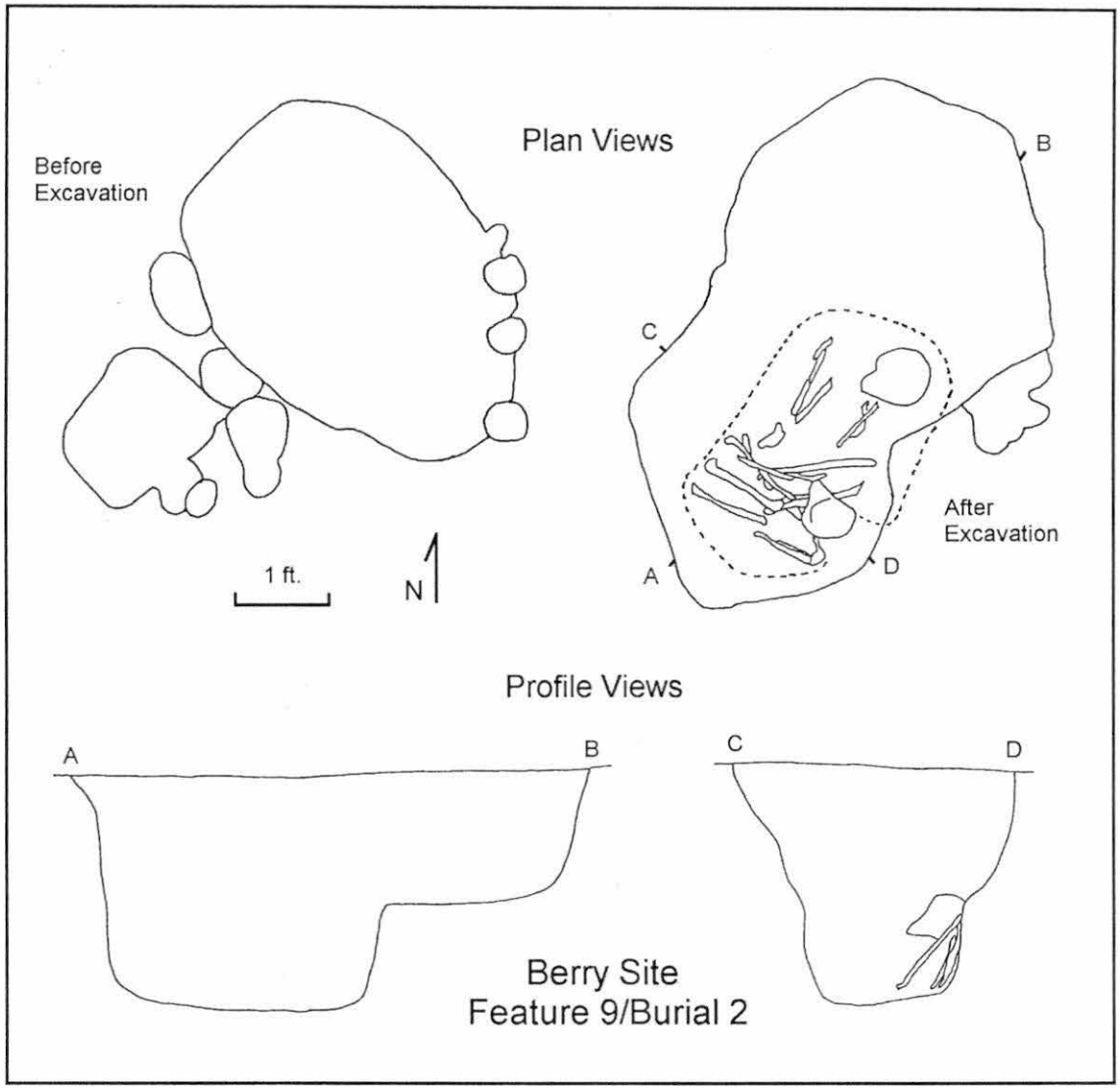

Figure 30. Plan view and profile of Feature 9/Burial 2 at the Berry site.

Shaft and chamber burials are, of course, common to the west of the project area where they appear as the predominate burial type for the Pisgah phase (Dickens 1976).

Subsistence Remains

Faunal remains were found in relative abundance only on the mound, including surface, plow zone, and Feature 11 contexts. They were nearly absent from other site contexts. They included primarily deer and bear but also included turkey and other bird bones.

A complete description of the ethnobotanical analysis from feature contexts at the Berry and McDowell sites is presented in Appendix E (Gremillion 1989). The following is a brief excerpt.

Plant food remains are abundant in the Berry site samples and average 1.15 grams per liter of fill. Hickory shell, maize cupules, and acorn shell were particularly abundant. Other domesticates present include the common bean and rind fragments of pepo squash. Seeds representing a wide range of grains and/or weeds and fruits were also present. These include chenopod, little barley, giant ragweed, jimsonweed, amaranth, ragweed, and plantain, lespedeza, morning glory, poke, bearsfoot, spurge, and grass seeds. Seeds of plants yielding edible fleshy fruits include maypop, sumac, brambles, grape, persimmon, and plum or cherry.

Gremillion feels that the plant food component of the diet at the Berry site was primarily maize, acorns, and hickory nuts, supplemented by cucurbits, the common bean, several fruits, and perhaps some weedy plants used for grain or greens.

Finally, Gremillion suggests that most of the features analyzed support estimates of summer and fall deposition based on the fruiting dates and availability of the seeds represented within the fill. She also suggests that the seed contents of several of the features represent simultaneous deposition and that the wide diversity of burned weed/grain seeds may represent a burning episode within or around the village.

Artifacts

Projectile Points

There are no projectile point types specifically defined for the Catawba valley; previous researchers (see Keeler 1972; May and Levy 1987) have relied upon typologies formulated by Coe (1964) for the Piedmont region but primarily defined in areas east of the Catawba. A non-typological approach to projectile points has also been applied in the Piedmont region (Tippett and Daniel 1987). However, due to the proximity of the upper Catawba region to the Appalachian Summit region, the following typological descriptions are made with reference to both Piedmont and Mountain typologies.

Forty-three whole and partial projectile points were recovered; whole points and identifiable types are described below.

Side Notched (N=3): None of these points is assigned to a specific type though they show some similarity to the Coosa Notched point (Cambron and Hulse 1969; Keel 1976). One point is made from Knox Black chert, one is manufactured from a variegated light tan and brown chert, possibly from central Tennessee, and the third is from a light tan chert of unknown source. These specimens may represent Middle Woodland points.

Small Savannah River Stemmed (N=1): This type is defined as a "small, triangular bladed point with a relatively small rectangular straight stem and a straight base" (Oliver 1981:125; also South 1959). This specimen is made from quartzite. Oliver suggests that this type dates to the late Savannah River phase (ca. 1800 B.C.) at the Warren Wilson site (Oliver 1981:160).

Small lanceolate stemmed (N=1): This point is a narrow, lancolate point with a small straight stem. It is made from rhyolite and does not appear to fit any described point type for the area.

Yadkin Triangular (N=1): This type is represented by one specimen made from rhyolite. This is a medium sized triangular point associated with the Woodland Yadkin phase in the Piedmont (Coe 1964).

Dallas Triangular (Lewis and Kneberg 1946:113) (N=4): Four examples of this small to medium triangular point were recovered. These are thin (2-3 mm) bifaces with straight bases and excurvate, pressure-flaked lateral edges. They are associated with the Late Mississippian Dallas phase (A.D. 1300-1600) at Toqua (Polhemus 1987). All specimens are made from Knox chert

Pisgah Triangular (Dickens 1976:135) (N=9): These are small, isosceles or equilateral points. Five of these points are made on flakes and lack extensive retouch; the other four are bifacially worked with finely pressure-flaked lateral edges. Two specimens are manufactured from Knox chert, one from rhyolite, and the remainder on quartz. This type dates to the Mississippian period Pisgah phase (A.D. 1000-1450).

Corner-Notched Triangular (Davis 1990:66; Kimball 1985): One example of this small corner-notched triangular type was present. It is manufactured from Knox chert. It is accorded a Mississippian period association in east Tennessee.

Pentagonal: Two Pentagonal points were recovered. They do not closely match the type descriptions for either the South Appalachian Pentagonal (Keel 1976:133) or the Pee Dee Pentagonal (Coe 1964:49). Each of these is examples are small, measuring about 20 mm in length and width, but are relatively thick (5-6 mm). One is made from Knox chert, the other from jasper. The latter specimen shows re-sharpened lateral edges. Dating these specimens is difficult. The Pee Dee Pentagonal is associated with the Pee Dee phase while the South Appalachian Pentagonal has been associated with the Connestee phase (Keel 1976:133) in western North Carolina and has been assigned a general Mississippian context in the Little Tennessee River Valley (Davis 1990:66).

Incurvate Base, Straight Blade Triangular: (Kimball 1985; Davis 1990:66) One example of this type was present. It is a small triangular point with a general Mississippian context.

Straight Base, Straight Blade Triangular: These small triangular forms do not easily fit established types. Five examples are present; four manufactured from Knox chert and one from quartz.

Carved and Ground Stone

Stone pipe: One piece of incised soapstone was recovered from the Plow zone 2 context in unit 290R320. It is thin (3 mm) and curved as if part of a large staight-sided pipe bowl. The incising includes line-filled triangles separated by parallel lines. Three other fragments of drilled soapstone are interpreted as pipe fragments, though they are too fragmentary to suggest size or shape. All pieces are from plow zone contexts in 310R320 and 260R340.

Stone disks: Nine complete or fragmented stone disks were recovered. These are comparable to the clay disks described below and possibly also served as gaming pieces or counters. They range in size from 19 to 55 mm in diameter. Four of the disks are soapstone and are finely finished. The other four have been roughly chipped to shape and are in various states of finishing. The final disc is drilled soapstone. It is roughly symmetrical, 30 mm in diameter and about 14 mm thick, with concave sides and grooved to a depth of 2-3 mm on the outer edge. It is possible that this disc functioned as an ear spool.

Chunky stone: One fragment was found in unit 300R320 at the base of Plow zone 4. It is part of a quartzite chunkey stone approximately 70 mm in diameter and 33 mm thick. It is well polished with at least one concave side.

Non-vessel ceramic artifacts

Non-vessel ceramic artifacts from the Berry site include clay disks, pipes, effigies, and beads. Two deposits of unfired, tempered clay also were found. Each artifact category is discussed below:

Clay disks: Numerous (N = 45 complete/2 fragments) clay disks were recovered. They are made from potsherds whose edges are broken to make a roughly circular disk, then ground smooth to form nearly symmetrical disks. The degree of grinding varies; 36 percent

(N=17) of the disks exhibited little to no grinding while the remainder exhibited complete or nearly complete smoothing. Diameters ranged from 18 to 44 mm with an average of 27.1 mm., although most (55.8%) were 20-24 mm in diameter. The disks included complicated stamped, plain and burnished surface treatments and all were soapstone tempered. These disks are believed to be gaming pieces or counters and are commonly found on Pisgah (Dickens 1976:144) and Dallas (Lewis and Kneberg 1946:106) phase sites in the Southern Appalachians.

Pipes: Three complete pipes and 37 pipe fragments were recovered. Based on this small sample, it appears that the standard clay pipe was a relatively small elbow pipe with bowl and stem meeting at a nearly 90 degree angle, though some examples are slightly oblique. Bowls include straight walled, slightly everted, and keeled forms. Lips are plain, flared, or "L" shaped. Pipe surfaces are finely burnished (72%) or smoothed. Several bowls and stems exhibit ridges or incised lines around their circumference and one is decorated with circular nodes placed evenly on either side of a keeled bowl. Ninety-five percent (N = 38) of the pipes were sand tempered while the remaining two pipes were soapstone tempered.

Clay beads: Four clay beads were recovered. Interestingly, each is of a different type including tubular, spherical, large barrel, and flattened barrel with expanded center. Dickens (1976:146-147) also notes a wide range of similar clay bead types for the Pisgah phase in western North Carolina.

Clay effigies: Five fired-clay pieces are identified as possible effigy fragments. None, however, exhibits any identifying characteristics and it is possible that some of these may represent fired clay coils.

Unfired, tempered clay: Unusual caches of unfired, soapstone-tempered clay were found in two locations. The first, located at 261R316, appeared to be a posthole, and was completely packed with 2,014 grams of the clay. A second clump (1,114 grams) was found in unit 310R320, apparently at the top of Level 8. It is uncertain whether these represent

intentional or accidental caches or some other function but clearly the clay was tempered as if for vessel manufacture.

Ceramic Vessels

Ceramic vessels from the Berry site are represented entirely by vessel fragments (sherds). Berry site pottery was reviewed in Chapter Three with respect to other site assemblages in the upper Catawba valley. This section reviews the results of the attribute analysis for the Berry site assemblage and presents a more in-depth description of the assemblage. Sherds were analyzed from all excavated features (n=13), and 10 excavation levels. The excavation levels include two plow zones (3 and 4), subsoil, and six mound fill levels. A total of 4,730 sherds were present in these contexts; after size sorting, 3,692 sherds greater than .5" were analyzed. It should also be noted that an additional 1,216 sherds were analyzed for exterior surface treatment, rim form, and decoration only (The figure of 4,908 in Table 3 reflects the addition of the surface materials. They are not included in Tables 14 and 15 where the analyzed Berry site assemblage is presented). These extra sherds represent the entire Carey and Stine surface collections from 31BK22 and were analyzed to compare the excavated and surface assemblages.

Tables 14 and 15 (Chapter Three) present assemblage summaries organized according to temper and exterior surface treatment respectively. It is clear from these tables that a wide variety of surface treatment attribute states are represented as well as a variety of tempers. In terms of relative frequency, the most common exterior surface treatments are complicated stamped, plain smoothed, and burnished, which together are found on over 89% of the sherds with identifiable surface treatments. The remaining surface treatments include simple stamped, check stamped, cob impressed, check stamped, cord marked, fabric impressed, net impressed, brushed, and indeterminate. The "indeterminate" code was used (perhaps excessively) if the surface treatment could not be determined with absolute certainty.

There was also a relatively large range of aplastics added to the ceramics in the Berry site assemblage. Soapstone (79.7%) was most frequently used, as were sand (9.3%), grit (5.9%), and crushed quartz (3.9%). Hornblende (0.6%) and shell (0.1%) occurred rarely. Given the importance of temper in helping to define most ceramic types (and particularly, in this case, the soapstone tempered Burke series), the following discussion considers the overall ceramic assemblage in terms of the temper groups: soapstone; sand; quartz; and grit. Following this is a more in-depth description of the soapstone tempered Burke ceramics.

Grit tempered (N=217; the small number of hornblende tempered sherds have been added to grit tempered sherds for the purposes of this discussion) sherds consist primarily of plain (47.8%; Percentages in following discussion include only sherds with identified exterior surface treatments unless otherwise specified.), cord marked (17.2%), fabric impressed (10.7%), and burnished (10.2%) surface treatments. Complicated stamping occurs on 4.3% and linear stamping on 5.4% of the grit tempered sherds. Brushed (2.7%), net impressed (1.1%), smoothed-over complicated stamped (1.1%), and corn cob impressed (0.5%) occur rarely.

Interior surfaces are usually plain or smooth (73.0%), though burnishing (15.3%) and scraping (10.2%) also occur. Sherd thickness was most often 6-8 mm (73.3%), followed by <6 mm (17.1%) and >8 cm (9.5%). Little information regarding vessel form is available and although more than 10% of the grit-tempered sherds were rim sherds, all but one of them was unmodified (the one exception being an appliqued rim). As described in Chapter 3, these sherds are now typed as McDowell series pottery.

The quartz-tempered sherd group (N=147) corresponds very closely with the grit-tempered group. Individual percentages very slightly but all of the overall patterns hold. Sherds are primarily plain or smoothed (51.1%), cord marked (13.5%), fabric impressed (13.5%), or burnished (8.3%). Interiors are overwhelmingly (73.0%) plain and sherds tend to be 6-8 mm in thickness (73.3%). All rim sherds were unmodified.

Crushed quartz is a very common temper among Piedmont ceramic types, however, like the grit tempered group, the quartz tempered sherd group bears little resemblance to previously established types. Individually, some of these sherds might appear similar to Yadkin (Coe 1964) or Uwharrie (Coe 1952:307-308) ceramics.

The characteristics of the sand tempered sherds (N=345) are slightly different from the previous groups. While plain and smoothed surface treatments predominate (46.9%), burnishing (27.0%) occurs in large numbers, followed in frequency by curvilinear and linear stamped (8.6%), cord marked (6.8%), fabric impressed (5.5%), corn cob impressed (1.0%), net impressed (0.7%), and smoothed-over complicated stamped (0.3%).

Burnished interiors also occur more frequently (29.8%) among sand tempered sherds than among the grit and quartz tempered sherds. However, most interiors remain smooth or plain (59.9%) or occasionally scraped (6.4%). Sand tempered sherds tend to be thinner also with 40% <6 mm. Identifiable vessel forms include straight-sided and everted rim jars as well as carinated bowls. Rims are nearly exclusively (97.7%) unmodified with the exception of one folded rim.

Sand tempered ceramic types are also well represented in the Piedmont region. However, as a group, these sherds are not related to the Badin (Coe 1964:28-29), Haw River (Ward and Davis 1993:65-67), Dan River (Coe and Lewis 1952), or Pee Dee (Reid 1967) types. These sherds represent Cowans Ford pottery (Appendix C) and consist of plain, burnished, and complicated stamped exterior surface treatments (also exhibit small numbers of the minority surface treatments).

The three temper groups described above represent a minority (19.2%) of the Berry site ceramic assemblage. The soapstone-tempered ceramics are by far the largest group among Berry site sherds (N=2942) and they represent examples of the Burke series as defined by Keeler (1971:31-37). Keeler (1971:32) describes well the distinctive nature of the soapstone temper added to Burke ceramics as well as the wide range of temper

characteristics. However, the assemblage of Burke ceramics at the Berry site (and throughout the region) exhibits an even larger range of variation than Keeler described.

Soapstone temper ranges in size from miniscule flecks to individual pieces in excess of 6.0 mm. The largest piece observed was at least 11.0 mm. Although the temper particles tend to be similarly sized there is often a range from very small to very large within a single sherd. Keeler also noted the presence of sand or crushed quartz along with the soapstone and was uncertain as to whether it was intentionally added as tempering material. I suspect that sometimes it was and sometimes it was not. It is possible that fragments of quartz (or other material) hammerstones became mixed with soapstone as it was crushed and crumbled. In any event, I also observed the addition of grit, schist, and possibly grog to the usual soapstone temper. Sherds with these additional materials are coded as "Plus" on Tables 14 and 15 and subsequent tables. They represent a sizable (12.3%) portion of the Burke sherds. Most sherds are tempered with medium (2-5 mm; 46.4%) or fine (<2 mm; 40.4%), and rarely coarse (>5 mm; 0.9%) pieces of soapstone.

Keeler (1971:31-32) reports that paste and temper characteristics reflect spatial relations as paste "exhibits a trend toward fineness from west to east or downriver.... [and hardness] tends to increase from west to east or downriver.... [and] The trend toward less steatite in the temper is roughly west to east or downriver." Although the current analysis did not specifically examine hardness or paste characteristics, temper density was examined and I find it difficult to support any of these observations.

Keeler's Burke series includes the following types (based on surface treatment) in descending order of frequency: Burke complicated stamped (61.6%), Burke Plain (19.4%), Burke plain/burnished (16.4%), Burke roughened (0.3%), Burke Check stamped (0.2%), Burke simple stamped (0.2%), Burke Plain/Brushed (0.2%), and unidentified as 1.7%. The relative frequencies reported below (see Table 63) for the Berry site Burke ceramics are similar but with a few significant differences. Most significant is the large number of unidentified surface treatments.

My analysis was slightly different from Keeler's. Keeler's use of "plain" in three different types is somewhat confusing and I tried to simplify this by using it only in a single category. "Plain" sherds here include smoothed and unsmoothed sherds but not burnished sherds. Burnished includes only those sherds that have been smoothed to the point where compaction occurs on the surface and in many cases polishing facets are observed. It should be noted that the amount of smoothing and burnishing is quite variable. Also, I was unable to recognize "roughened" sherds. I may have included some of these in the "plain" group and some may have been cob-impressed. As for the remainder of Keeler' descriptions the current analysis provided some additional information.

Complicated stamping is consistent with Keeler's descriptions in terms of quantity and in the very low frequency of rectilinear stamping. However, Keeler included no examples of Pisgah ceramics in his tables and I suspect he considered Pisgah style rectilinear stamped sherds to be Burke sherds if they were soapstone tempered. I suggest that these sherds are probably earlier than the majority of the assemblage and should rightly be classified as Pisgah sherds regardless of their temper.

Curvilinear complicated stamped designs most often include combinations of whole or partial spirals or concentric circles joined by fields of arcs, straight lines or diamond or square motifs. Formal figures-of-eight or filfot crosses are rare (cf. Keeler 1971:34). Table 15 illustrates the wide variety of surface treatments on Burke ceramics at the Berry site. The vast majority (89.3%) is represented by the group that includes complicated stamped (49.8% of identified sherds), burnished (24.3%), and plain (15.2%). (Percentages in the following discussion include only sherds with identified exterior surface treatments unless otherwise specified.) Other surface treatments include smoothed over complicated stamped (4.3%), simple or linear stamped (2.6%), cob impressed (0.6%), check stamped (0.2%), cord marked (1.0%), fabric impressed (0.1%), net impressed (0.6%), and brushed (0.4%). Finally, a small number (N=22; 0.9%) of soapstone tempered sherds feature clear Pisgah (Dickens 1976) type rectilinear complicated stamped motifs.

The above distribution becomes even more striking if the linear/simple stamped sherds are combined with complicated stamped sherds (since it is likely that many of them are portions of complicated stamped sherds) and smoothed over complicated stamped sherds are combined with plain sherds. The trio of complicated stamped, burnished and plain surface treatments then make up 96.2 per cent of the Burke ceramics at the Berry site.

Burke sherd interiors are smoothed (44.5%) or burnished (50.6%) and rarely scraped (3.6%). However, among fine soapstone tempered sherds burnishing predominates (58.4%) whereas plain/smoothed is most common (48.8%) among medium, coarse, and "plus" categories (48.8%; 65.4%; and 49.2% respectively).

Vessel forms (where identifiable) include straight-sided jars (19.2%), everted rim jars (66.7%), hemisphere bowls (0.8%), and carinated bowls (13.3%). A much wider variety of rim forms occurs than among the non-soapstone-tempered sherds. Most rims are unmodified (73.4%) but 22.1% are folded or thickened, and 2.4% feature an appliqued strip beneath the rim.

The relationship between decoration, vessel form, and exterior surface treatment appears to be significant in the Berry site ceramic assemblage. This relationship would be more clear with the addition of a sample of complete vessels, but a number of the above relationships can be well described on the basis of the available sherd data. Vessel form is indicated by examining three attribute states: vessel portion; rim form; and rim/vessel profile. Decoration is indicated by the attribute states: exterior decoration and decoration location.

Forty-four discrete modes of decoration were recorded for the Berry ceramic assemblage (see Table 16). The discrete modes may be joined in groups according to the technique of application; i.e.: Incised (IL: incised Lamar style; IM: incised miscellaneous styles), punctated (P), finger impressed or pinched (F), notched (N); smoothed or brushed (S/B), scraped or brushed (B), stamped (CS), added fillet (FL), and added rosette or node (R/N). Despite a wide range of decoration, the frequency of decorated sherds is relatively

low (N=233, 6.3% of total sherds). However, this figure slightly overstates the actual number of decorated sherds since there are a small number of sherds that exhibit two or more different elements of decoration (i.e. There are examples of circular punctations on the shoulder associated with an incised scroll on the neck.).

Punctation (46.3% of decorated sherds), notching (11.6%), and incising (28.3%) represent the overwhelming majority of decoration examples. Punctation occurs most often as single rows of circular, or oblique (oblong) impressions placed on the unmodified, folded, or appliqued rim or the vessel lip. Nearly 20% of the punctated sherds exhibit multiple rows of circular or angled linear punctations; this form is associated with sherds of the Pisgah series (Dickens 1972).

Notching (11.6% of decorated sherds) occurs as "u" or "v" shaped impressions on lips and shoulders.

Incised decorations (28.3% of decorated sherds) primarily consist of concentric scrolls, loops, semicircles or brackets separated by extending the parallel lines horizontally around the neck, shoulder, or upper body of the vessel. The great majority of these are decorative forms which are usually associated with the Lamar Incised type ceramics reported in Georgia and South Carolina.

The final tables explore the relationships between decoration, vessel form, and exterior surface treatment. Table 63 provides associations between decoration type, location, and selected exterior surface treatments. Table 63 provides the associations between decoration and location according to rim forms.

To summarize, these final tables provide a good overview of the entire Berry sherd assemblage and as such may be used to characterize the ceramic vessels in use at the Berry site. In general, modified (folded, appliqued, etc) rims occur on straight-sided or constricted neck jars with everted to flaring rims. Vessels generally have small flat bottoms. A minority of these vessels feature unmodified rims. The modified rims are often decorated by notching, pinching, or punctation. These vessels may exhibit any exterior surface treatment

Table 62. Frequency of decoration and decoration location attributes for selected exterior surface treatments for Berry site potsherds.

Decoration	P	IL	IM	F	N	S/B	CS	B	FL	R/N	
CURVILINEAR COMP. ST.											Totals
Decoration Location											
Rim Fold	3	-	-	-	-	1	-	-	-	-	4
Collar	-	-	-	-	-	-	1	-	-	-	1
Lower Edge/Scallop	5	-	-	-	-	-	-	-	-	-	5
Lip	-	-	-	-	-	1	-	-	-	-	1
Exterior Edge Lip	2	-	-	-	-	-	-	-	-	-	2
Just Below Lip	-	-	-	-	-	1	-	-	-	-	1
Shoulder	-	-	-	-	-	2	-	-	-	-	2
Totals	10	0	0	0	0	5	1	0	0	0	16
BURNISHED											
Decoration Location											
Rim	3	6	-	-	-	-	-	-	-	-	9
Rim Fold	3	-	-	-	-	-	-	-	-	-	3
Applique/Thickened	1	-	-	-	-	1	-	-	-	-	2
Lower Edge/Scallop	-	-	-	1	-	-	-	-	-	-	1
Lip	-	-	-	-	1	1	-	-	-	-	2
Exterior Edge Lip	6	-	-	-	8	-	-	-	-	-	14
Just Below Lip	2	-	-	-	-	-	-	-	-	-	2
Neck	-	4	-	-	-	-	-	-	-	-	4
Neck/Shoulder	-	5	-	-	-	-	-	-	-	-	5
Shoulder	1	17	-	-	-	-	-	-	-	-	18
Shoulder Tangency	1	-	-	-	-	-	-	-	2	-	3
Totals	17	32	0	1	9	2	0	0	2	0	63
PLAIN/SMOOTHED											
Decoration Location											
Rim	-	3	-	-	-	-	-	-	-	-	3
Rim Fold	2	-	-	-	-	-	-	-	-	-	2
Lip	-	-	1	-	1	-	-	-	-	-	2
Exterior Edge Lip	1	-	-	1	2	-	-	-	-	1	5
Just Below Lip	3	-	-	-	-	-	-	-	-	-	3
Neck	1	2	1	-	-	-	-	-	-	-	4
Shoulder	-	4	-	-	-	-	-	-	-	-	4
Shoulder Tangency	2	-	-	-	-	-	-	-	-	-	2
Totals	9	9	2	1	3	0	0	0	0	1	25
INDETERMINATE											
Decoration Location											
Rim	25	4	-	-	-	-	1	-	-	-	30
Rim Fold	9	-	-	-	-	-	-	-	-	-	9
Collar	2	-	-	-	-	-	-	-	-	-	2
Applique/Thickening	4	-	-	1	-	-	-	-	-	-	5
Lower Edge/Scallop	11	-	-	1	-	-	-	-	-	-	12
Lip	1	-	-	-	2	1	-	-	-	-	4
Exterior Edge Lip	2	-	-	-	7	-	-	-	-	-	9
Just Below Lip	8	1	-	-	-	-	-	-	-	1	10
Neck	-	2	-	-	-	-	-	-	-	-	2
Shoulder	-	1	-	-	-	-	-	-	-	-	1
Totals	62	8	0	2	9	1	1	0	0	1	84

*For decorated sherds only.

Table 63. Frequency of decoration by rim form and decoration location at the Berry site.

Decoration	P	F	N	LI	MI	S/B	B	FL	R/N	Totals
APPLIQUED RIMS										
Decoration Location										
Appl. Thick	4	1	0	0	0	0	0	0	0	6
Lower edge	0	1	0	0	0	0	0	0	0	1
Total										7
FOLDED RIMS										
Decoration Location										
Rim	1	0	0	0	0	0	0	0	0	1
Ext. Edge Lip	0	0	2	0	0	0	0	0	0	2
Just below lip	1	0	0	0	0	0	0	0	0	1
Appl. Thick	18	0	0	0	0	0	1	0	0	21
Lower edge Fold	15	1	0	0	0	0	0	0	0	16
Shoulder Tangency	1	0	0	0	0	0	0	0	0	1
Total										42
THICKENED RIMS										
Decoration Location										
Rim	1	0	0	0	0	0	0	0	0	1
Ext. Edge Lip	1	1	1	0	0	0	0	0	0	3
Just below lip	1	0	0	0	0	0	0	0	0	1
Appl. Thick	1	0	0	0	0	0	1	0	0	3
Lower edge Fold	1	0	0	0	0	0	0	0	0	1
Total										9
UNMODIFIED RIMS										
Decoration Location										
Rim	17	0	0	12	0	0	0	0	0	32
Lip	2	0	4	0	1	0	5	0	0	12
Ext. Edge Lip	11	0	20	0	0	0	0	0	0	31
Just below lip	12	0	0	1	0	1	0	0	3	18
Neck	1	0	0	7	1	0	0	0	0	9
Neck/Shoulder	0	0	0	3	0	0	0	0	0	3
Shoulder	1	0	0	13	0	0	1	1	0	16
Shoulder Tangency	1	0	0	0	0	0	0	0	0	1
Total										122
INDETERMINATE RIMS										
Decoration Location										
Rim	9	0	0	1	0	0	0	0	1	12
Just below lip	2	0	0	0	0	0	0	0	0	2
Neck	0	0	0	1	0	0	0	0	0	1
Neck/Shoulder	0	0	0	2	0	0	0	0	0	2
Shoulder	0	0	0	8	0	0	0	0	0	8
Shoulder Tangency	1	0	0	0	0	0	0	1	0	2
Indeterminate	1	0	0	0	0	0	0	0	0	1
Total										28

*For decorated sherds only.

but are overwhelmingly complicated stamped, plain, or burnished. They are sometimes decorated by punctation at the shoulder or by incising at the shoulder or neck. Bowls are usually plain or burnished with unmodified rims. Carinated bowls are usually decorated with a field of incised lines placed between the shoulder and the lip. These are sometimes accompanied by punctations as well.

Historic Artifacts

The Historic period artifacts from the Berry site were first reported in 1994 (Moore and Beck 1994) following Robin Beck's recognition of Spanish Olive jar sherds from a surface collection he made at the site in the fall of 1993. Beck subsequently re-examined the entire assemblage of ceramics from the Berry site and found two additional olive jar sherds (including one that had been erroneously identified as eighteenth-nineteenth century Moravian pottery). Since 1994 additional Spanish sherds have been found surface collecting at the Berry site. The following descriptions are taken from the 1994 paper (Moore and Beck 1994) with revisions to include those artifacts found since 1994.

The entire assemblage (Plate 62) of historic artifacts from the Berry site consists of only 27 items out of a total of more than 80,000 artifacts. The assemblage includes 13 potsherds, 1 iron knife, 3 nails, 1 cut spike, 3 gunflints, 1 glass bead, 1 piece of melted lead, 2 buttons, 1 rolled brass bead, 1 piece of curved strap iron, and a piece of unidentified metal, perhaps pewter. Although a few of these items are clearly eighteenth century or later, at least 23 are sixteenth century Spanish artifacts.

Ceramics

A total of thirteen sherds are believed to represent at least six distinct vessels. Vessels 1, 2, 3, and 4 have been identified as Olive jars; Vessel 5 has been identified as Caparra Blue majolica; and Vessel 6 has been identified as Grayware.

Olive jars are the most common earthenwares recovered from Spanish colonial sites in the New World, having spanned a period from the 1490s to the 19th century (Deagan

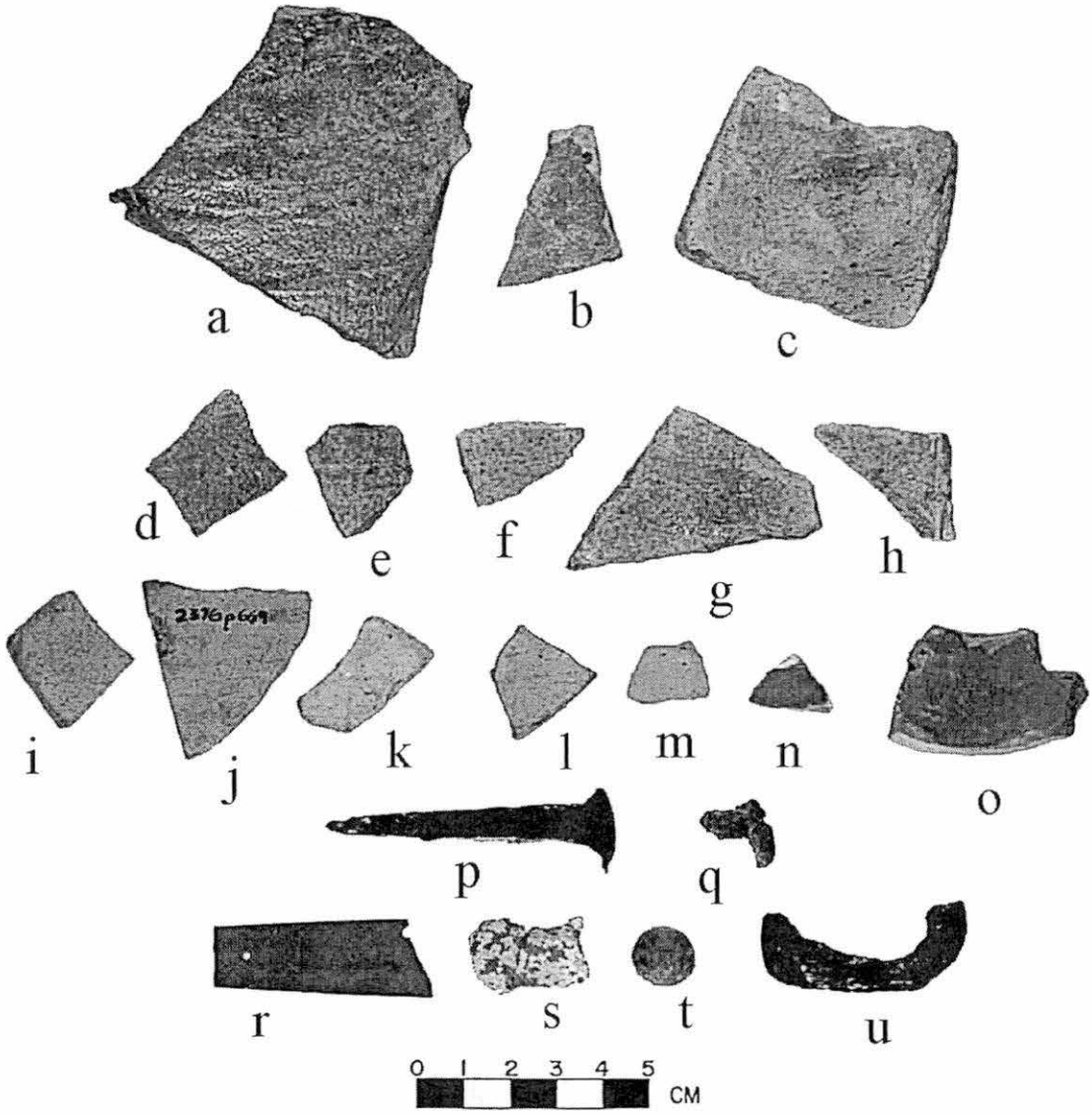

Plate 62. Berry site Sixteenth-century Spanish artifacts.

1987:28). These amphora-like vessels were used primarily to store and transport olive oil and wine, but were also used for olives, lard, condiments, and vegetables such as beans and chick peas (Goggin 1964:256).

Goggin (1964) defined three forms of Olive Jar on the basis of variations in form and paste: early, middle, and late styles. New World dates for the early-style range from AD 1500 to 1570. Middle-style Olive Jars seem to have been in use by about 1560, and were replaced with the late-style jar by 1800; late-style Olive Jars were used throughout the nineteenth century.

Olive jars were used widely throughout the Caribbean area, into Mexico and Central America, and are occasionally found in the American Southwest (Deagan 1987:32). Though common throughout Florida and coastal areas along the Atlantic seaboard, Olive jars are rarely recovered from the interior of the Southeast.

At the Berry site, four Olive jar sherds are associated with Vessel 1, a thin-walled jar with interior lead glazing (Plate 62:a). One sherd was recovered from undisturbed mound fill during 1986 fieldwork and three were found on the surface in 1994. Vessel 2, an unglazed olive jar with thin vessel walls, consists of three sherds that were recovered in 1986 (Plate 62:j). Two sherds are associated with Vessel 3, a thick-walled jar with interior lead glazing. One of these was recovered during the 1986 investigations (Plate 62:c); the other was recovered from the surface in 1994.

According to Kathy Deagan (personal communication to Robin Beck 1996), the sherds in this assemblage are characteristic of mid-sixteenth century Spanish Olive jars.

Another sherd, identified as Caparra Blue Majolica, is also temporally diagnostic (Plate 62:n). Caparra Blue is a common-grade tin-enameled earthenware. In the New World, Caparra Blue seems to have a chronological range of 1492 to about 1600 (Deagan 1987:63), and is known to occur in but a single form: the albarelo, or drug jar (Lister and Lister 1982:61). This small carinated vessel is characterized by a slightly indrawn body, a short neck, a wide mouth, and a foot ring around the base.

Though never common, Caparra Blue has been recovered from many Caribbean sites, from sites in Mexico and Central America (as well as from Nueva Cadiz, Venezuela), and from the American Southeast at Santa Elena and sixteenth century St. Augustine (Goggin 1968:135; Deagan 1987:63)). Also, Charles Ewen (1990:83-91) notes that Caparra Blue has been recovered from the Governor Martin site, de Soto's first winter encampment, in present-day Tallahassee, Florida. There, Caparra Blue was discovered alongside fragments of early-style Olive Jars, Columbia Plain majolica, and other examples of early sixteenth century common-grade vessels. These forms are typical of those likely used on military-style expeditions. At the Berry site, a single sherd of Caparra Blue majolica, Vessel 4, was recovered from the surface in 1994.

The final Spanish sherd (Plate 62:o), found on the surface in 1994, has been identified as Grayware by Stan South and Chester DePratter (personal communication 1995). This type, awaiting formal description, differs from the Grayware previously described by Kathleen Deagan, which dates to the eighteenth century. The example recovered from the Berry site, possibly from the base of a plate-like form, is very similar to examples recovered from sixteenth century contexts at Santa Elena.

The assemblage of sixteenth-century Spanish ceramics recovered from the Berry site is distinct from other collections of Spanish material recorded from sites in the interior Southeast. Similar Spanish wares have been found rarely in the interior southeast. They consist entirely of one sherd of Green Bacin from the Tatham Mound in Florida (Mitchem 1989:321), a single sherd of Columbia Plain majolica from the Pine Log Creek site in south central Alabama (Little and Curren 1990:184), and one sherd of unidentified majolica from the sixteenth-century McMahan site in Eastern Tennessee (Smith 1987:50). However, in each case, these sherds had been altered into non-utilitarian forms such as ear spools or gaming disks. That none of the Spanish ceramics recovered from the Berry site shows sign of such alteration may indicate the disposal of utilitarian waste. The only sixteenth century site in the interior from which this type of utilitarian material has been recovered is the

Governor Martin site in Florida. Also, this form of Grayware, as yet, has only been reported from Santa Elena.

Non-Ceramic Historic Artifacts

Though ceramics constitute the bulk of sixteenth century material, several other artifacts, including a two wrought nails (Plate 62:p,q), 1 wrought iron buckle, 1 wrought staple ((Plate 62:u), 1 unidentified wrought object, one lead shot (Plate 62:t), a piece of melted lead (Plate 62:s), two glass beads, and one rolled brass bead, have also been recovered.

The single intact wrought-iron nail or spike (Plate 62:p) was recovered from the surface in March 1994. Stan South (personal communication 1995) has identified this nail as distinctive of sixteenth century Spanish forms, and notes that Spanish nails are characterized by a "flat to domed head, with some of the rose heads appearing like toadstools. They are usually more massive in appearance than wrought nails from eighteenth century British contexts" (South et al. 1988:43). The smaller nail fragment is similar. It was found in the plow zone during a proton-magnetometer and metal detector survey in 1997 (Hargrove 1997).

Based on measurements of length and weight, this nail would likely be classified as the Barrote type. Documentary evidence suggests that Barrote nails were used in finishing work such as flooring, matting, and other projects requiring little strength (South 1988:39-40). A piece of melted shot of possible Spanish origin was recovered during the 1986 investigations. The heavily patinated shot seems to have been altered in the same manner as an example recovered from Santa Elena, the latter, according to Stan South, having been "subjected to heating on a flat surface, probably to melt lead for recasting" (South et al. 1988:86).

An opaque blue bead, identified as Kidd's type IIa40, was found on the surface in June 1994. This bead is round and measures 4.2 mm in diameter. Similar examples have been recovered throughout the Southeast from contexts dating to the latter half of the

sixteenth century (Smith 1987:33). By the mid-seventeenth century, the round or subspherical beads of this type seem to have been replaced with longer, barrel-shaped beads, which persisted into the eighteenth century (Polhemus 1988:427).

Finally, a rolled brass bead was recovered during uncontrolled excavations of the mound in the 1960s. This bead is slightly tapered and measures just over 1 cm in length. Marvin Smith (Smith 1987:37) notes that beads of this type are the earliest form of brass ornament recovered from the interior Southeast. Though usually associated with the seventeenth century, they are occasionally found on sites with early to mid-sixteenth century components.

As mentioned earlier, few diagnostic eighteenth century items have been recovered. In fact, more items can be attributed with some certainty to the sixteenth and early seventeenth centuries than can possibly be attributed to the eighteenth century. Late historic items include three spall gunflints, a large cut spike, one porcelain fragment, two buttons, two nails, one piece of curved strap iron, and several brick fragments. Only the gunflints, buttons, and possibly the spike can be securely dated to the eighteenth century and early nineteenth centuries; it is unlikely these items predate European settlement of the area in the 1760s.

Most historic artifacts recovered from the 1986 excavations were found in disturbed contexts. However, two Olive jar fragments and the melted lead shot were found in a partially intact humus zone (Zone 4). The only historic artifact recovered from definite undisturbed context is the iron knife recovered from Burial 1 in 1986 (discussed earlier).

SUMMARY

Excavations at the Berry site in 1986 revealed the remnant of a probable sub-structure mound associated with a large village site. The site's major component is recognized as Burke phase and appears to date to the fifteenth to sixteenth century based on the radiocarbon dates and ceramic attributes. A wide variety of artifactual materials was recovered. Overall, site structure is difficult to determine based on the small total area

excavated. However, features are common, at least in the area around the mound that was explored.

It should be noted that future excavations are anticipated. Rob Beck and Thomas Hargrove have begun a preliminary magnetometer survey which indicates the presence of what are believed to be several burned structures (Hargrove 1997). We hope that future work will further define the nature of this large site as well as investigate the possibility that this is, indeed, the location of Juan Pardo's Fort San Juan.

APPENDIX C

CATAWBA VALLEY POTTERY

The following sections present formal type descriptions for the Burke and Cowans Ford pottery series. Also included is a discussion of the use of soapstone as a tempering agent and a brief discussion of Woodland pottery from the upper Catawba River valley.

BURKE POTTERY SERIES

Burke ceramics are first described (though not by the term "Burke") by Holmes (1903:143-144) in *Aboriginal Pottery of the Eastern United States*. Holmes (1903) cites vessels from mounds in the upper Yadkin valley of North Carolina and remarks on how different vessels that appear to be related to the same occupation also reflect ceramic traits from the north, west, and south. He provides two examples of "southern" vessels in Plate CXXIX (1903:145); these vessels were described in the previous chapter as Burke ceramic vessels. Holmes (1903:144) also reports that "From the Jones mound, in the same section, we have a series of vessels of still more modern look. So far as shape and finish go they are decidedly like the modern Catawba ware."

Keeler(1971), in his defining study of the Burke series, also recognized the southern Lamar ceramic influence along with the Catawba resemblance. These two factors have proved to be the focus of attention whenever these ceramics are discussed (Coe 1981; Boyd 1986; Moore 1987).

This study analyzed every available collection of Burke ceramics in North Carolina and, as a result, it is now possible to provide a more complete description of Burke ceramics. The following series description modifies that of Keeler (1971:31-37) based on the results of this study. Modifications primarily consist of additional type designations and more discussion of attribute variability within the types.

Burke Complicated Stamped

Paste

Temper:

Soapstone temper is the most distinctive attribute of the series. Soapstone is added as flakes as small as .3mm or as particles/chunks as large as 6 mm. Occasionally, very large pieces appear; the largest chunk I observed was at least 12 mm in length. Individual sherds usually show similar sized pieces but often a wide range of sizes is represented in the same sherd. Soapstone is extremely variable in color and texture and varies from a soft, schisty or platey material usually reddish orange to orange, to a finer silver-grey stone.

Additional aplastics often occur along with soapstone. These include sand, grit, schist, crushed quartz, and possibly grog. It is possible that fragments of quartz hammerstones became mixed with soapstone as it was crushed and crumbled. It is also possible that clay sources include some amounts of sand.

Texture:

Paste is generally fine, evenly mixed and compact. Temper quantity is variable from less than 5% to more than 50% but usually 20-30%. Temper particles are usually visible on both exterior and interior surfaces but rarely protrude from vessel surface. Sherds are well fired and hard: Keeler (1971:31) reports hardness from 2.0 - 3.0, and sherds have a distinctive ring when struck.

Color:

Color is extremely variable from a nearly white buff to nearly black, with browns, oranges, and greys also represented. Color varies on the same vessel, firing clouds are common, and interior color often varies from exterior color, indicating that reducing atmospheres are usually present while firing.

Method of Manufacture:

Coils added to a flat base. Coils were extremely well smoothed and annealed; coil breaks occur but not frequently.

Surface Treatment

Exterior:

Curvilinear complicated stamping usually comprises from 30% to 60% of a Burke ceramic assemblage. Stamp designs are often difficult to identify due to the large size of many of the motifs and the fact that many are overstamped, lightly applied, smoothed over, or eroded. Most designs include combinations of whole or partial bulls-eyes, spirals, or concentric circles joined by fields of arcs or straight lines. Sometimes, the curvilinear elements surround diamond or square motifs. Formal figures-of-eight, figures-of-nine, or filfot crosses are rare.

The design motifs are quite large but again, it is difficult to provide accurate measurements without samples from intact vessels. However, examples

from some of the larger sherds indicate that some motifs are in excess of 100 square centimeters and individual elements may be greater than 25 square centimeters. Stamps generally feature lands of approximately 1-2 mm and grooves of 3-8 mm. It is possible that designs with larger lands and grooves and larger sized motifs have a later temporal distribution.

Keeler (1971) characterizes the stamps as "generally poorly made and sloppily applied." I'm not sure that I would make the same characterization but there is a wide range of expression and symmetry of the individual land and grooves. The carved wooden paddles often leave a distinct grain impression on the sherd, especially if the clay is relatively wet when the stamp is applied. Partial smoothing over of the design often occurs and in many cases vessels have been completely smoothed or burnished over a complicated stamped surface .

There also appears to be three groups of curvilinear stamp. The first tends to include designs such as keyhole, figures-of-eight, and filfot scrolls or crosses. The design motif is relatively small (less than 40 sq. cm) and consists of even lands and grooves of 1-1.5 mm each.

The second group includes concentric circles, bulls-eyes, and barred-ovals. The design elements generally have four lines and a design field of around 3 cm in diameter. Lands and grooves are even and around 2 cm each.

The third group consists of large elements, firmly applied, sometimes cleanly but often with considerable over-stamping. They are also sometimes smoothed or brushed over. Designs tend to be concentric circles, spirals, bulls-eyes, and eccentric curves, joined by parallel arcs or sometimes nested squares or diamonds between circular elements. The circular elements have at least 3-4 lines and are 4-6 cm in diameter. Lands and grooves tend to be irregular and may range from 2.5 - 4 mm; most seem to be 3 - 3.5 mm. The entire design motif may cover over80 square centimeters. Again, it is possible that there is a temporal trend from early use of the first and second categories of stamps and later use of the third category of designs.

Interior:

Interiors are usually smoothed or burnished in varying frequencies. It is often difficult to distinguish between smoothed and burnished surfaces. A variety of materials may have been used to smooth including finger smoothing or hide smoothing. Burnishing was done with a small stone or piece of bone or cane. Scraping occurs rarely (<4%).

Vessel Form

Body:

Curvilinear complicated stamping appears to occur exclusively on jar forms which range from open mouth to constricted neck varieties. The only vessels observed are those from the Yadkin valley and all are constricted neck jars with slightly flaring rims. Below the neck, forms are usually globular to slightly conoidal.

Base:

Jar bases usually feature a small flattened surface and tend to be slightly thicker than the vessel body.

Thickness:

Vessel walls range from 4-12 mm thick. Most are 6-8 mm (63.4%); followed by 20.9% <6 mm and 15.6% >8 mm.

Rim:

Vessel rims are usually everted or flaring and occasionally straight. Modifications to the rim include folding or otherwise thickening the rim by placing an added coil at the lip around the exterior of the vessel. In some instances the added coil is placed beneath the lip and is referred to as an appliqued strip. Folded and thickened rim strips range from 10 mm to 23 mm. It is likely that rim modifications are temporally diagnostic. According to studies on the lower Wateree River (DePratter and Judge 1990) wider rim strips are later in time. I suggest that the use of the appliqued strip would be considered later as well.

Frequencies of modification vary between sites, possibly representing temporal differences. At the Berry site rims are usually unmodified (58.6%) while at 31BK17 site they are usually folded or thickened (54.7%). The appliqued strip form occurs on less than 5% of the rims.

Lip:

Lips are usually flattened (80%) and sometimes rounded (20%).

Decoration

Punctation and notching represent the overwhelming majority of decoration modes on Burke Complicated stamped rim sherds. Punctation occurs most often as single rows of circular, or oblique (oblong) impressions placed on the unmodified, folded, or appliqued rim or the vessel lip. Notching (11.6% of decorated sherds) occurs as "u" or "v" shaped impressions on lips and shoulders.

Very occasionally a Burke incised design occurs on the shoulder or neck of a jar with a slightly constricted neck. The design does not extend below the shoulder nor above mid-neck.

Burke Plain/Smoothed

Paste

Temper:

Generally the same as Burke Complicated Stamped. However, temper size is more often fine than medium and almost never coarse (43.1% to 37.3% to 0.5% at the Berry site).

Texture:

The same as Burke Complicated Stamped.

Color:

The same as Burke Complicated Stamped.

Method of Manufacture:

The same as Burke Complicated Stamped.

Surface Treatment

Exterior:

Keeler (1971:35) defined a Burke Plain and a Burke Plain/Burnished type separated on the basis of the use of the burnishing technique. He also observed that it was sometimes difficult to distinguish between them. I have changed the terminology slightly while maintaining the technological distinction. Plain/smoothed sherds show more or less smoothing but show no evidence of surface compaction or burnishing facets. Smoothing was accomplished by rubbing the vessel surface with fingers or possibly a soft hide before drying the vessel.

The frequency of plain/smoothed varies by site assemblage. In the attribute analysis, a variable percentage of sherds from most sites were coded as having smoothed over complicated stamped surface treatments. These were sherds that clearly had been stamped originally and then smoothed over to completely obliterate the stamping. They were identifiable only when the lands on the stamps had not been totally reduced. I do not believe these sherds warrant a separate type but should be classed as Burke Plain/Smoothed. When these sherds are added to the above figures the frequency of Plain/Smoothed becomes 19.5% at the Berry site and 22.6% at 31BK17.

Interior:

Interiors are usually smoothed and occasionally burnished.

Vessel Form

Body:

Little data available; however, it appears that vessels are primarily open bowl and carinated bowl forms and occasionally (probably <10%) constricted neck jars.

Base:

The same as Burke complicated Stamped.

Thickness:

Similar range as for Burke Complicated Stamped; however, there is a greater frequency <6 mm in this type than for the curvilinear stamped.

Rim:

Rims are nearly exclusively carinated or inslanting, occasionally straight or slightly flaring.

Lip:

The same as Burke Curvilinear complicated Stamped.

Decoration

Decoration most often consists of punctation or notching on the exterior edge of the lip, just below the lip, or at the shoulder tangency. If the rim is thickened or folded, the same techniques occur on the rim.

Burke Burnished

Paste

Temper:

Generally the same as Burke Plain/Smoothed with an even larger percentage of fine soapstone.

Texture:

The same as Burke Complicated Stamped.

Color:

Generally the same as Burke Complicated Stamped, with perhaps a higher frequency of dark grey to black.

Method of Manufacture:

The same as Burke Curvilinear Complicated Stamped.

Surface Treatment

Exterior:

Burnished surfaces have been rubbed with a polishing stone or a piece of bone or reed after initial drying, i.e; in a "leather-hard" state. Rubbing is done with pressure so that the surface becomes smooth and compacted and burnishing facets are often left on the surface. The degree of burnishing is variable, some vessels are lightly and irregularly burnished while others are finely polished such that a sheen appears on the surface.

Interior:

Most often burnished but also smoothed or very rarely scraped.

Vessel Form

Body:

Vessels are primarily carinated bowl forms, occasionally hemisphere or wide-mouth bowls and rarely (probably <5%) constricted neck jars.

Base:

The same as Burke complicated Stamped.

Thickness:

This type is consistently the thinnest of the Burke sherds. The range is from 3 mm to 10 mm but more than 50% are less than 6 mm.

Rim:

Rims are nearly exclusively carinated or inslanting.

Lip:

The same as Burke Curvilinear complicated Stamped.

Decoration

Decoration most often consists of punctation or notching on the exterior edge of the lip, just below the lip, or at the shoulder tangency. If the rim is thickened or folded, the same techniques occur on the rim.

Burke Incised

I have established this new type based not on surface treatment but on the use of incised decorations. I make the new designation because of its similarity to the Lamar Incised Type of Georgia and South Carolina. I believe that this type designation with allow more fruitful comparisons of the Burke Series with other Lamar-style ceramics.

Paste

All characteristics are the same as for Burke Burnished.

Surface Treatment

Exterior:

Burnished or plain\smoothed.

Interior:

The same as Burke Burnished.

Vessel Form

Body:

Carinated bowls or wide-mouth bowls with inslanting rims.

Base:

Same as Burke Burnished.

Thickness:

Same as Burke Burnished.

Rim:

Carinated or inslanting.

Lip:

Usually flattened.

Decoration

Incising is carried out with the use of a sharp instrument, probably a sharpened piece of cane. The implement is used as a graver to carve lines in the vessel surface. Incising always occurs after the vessel has been burnished or after initial drying if the surface is plain/smoothed. The incised edges are usually smooth and clean and show little evidence of curling (when clay is still damp) or crazing (clay is nearly completely dry).

Burke Incised designs include brackets, scrolls or concentric loops joined by multiple (3-10) horizontal lines. The loops and scrolls may be widely or narrowly spaced and may begin at the top line or among the middle or bottom horizontal lines.

The initial appearance, frequency, and style of Lamar Incised pottery is temporally diagnostic (Hally 1996) within many areas including the Wateree River valley (DePratter and Judge 1990), the Savannah River Valley (Hally 1990; Anderson, Hally, and Rudolph 1986, 1990), the Upper Coosa River (Hally), and the Oconee River (Smith and Williams 1990). It is likely that the appearance and frequency of Burke Incised is similarly diagnostic but examples from more dated contexts will be needed to confirm this.

Burke Minority Types

Keeler (1971:36-37) described four minority types; Check Stamped, Simple Stamped, Roughened, and Plain/Brushed, none of which accounted for more than 0.3% of his total. My analysis shows a very small number of soapstone-tempered sherds with those surface treatments along with fabric, corn cob, and net-impressed surfaces present at many sites. Their combined frequencies are so low that nothing can be said of them as types. It is likely that some of these surface treatments reflect holdovers from earlier Woodland period ceramic types. It is also likely that others, such as corn cob and net-impressed reflect some level of influence from the coeval Dan River ceramic tradition that is so well represented in the north central Piedmont region. In any event, little more can be said of these ceramics.

Keeler's original Burke series description includes the following types (based on surface treatment) in descending order of frequency: Burke complicated stamped (61.6%), Burke Plain (19.4%), Burke plain/burnished (16.4%), Burke roughened (0.3%), Burke Check stamped (0.2%), Burke simple stamped (0.2%), Burke Plain/Brushed (0.2%), and unidentified as 1.7%. Although the analysis presented here is slightly different, it remains clear that the Burke ceramic series is made up primarily of curvilinear complicated stamped, plain, and burnished pottery.

Soapstone Temper

When considering the occurrence of soapstone-tempered pottery, it is important to note that the distribution of naturally occurring soapstone has little, if any, correlation to the distribution of its use as a tempering agent.

Soapstone is sometimes referred to as steatite and although the terms have been used almost interchangeably (see Holmes 1890; Bushnell 1939; Dickens and Carnes 1977) there are subtle but important distinctions between them. These distinctions concern the amount of talc present in the rock. According to Stuckey (1965:455):

> Talc is a hydrous magnesium silicate having the general formula H2OMg3Si4O12. Theoretically, talc contains 31.7 percent MgO, 63.5 percent SiO2 and 4.8 percent H2O.... Steatite is a compact massive type of very pure talc.... Soapstone is a soft rock containing 10 to 80 percent talc and one or more of the minerals chlorite, serpentine, magnesite, tremolite, actinolite, diopside, enstatite, and occasionally some quartz, magnetite or pyrite.

Stuckey (1965:456) also describes the formation of soapstone:

> Talc and soapstone occur in altered ultrabasic intrusive igneous rocks, while the better grades of steatite talc occurs in metamorphosed dolomitic limestone.... The formation of talc and soapstone is due to the action of magmatic solutions during which materials are both added to and removed from the older rocks.

For the purposes of this study the term soapstone is used exclusively. I have made no attempt to identify the constituent minerals of the temper material; therefore, I cannot discriminate between steatite and soapstone. However, it is my impression that the relevant materials present in the region vary greatly in mineral content, hardness, and texture, thus deserving the name soapstone.

Soapstone occurs in the Piedmont and Appalachian Mountains of the eastern United States from Newfoundland to Alabama (Ferguson 1980:7). It is especially abundant in western North Carolina due to the occurrence of a belt of soapstone-bearing, ultramafic rock bodies along the western edge of the Blue Ridge Mountains (Misra and Keller 1978:389).

More than 275 of these formations have been identified along the 500 km belt in Georgia and North Carolina (Misra and Keller 1978:391). Principal deposits in western North Carolina are found in Jackson, Buncombe, Madison, Yancey, Mitchell, Ashe, and Alleghany counties (Stuckey 1965:456). In the Piedmont, Misra and Keller (1978:389) describe an "ill-defined belt consisting of scattered [ultramafic] bodies." The largest deposits in the North Carolina Piedmont occur in Wake and Granville counties. However, the only Piedmont deposits to have been worked commercially were located in McDowell County (Stuckey 1965:456).

Aboriginal soapstone quarry locations are obviously limited by the natural distribution of soapstone. Although there has been no systematic attempt to identify all soapstone quarry sites in western North Carolina, a substantial number have been recorded. Mathis (1981), Bohanan (1975), and the North Carolina State Site Files provide locations for 12 quarries west of Catawba County. This undoubtedly represents only a small fraction of all possible quarry locations in the state. Also near to our study area, Ferguson (1980) details the identification of 18 soapstone quarries in the vicinity of Spartanburg, South Carolina, and he clearly demonstrates the northeast-southwest distribution of quarries which corresponds to the northeast-southwest trending rock deposit. A similar pattern may be present in the Yancey County area. Outcroppings of soapstone occur regularly in southwestern Virginia and northern Virginia but the largest occur in Albemarle and Nelson counties (Allen et al. 1975:187).

Clearly, there was an abundance of potential soapstone sources available for use by aboriginal craftsmen. Indeed, soapstone artifacts are reported throughout the eastern United States. However, soapstone-tempered pottery is relatively rare and has a much more restricted distribution. The major exception is the abundant early Woodland wares found in Virginia, Maryland, New Jersey, and Pennsylvania reported as "steatite-tempered" Marcy Creek Plain pottery and Seldon Island Cord Marked (Evans 1955:54-56, 142). The steatite-tempered Smyth series (Holland 1970:67-69) of southwest Virginia has a more restricted distribution and its late date suggests contemporaneity with the Burke series.

COWANS FORD POTTERY SERIES

I believe the sand and fine quartz ceramics found throughout the Lake Norman region generally are temporally coeval with the Burke series with similar surface treatments and vessel forms. However, due to the difference in temper materials it is useful to introduce a new series, the Cowans Ford series, to describe the middle valley equivalents of the Burke pottery. For this purpose, I propose several new types: Cowans Ford Complicated Stamped, Plain/Smooth, and Burnished, Incised, and Corn Cob Impressed.

Cowans Ford Complicated Stamped

Paste

Temper:

Usually fine, medium, or coarse sand; grains to 1 mm. Also fine crushed quartz to 2 mm. It is sometimes difficult to sort coarse sand from fine quartz but quartz is almost also prepared, i.e. sharp edges are present. Temper density varies but is usually low to medium.

Texture:

Well mixed and sandy to the touch.

Hardness:

Relatively hard.

Color:

Exteriors most often light tan and buff to light yellow/orange. Interiors sometimes slightly darker. Occasional firing clouds on either surface. Generally fired in oxidizing atmosphere.

Method of Manufacture:

Well-annealed coiling.

Surface Finish

Exterior:

Designs are similar to those found on Burke Complicated Stamped. Curvilinear complicated stamping is by far the most common and rectilinear designs occur infrequently. Curvilinear stamped designs include concentric circles and bulls-eyes joined by arcs. Few complete designs are identifiable but one common form is identical to a Burke design of a square within four concentric circles.

Cowans Ford Complicated Stamped is most dissimilar to Burke Complicated Stamped in the more frequent occurrence of large, "exploded," curvilinear and rectilinear designs. These designs are usually represented only by fragments, being too large to appear completely on most sherds. Lands and grooves together are wider than 6mm and either may be as wide as 8 mm. These designs are thought to date from the mid sixteenth to late-seventeenth centuries in the Wateree valley (DePratter and Judge 1990:65). These designs seem to be more common in the lower portion of the valley than in the middle valley.

Interior:

Usually smoothed but occasionally burnished.

Decoration

Decoration is limited to rim area on jars and shoulder and necks on bowls. Tops and exterior edges of lips of unmodified bowl forms are sometimes notched or punctated. Thickened rims or appliqued strips are usually punctated or notched.

Form

Vessels:

Few whole vessels are represented but they include constricted neck jars, straight-sided jars, globular bowls, flat-bottomed bowls, and carinated bowls. Sherd assemblages prevent any estimate of relative frequencies.

Rim:

Based on sherd assemblages I estimate that 50-60 percent of rims are everted, 15-25 percent are straight, and 20-30 percent are inverted to carinated.

Everted rims are occasionally modified by the addition of an applique strip placed to encircle the rim just below the lip. More often modification occurs by folding or otherwise thickening the rim. Modification occurs on a small percentage of rims and these are always jars.

Lip:

Usually flattened but occasionally rounded or slightly thickened by flattening.

Base:

Slightly rounded to flattened.

Thickness:

Average 5-6 mm

Appendages:

Rarely short horizontal fillet strips added to shoulder.

Cowans Ford Plain/Smooth

Similar to Cowans Ford Complicated Stamped in most attribute states except exterior surface treatment and vessel form. Vessel exteriors are usually carefully smoothed and vessel forms are predominantly hemisphere or carinated bowls. Decoration includes punctation and notching at the shoulder and sometimes incising.

Cowans Ford Burnished

Similar to Cowans Ford Complicated Stamped in most attribute states except surface treatment and vessel form. Exterior surfaces are burnished and vessel forms are predominately hemisphere or carinated bowls.

Both Cowans Ford Plain and Burnished feature incised decorated shoulders and rims on straight sided and carinated bowls.

Cowans Ford Incised

This type is similar to Burke Incised. It is equivalent to Cowans Ford Complicated Stamped in most attribute states except surface treatment and vessel form. Exterior surfaces are burnished and vessel forms are predominately hemisphere or carinated bowls.

Cowans Ford Incised features Lamar-style incised decorated shoulders and rims on straight sided and carinated bowls.

Cowans Ford Corn Cob Impressed

Except for the exterior surface treatment, this type is similar in all basic characteristics to Cowans Ford Complicated Stamped. The corn cob impressions range from orderly to over-stamped. They are applied with variable force leaving shallow to deep and clear impressions.

UPPER CATAWBA VALLEY WOODLAND PERIOD POTTERY

As described in Chapter Three, small quantities of Woodland period pottery are found on numerous upper Catawba valley sites. Few of these sites have more than 15-20 sherds but two sites, the Tyler-Loughridge site (31MC139) and the Lewis site (31MC157) have large and interesting Woodland ceramic assemblages.

Unfortunately, the only relatively large, seemingly single component (or large Woodland component), Woodland Period sites identified at this time have ceramics that represent cultural phases from outside the western North Carolina Piedmont. The two sites are both located in McDowell County: the Tyler-Loughridge site (31MC139) features Connestee ceramics from the Appalachian Summit and the Lewis site (31MC157) features Napier/Etowah-like ceramics from north Georgia. These two ceramic assemblages are discussed below, followed by a discussion of probable Woodland pottery found in small quantities on other McDowell and Burke County sites.

At the Tyler-Loughridge site, Robinson describes the vast majority of ceramics as Connestee, Middle Woodland ceramics best known from the Appalachian Summit region of North Carolina (Keel 1976). Connestee sherds from the Tyler-Loughridge site are thin with fine sand temper or occasionally medium to coarse sand. Robinson (1996:119) reports that 1029 (97.4%) of the total 1057 sherds recovered from Connestee component features were Connestee types; primarily plain (88.4%; n=910), with small quantities of cord marked (4.2; n=43), simple stamped (n=17; 1.6%), check stamped (n=11; 1.1%), and brushed (n=9; 0.9%).

In general, the ceramic assemblage from the remaining Block A features consisted overwhelmingly of Connestee phase sherds with fine sand temper and plain, simple-stamped, cord-marked, brushed and check-stamped exterior surface treatments. A few examples of Pigeon pottery was also noted from Block A.

Robinson (1996:99) also points out a few fabric impressed and cord marked coarse sand and grit tempered sherds were also recovered, but they did not correspond to existing Woodland or later typed pottery.

Robinson (1996:41) recorded a total of eighteen prehistoric sites; only four of which evidenced Woodland ceramics. No Connestee ceramics were identified outside of the Tyler-Loughridge site. Nor were Connestee sherds found in any of the site assemblages in the ceramic analysis conducted during this study nor by the recent survey by Robin Beck (personal communication 1996). However, Larry Kimball (personal communication 1996) reports that they are present in the Happy Valley area of Caldwell County and Robinson (personal communication 1996) has reported them at a site in Polk County. Thus it appears that a small number of relatively large Connestee phase sites are located along the eastern flank of the Blue Ridge. It is uncertain what the distribution of these sites means with regard to regional settlement patterns.

The Lewis site ceramic assemblage (Plate 3.2)) is anomalous in many respects but particularly in the distribution of temper, exterior and interior surface, and thickness. Three temper groups are present and their distribution is unlike any other upper valley site. Crushed quartz is the most common aplastic (59.6%), followed by grit (27.2%), and sand (12.9%). If one considers that grit and crushed quartz are nearly the same materials as opposed to sand this is a striking pattern of quartz and grit making up 87.8% of the assemblage. No soapstone-tempered sherds occur.

The stamped exterior surfaces occur most often on quartz and grit tempered sherds and only rarely on the sand tempered sherds. However, each of the temper groups also includes burnished and plain exterior surfaces. The burnishing is often variably finished with many striations present. I believe that the polishing was done with something like a hard leather pad as opposed to small pebbles that probably polished Burke burnished pottery.

Interior surface treatment is usually burnished (though often poorly), and sometimes plain. Most sherds (53.3%) are between 6-8 mm thick. However, nearly as many (44.5%) are less than 6 mm thick and only 2.2 percent are greater than 8 mm.

The predominance of the Napier/Etowah, Indeterminate stamped linear, and burnished exterior surface states represents an assemblage diversity than has not been

described previously. The typical sherd in this assemblage is stamped with a Napier design or burnished on the exterior, burnished on the interior, and is generally thin. Small numbers of north Georgia Napier and Etowah pottery types are reported at isolated sites in western North Carolina (Dickens; Keel) and they are somewhat common in the Hiwassee River valley. I also recorded a small Napier site (Cullowhee Valley School site, 21Jk32) in Jackson County. However, to my knowledge, they are rare to absent in the Piedmont of North Carolina. Therefore, I suggest that this assemblage represents a possible site intrusion by peoples of Napier/Etowah cultures in north Georgia. This may not seem unusual when one considers the later Catawba valley ceramic development of the Burke series that is a Lamar style pottery nearly identical to Lamar pottery from north Georgia.

It is difficult to place the Lewis site temporally. The only radiocarbon dates for Napier pottery in North Carolina come from the Cullowhee Valley School site in Jackson County. Radiocarbon dates were obtained from two separate features that included cross-mending Napier sherds. Unfortunately, the dates are separated by nearly three centuries. The first (Beta 69964) is a radiocarbon age of 1,260±80 B.P. with a calibrated date of A.D. 872 and a one sigma range of A.D. 719-961. The second (Beta 69801) has a radiocarbon age of 940±70 B.P. with a calibrated date of A.D. 1162 and a one sigma range of A.D. 1028-1222. The two dates barely overlap at the two sigma range, however.

These dates seem generally in line with a late Woodland time frame for Napier pottery. However, it is uncertain whether the same applies to the assemblage at the Lewis site. I think it is likely that the Lewis assemblage represents a late Woodland assemblage. Whether it is wholly an intrusive assemblage or not may be questionable. The paste and mixed tempers seem unlike that of Napier types in north Georgia where temper is almost always fine sand, or occasionally sand and grit (Wauchope 1966:57). I think it is possible that the prominence of the plain and burnished, check stamped and net impressed sherds may represent a local tradition present in the late Woodland upper valley and from which the plain and burnished Burke wares are influenced. Alternatively, the assemblage may be influenced

by early Burke styles and reflect a somewhat later period. Little more can be said of this assemblage without dated contexts.

There are no other sites yet identified with similarly diagnostic ceramics but most of the upper valley sites include small numbers of what are likely Woodland sherds. Keeler (1971:36-37) describes several extremely minor (each less than 1% of the total) surface treatments: check stamped, simple stamped, roughened, and plain/brushed. With the exception of "roughened" (see discussion in Appendix A), each of these was identified in the present analysis. In addition, small numbers of net and fabric impressed sherds were identified. However, as we examine individual ceramic assemblages we shall see that in most cases, the minority surface treatments occur on non-Pisgah or non-Burke type ceramics and probably represent earlier Woodland Period wares.

Based on their ceramic assemblage, the following upper Catawba valley sites are thought to represent Woodland period sites (or components): 31MC1, 31MC8, 31MC9, 31MC11, 31MC12, 31MC18, 31MC43, 31MC48, 31MC53, 31BK9, 31BK11, 31BK16, 31BK26, 31BK27, 31BK38, and 31BK56.

APPENDIX D

CERAMIC ANALYSIS METHODOLOGY

As described in Chapter Three, the extant literature on Catawba valley ceramics is limited to a general description of the Burke series and limited descriptions of site specific assemblages. The attribute analysis described here was conducted to provide a more complete description of Catawba valley ceramics and to attempt to identify temporally sensitive attribute patterning within the valley.

The attribute analysis is adapted from the computerized data recording system used by the Research Laboratories of Anthropology, University of North Carolina at Chapel Hill (Davis 1987, 1988). Davis identified attributes of late prehistoric and Historic period Siouan pottery in the north-central Piedmont of North Carolina. The use of a similar analytic tool in this study allows for a more reliable comparison of the ceramics of the western Piedmont Catawba Valley with the better known Siouan ceramics. I selected attributes based on the characteristics of the Catawba valley assemblages and also with consideration of attributes that have proved to be analytically useful elsewhere in the North Carolina Piedmont.

I attempted to analyze pottery from every recorded site in the Catawba River valley. The major collections I examined were curated at the Research Laboratories of Archaeology, but I also looked at materials from Wake Forest University, Appalachian State University, the Office of State Archaeology, the United States Forest Service, the Schiele Museum of Natural History, and several private collection. However, some site collections were inaccessible for a variety of reasons. I do not believe that I missed any sites with pottery collections of more than 50 sherds.

The total sample of pottery from over 300 sites was in excess of 30,000 potsherds. I did not analyze sherds less than .5 inches in diameter. This removed over 10,000 sherds from the sample (more than 2,000 from the Low site (31ID31) alone! The final analyzed sample numbered 19,034 potsherds. The discussions in the preceding chapters focused primarily on those 33 sites with ceramic assemblages larger than 100 sherds. They constituted 78.9 percent of the total analyzed sample.

The coding procedure recorded three stylistic attributes, three technological attributes, five morphological attributes, and four contextual or provenience attributes for each sherd.

Stylistic Attributes

Stylistic attributes included exterior surface treatment, type of decoration, and location of decoration.

Technological Attributes

Technological attributes include type and density of temper and method of interior surface finishing.

Morphological Attributes

Morphological attributes include vessel portion, rim form, rim profile, lip form, and sherd thickness.

STYLISTIC ATTRIBUTES

Stylistic attributes include exterior surface treatment, type of decoration, and location of decoration. Exterior surface treatment is considered to be the method by which the major portion of the vessel exterior is treated prior to firing. Decoration is also applied before firing but is generally applied by a different method from the exterior surface finish and is limited to a smaller portion(s) of the vessel. Stylistic attributes are crucial to the discussions of chronology and cultural relationships below; therefore they are introduced here in some detail.

1. Exterior Surface Treatment

In an attempt to describe and quantify as much variation as possible, nearly seventy attribute states were recorded originally for exterior surface treatment. Many of these were variations of complicated stamped designs; unfortunately, the small size of most of the sherds precluded an accurate identification of designs. Therefore, seventy states were reduced to twenty to create larger classes and to facilitate analysis (Figure 4.2). Surface treatments are described following.

Complicated Stamping

This treatment employs a carved wooden paddle that is impressed or stamped upon the exterior surface to create distinctly patterned grooves and lands. Carved designs include curvilinear and rectilinear patterns or combinations of both straight and curving lines. Variation in the Catawba valley occurs in the type of design, the size of the design elements, the size of grooves and lands, and the quality of execution of the design.

The attribute states were defined to account for the wide range of variability in complicated stamped motifs and the fact that certain stamping characteristics are believed to have temporal significance. Specifically, I separated curvilinear from rectilinear motifs and, where possible, identified those (such as Pisgah or Etowah) whose temporal placement were distinct. Since the study assemblage consisted almost entirely of small sherds it was usually impossible to distinguish complete or individual design motifs. Eventually, more than twenty designs were identified but sherd sizes were generally not large enough to identify many complete designs. Therefore, the following attribute states were coded for analysis:

Curvilinear complicated stamped (CC). Any pattern that included curved lands and grooves. This included any design that consisted of curved lines for all or merely a portion of the design. Most commonly these designs appeared to be combinations of arcs and rays, concentric circles and bulls-eyes but also included the filfot cross, keyhole or scroll patterns.

Rectilinear complicated stamped (CR). Any pattern which included connected or converging straight lands and grooves with no curving elements present. This included designs made up solely of straight, angled lines such as nested diamonds or squares and zig-zag patterns. A small number of rectilinear patterns were coded under specific type names if they were recognizable as such. These

included "Pisgah Rectilinear Complicated Stamped" and "Etowah/Napier Complicated Stamped."

Complicated stamped indeterminate (CI). Used generally for small sherds which exhibited connected or converging straight lands and grooves but were too small to preclude their being straight elements of curvilinear patterns such as filfot crosses or scrolls, etc.

Curvilinear stamped large (CL). Complicated stamped elements with combined lands and grooves wider than 8 mm. Designs of this size were relatively rare but their style and execution seemed to demonstrate a departure from the more finely controlled and uniform smaller designs.

Rectilinear stamped large (RL). Complicated stamped elements with combined lands and grooves wider than 8 mm. Designs of this size were relatively rare but their style and execution seemed to demonstrate a departure from the more finely controlled and uniform smaller designs.

Indeterminate stamped, linear (ISL). Used for smaller sherds that exhibited straight lands and grooves without connections or convergence's.

Simple stamped (SS). Used for larger sherds that appeared to preclude the likelihood of complicated stamping. Also used when lands and grooves were less regular or even.

Etowah/Napier (E/N). Used for specific rectilinear patterns attributable to these types; not intended to represent the type necessarily.

Pisgah (P). Used for specific rectilinear patterns attributable to Pisgah type; not intended to represent the type necessarily.

This combination of attribute states eliminates one source of recording bias by decreasing the chances of mixing curvilinear and rectilinear states. Unfortunately, it also probably reduces the total numbers of sherds recorded with definite motifs and increases the numbers that are difficult to interpret; i.e. how do you interpret the relative frequencies of CI, ISL, and SS? Ultimately, I chose to select for the absolute distinction between rectilinear and curvilinear motifs.

Burnished

Burnished is the first of five attribute states that cover sherds with a plain surface, devoid of impressed or stamped features.

These sherds exhibited a finely smoothed or polished surface. The use of a burnishing tool such as a stone or bone often left distinct facets on the surface. Although it was sometimes difficult to distinguish between burnished and smoothed states the distinction was based on whether a compaction of the surface paste had occurred. If so, the sherd was coded as burnished. The burnishing technique also reduced the amount of temper visible at the surface. Some burnished surfaces were not completely finished, leaving striations or even evidence of an impressed or stamped surface treatment beneath. Most, however, evidenced a highly polished or glossy surface.

Plain Smoothed

These sherd surfaces exhibited a uniform and smoothed surface.

Rough Smoothed

These sherd surfaces showed irregular smoothing. I felt that ultimately, this category was impossible to separate objectively from Plain Smoothed. Therefore, I joined the two into the category, Plain/Smooth, that appears on the pottery tables.

Smoothed-over Complicated Stamped

These sherd surfaces were generally smoothed only enough to blend the lands and grooves of the underlying stamping treatment; the surface was not leveled.

Plain

These surfaces were coded to reflect those surfaces that appeared to have minimal smoothing beyond that which would be required for annealing coils and shaping the vessel. Temper particles were usually readily apparent at and above the surface, rather than having been smoothed into the surface.

Simple Stamping

This treatment also employs a carved wooded paddle to impress a pattern of lands and grooves on the surface. The lands and grooves are regular and parallel although over-stamping sometimes reduces their clarity. Two attribute states represent this treatment. "Simple Stamped" was coded for sherds large enough to preclude the possibility that the stamping was part of a larger complicated design and "Indeterminate Linear Stamped" was coded for sherds too small to preclude that possibility.

Check Stamped

The final wood-carved stamp treatment was an extremely minor one, found on less than one percent of the identifiable sample. Parallel grooves were usually cut at right angles to form squares though occasionally rectangular or diamond shaped patterns occurred. Patterns were well executed but the stamp was usually lightly impressed on the surface.

Cob Impressed

This treatment employs a corncob from which the kernels have been removed. The dried cob is impressed upon or rolled across the vessel surface resulting in a variety of patterns.

Cord Marked

This treatment results from impressing the surface with a cord-wrapped paddle. Both "S" and "Z" twists were identified though the latter occurred only rarely. Cord widths ranged from under 1 mm. to 3 mm., most were 1-2 mm. The cords were usually wrapped in nearly parallel order though a large number showed irregular wrapping. Some over-stamping also occurred.

Brushed

This category was used to subsume both the terms "brushed" and "scraped." Brushed describes a smoothing process that leaves a surface marked by relatively fine linear abrasions and scraped describes the use of a serrated tool that produces prominent parallel striations.

This treatment results from brushing or scraping across the surface with a comb-like instrument or a tool like a serrated shell. The resulting lands and grooves are generally parallel but irregular and may be fine or large depending on the implement. It is possible that some simple stamped sherds are represented by this state when their regular lands and grooves are obscured by over-tamping.

Net Impressed

In this treatment the vessel surface is impressed with a net-wrapped paddle. In most cases knotted nets were utilized though looped nets occasionally occurred. The stamping created both regular and irregular patterns depending on whether the net was loosely bunched or tightly stretched on the paddle and whether over-stamping occurred. Net impressing is relatively rare in the Catawba valley, occurring on 2.1% of the identifiable sherds. This pattern also stands in contrast to the eastern Piedmont where it occurs in large numbers in both the Uwharrie and Dan River series (Coe and Lewis 1952; Wilson 1983).

Fabric Marked

This treatment utilizes a paddle wrapped with plaited fabric or possibly the use of a more rigid fabric applied without a paddle foundation. Most of the fabric marked sherds are likely to represent Early or Middle Woodland ceramics such as the Badin and Yadkin series (Coe 1964).

Unidentified

All sherds for which the surface treatment was indeterminable were coded as "Unidentified." Despite removing all sherds less than .5" from the analysis, most of the collections consisted of many small sherds less than one inch in diameter. As a result, the "unidentified" surface treatment attribute state made up a large percentage (14.1%; N=2677) of the total assemblage.

2. Type of Decoration

Decoration generally refers to a treatment of a portion of the vessel in a manner different from that employed as surface treatment. Nearly one hundred distinct decoration attribute states were observed. These states are combined for most analyses into nine groups on the basis of application technique.

Punctation

Punctated decoration is accomplished by pressing the end of a linear tool into the clay when it is soft. The tool may be solid or hollow and may leave a flat, rounded, pointed, or irregular concavity. The tool may also be applied vertically or obliquely to the plane of the vessel. Most common tools appear to be reeds, sharpened bones (or reeds), and wooden

sticks. Twenty-four punctated states were identified including singular or multiple rows of circular, square, rectangular, "v", "u", and "x" shaped designs.

Incised

Incised decoration consists of one or more lines scribed into the vessel surface. All incising occurred before firing and while the clay was damp but not too soft; some incising may have occurred while the clay was "leather-hard." In most cases incised lines are extremely regular and excess clay was cleaned away from the line edges. A variety of implements may have been utilized for scribing; some lines are narrow "v" cuts while others are wider and exhibit a U-shaped or squared base. Incised lines varied in width from approximately .5 mm to nearly 2 mm, but most averaged about 1 mm. Among identifiable surface treatments incised decorations are most common on plain smoothed and burnished vessels.

Twenty-four incised attribute states were identified. These included a variety of triangular, and "V" designs. However, the majority featured combinations of bands of multiple lines parallel to the rim. The bands were usually interrupted by loops, scrolls, arches, or brackets

Finger Impressed

Fingertips or fingernails impressed into the surface created both notched and punctated-like decorations. They were usually applied vertically to the plane of the surface though occasionally were applied obliquely or even pressed or pinched together.

Notched

Notching is distinguished from punctation by the application of the tool edge rather than the point of the tool on the clay surface. Most notches appear as relatively wide "U" or "V" shaped depressions but a small number were squared.

Punctation, Incising, Notching, and Finger-impressing constitute the large majority of decorative techniques and specific attribute states. The following make up the remaining minority states.

Smoothed/Burnished

Surfaces or zoned bands of smoothing and burnishing also occurred.

Scraped

Scraped decorations are distinguished from incised decorations by the lack of intentional or coherent design elements. This group consists of single or multiple lines applied by brushing or scraping an implement across the vessel surface.

Applique

This group consists of modeled pieces of clay added to the vessel in the form of fillet strips, handles, rosettes, nodes, and castellations.

Segmented Strip

This specific attribute state is formed by the combination of a rim form (appliqued strip) with a decorative technique (punctation). This state was coded when the punctation element on an applied appliqued rim strip completely covered the width of the strip, giving the strip a segmented appearance. This type of decoration has been demonstrated to be an important indication of temporal placement among pottery of the Wateree River valley in South Carolina but turned out to be extremely rare in the Catawba valley.

Cob-impressed, Cord Marked, and Complicated Stamped

These groups include decorative techniques that are more commonly used as surface treatments but occur in restricted areas of a vessel marked with a different surface treatment.

3. Decoration Location

The final stylistic attribute is the location of the decoration on the vessel. Twenty-six attribute states were observed, reflecting the wide variety of placement as well as motif among this assemblage. These states included portions of the vessel such as lip, rim, rimfold, shoulder, and neck as well as locations on appliqued strips or fillets, nodes, handles, etc.

TECHNOLOGICAL ATTRIBUTES

Three technological attributes were coded to describe vessel manufacturing procedures. The first two include the type and amount of temper added to the paste.

1. Temper

The type of temper (aplastic) added to paste has been demonstrated to be an important factor in Piedmont ceramic classifications (Coe and Lewis 1952; Coe 1964). Recently, Boyd (1986a) has observed a wide variability of temper classes in protohistoric and historic ceramic assemblages in the region north of the upper Catawba Valley. Davis has also demonstrated a wide range of temper in the Siouan pottery of the Piedmont and has suggested that temper may be less temporally sensitive than previously thought.

Temper remains a fundamentally important attribute in the Catawba valley due to the unusual use of Soapstone in the Burke ceramic series. In addition, Keeler previously suggested that quantity of sand tempering was spacially and temporally significant. As a result temper attribute states were created to include not only a wide range of aplastics but also the size of the aplastic (usually coded fine, medium and coarse).

Temper attribute states included soapstone, soapstone plus sand, soapstone plus quartz, sand, crushed quartz, grit, feldspar, shell, hornblende, granite, and grog.

2. Temper Density

Keeler stated that there appeared to be spatial trends in the amount of sand temper that occurred in his initial description of Catawba Valley ceramics. For this reason, and due to the interest in observing possible trends from Burke series to historic Catawba ceramics, I attempted to record the density of temper in each sherd. I used a geological sorting scale which proved to be extremely subjective and unwieldy. I do not think it was particularly

useful given the difficulties. Temper density would be better analyzed using statistical samples and fresh cross-sections of sherds.

2. Interior Surface Treatment

The final technological attribute coded was interior surface treatment. This attribute describes the manner in which the interior vessel surface is treated prior to firing. Initially, an attempt was made to distinguish five states of interior surface treatment: plain, smoothed, brushed, scraped, and burnished. Plain surfaces show little or no evidence of smoothing while smoothed surfaces were evenly smoothed (the precise smoothing method is not apparent). Brushing describes a smoothing process that leaves a surface marked by fine linear abrasions and scraping describes the use of a serrated tool that produces prominent parallel striations. Unfortunately, the variety in brushed and scraped techniques produces a wide range of striations and for the sake of consistency in analysis brushing and scraping were combined as were smoothed and plain. Burnishing describes the highly smoothed to polished surface produced by rubbing with leather, bone, or polished stone. It is often difficult to distinguish between highly smoothed or burnished surfaces. In this study any interior surface which evidenced burnishing "facets" or a compaction of the interior surface were coded as burnished. Finally, rare sherds were marked by fabric or cord impressions on the interior surface.

MORPHOLOGICAL ATTRIBUTES

It is often difficult to derive vessel morphology information from potsherd collections. In this case, the study collection includes few whole vessels and relatively few large rim sherds. However, four morphological attributes were coded for each sherd (when applicable) in an attempt to gain better morphological data for the ceramic assemblage.

1. Vessel Portion

All sherds were coded for the portion of the vessel they represented.

2. Rim/Vessel Profile

Secondly, the rim and/or vessel profile was coded. Unfortunately, many of the rim sherds exhibit coil breaks immediately below the rim; this is particularly true where folded rims or appliqued rim strips were present. As a result, profiles were often difficult to determine and this category did not prove to be productive.

3. Rim Form

Attribute states for rim form, the treatment of the upper portion of the vessel, are particularly important in this analysis since rims are often associated with the stylistic attributes of decoration. Six attribute states were used in the analysis: folded rims (the original lip remains distinguishable); appliqued strip (a strip of clay is added at or just below the lip); thickened (manner of thickening in the rim area is uncertain); collared (the final coil is added to present a vertical face above the neck); unmodified; and indeterminant.

4. Lip Form

Attribute states included rounded, flat, pointed, bevelled, and thickened.

APPENDIX E

REPORT ON PLANT REMAINS FROM THE BERRY AND MCDOWELL SITES

by
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1989

Samples of plant remains from two sites, Berry (31BK22) and McDowell (31MC41) were submitted to the Paleoethnobotany Laboratory at the University of North Carolina at Chapel Hill for analysis. Only flotation samples are reported upon here, although some material recovered from the McDowell site by waterscreening during 1977 excavations was also examined. The sample from Berry is considerably larger than that from McDowell, which constrains the comparisons that can be made of plant remains assemblages from the sites. Both sites date to the mid- to late fifteenth century, although McDowell appears to contain an earlier twelfth-century component as well. When additional plant remains from these two sites are examined it should be possible to draw some conclusions about how subsistence patterns in the Catawba valley on the eve of European contact differed from earlier patterns. Viewed together, plant remains data from the two sites provide a basis for preliminary discussion of the use of plant foods by Late Prehistoric occupants of the western North Carolina piedmont.

MATERIALS AND METHODS

All of the samples from McDowell were analyzed. These included one from moundfill and five from features, representing a total of 60 l of fill. The flotation samples selected from Berry were collected from 11 features, including three burials. The total assemblage represents 265 l of fill. Although not all samples submitted were analyzed, an attempt was made to represent all zones and features by at least one sample with subsamples reflecting the total amount of material submitted for each feature.

Flotation samples were processed in the field using a modified SMAP- type water separation device (Watson 1976). A 0.7 mm mesh brass sieve was used to collect light fractions and heavy fractions were recovered in 1/16 in (approximately 1.6 mm) window screen. Some heavy fractions were further separated by the analyst in the laboratory using tap water and a plastic tub to pour off charcoal that had settled initially into the heavy fraction tub during field processing. This was done only for samples that contained large quantities of soil, pottery, and/or stone that would have rendered hand sorting of the entire sample too time-consuming.

Material remaining in the 2.0 mm and larger screens was sorted completely and each component was weighed. Material passing through the 2.0 mm screen was searched only for seeds, cultigen remains, and items not found in the larger size category. Quantities of plant remains in the 0.7 mm and larger size category were estimated on the basis of their representation in the greater than 2.0 mm size category. This procedure assumes equal representation of various materials in all size classes. Although this assumption is sometimes not justified, the extrapolation provides a more accurate estimate of actual quantities in each sample than does the raw data.

For each site, extrapolated quantities of plant remains are presented as well as itemizations of plant food remains. Seeds and fruits appear as aggregate weights for each sample in these tables, but counts are given separately. Percentages of identified seeds were calculated using only seeds identified to genus or species level. Ubiquity values were also calculated for plant food remains at each site. Here, ubiquity represents the percentage of features from which an item was recovered and reflects the regularity of occurrence rather than quantity. This procedure eliminates some of the biases inherent in calculation of percentages by weight, which tend to exaggerate the importance of plant foods that produce dense, durable remains, such as hickory shell.

RESULTS

McDowell Site

In addition to large amounts of wood charcoal, smaller quantities of giant cane stem were recovered from Feature 7. Several fragments of an unidentified root or tuber occurred in Feature 6 (Table 64). Of plant food remains, hickory and acorn shell and maize cupules and kernels were abundant. Fragments of common bean cotyledon were found in the mound fill sample (Table 65). A small number of seeds was recovered from the site as well (Table 66). Most of the latter are of common weeds (e.g. nightshade, plantain (?), morning glory, spurge, chenopod, ragweed, maypops and lespedeza (?) (see below for a discussion of tentative identifications of plantain and lespedeza at the Berry site). Maypops was probably a food plant, and although the seeds of chenopod and ragweed may have been used for food, there is no compelling reason to suspect that they were. Presumably these weed seeds blew into fires and were carbonized with other weed seeds and plant food refuse.

Berry Site

The larger sample of plant remains recovered from the Berry site allows for a more thorough discussion of the resulting data. As at McDowell, wood charcoal dominated the plant remains assemblage, although smaller quantities of giant cane and other monocot stem fragments were also present. Root or tuber fragments were especially common in samples from Feature 13. These fragments could not be identified other than anatomically, but their relative abundance indicates that they may be the remains of food processing activity. The "roundish unknown" of Table 67 also occurred with some regularity in samples from Feature 13 and may also be some type of underground plant part, although this assessment is tentative (Table 67).

Plant food remains were abundant in samples from the Berry site (Table 68). Densities of plant food remains in features ranged from 0.07 g (Feature 17) to 1.70 g (Feature 13) per liter of fill. The complete set of flotation sample produced 1.15 g/l. Hickory shell, maize cupules, and acorn shell were all especially abundant. Walnut shell and Juglandaceae (Walnut family, i.e. walnut or hickory) shell were also present, as were maize kernels, pepo rind, common bean, and a large number of fruit and grain or weed seeds (Table 69).

Nutshell. Although hickory is the most abundant nutshell type by weight, acorn shell runs a close second, comprising 27.3% of total nutshell from the site (Table 70). Because acorn shell represents more edible portion than an equivalent quantity of hickory shell (Lopinot 1983) multiplying the quantity of acorn shell by some number for comparison with hickory shell provides a more realistic estimate of relative food quantities represented. Using the factor of 50 suggested by Yarnell and Black (1982) produces an acorn-to-hickory ratio (g acorn shell x 50/g hickory shell) of 20.0. This indicates that acorn is actually better represented at the site than is hickory. Hickory does have higher ubiquity than acorn (100.0% of features compared to 72.7% for acorn) but the difference is in three features only, and acorn shell is more fragile and therefore less likely to be preserved archaeologically. Walnut is only a minor nutshell type, although it did occur in six of the 11 features sampled (Table 71).

Cultigens. Two Mesoamerican crops, maize and common bean, were found at the Berry site. Maize remains were found in 100.0% of features sampled (Table 71). Maize kernels comprise only about 2.0% of total identified seeds (Table 72), but are exceeded in number only by three taxa of weed seeds that occurred in surprisingly large numbers at the site. Common bean cotyledons were found in two features (18.2%) and make up 0.1% of identified seeds. Presumably beans are somewhat underrepresented relative to the extent of their use because of their preparation by boiling rather than roasting or parching, which was probably the case with maize (Yarnell 1982).

Rind fragments of pepo squash were recovered from Feature 11. Once thought to be Mesoamerican in origin, one variety of Cucurbita pepo L. (var. texana Decker) is now thought to be an indigenous Eastern North American domesticate (Decker 1988). Like common bean, pepo squash was probably either thin-skinned or prepared in such a way that the likelihood of pieces of rind being preserved through carbonization and recovered archaeologically is rather low. Paleoethnobotanical data support the expectation that maize was the single most important crop and plant dietary staple at the Berry site, as it was for other aboriginal villages of that time period.

Grain, fruit and weed seeds. The occurrence of large numbers of grain and/or weed seeds at the Berry site raised a number of questions regarding their identification and interpretation. Some taxa, such as chenopod, little barley and giant ragweed, were cultivated in some parts of the East (Yarnell 1987). The large numbers of chenopod seeds in particular are relevant to the question of the importance of native grain crops relative to staples such as maize. These chenopod seeds were found in association with large numbers

of presumably non-food weed seeds such as jimsonweed, amaranth, ragweed, and plantain, although maize remains also occurred in features along with chenopod. One of the chenopod seeds examined had carbonized after it had begun to germinate, indicated by the radicle seen emerging from the seed. B. Smith (1985) used this condition, found in some of the chenopod specimens from a woven bag full of carbonized seeds and fruits in Russell Cave, Alabama as evidence that the seeds had germinated in storage. In the case of the Berry site specimen, however, it is equally likely that the germinating seed was blown or otherwise conveyed into an open fire from the ground.

The fact that many grain crops are derived from colonizing plants of open, anthropogenically disturbed habitats makes the distinction between unutilized weeds, harvested weeds, and crops unclear in many cases, particularly since the status of many species varied temporally and spatially. In addition, there is no way to distinguish between seeds deposited in features as a result of food processing activities and those blown in by wind or other natural means. The food plant identity of chenopod at the Berry site is therefore unclear, although association with other non-food weeds weakens the argument that it was grown or harvested for food, despite its large numbers. Other weedy potential grain crops, such as little barley, giant ragweed, and knotweed, occurred in much smaller numbers and are more likely to have been weeds than food plants.

Interpretation of the crop and food plant status of these small seeds rests partly upon their association with other taxa known to be weeds but not likely to have been food plants. Two of these, lespedeza and plantain, require further discussion because their identification was the result of considerable effort and must still be considered tentative. The seeds identified as plantain were the most abundant at the site, totaling 3211 and comprising 61.9% of identified seeds. A search of manuals (Martin and Barkley 1961, Montgomery 1977) revealed no other taxon that combined the size and shape characteristics and the trait of extreme variability in shape (caused by the variable number and arrangement of seeds inside the capsule). The size of the archaeological specimens is fairly close to that given for *Plantago rugellii Duchesne* (a native North American species). A problematic feature of the archaeological specimens compared to dried material of this species, however, was that the dried seeds were flattish whereas the carbonized seeds were dorsally more rounded. Carbonization experiments determined that the dried seeds did expand somewhat when charred, producing a space inside the seed. So far, this identification is the most likely one for this abundant seed. Today *P. rugellii* typically inhabits waste ground, roadsides, pastures and lawns (Radford et al. 1968).

The other problematic seed type appears to be a small legume with a folded embryo that overlaps on itself, producing a small "beak". The size and shape of this seed type conforms most closely to the genus Lespedeza, although other small-seeded legumes are possible candidates. A number of species of Lespedeza are found in the western Piedmont. Two of the more common species, *L. virginica* (L.) Britton and *L. repens* (L.) Barton, occur in fields and roadsides (the latter also in open woods) (Radford et al. 1968).

The largest numbers of both plantain and lespedeza (as well as chenopod) occur in Features 2 and 13, although plantain was found in two additional features (ubiquity 36.4%)

and lespedeza in three additional features (ubiquity 45.5%). Both also occurred in McDowell site flotation samples. The dominance of weed seeds in the site assemblage raises questions about the sorts of behavior (e.g. burning vegetation off a large area) that might result in deposition of many carbonized weed seeds in open pits. A survey of the seed types found in Features 2 and 13 (both classified as roasting pits) shows that all taxa represented in them would have produced seeds in June (except for grape, which begins to produce fruits in July), although individual taxa fruit anywhere between April and November (see below for a full account of methods used to estimate fruiting dates). It seems likely, given the similarity in seed assemblages from the two features (particularly in having large numbers of chenopod, lespedeza and plantain as well as smaller numbers of ragweed and knotweed), that these seeds at least were deposited in a single event.

Other weed seeds from the site include jimsonweed, morning glory, amaranth, poke, bearsfoot, spurge, and grass seeds tentatively identified as panic grass and love grass (the latter identification rests mainly upon a cursory assessment of general shape and size characteristics and is meant to suggest only one possible identification). Jimsonweed is a weed of fields, road sides and waste places (Radford et al. 1968) whose roots and fruits were also used to produce an intoxicant hallucinogenic by some North American groups. Reportedly jimsonweed was the chief ingredient in a concoction given to young male initiates among the coastal Algonquin or Tuscarora of North Carolina (Lawson 1967). However, since it is also a weed of disturbed ground there is no reason to assume the plant was thus used at the Berry site. Amaranth and poke also occupy disturbed ground, as do bearsfoot (which is also found in woodlands) and spurge, although the former may have been food plants as well (probably as greens, although amaranth grains are edible). Morning glory is a common weed in cornfields and also occurs in other relatively open settings.

The remaining seeds identified to genus and species level are of plants producing edible fleshy fruits (Gremillion 1989). Maypops is a persistent weed in fields and was probably tolerated or encouraged because of its edible, citrus-like fruits. Propagation of this plant probably was unnecessary because of the tenacity of already-established populations and its colonizing ability. Bramble also grows in old fields, pastures and other open areas, as does sumac. The trees, persimmon and plum or cherry, are found in both woodlands and old fields. Grape grows in woods or along stream banks.

DISCUSSION

A few tentative conclusions can be offered about plant food use at the Berry site. The plant food component of diet at the site included several cultigens, several fleshy fruits, and perhaps some weedy plants used for greens or grain. The archaeological assemblage is an incomplete record of the kinds of plant foods used by site inhabitants due to preservational and sampling biases and perhaps its limitation to seasonally circumscribed activities. However, maize was the most important crop plant; acorns also seem to have been an important dietary item, as were hickory nuts. The bulk of plant food produced by the community was probably derived from these taxa, with other crops such as common bean and cucurbits providing supplements whose importance cannot be assessed on the basis of presently available evidence. Calculation of an index of diversity (D=.942) shows the

Berry site plant food remains assemblage to be highly diverse, that is both rich in taxa and highly equitable (no one item makes up a highly disproportionate share of occurrences). However, since many or even most of the seed taxa probably do not represent dietary components, this index is not particularly useful for assessing diet breadth. Instead it indicates a high degree of diversity for the assemblage, which may reflect good preservation of seeds and adequate recovery rates. The richness of the assemblage, particularly of seed types, may also indicate an event of burning in the village that affected a number of different kinds of plants.

The assemblage of plant food remains reflects a bias towards use of human-disturbed habitats (including gardens and agricultural fields) for plant exploitation. This is generally true for communities of subsistence agriculturalists, since gardens and/or fields are key locales for harvesting cultigens. In addition, extensive disturbance (e.g. trampling and clearing) generated by sedentary groups creates ecologically and spatially open habitats suitable for colonization by weeds. Many such weeds produce edible fruits; in fact, plants in general tend to be more productive in such open habitats than under a closed canopy (Yarnell 1982). Hunting techniques such as burning vegetation over large areas also provides prime habitat for many useful plants.

For the Berry site, plant taxa were classified according to their preferred habitats as follows: woods ("W"); cultivated soils and waste places, edges, thickets, old fields and roadsides ("O"); gardens and fields (crop plants only), ("G"); and either open woods or both woods and open areas ("OW"). For genus-level classifications, two species common in the western North Carolina Piedmont were selected to provide habitat information (as well as the ripening dates discussed below). About 57.7% of plant taxa listed in Table 71 can be classified as O, 11.5% as G and 15.4% as OW. Only 15.4% of taxa are found exclusively in woods. A large number of these taxa probably do not represent food plants, but they may have been used in other ways (e.g. as medicines or construction materials). Some may also have been used for food, if only opportunistically.

There is also a bias in the assemblage towards plants that produce fruit in the late summer and fall, including nut-producing trees and crops). This fact can be partly ascribed to the fact that this pattern (summer growth followed by late summer or autumn flower and fruit production) is more common than the alternative strategy of fruit-production early in the year using energy reserves stores the previous fall. Ripening periods for most of the features studied (considering only small grain, fruit and weed seeds, since nuts and cultigens were probably stored) range from April to November. If the assumption is made that all seeds in a feature were deposited over a short period of time, say within a month, it is possible to narrow somewhat the period of seed deposition. This is done by calculating the period of overlap of ripening times, that is the months during which all the seeds present would have been available. The following temporal profiles are thus obtained: Feature 1, June to August; Feature 2, May to June; Feature 5, August to October. Features 11 and 13 are unusual in that they each contain species whose fruiting times do not overlap, although they are quite close. In both cases, June and July can be considered the closest period of overlap, determined by the terminal month for little barley (June) and the beginning ripening date for maypops (July). However, grape is present in both features and no grape species

found in the study area produce fruit before August. Thus in the case of these two features, the assumption of more-or-less simultaneous deposition of seeds is probably not valid.

Since many of these seed taxa were probably not harvested, this phenological study is more useful in determining the probable times of feature deposition than in adding to our knowledge of subsistence practices at the Berry site. However, the phenology of different useful species indicates that harvesting of fleshy fruits began as early as May with bramble, continuing through the summer months with the readily available maypops, which would have been abundant in gardens and into the fall with persimmon (ripe in September and October) and grape. Plums or cherries, depending on the species collected, would have been available from May into August. Greens from poke are most palatable if collected early in the spring before seed production begins. If chenopod was harvested, it would have been available between June and November. Little barley, if used, was ready to collect earlier, in April, May and June.

Thus fleshy fruits, greens and grains were collected primarily in the late summer and fall months, although some species were available in spring and early summer. Harvesting of weedy species may have been somewhat opportunistic, but knowledge of the location of stands of fruit-producing perennials probably made organized collecting forays cost-effective. Springtime activities probably focused on planting maize and other crops as well as other subsistence activities such as fishing and hunting. Harvest time for most crops was late summer, and at this time preparation for storage of crops and of fruits would have been taking place on a large scale. Harvesting and processing for storage might have been completed before the various species of hickory found locally began producing fruit in October. Acorns generally ripen between September and November. Strategies for harvesting acorns probably varied from year to year, but it would have been advantageous to collect them as soon as they were available, since competition with squirrels and other herbivores is likely to have rendered later collection less effective.

Evidence of such activities from the earlier McDowell site is limited, but many of the same weed and fruit seed types were found there. In fact, all of the seed taxa found at McDowell were also represented at Berry. Maize was relatively abundant and common bean was present. Assemblage diversity was only slightly lower than the Berry site's at .89. At this time, then, there is not reason to suspect that plant use patterns were widely divergent at the two sites. On the other hand, there are strong indications that major food plants (e.g. maize and hickory) were the same at both sites. Acorn is scarce in the McDowell site samples, but its low quantity may result partly from acorn's relatively low preservability in addition to the smaller size of the McDowell site sample. Acorn shell at McDowell also occurs in three out of four contexts sampled (Table 73), despite its low representation by weight. Even the same weed seeds appear at both sites, indicating similar types of disturbance in both villages. In fact, plantain comprises the largest percentage of identified seeds from McDowell, and chenopod is as abundant as maize at the site.

APPENDIX
SCIENTIFIC NAMES OF PLANTS MENTIONED IN TEXT

TAXON	LATIN BINOMIAL AND AUTHORITY
Acorn (Oak)	*Quercus sp.*
Amaranth	*Amaranthus sp.*
Bearsfoot	*Polymnia uvedalia L.*
Bramble	*Rubus sp.*
Chenopod	*Chenopodium sp.*
Giant cane	*Arundinaria gigantea L.*
Giant ragweed	*Ambrosia trifida L.*
Common bean	*Phaseolus vulgaris L.*
Grape	*Vitis sp.*
Grass family	*Poaceae*
Hickory	*Carya sp.*
Jimsonweed	*Datura stramonium* L.
Knotweed	*Polygonum sp.*
Legume family	*Fabaceae*
Lespedeza	*Lespedeza sp.*
Little barley	*Hordeum pusillum L.*
Love grass	*Eragrostis sp.*
Maize	*Zea maize L. ssp. mays*
Maypops	*Passiflora incarnata L.*
Morning glory	*Ipomoea sp.*
Nightshade	*Solanum sp.*
Nightshade family	*Solanaceae*
Panic grass	*Panicum sp.*
Pepo	*Cucurbita pepo L.*
Persimmon	*Diospyros virginiana L.*
Plantain	*Plantago sp.*
Plum/cherry	*Prunus sp.*
Poke	*Phytolacca americana L.*
Ragweed	*Ambrosia sp.*
Spurge	*Euphorbia sp.*
Sumac	*Rhus sp.*
Walnut (Black walnut)	*Juglans nigra L.*
Walnut family	*Juglandaceae*

Table 64. McDowell site plant remains (weight in grams).

Sample	Soil Volume (Liters)	Total Plant Remains	Wood Charcoal	Cane	Unknown Plant	Root or Tuber	Plant Food Remains
MOUNDFILL TOTAL	10	5.98	4.70	x	0.21		1.06
F. 5 TOTAL	10	0.69	0.61		0.70		0.01
F. 6 TOTAL	30	11.26	10.64		0.48	0.06	0.09
F. 7 TOTAL	10	2.52	2.27	0.09	0.12		0.05
SITE TOTAL	60	21.09	18.22	0.09	1.51	0.06	1.21

Table 65. Plant food remains from the McDowell site (weights in grams)

Sample	Fraction	Total Plant Food Remains	Hickory Shell	Acorn Shell	Common Bean	Maize Kernels	Maize Cupules	Seeds
90R350	LF	0.64		x		0.13	0.51	x
Moundfill 1	HF	0.42	0.20		0.05	0.03	0.14	x
MOUNDFILL TOTAL		1.06	0.20	x	0.05	0.16	0.65	x
F. 5, Level 2	LF	0.01					0.01	x
	HF	0.00						
F. 5 TOTAL		0.01		x			0.01	x
F. 6, Level 2	LF	0.01					0.01	x
	HF	0.03	0.03					
F. 6, Level 5	LF	0.00					x	x
	HF	0.05	0.05					
F. 6 TOTAL		0.09	0.08				0.01	x
F. 7, Level 1	LF	0.03					0.02	0.01
E1/2	HF	0.02	0.02					x
F. 7 TOTAL		0.05	0.02				0.02	0.01
SITE TOTAL		1.21	0.30	x	0.05	0.16	0.69	0.01

Table 66. McDowell site seeds and fruits.

Sample	Fraction	May-pops	Night-shade	Cheno-pod	Rag-weed	Lesped-eza?	Plan-tain?	Morning glory	Spurge	Night-shade fam.	Common bean	Maize kernels	Maize cupules	Un-known	TOTAL
90R350	LF			1				1						3	5
Moundfill 1	HF	1									1	3	18	2	25
MOUNDFILL TOTAL		1		1				1			1	3	18	5	30
F. 5, Level 2	LF						7						1		8
F. 6, Level 2	LF		1	2	1	2		1		1			4	3	15
F. 6, Level 5	LF												2	2	4
F. 6 TOTAL			1	2	1	2		1		1			6	5	19
F. 7, Level 1	LF								1				4	2	7
E1/2	HF	1												1	2
F. 7 TOTAL		1							1				4	3	9
SITE TOTAL		2	1	3	1	2	7	2	1	1	1	3	29	13	66

Table 67. Berry site plant remains (weights in grams)

Feature	Soil Volume (Liters)	Total Plant Remains	Wood Charcoal	Cane/ Monocot	Roundish Unknown	Unknown Plant	Pedicel/ Peduncle	Root or Tuber	Plant Food Remains
1	20	22.68	16.45	0.02		0.83			5.38
2	60	69.19	59.02	1.07	0.11	2.15		0.09	6.77
5	20	18.69	15.62	0.16	0.13	0.51			2.26
9	10	2.29	2.01			0.03			0.25
11	60	82.71	78.10	0.98		0.99		0.02	2.61
12	10	1.16	1.06			0.05		0.01	0.04
13	45	76.61	55.82	2.77	0.64	6.21	0.03	3.38	7.76
16	10	2.20	1.37		0.06	0.20			0.56
17	10	0.67	0.62					0.02	0.04
18	10	3.81	2.79			0.41			0.83
BU. 1	10	1.02	0.72			0.21			0.09
SITE TOTAL	245	281.03	233.58	5.00	0.94	11.59	0.03	3.52	26.59

Table 68. Berry site plant food remains (weights in grams).

	Total Plant Food Remains	Hickory Shell	Acorn Shell	Walnut Shell	Jugland-aceae Sh.	Maize Kernels	Maize Cupules	Pepo Rind	Common Bean	Seeds
Feature No.										
1	5.38	3.08	1.22	0.13	0.13	0.20	0.59			0.02
2	6.77	2.19	1.88	0.21		0.33	1.72		0.02	0.42
5	2.26	1.21	0.35		0.12	0.25	0.26		0.04	0.03
9	0.25	0.20	0.03	x		0.01	0.01			
11	2.62	1.24	0.28	0.17		0.21	0.57	0.01	x	0.14
12	0.04	0.01	x				0.03			
13	7.77	0.92	0.04	0.12		0.16	5.87			0.65
16	0.56	0.47			0.06		0.03			x
17	0.04	0.03				0.01	x			
18	0.83	0.42	0.14	0.03		0.07	0.15			0.01
Bu.1	0.09	0.08				0.01	x			
SITE TOTAL	26.57	9.85	3.94	0.66	0.31	1.25	9.23	0.01	0.06	1.27

Table 69. Berry site seed and fruit counts.

Feature #	1	2	5	9	11	12	13	16	17	18	Bu. 1	Total Seeds
Weeds or Weed Crop												
Chenopod	-	176	1	-	2	-	264	-	1	-	-	444
Ragweed (small)	-	4	2	-	1	-	6	-	-	1	-	14
Giant ragweed	-	10	-	-	-	-	8	-	-	-	-	18
Little barley	-	1	-	-	-	-	3	-	-	-	-	4
Knotweed	-	34	1	-	3	-	22	-	-	-	-	60
Subtotal												540
Fleshy Fruits												
Maypops	2	3	2	-	3	-	3	-	-	-	-	13
Persimmon	-	-	-	-	1	-	-	-	-	-	-	1
Bramble	-	-	-	-	-	-	1	-	-	-	-	1
Grape	-	5	2	-	3	-	7	-	-	-	-	17
Plum/cherry	1	-	-	-	-	-	-	-	-	-	-	1
Sumac	1	-	-	-	-	-	1	-	-	-	-	2
Subtotal												35
Weeds (?)												
Lespedeza (?)	-	150	-	-	1	-	495	1	1	-	-	648
Plantain (?)	-	1113	1	-	-	-	1193	4	-	-	-	2311
Jimson-weed	-	-	1	-	-	-	-	-	-	-	-	1
Morning glory	-	2	-	-	1	-	-	-	-	-	-	3
Amaranth	-	4	-	-	-	-	1	-	-	-	-	5
Poke	2	-	-	-	-	-	3	-	-	-	-	5
Brassica	-	-	-	-	-	-	1	-	-	-	-	1
Bears-foot	-	-	-	-	-	-	1	-	-	-	-	1
Spurge	-	2	-	-	-	-	1	-	-	-	-	3
Subtotal												2978
Grasses												
Panicum (?)	-	27	-	-	1	-	9	-	-	-	-	37
Eragrostis (?)	-	52	-	-	-	-	14	-	-	-	-	66
Subtotal												103
Cultigens												
Common bean	-	1	1	-	-	-	-	-	-	-	-	2
Maize kernals	7	21	10	3	18	-	9	-	1	3	1	73
Maize cupules	60	158	30	4	74	2	353	4	1	11	2	694
Subtotal												769
Miscellaneous												
Nightshade family	-	-	-	-	-	-	2	-	-	1	-	3
Legume family	1	1	-	-	-	-	1	-	-	-	-	3
Grass family	-	-	1	-	-	-	-	-	-	-	-	1
Subtotal												7
Unknown	4	79	11	-	12	-	59	6	1	2	-	172
Totals	78	1843	63	7	120	2	2457	15	5	16	3	4604

Table 70. Nutshell percentages at the Berry and McDowell sites.

	Hickory (g)	Hickory (%)	Acorn (g)	Acorn (%)	Jugland-aceae (g)	Jugland-aceae (%)	Walnut (g)	Walnut (%)	Total (g)
Berry	9.88	66.8	3.95	26.7	0.31	2.1	0.66	4.5	14.8
McDowell	0.3	100	x	trace					0.3

Table 71. Ubiquity of plant foods from the Berry site.

TAXON	NO. OF FEATURES	% OF FEATURES
Hickory	11	100.0
Maize	11	100.0
Acorn	8	72.7
Walnut	6	54.5
Maypops	6	54.5
Chenopod	5	45.5
Lespedeza	5	45.5
Ragweed	5	45.5
Plantain	4	36.4
Grape	4	36.4
Knotweed	4	36.4
Panic grass	3	27.3
Little barley	3	27.3
Morning glory	2	18.2
Love grass	2	18.2
Plum/cherry	2	18.2
Spurge	2	18.2
Poke	2	18.2
Amaranth	2	18.2
Giant ragweed	2	18.2
Bean	2	18.2
Jimsonweed	1	9.1
Persimmon	1	9.1
Sumac	1	9.1
Bramble	1	9.1
Bearsfoot	1	9.1
Pepo	1	9.1
TOTAL FEATURES	11	

Table 72. Percentage of identified seeds from the Berry site.

TAXON	NUMBER	PERCENT
Plantain	2311	61.94
Lespedeza	648	17.37
Chenopod	444	11.90
Maize	73	1.96
Love grass	66	1.77
Knotweed	60	1.61
Panic grass	37	0.99
Giant ragweed	18	0.48
Grape	17	0.46
Ragweed	14	0.38
Maypops	13	0.35
Amaranth	5	0.13
Little barley	5	0.13
Poke	5	0.13
Spurge	3	0.08
Morning glory	3	0.08
Sumac	2	0.05
Bean	2	0.05
Bramble	1	0.03
Bearsfoot	1	0.03
Jimsonweed	1	0.03
Plum/cherry	1	0.03
Persimmon	1	0.03
TOTAL	3731	100.00

Table 73. Ubiquity of plant foods from the McDowell site.

TAXON	NO. OF FEATURES	% OF FEATURES
Maize	4	100.0
Hickory	3	75.0
Maypops	2	50.0
Acorn	2	50.0
Chenopod	2	50.0
Morning glory	2	50.0
Nightshade	1	25.0
Plantain	1	25.0
Lespedeza	1	25.0
Bean	1	25.0
Ragweed	1	25.0
Spurge	1	25.0
TOTAL FEATURES	4	

Table 74. Percentage of identified seeds from the McDowell site.

TAXON	NO.	PERCENT
Plantain	7	30.43
Chenopod	3	13.04
Maize	3	13.04
Morning glory	2	8.70
Maypops	2	8.70
Lespedeza	2	8.70
Spurge	1	4.35
Ragweed	1	4.35
Common bean	1	4.35
Nightshade	1	4.35
TOTAL	23	100.00

APPENDIX F

NATIONAL MUSEUM OF NATURAL HISTORY COLLECTIONS: CALDWELL COUNTY, N.C.

In 1994 I examined the Caldwell County collections at the National Museum of Natural History (NMNH) in Washington, D.C. Chapter Four provides a discussion of the artifacts that I observed. A definitive analysis of the Happy Valley sites and artifacts will require an extensive review of all extant collection notes, a task I was unable to take on. It may then be possible to determine if the assumptions and discussion presented in Chapter Four are correct and whether it is possible to determine more specific proveniences for the artifacts. Those details notwithstanding, a brief overview of the artifacts demonstrates that the sites are likely late prehistoric or early historic Burke and/or Happy Valley phase sites.

During my two-day visit to the NMNH, I examined every available storage tray or unit containing Caldwell County material. However, collections were in the process of being moved from the NMNH in Washington, D.C. to the new Suitland, Maryland, facility (where I examined the collections) and I was told that it was possible that some units were in transit. I made brief notes and photographed all vessels, shell gorgets, shell masks, metal artifacts, and spatulate celts that I found in the collection. I also photographed samples of potsherds, pipes, celts, and stone discoidals. The photographed artifacts appear in Plates 21-33 (Chapter Four) and Plates 63-71 (this Appendix) and are summarized below for each catalogue provenience.

THE NELSON MOUND

Iron Implements:

A. Cat. #82892, (Plate 21, top) labeled "Iron Celt", heavy, 12 cm long, base 1.4-1cm, bit 4.8 cm, thickness is even at .4-.5 cm but tapers at bit end. This does not appear in the published illustrations nor do its' measurements suggest that it is the second of the two celts described for the Triangle (Thomas 1894:337, Figure 211).

B. Cat. #82874, (Plate 21, middle), labeled "rusty iron", catalogue describes three small pieces but only one was present in box, length 9 cm. width 3 cm, thickness varies from .2-.4 cm, heavily rusted. This piece is likely a large portion of the blade from the Triangle illustrated as Figure 212 by Thomas (1894:337).

(Note: Aside from the three specimens in Plate 21, I saw no other European trade items in the collection, though because of ongoing moving of collections it was not possible to see every box from Caldwell County. The catalog lists only one additional metal artifact from the Nelson Mound – an eye-less brass button)

Shell Gorgets:

C. Gorget #82853 13.5 wide x 11.4 tall (Plate 22:a)

D. Gorget #82854 10.5 cm diameter (Plate 22:b)

E. Gorget #82855 (Plate 28:e), seems to be a variant of Citico style.

F. Gorget #82856 (Plate 27:d).

Chunkey Stones:

G. (8) Cat. #'s 82955, 82958, 82959, 82960, 82961, 82964, 82968, 82970. Each of these is highly polished; raw materials are quartz, quartzite, and basalt. (Plate 23)

Spatulate Celts:

H. Cat. #82979 (Plate 24, right), 10.7 cm wide, 13.9 cm tall, base 6.3 cm tall by 5.3 cm wide. Described in NMNH catalog as "Stone hoe."

Ceramics:

I. Cat. #82978 (Plate 63:top-left), straight-sided cup; scraped or simple stamped but has plaster reconstruction obscuring it; 6.3 in. tall, 9.2 in. wide at mouth, flat bottom 4.0 in.

J. Miscellaneous potsherds, Cat. #82904 (Plate 64:a, b)

1 small jar w/ constricted neck-burnished exterior surface
1 small carinated vessel with 2 lines Burke Incised plus punctations just above shoulder.

K. Miscellaneous potsherds Cat. #82894 (Plate 64:c-r)

162 soapstone-tempered, Burke
3 sand tempered, late
5 grit tempered cord and fabric, probably Early Woodland
1 soapstone-tempered, Pisgah collar

J. Miscellaneous sherds, Cat. #82881:

23 soapstone-tempered Burke sherds (most plain & burnished- 4 Burke Incised)
7 grit/crushed quartz - fabric and cord marked, early Woodland
4 sand tempered, late
1 soapstone temp. Dan River Net-impressed, scraped interior.

There was one lot of ceramics listed in the catalogue for the Nelson Mound that I apparently did not see. I examined a total of 208 potsherds. Of this total, 187 (89.9%) are Burke sherds, seven (7; 3.4%) are sand tempered plain or burnished sherds that are probably Cowans Ford sherds, two (2, 0.9%) are Pisgah and Dan River sherds, and 12 (5.8%) are grit or quartz tempered fabric and cord marked Woodland Period sherds.

FORT DEFIANCE, LENOIR INDIAN BURIAL PLACE

Ceramic vessels:

A. #83200 (Plate 29:top), constricted neck jar with two strap handles; inverted "u" shaped notched applique on shoulder/neck; soapstone-tempered; curvilinear complicated stamped, perhaps "figure 9", lands 1-1.5mm, grooves 2mm; flattened lip, flared out with tiny circular punctations on bottom outside edge of lip; 12 inches tall, 14 inches diameter.

B. #83182 (Plate 30:top); bowl with separate elements Burke incised (?), slightly inslanting; burnished exterior and interior; soapstone temper; 13.5 in. tall, 16.5 in. wide at lip, 18.5 in. wide at shoulder.

C. #83199 (Plate 29:bottom); constricted neck jar; flat bottom (missing); soapstone-tempered; large concentric circles (element 7 cm); lands 2 mm, grooves 3 mm); rim is thickened applique with punctations at lower edge of applique. 13.3 in. tall, 18 in. wide at lip, 14 in. wide at neck, 16.5 in. wide at shoulder, 8.5 in. base to shoulder.

D. #83183 (Plate 31:top): Constricted neck jar; burnished over complicated stamped exterior, burnished interior; cob-marked neck; soapstone-tempered, flat bottom; 9.5 in. tall, diameter at mouth-10.5 in., diameter at neck -9.5 in., diameter at shoulder-10.8 in., base to shoulder 6.5 in., 4 in. at base.

E. #83184 (Plate 31:bottom): constricted neck jar; cob impressed with fine vertical over-stamping in neck but diagonally and cleanly impressed on body; flat lip; 12 in. tall, 11 in. diameter at neck, 12.8 in diameter at mouth, 13.2 in diameter at shoulder, base to shoulder – 8 in.

F. #83185 (Plate 63, bottom left): constricted neck jar; large, sloppy, curvilinear complicated stamped- cannot determine design; lands and grooves 3.5mm each.

G. #83186 (Plate 30:bottom): low bowl, probably sand tempered (plaster effects), two opposite side appendages are missing; burnished exterior and interior; 9.5 cm tall; 20 cm wide at mouth.

Shell Masks:

H. #83179 (Plate 32, 33:right), both masks are somewhat deteriorated; each has two eyes perforated, may have been weeping-eyes.

Shell Gorgets:

I. Gorget #83172 (Plate 27:b), Citico style.

J. Gorget #83173 (Plate 27:c) Citico style

K. gorget #83171 (Plate 28:c), probably Citico style

L. Gorget #83174 (Plate 22:c), Citico style, 13.0 wide, 11.0 tall

M. Gorget #83170 (Plate 65, left), 4.2 x 3.7

N. Gorget #83169 (Plate 65, right), 5.8 x 4.8

Iron implement:

O. #83191 (Plate 21 bottom) "Iron Wedge", 6.5 cm long top, 6.) cm long bottom, base 2.5 cm, midsection 3.5 cm, bit 3.4 cm, thickness .5 base, .9 midsection, tapers to edge; heavily pocked (not from rust). This appears to be nearly identical to the celt illustrated for the Triangle but there is no mention of it in the report.

Pipes:

P. #83050 (Plate 66), chlorite.

Q. #83040 (Plate 68:b)

LENOIR MOUND (probably the Broyhill-Dillard Mound site)

Pipes

A. #82835 (Plate 67:top), chlorite
B. #82836 (Plate 67: bottom), chlorite
C. #82837 (Plate 67 middle), soapstone

W. DAVENPORT JONES MOUND

Ceramic vessels:

A. #83208 (Plate 63:top, middle): straight-sided cup; roughly burnished; soapstone-tempered; 6.2 in. tall, 8.8 in. wide at mouth, 3 in. wide flat base.

B. #83009 (Plate 26:bottom): Bowl with single effigy on rim (effigy nose broken, perhaps bear?) burnished exterior and interior, flat base, slightly inslanted with high shoulders; fine soapstone temper; 9.5 in. tall, 16.7 in. wide at mouth, base to shoulder 8.3 in., 7 in. wide at base.

C. #83201 (Plate 26:top): carinated vessel, 4 line Burke incised (1.5 mm), burnished exterior and interior with fine to medium soapstone temper; shoulder to lip 3 cm.

D. #83216: sherd from flat bottomed jar 9.5 in. tall, approximately 10-11 in. diameter at mouth; plain exterior and interior.

E. #83007 (Plate 25:bottom): Constricted neck jar, flat bottom; notched applique strip with collar effect, flattened lip; plaster reconstruction over portions) temper is soapstone or sand; burnished exterior and interior; 11 cm tall, 11.5 neck, 15.2 mouth, 12.4 shoulder, base to shoulder 7.

F. #83008 (Plate 25:top): small constricted neck jar, flat base; curvilinear complicated stamped (lands 2 mm, grooves 2 mm); flared flattened lip with punctation along lower outside edge; 12.5 cm tall; 12.8 cm wide at mouth, 10 cm wide at neck 13 cm wide at shoulder.

G. #83211 Miscellaneous sherds (Plates 69, 70)

37 soapstone-tempered mostly plain or burnished carinated fragments
3 coarse grit-tempered, flat bottomed, "roughened" exterior surface; slightly flaring jar; brushed/scraped interior.
2 sand/grit tempered plain?

H. #83212: 2 sherds: 1 body sherd, soapstone-tempered, smoothed over complicated stamped; I rim and body, cazuela form with strong shoulder break, large chunks of soapstone temper.

I. # 83213 Miscellaneous sherds.

121 soapstone-tempered
1 soapstone-tempered knotted-net (fine) thick 10-12 mm
1 sand-tempered complicated stamped, maybe filfot design.

J. #83214: flat vessel bottom, burnished interior, smoothed over complicated stamped exterior, soapstone-tempered

Jones Mound potsherds totaled 168 of which 162 (96.4%) are Burke sherds, one (1; 0.6%) is a Dan River-like sherd, and five (2.9%) are sand or grit tempered (not typed).

Celts:

K #83056 (Plate 71), 24.8 cm long, 2.2 cm thick, bit edge - 6.8 cm wide, base – 3.3 cm wide; possible ochre stains.

Spatulate celts:

L. #83010: (Plate 24, left), 10.8 cm wide blade, 14.7 cm tall total, base 5.5 cm wide and 5.3 cm tall. Described in NMNH catalog as "stone ornament."

M. #83100: (Plate 24, middle), 12 cm wide blade, 14 cm tall total, base 7 cm wide and 5 cm tall. Described in NMNH catalog as "stone ornament, gorget."

Shell gorgets:

N. #83166 (Plate 27:a), possible Citico style or variant.

O. #83163 (Plate 28:a), possible Citico style or variant

P. #83164 (Plate 28:b), possible Citico style or variant

Q. #83165 (Plate 28:d), Citico style

NO PROVENIENCE: The following are unprovenienced either through a missing Catalogue number or a Catalogue number that does not appear in the catalogue.

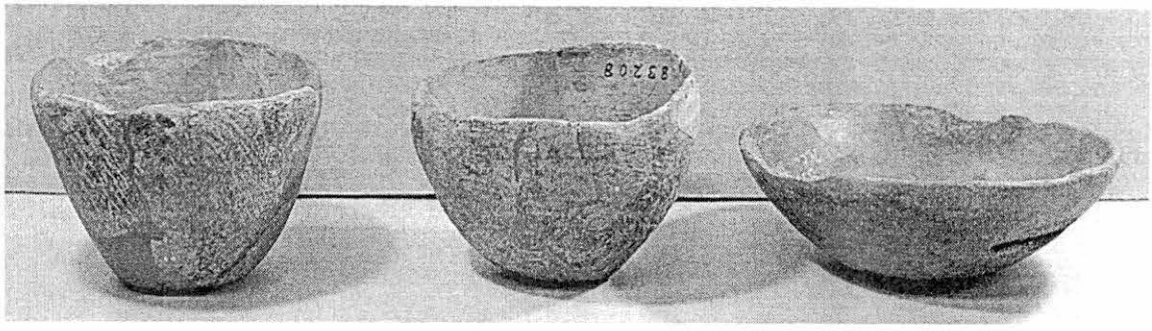
A. #83198, constricted neck jar (Plate 63: bottom middle); burnished interior and exterior; soapstone-tempered, flared rim with notched lip; 7.0 in.tall, 7.2 in. wide at mouth, 6.3 in. wide at neck, 7.5 in. wide at shoulder, base to shoulder- 4.3 in.

B. constricted neck jar (Plate 63:bottom right), burnished with strap handles, sand tempered; 7.0 in. tall, 7.0 in. wide at mouth, 5.5 in. wide at neck, 8.2 in wide at shoulder, base to shoulder -3.0 in.

C. open mouth bowl (Plate 63:top, right); burnished interior and exterior; 4.5 in tall, 11.8 in.diameter at mouth, flat base 5 in. wide.

D. Catalog # 82873; miniature cazuela, 6 in. diameter, 3 in. tall, burnished surface completely covered with evenly space hollow implement punctations 4-5mm wide, 2 perforations on either side of base, soapstone-tempered.

E. Catalog # 61150 Caldwell County, Spainhour from Dr. H.C. Yarrow?, small constricted neck pot with strap handle, 10 in. tall, 12.5 in. diameter, limestone temper?



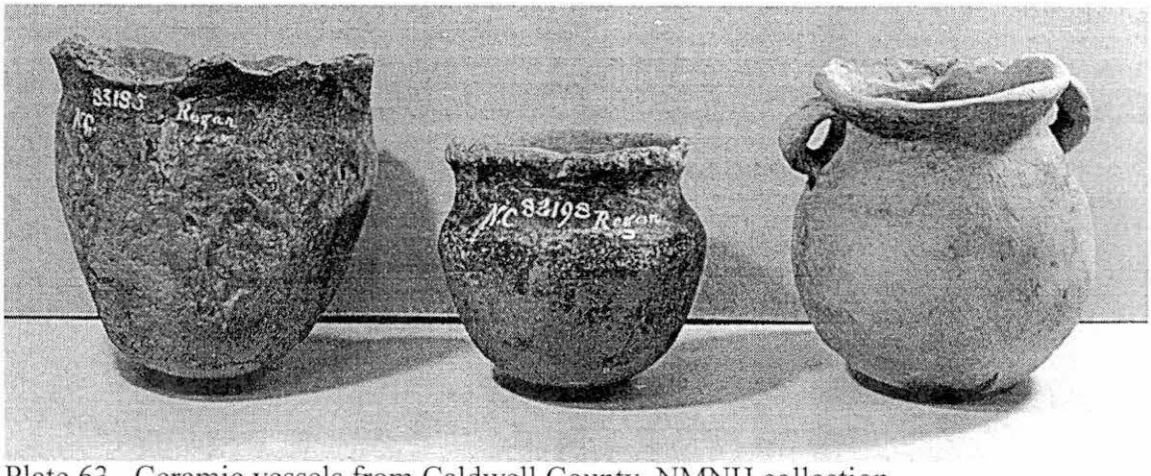


Plate 63. Ceramic vessels from Caldwell County, NMNH collection.

Top Left: Catalog #82978, Nelson Mound. Top Middle: Catalog #83208, W. Davenport Jones Mound. Top Right: no provenience. Bottom Left: #83185, Fort Defiance/Lenoir Indian Burial Place. Bottom Middle: #83198, no provenience Bottom Right: no provenience

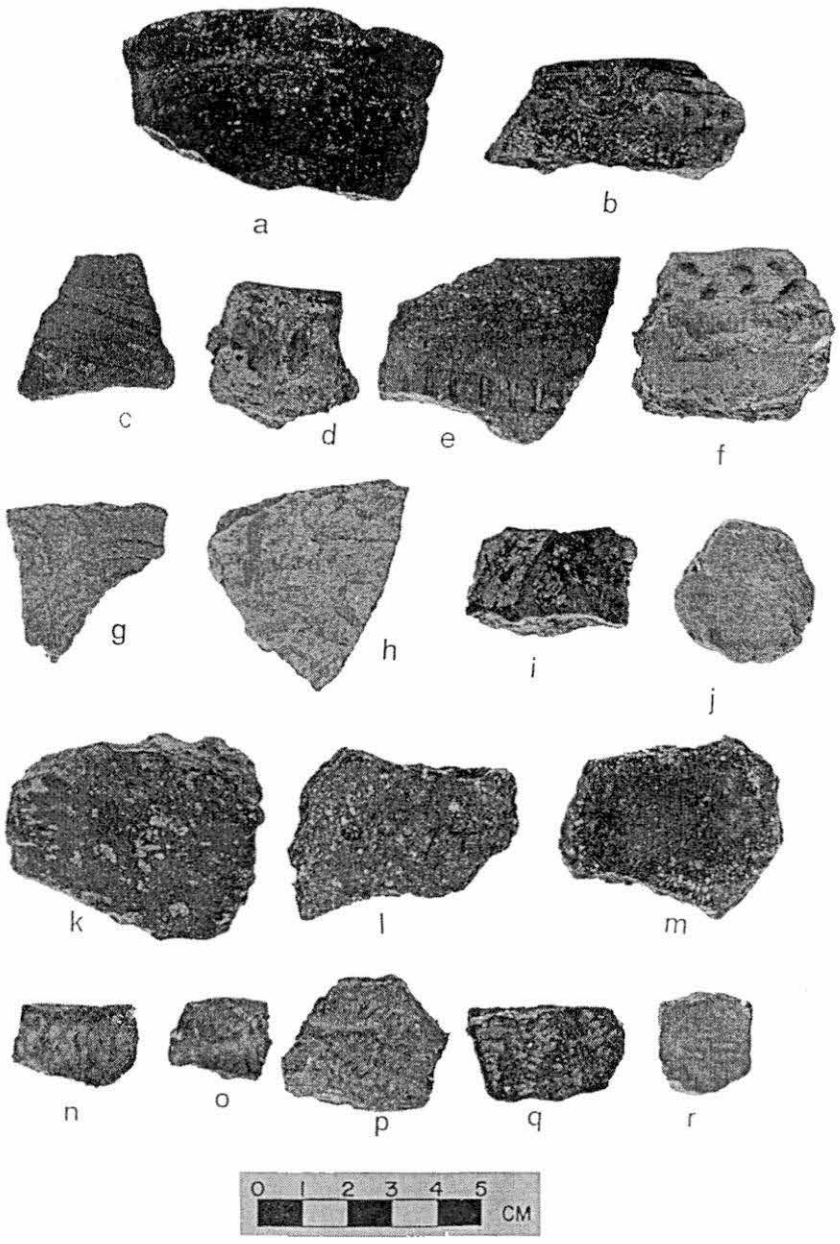


Plate 64. Potsherds from the Nelson Mound, NMNH collection.

All sherds are soapstone tempered except (g and n-q). a: small, burnished jar frag.with constricted neck. b: small Burke Incised carinated vessel. c: Burke Incised rim. d: thickened rim with punctations. e: Burke Burnished carinated vessel fragment with notches on shoulder. f: Pisgah thickened collar with punctations. g-j: Burke curvilinear complicated stamped. k-m: interiors of Burke sherds showing soapstone temper. n-q: Grit tempered, fabric impressed; probably Woodland period sherds. r: Grit tempered, cord-marked, probably Woodland period sherd.

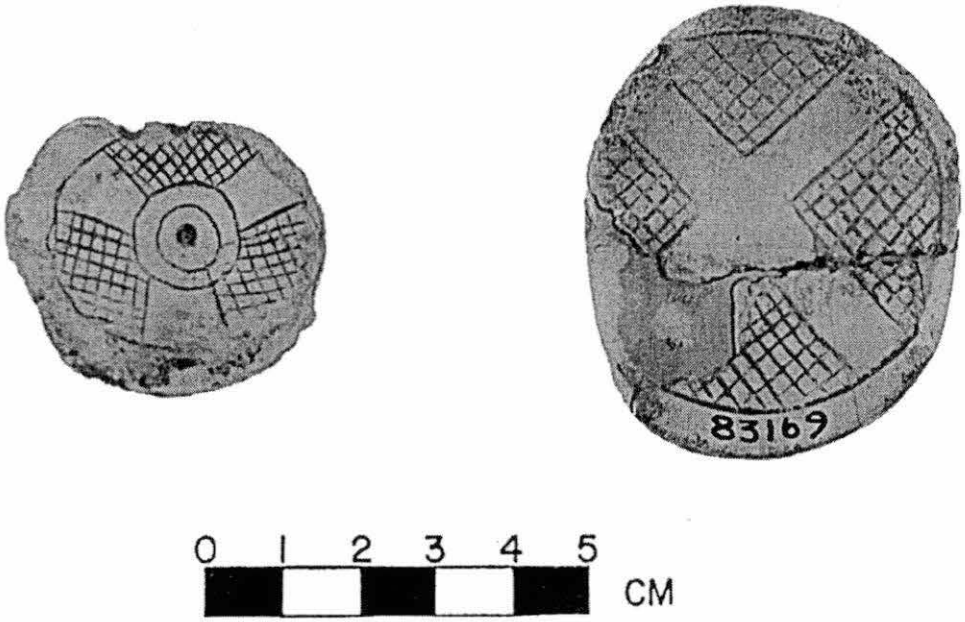


Plate 65. Shell gorgets from the Fort Defiance/Lenoir Indian Burial Place, NMNH collection.
Left: #83170. Right: #83169.

Plate 66. Stone and clay pipes from the NMNH collection.
a: #83050, Fort Defiance/Lenoir Indian Burial Place, chlorite
b: #83031, W. Davenport Jones Mound, chlorite
c: #82845, no provenience, soapstone
d: #83030, W. Davenport Jones Mound, clay
e: #83032, W. Davenport Jones Mound, chlorite

Plate 67. Stone pipes from the Lenoir Mound site, NMNH collection.
Top: #82835, chlorite. Middle: #82837, soapstone. Bottom #82836, chlorite.

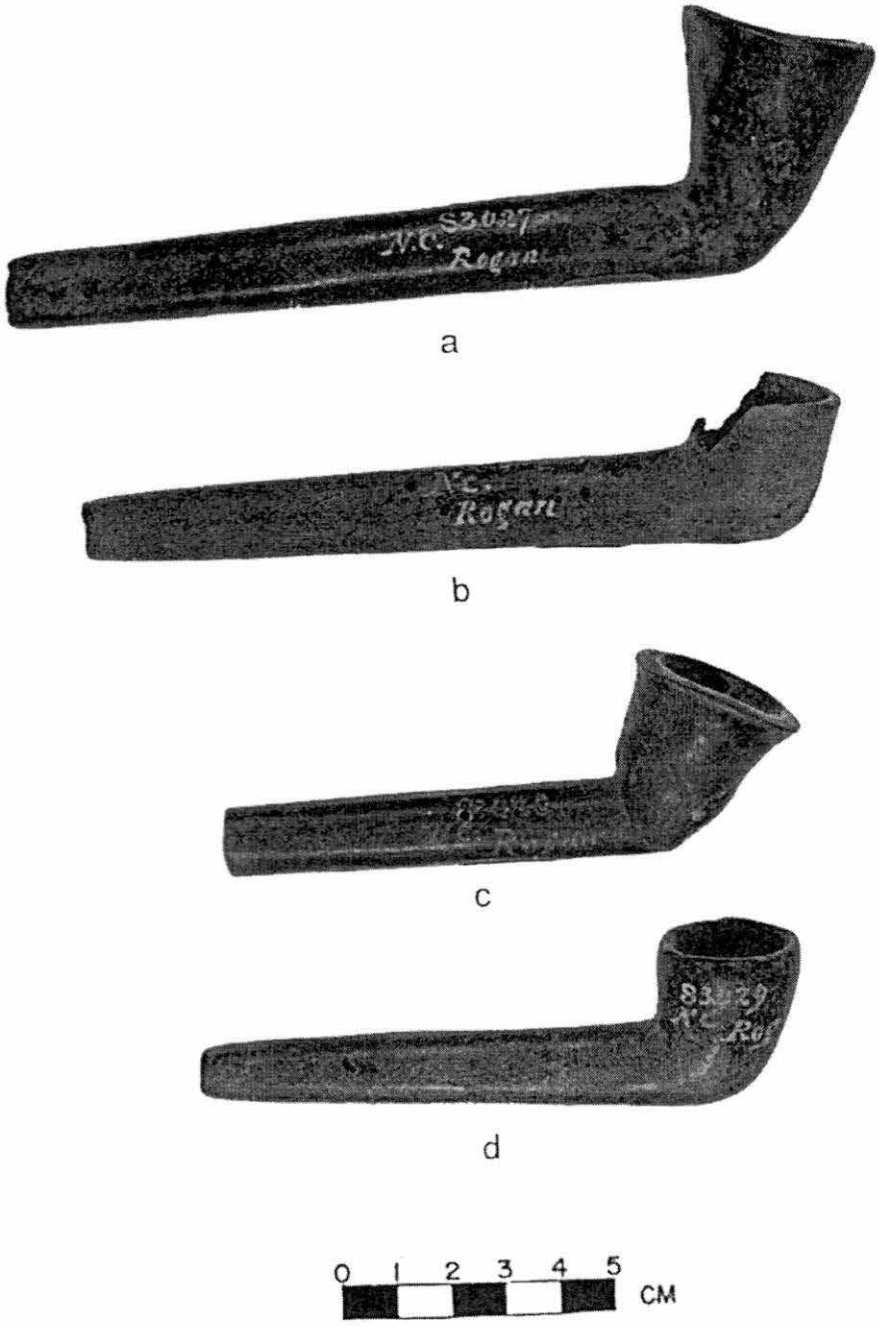


Plate 68. Stone and clay pipes from the NMNH collection.
a: #83027, W. Davenport Jones Mound. b: #83040, Fort Defiance/Lenoir Indian Burial Place. c: #83028, W. Davenport Jones Mound. d: #83029, W. Davenport Jones Mound.

Plate 69. Burke Incised potsherds from the W. Davenport Jones Mound, NMNH collection.

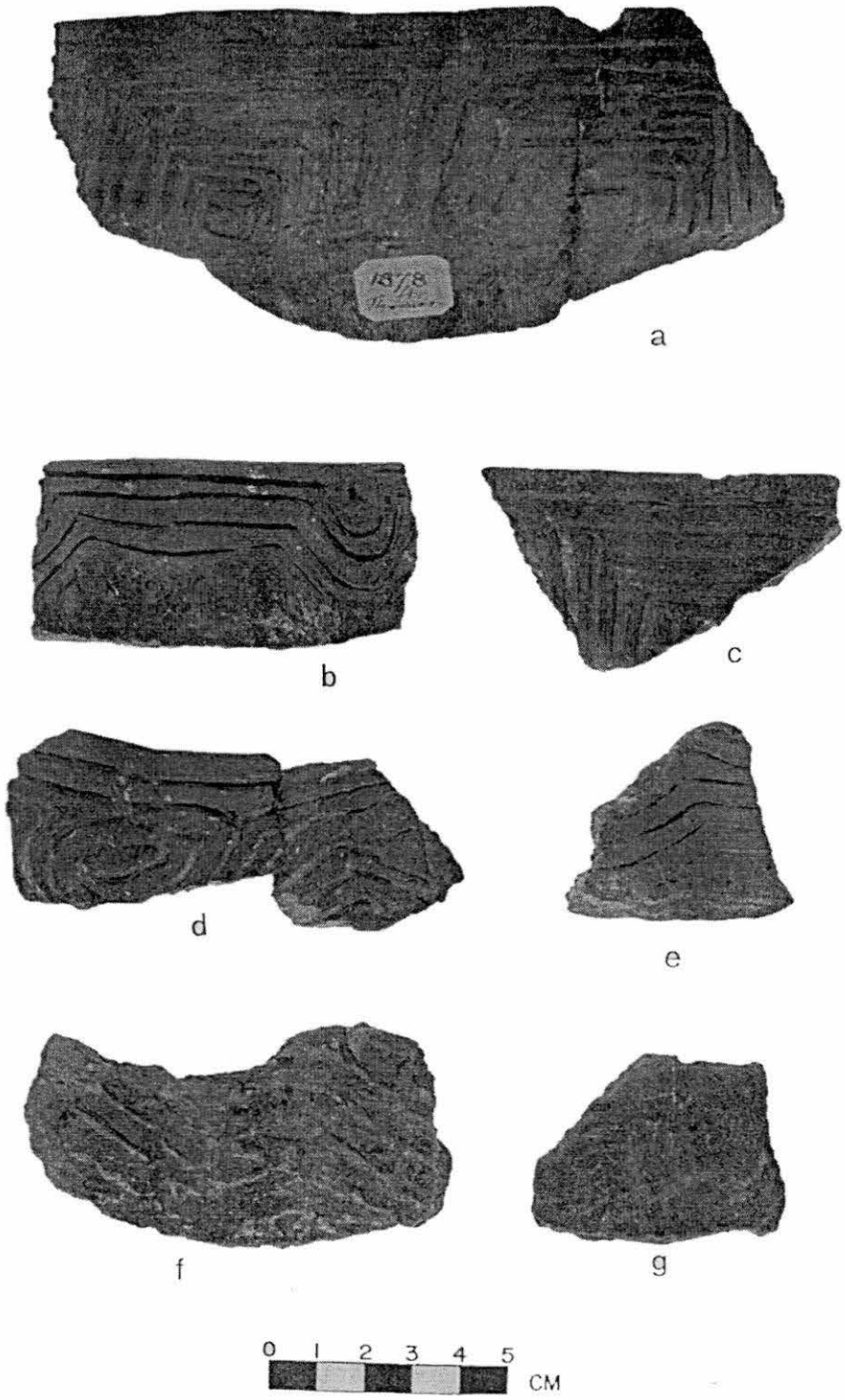


Plate 70. Burke Incised potsherds from the W. Davenport Jones Mound, NMNH collection.

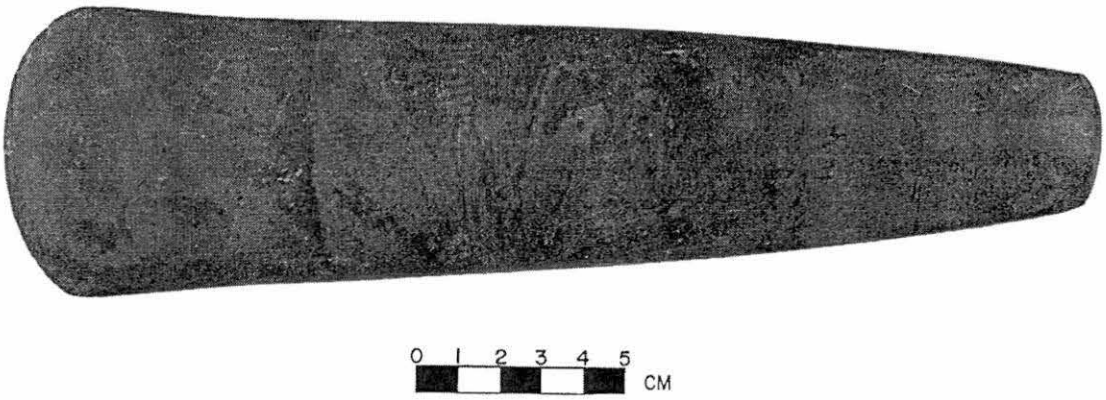


Plate 71. Stone celt from the W. Davenport Jones Mound, NMNH collection

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