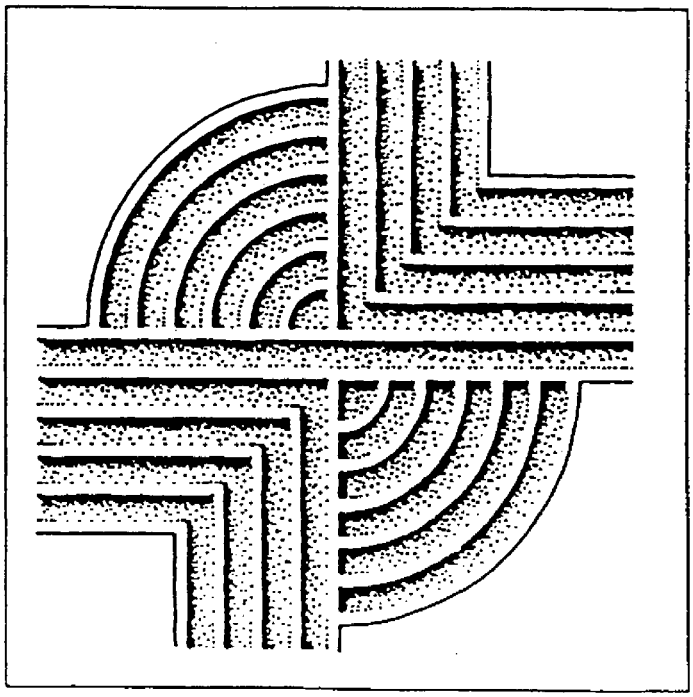
ARCHAEOLOGICAL TESTING OF 31MA77, PROPOSED MACON COUNTY AIRPORT EXPANSION, FRANKLIN, NORTH CAROLINA



CHICORA RESEARCH CONTRIBUTION 312

ARCHAEOLOGICAL TESTING OF 31MA77, PROPOSED MACON COUNTY AIRPORT EXPANSION, FRANKLIN, NORTH CAROLINA

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ABSTRACT

In March 2000 Chicora Foundation archaeologists conducted an intensive archaeological survey of the proposed Macon County airport expansion. That work revealed that virtually all of the field to the west of the small Iotla Branch contained remains attributable to 31MA77. This site, based on the range of materials recovered, site size, depth of the plowzone (which may provide protection to underlying features), inability to identify the subsoil in multiple tests, and associated historic connections, was recommended potentially eligible for inclusion on the National Register of Historic Places.

The N.C. Office of State Archaeology (NC SHPO) concurred with this finding and recommended a program of mechanical site stripping in order to evaluate the density and distribution of features at 31MA77. The site was divided into two broad zones with about 7 acres considered low probability because of steep slopes and eroded soils and 13 acres considered high probability because of more level topography and a lack of erosion (or possibly deposition). The low probability area was to be sampled at 2%, while the high probability area was to be sampled at 8%.

This study reports on that testing program. A series of 80 trenches, incorporating 52,680 square feet, were opened during the four weeks of field investigation. This included 6,197 square feet in the portion of the site identified as low probability, reflecting a 2.03% sample, and 46,483 square feet in what was identified as high probability, reflecting an 8.21% sample.

In the low probability area this work identified 71 postholes and one feature. Over a third of these postholes and the single feature were found in Trench 10, situated at the toe of the slope, in an area which might better be considered intermediate or high probability. Nevertheless, this suggests that potentially as many as 349 postholes and 49 features exist in the low probability area.

In the high probability area this work identified 1,498 postholes and 167 features. The mean number of postholes per trench is 20, although the standard deviation of 16 reflects the considerable variation between the trenches (the number of postholes ranges from 2 to 76). Regardless, it is possible that as many as 18,246 postholes and 2,034 features are present in the high probability portion of the site.

Of the 168 features identified in this work, four are known to represent burials with in situ human remains. All four were identified in the high probability site area and were accidentally uncovered during stripping operations. The identification of these four burials suggests that at least 48 burials are present at 31MA77. Since there are at least an additional 28 potential burials, the number of total inhumations at 31MA77 may be considerably higher, potentially numbering 390.

Artifacts identified during the stripping operations suggest that significant Connestee (A.D. 200-800) and Qualla (ca. A.D. 1450-1838) components are present, with smaller (and potentially insignificant) Archaic, Swannanoa, and Pisgah components.

This investigation revealed a wide variety of data sets, including a large number of well preserved features (including human burials), the presence of postholes (which are likely to reveal house patterns), and cultural remains including pottery, cut mica, stone tools, and at least one historic artifact. Moreover, the work reveals that these data sets are well preserved and distinct. There is limited evidence of faunal remains, but very good preservation of ethnobotanical remains. The sealed deposits may be especially important for the recovery of pollen and phytolith evidence.

As a result, we recommend the entire site as eligible for inclusion on the National Register of

Historic Places under Criteria D (ability to yield important information) at the state level of significance. In addition, the linkage between this site and the historic Cherokee village of Joree suggests that the site is also eligible under Criterion A (association with historic events or activities). It is worth noting that even if the site did not meet these clearly defined criteria, the property might still be eligible for inclusion on the National Register for its traditional religious and cultural importance to Native Americans.

The ideal solution remains avoidance of the site. This would likely necessitate abandonment of the proposed airport expansion project since there seem to be no feasible alternatives (i.e., sites of equal importance are known to exist at the opposite end of the runway, to the east).

If the project is of such significance that it must be conducted, then data recovery is the only alternative. This data recovery will involve not only 36 CFR Part 800, which outlines procedures for compliance with the National Historic Preservation Act, but also with North Carolina's "Unmarked Human Burial and Human Skeletal Remains Protection Act" (NC Article 3, Section 70-29).

This report contains a recommended data recovery plan for the site.

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I want to thank Mr. Tom Covington, Ms. Nicole Southerland, and Mr. Jack Aube who ably and carefully conducted the field investigations. The maps were prepared by Ms. Debi Hacker and her constant skill and patience is always appreciated. In addition, we appreciate the assistance of everyone at Appalachian Construction. In particular we need to thank Mr. Jake Henderson for his care and skill in equipment operation. I also appreciate the assistance of everyone with Macon County; our requests were often out of the ordinary, but they did everything possible to assist us in our work.

A number of professional colleagues have also given of their time to provide assistance in the completion of this study. In particular Dr. David Moore (Warren Wilson College), Mr. Tom Padgett (NC DOT), Dr. Paul Webb (TCR Garrow), Mr. Ken Robinson, and Dr. David Weaver (Wake Forest University) have generously given of their time and expertise. In particular, I appreciate the assistance of Dave Weaver in preparing the recovery and analysis plan for the human skeletal remains at 31MA77.

I also appreciate the professional and cordial assistance from Mr. James Bird and Mr. Brian Burgess of the Eastern Band of Cherokee Historic Preservation Office; Mr. Greg Richardson, Executive Director, NC Indian Affairs Commission; as well as other interested individuals, such as Mr. Bill Evans.

INTRODUCTION

Background

The Macon County Airport is situated about 3 miles northwest of the town of Franklin, North Carolina, and about 55 miles southwest of Asheville, North Carolina (Figure 1). The airport is reported to be one of the few landing strips capable of handling mid-sized private planes west of Asheville and this is promoting the need for expansion. The airport facility is situated in the middle of the Iotla Branch floodplain, surrounded by steep topography to the north and south (Figure 2).

In March 2000 Chicora Foundation was retained by W.K. Dickson to conduct a cultural resources study necessary for the expansion of the existing Macon County airport. The project will use federal funds and this survey was conducted to assist W.K. Dickson and Macon County comply with the provisions of the National Historic Preservation Act. The work would involve extending the existing concrete runway and taxiway from the existing facilities 600 feet to the west, along with relocation of utilities and other associated construction issues (such as the filling in of the intervening Iotla Branch drainage). The work would also include grading and preparing of a safety area extending west off the runway for an additional 1,400 feet. The entire survey area, therefore, included approximately 26.6 acres. The investigation included examining the end of the existing runway at the western edge of the airport, as well as the agricultural field to the west, on the opposite side of a small run of Iotla Branch.

The survey was conducted using transects spaced at 50 feet on the east side of Iotla Branch, with shovel tests excavated at 50 foot intervals. On the west side of this branch an archaeological site, 31MA77, had been previously identified and the shovel testing used 100 foot transects with shovel tests every 100 feet. A total of 86 shovel tests were placed in the site area with the recovery of a broad range of Qualla, Pisgah, and Connestee remains.

The study found that the runway expansion would not affect any cultural resources on the east side of the branch. On the west side, however, site 31MA77 was found to be very large and potentially significant. The site was recommended potentially eligible for inclusion on the National Register of Historic Places, a determination with which the State Historic Preservation Office concurred.

A further testing plan was developed by Dr. David Moore, Western Field Office Archaeologist with the North Carolina Office of State Archaeology in Asheville. This plan, discussed in greater detail in a following section, specified that on the steep slopes of the site a 2% sample should be subjected to mechanical stripping, while in the more level site areas an 8% sample should be stripped. The goal of this work was to identify feature density and types. With additional input from W.K. Dickson on the actual limits of anticipated disturbance resulting from the expansion project were identified as extending further to the north than initially anticipated, but not taking in the entire field to the west. About 20 acres were expected to be involved in the project.

The plan for additional testing was completed by Dr. Moore and submitted to Chicora on July 20, 2000. We, in turn, provided our testing proposal to W.K. Dickson on July 24 and an agreement was approved by W.K. Dickson on September 8, 2000. A copy of the testing scope of work and our proposal was provided to Mr. James Bird, Cherokee THPO on October 5. The field investigations began on October 15 and were completed on November 9, with a total of 594.5 person hours being devoted to the field investigations. An additional 42 person hours were devoted to field notes and associated management activities.

As required by the scope of work, a letter

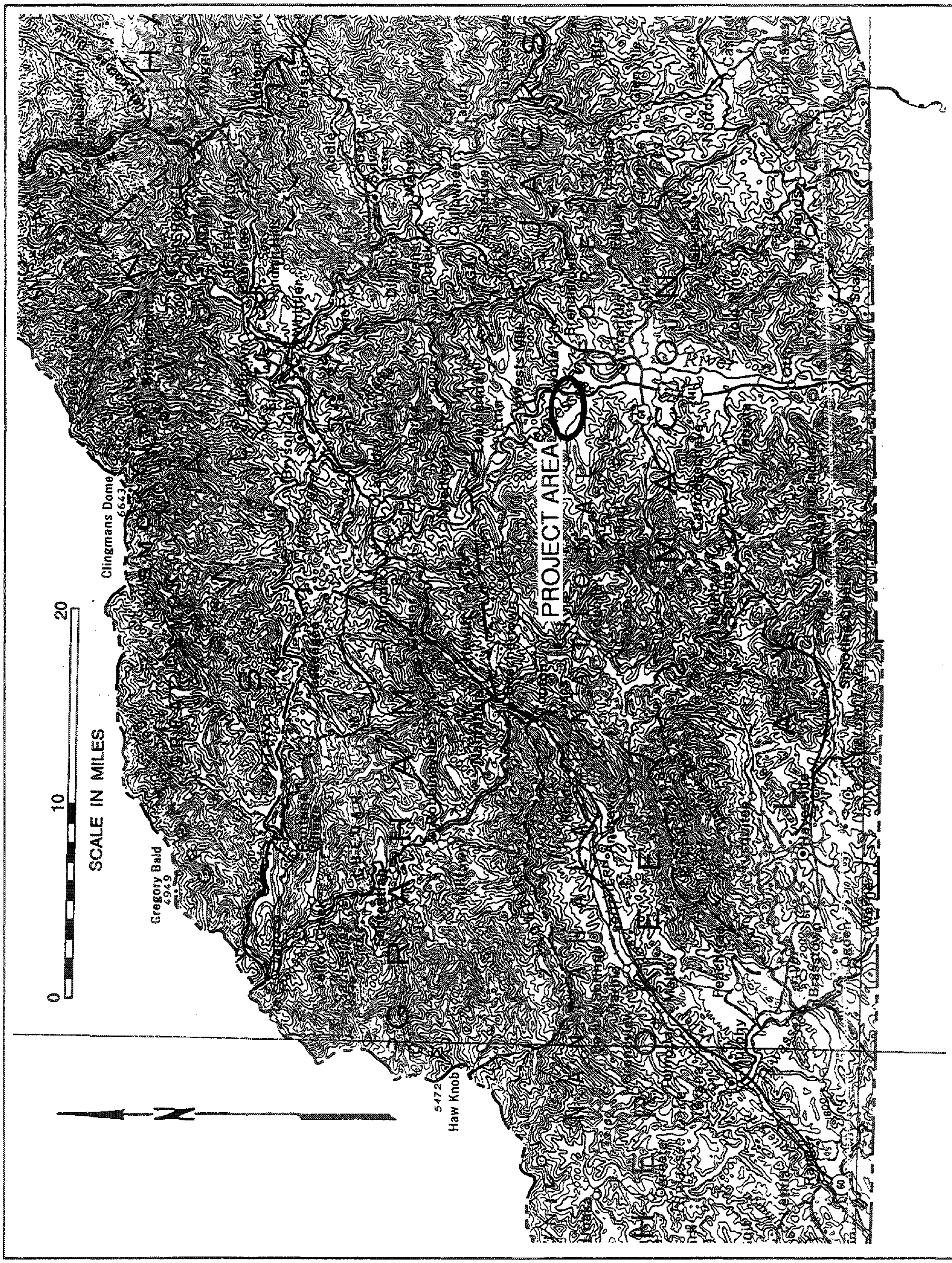

Figure 1. Vicinity of the Macon County Airport (base map is USGS State of North Carolina 1:500,000).

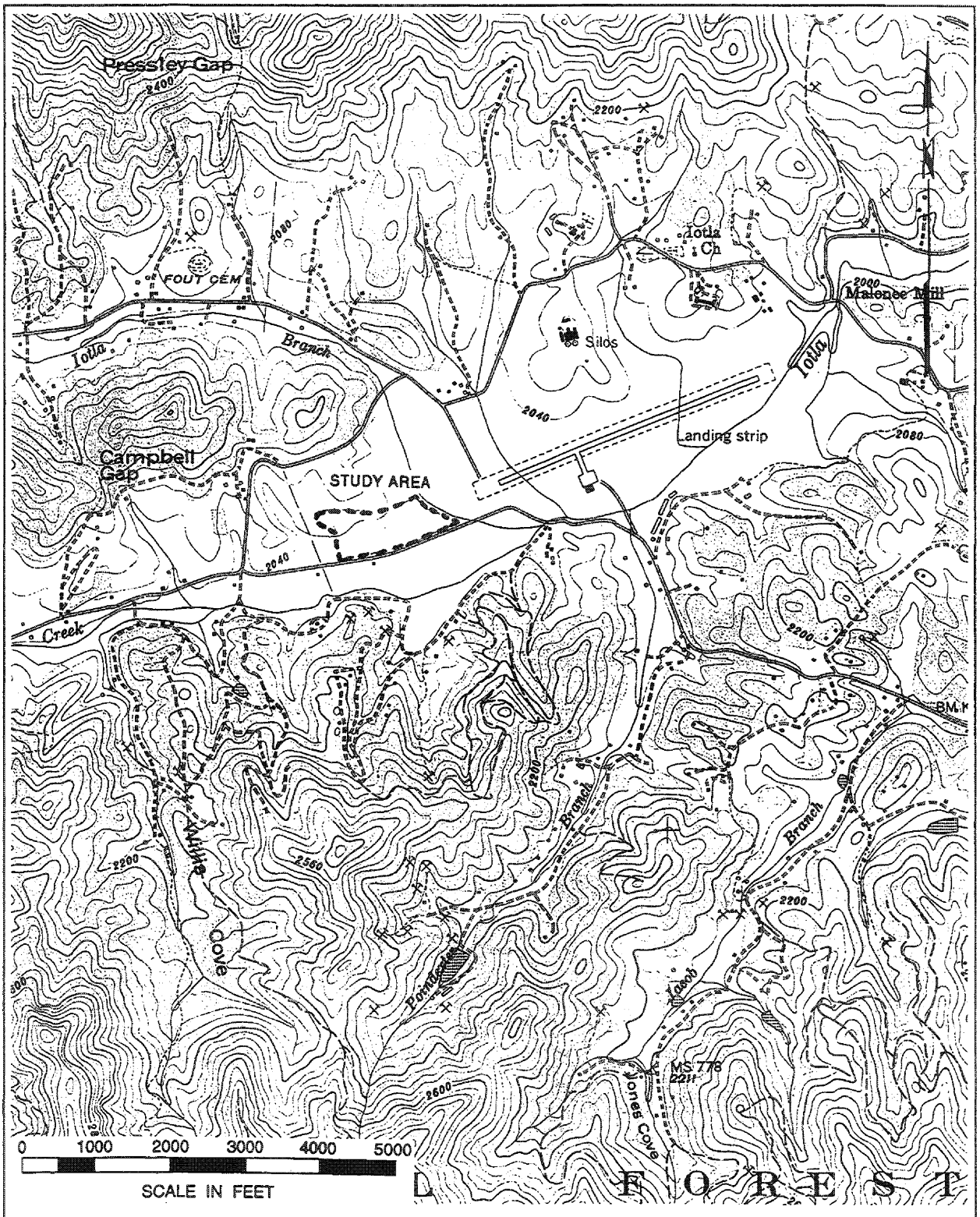

Figure 2. Project area of the Macon County Airport expansion (basemap is USGS Franklin 1:24,000).

management summary was submitted by Chicora Foundation to W.K. Dickson on November 14, 2000. This letter was forwarded by W.K. Dickson to Mr. Richard W. Barkes, NC DOT, Division of Aviation, who is the FAA designee as lead agency official for this project. In addition, copies of this management summary were provided to the State Archaeologist, Mr. Steve Claggett; the Cherokee Tribal Historic Preservation Officer, Mr. James Bird; as well as Macon County and other interested parties.

Goals

The primary goal of this study was to identify density and distribution of archaeological features associated with 31MA77. This information is intended to resolve the site's eligibility for inclusion on the National Register of Historic Places. Of course, Chicora Foundation provides only an opinion of National Register eligibility and the final determination is made by the lead agency (in this case the NC DOT, Division of Aviation) in consultation with the State Historic Preservation Officer (SHPO).

This information fulfills the initial requirements 36 CFR Part 800, allowing historic properties to be identified and permitting a more thorough evaluation of the properties' historic significance. Moreover, it will allow the lead agency and the State Historic Preservation Office, in consultation with the Cherokee THPO, to apply the criteria of adverse effect and initiate a process to resolve those effects, assuming that the project is not abandoned or that an alternative is not identified which allows the identified site to be green spaced (preserved in place). In addition, the resulting information allows the development of a data recovery plan, should such a plan be necessary through a finding of adverse effect.

In more simple terms, this study helps identify the significance of archaeological site 31MA77 and provides a clearly defined basis for additional work that will be minimally necessary at the site.

This study also provides information on the site beyond the immediate construction footprint. This is important in terms of establishing construction staging areas and areas which might be appropriate for the reburial of any identified human skeletal remains which are removed from the site.

While the goals of this investigation were clearly defined to provide needed management assistance, the large area of the site exposed and plotted does address a variety of more scholarly research interests. For example, the distribution of remains on the site provides a speculative glimpse of intra-site patterning. The small collection of artifacts gathered during the mechanical stripping helps to better identify the cultural assemblages identified with the site. Even the very generalized information collected on the range of features and postholes observed provides some information on the types of structures present at the site. In other words, while the goals of the project were largely focused on helping W.K. Dickson and Macon County comply with federal historic preservation laws, the current project does make a small contribution to our understanding of Cherokee archaeology.

Curation

The collections from this project have been transferred to the North Carolina Office of State Archaeology for permanent curation, along with field notes and artifact catalogs resulting from this investigation. These materials are curated under the previously assigned accession number for 31MA77, 200281.

NATURAL ENVIRONMENT

Physiography

The project area, at the extreme southwestern edge of North Carolina, is located in Macon County. It is situated in the mountains west of the East Continental Divide (which separates water drainage west to the Mississippi River and east to the Atlantic Ocean). In the Appalachian Mountains the topography varies dramatically, from nearly level in the floodplains to nearly vertical on sheer rock cliffs. While there are over forty peaks exceeding an elevation of 6,000 feet above mean sea level (AMSL), the bulk of the Appalachian region has elevations ranging from about 2,000 to 5,000 feet AMSL.

Macon County exhibits this same range, with mountains, low rolling hills, floodplains, and low stream terraces. In Macon County the elevations range from about 1,800 feet AMSL where the Little Tennessee flows into Swain County in the north to 5,500 feet AMSL at the top of Standing Indian Mountain.

Macon County is bordered to the north by Swain and Graham counties, to the east by Jackson county, and to the west by Clay and Cherokee counties. To the south it is bordered by Rabon County, Georgia. Although a portion of the county's boundaries follow the Chattooga River to the southeast (a small part of the county west of the town of Highlands is in the Chattooga River watershed) and the Nantahala River to the west (which is part of the Little Tennessee River drainage), most of the borders consist of divides and other features.

The Blue Ridge Province consists of mountains that are the remnants of former highlands that antedate the lower peneplains on either side (Fenneman 1938). In geological terms they are classified as "subdued," indicating that their height and steepness are so far lost that only a relatively thin mantle of decayed rock remains over the underlying bedrock. Talus slopes and bare cliffs, while present, are rare. Summits are commonly rounded and true mountain peaks are infrequent. Compared to ranges such as the Rocky Mountains, the Blue Ridge is not high. Moreover, the climate in the area is far more humid and this has also helped to round the peaks.

Figure 3. View of the survey tract from the airport runway looking west.

Site 31MA77 is situated in an area called the Iotla Valley, a reference to the broad open floodplain of the Iotla Creek (into which Iotla Branch flows). Many also refer to areas such as this as coves — broad, generally oval-shaped valleys with smooth floors (see Keel 1976:4).

In the project area the elevations range from about 2,013 feet AMSL in the Iotla Branch floodplain to 2,062 feet AMSL in the northwest corner of the tract on top of the hill overlooking the floodplain. The topography remains relatively level through the central portion of the site area, but begins to slope gradually to the west and north in the northern third of the site. At the southern edge the topography begins to slope back up and this slight rise has been bisected by the construction of SR-1434. As a result, the vicinity of 31MA77 is almost bowl shaped, although the "rim" is far more pronounced on the north and west than it is to south.

Figure 3 provides an impression of the rolling topography in this area. Site 31MA77 is not situated in the floodplain, but on the first terrace above. If the surveys thus far conducted are accurate, it appears that virtually no settlements occur in the floodplain — they are all found on the upper terraces, just below the upper slopes of the mountains which define the valley or cove. This feature was briefly noted by Bartram, who observed that:

> These swelling hills the prolific beds on which the towering mountains repose, seem to have been the common situations of the towns of the ancients, as appears from the remaining ruins of them yet to be seen, and the level rich vale and meadows in front, their planting grounds (Bartram 1980 [1792]:344).

Geology and Soils

The rocks that make up the province include Precambrian granite and gneiss, while to the south there is also a thick layer of late Precambrian sedimentary rocks, consisting of poorly sorted siltstones, sandstones, and conglomerates (Hunt 1967). Elsewhere there are crystalline schists — metamorphic rocks created during the process of the mountain building. Much of the area is characterized by the presence of steep mountains cut by rivers and creeks with generally narrow valleys that are subject to flooding.

The geology of the region provides a wealth of raw materials useful to Native Americans. Quartz is common, either as low-quality weathered materials or higher-quality materials found in small outcrops. Chert is found to the west in the Ridge and Valley area of eastern Tennessee. This was recognized years ago as one of the favorite sources of raw materials for the Cherokee and other native groups in the area (see Keel 1976:5).

The immediate area is characterized by three broad soil associations. The Roseman-Reddies-Toxaway Association consists of nearly level, well drained to very poorly drained soils that are formed in alluvium and found on the floodplains. The Hayesville-Braddock Association, found on gently sloping to moderately steep areas, consists of predominately clayey soils which have formed from weathered metamorphic rock. This association is typically found on the low, rolling hills above the floodplains. Surrounding the area is the Evard-Cowee-Saunook Association. This association consists of loamy soils which formed in material weathered from metamorphic rock or from colluvium. The soils are found most commonly in the low mountains (Thomas 1996:7-10).

Thomas (1996) identified three soils in the project area west of Iotla Branch. There is a narrow band of Toxaway loam, a soil commonly noted as flooded, along the floodplain of the creek. The surface layer, typically up to 1.2 foot in depth, consists of dark brown (7.5YR3/2) loam overlying an additional 1.8 feet of black (7.5YR2.5/1) loam. Below this is a dark gray (7.5YR4/1) loam. Much of this profile exhibits the reduction typical of wet, or frequently flooded, soils (Thomas 1996:59, 122).

Away from the floodplain there is a broad expanse of Dillsboro loam. These soils are found on gently sloping, very deep, well drained stream terraces. The soils exhibit an Ap horizon of dark brown (7.5YR3/2) loam over a subsoil of strong brown

(7.5YR5/6) clay loam which grades into a strong brown clay. Included in this mapping class are small areas of Braddock soils. Generally found on small knolls — such as are found in the study tract — these have an eroded surface layer of clay loam and a subsoil that is redder than found in the Dillsboro Series (Thomas 1996:59).

Upslope are found Hayesville clay loams with an 8 to 15% slope. These soils are found on moderately broad ridges and have an Ap horizon 0.5 foot in depth of reddish-brown (5YR4/4) clay loam over a subsoil of red (10R5/8) clay. There is also a very small area of Hayesville clay loam with 15 to 30% slopes. On these soils the surface profile is thinner because of erosion, but the underlaying subsoil is identical (Thomas 1996:86-87).

In spite of the exceptional slopes found in the region, Lee (1934) notes that there is little erosion in the more rugged areas of Macon County. In the agricultural lands around Franklin, however, he noted that there was severe sheet erosion and in the Iotla Valley area, he plotted "severe sheet erosion frequent gullies," a clear indication that depression-era agriculture was taking a terrible toll on the region's land resources. Today some evidence can still be seen of this — soils on the upper slopes of the tract's northwestern corner exhibit such severe sheet erosion that the red clay subsoil is exposed and cultivation is simply tilling clay. As revealed by this study, cultivation on the slopes and ridge crests has had a significant impact on archaeological resources in the area. Not only do some site areas exhibit extensive soil loss, but others have been buried under one or more feet of recent erosional deposits.

In fact Gade and Stillwell suggest that erosion continues to be a significant issue for the mountains, where the erosion rate is higher than the state average of 7.58 tons per acre per year. They note that this region is at particular risk because of the steep slopes, heavy rainfall, and concentrated fluvial action (Gade and Stillwell 1986:221). This tells only part of the story since all of these conditions have historically been present. The problem, it seems, is related to the decreased vegetative cover which has come to characterize farming (and development practices) in the mid- to late twentieth century.

Climate

The North Carolina mountains are not only cooler than elsewhere in the state, giving the region a climate similar to coastal Washington and Oregon, but (until very recently) they result in increased precipitation because of their orographic influence. In other words, the warm, moist air masses moving in from the west (and from the south) will cool and condense water vapor as they rise over the mountains. The resulting cloud cover usually results in either dense rainfall, or snowfall. Once over the mountains, the air warms rapidly as it descends and causes drier conditions elsewhere in the state.

This effect can be seen locally, as well. For example, the average annual rainfall in the Franklin area, with an elevation of 2,600 feet AMSL, is about 52 inches. In Highlands, where the elevation is 4,100 feet AMSL, the rainfall is about 85 inches a year (Thomas 1996:3). Similar variations occur in temperature, snowfall, freeze dates, and of course, the length of the growing season.

The 52 inches of rainfall in the project area are spread over the year, with about half, or 26 inches, occurring from April through September, the growing season for most crops. In one out of every five years the rainfall drops below 22 inches. Since corn requires at least 20 inches of rainfall distributed throughout the growing season (Wann1977:183), the Franklin area is at the edge of "safe" cultivation, particularly for Native Americans, and holds the potential for greatly reduced crop yields and even crop failure. The area has recently seen a severe drought, with dramatically reduced levels of growing season precipitation.

In winter the average temperature is 39°F and in the summer the average is 85°F. The humidity averages about 60%, resulting in moderately comfortable conditions in the summer, but a feeling of cold damp in the winter.

Snowfall in the Franklin area averages about 8 inches during the winter. It is also during the winter when the prevailing winds, from the north, are the strongest, averaging about 10 miles per hour.

Floristics

Watson voices the observation that most historians have noticed — frequently the one characteristic which drew the attention of visitors, traders, or explorers, was the vegetation. He comments that these early travelers all agreed on one subject — that trees were everywhere, "everywhere there were woods — dark, forbidding, and dense" (Watson 1983: 5). This was echoed in Bartram's comment as his guide, Mr. Galahan, left him in the midst of the Jore Mountains, "I was left again wandering along in the dreary mountains, not entirely pathless, nor in my present situation entirely agreeable" (Bartram 1980 [1792]:358).

The natural vegetation of the project area is classified by Braun (1950) as the Southern Appalachians of the Oak-Chestnut Forest Region. Here, too, there is tremendous variation, depending on elevation. Braun notes that because of the diversity in topography and range in altitude, there "are great differences in forest vegetation" (Braun 1950:196). She observes that many classify the vegetation into three distinct categories: moist slope and cove, dry slope and ridge, and spruce forests. Barry (1980) recognizes this diversity and proposes a range of vegetative types, including riverbanks and alder zones, floodplain forests, mixed mesophytic forests - cove segregates, mixed mesophytic forests - slope segregates, ridgetops and upland oak forests, pine forests, and rock communities.

On the steep south-facing gaps, there is often a deciduous forest of beech, yellow birch, and sugar maple, known as "northern hardwoods" and this frequently replaces the spruce-fir forest which is more sensitive to wind stress. Deciduous forests, however, are best developed in the lower elevations where conditions promote large, dense growth. Cove forests, in contrast, contain a variety of plants, including tulip poplar, yellow buckeye, hemlock, white pine, beech, birch, and maple. On the drier, south-facing slopes there are oaks, which have replaced the American chestnuts (these covered up to 80% of the area prior to the introduction of the blight in the 1920s).

It was out of this exceedingly rich and diverse flora that the Cherokee developed a wide variety of medicinal plants. Mooney (1891:324-327) identified at least 20 plants. Bass (1977) has suggested that it was the cove hardwood associations or mixed mesophytic forests - cove segregates that offered the most medicinal and edible wild plants to the Cherokee.

The flora of the project area today bears little resemblance to that which might have been present even 500 years ago. The bottomlands are entirely cleared, and much of the upland has been converted into pasture. As Webb and Keith (1998:10) observe, this process of alteration began shortly after the American Revolution, but there is today increased pressure resulting from economic development. Macon County, for example, shows the largest number of recreational home lots in the region, and newcomers accounted for 94% of the growth in the late twentieth century (Gade and Stillwell 1986:219).

In the floodplain of Iotla Branch between the airport to the east and the cultivated fields to the west there is but a fringe vegetation of trees, with much of the area covered in brambles and other brush. Upslope from the cultivated fields in the western portion of the tract there is a large pasture, while to the south, the floodplain of Iotla Creek has been cleared and is also planted.

PREHISTORIC AND HISTORIC BACKGROUND

Prehistoric Overview

Overviews for North Carolina's prehistory, while of differing lengths and complexity, are available in virtually every compliance report prepared. There are, in addition, some "classic" sources well worth attention, such as Joffre Coe's *Formative Cultures* (Coe 1964), as well as some new general overviews (such as Mathis and Crow 1983 and more recently Ward and Davis 1999). There are also a number of theses and dissertations prepared exploring the Cherokee region. Only a few of the many sources are included in this study, but they should be adequate to give the reader a "feel" for the area and help establish a context for the various sites identified in the study areas. For those desiring a more general synthesis, perhaps the most readable and well balanced is that offered by Judith Bense (1994), *Archaeology of the Southeastern United States: Paleoindian to World War I.* Figure 4 offers a generalized view of North Carolina's cultural periods.

Paleoindian Period

The Paleoindian Period, most commonly dated from about 12,000 to 10,000 B.P., is evidenced by basally thinned, side-notched projectile points; fluted, lanceolate projectile points; side scrapers; end scrapers; and drills (Coe 1964; Williams 1965). Oliver (1981, 1985) has proposed to extend the Paleoindian dating in the North Carolina Piedmont to perhaps as early as 14,000 B.P., incorporating the Hardaway Side-Notched and Palmer Corner-Notched types, usually accepted as Early Archaic, as representatives of the terminal phase. This view, verbally suggested by Coe for a number of years, has considerable technological appeal.[1] Oliver suggests a continuity from the Hardaway Blade through the Hardaway-Dalton to the Hardaway Side-Notched, eventually to the Palmer Side-Notched (Oliver 1985:199-200). While convincingly argued, this approach is not universally accepted (see Ward and Davis 1999:42-45).

The Paleoindian occupation, while widespread, does not appear to have been intensive. Artifacts are most frequently found along major river drainages, which Michie interprets to support the concept of an economy "oriented toward the exploitation of now extinct mega-fauna" (Michie 1977:124).Survey data for Paleoindian tools, most notably fluted points, is rather dated for North Carolina (Brennan 1982; Peck 1988; Perkinson 1971, 1973; cf. Anderson 1990). In spite of this, the distribution offered by Anderson (1992b:Figure 5.1) reveals a rather general, and widespread, occurrence throughout the region. Unfortunately, the evidence for Paleoindians appears sparse in the mountains and no well preserved sites have been identified (Ward and Davis 1999:46).

Distinctive projectile points include lanceolates such as Clovis, Dalton, perhaps the Hardaway (Coe 1964; Phelps 1983; Oliver 1985). A temporal sequence of Paleoindian projectile points was proposed by Williams (1965:24-51), but according to Phelps (1983:18) there is little stratigraphic or chronometric evidence for it. While this is certainly true, a number of authors, such as Anderson (1992a) and Oliver (1985) have assembled impressive data sets. We are inclined to believe that while often not conclusively proven by stratigraphic excavations (and such proof may be an unreasonable expectation), there is a large body of

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[1] While never discussed by Coe at length, he did observe that many of the Hardaway points, especially from the lowest contexts, had facial fluting or thinning which, "in cases where the side-notches or basal portions were missing, . . . could be mistaken for fluted points of the Paleo-Indian period" (Coe 1964:64). While not an especially strong statement, it does reveal the formation of the concept. Further insight is offered by Ward's (1983:63) all too brief comments on the more recent investigations at the Hardaway site (see also Daniel 1992).

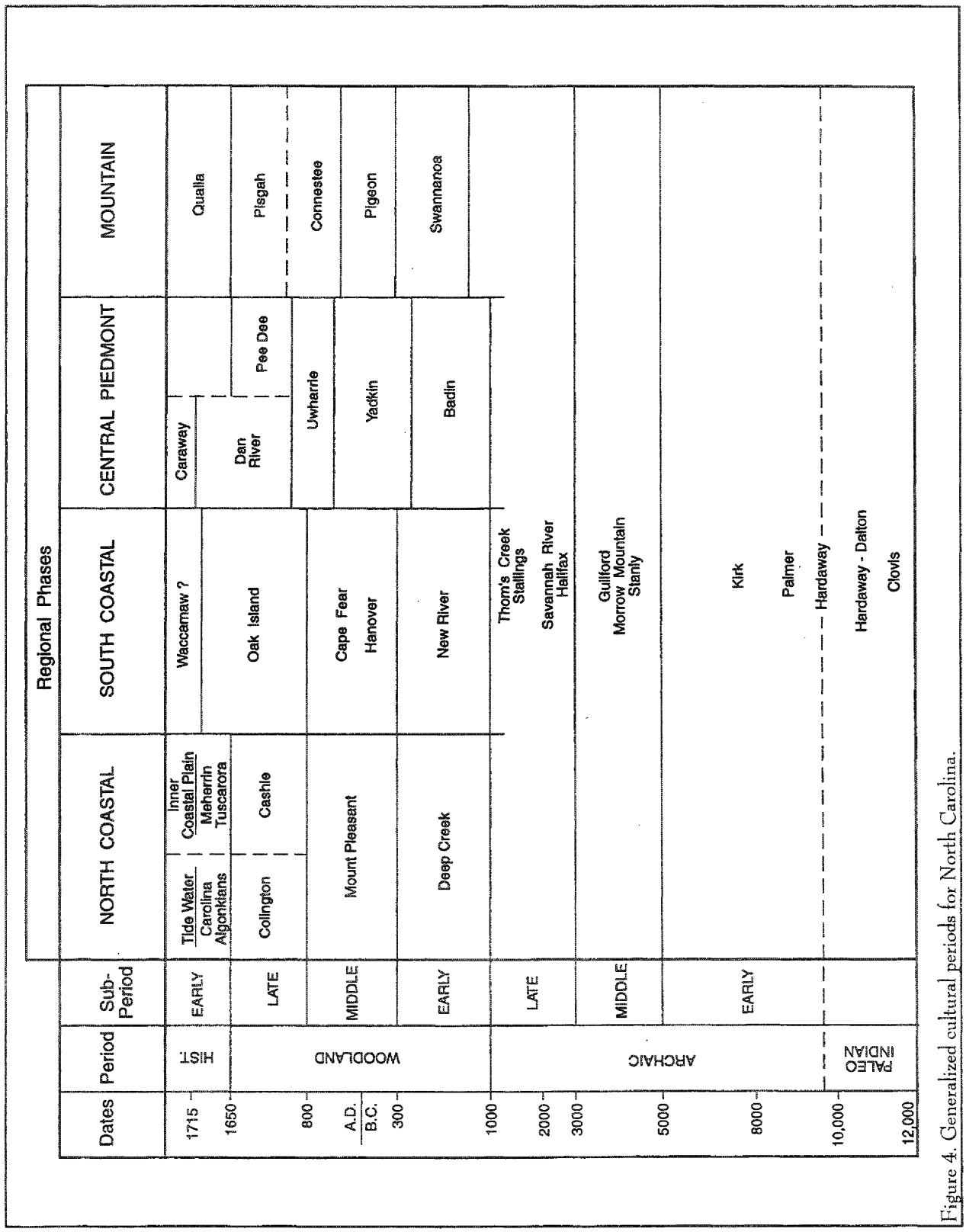

Figure 4. Generalized cultural periods for North Carolina.

circumstantial evidence. The weight of this evidence tends to provide considerable support.

Unfortunately, relatively little is known about Paleoindian subsistence strategies, settlement systems, or social organization (see, however, Anderson 1992b for an excellent overview and synthesis of what is known). Generally, archaeologists agree that the Paleoindian groups were at a band level of society (see Service 1966), were nomadic, and were both hunters and foragers. While population density, based on isolated finds, is thought to have been low, Walthall suggests that toward the end of the period, "there was an increase in population density and in territoriality and that a number of new resource areas were beginning to be exploited" (Walthall 1980:30).

Archaic Period

The Archaic Period, which dates from 10,000 to 3,000 B.P.[2], does not form a sharp break with the Paleoindian Period, but is a slow transition characterized by a modern climate and an increase in the diversity of material culture. Associated with this is a reliance on a broad spectrum of small mammals, although the white tailed deer was likely the most commonly exploited animal. Archaic period assemblages, exemplified by corner-notched and broad-stemmed projectile points, are fairly common, perhaps because the swamps and drainages offered especially attractive ecotones.

Many researchers have reported data suggestive of a noticeable population increase from the Paleoindian into the Early Archaic. This has tentatively been associated with a greater emphasis on foraging. Diagnostic Early Archaic artifacts include the Kirk Corner Notched point. As the climate became hotter and drier than the previous Paleoindian period, resulting in vegetational changes, it also affected settlement patterning as evidenced by a long-term Kirk phase midden deposit at the Hardaway site (Coe 1964:60). This is believed to have been the result of a change in subsistence strategies.

Settlements during the Early Archaic suggest the presence of a few very large, and apparently intensively occupied, sites which can best be considered base camps. Hardaway might be one such site. In addition, there were numerous small sites which produce only a few artifacts — these are the "network of tracks" mentioned by Ward (1983:65). The base camps produce a wide range of artifact types and raw materials which has suggested to many researchers long-term, perhaps seasonal or multi-seasonal, occupation. In contrast, the smaller sites are thought of as special purpose or foraging sites (see Ward 1983:67).

Middle Archaic (8,000 to 6,000 B.P.) diagnostic artifacts include Morrow Mountain, Guilford, Stanly and Halifax projectile points. Much of our best information on the Middle Archaic comes from sites investigated west of the Appalachian Mountains, such as the work by Jeff Chapman and his students in the Little Tennessee River Valley (for a general overview see Chapman 1977, 1985a, 1985b). There is good evidence that Middle Archaic lithic technologies changed dramatically. End scrapers, at times associated with Paleoindian traditions, are discontinued, raw materials tend to reflect the greater use of locally available materials, and mortars as well as atl-atls are initially introduced. Associated with these technological changes there seem to also be some significant cultural

[2] The terminal point for the Archaic is no clearer than that for the Paleoindian and many researchers suggest a terminal date of 4,000 B.P. rather than 3,000 B.P. There is also the question of whether ceramics, such as the fiber-tempered Stallings ware, will be included as Archaic, or will be included with the Woodland. Oliver, for example, argues that the inclusion of ceramics with Late Archaic attributes "complicates and confuses classification and interpretation needlessly" (Oliver 1981:20). He comments that according to the original definition of the Archaic, it "represents a preceramic horizon" and that "the presence of ceramics provides a convenient marker for separation of the Archaic and Woodland periods (Oliver 1981:21). Others would counter that such an approach ignores cultural continuity and forces an artificial, and perhaps unrealistic, separation. Sassaman and Anderson (1994:38-44), for example, include Stallings and Thom's Creek wares in their discussion of "Late Archaic Pottery." While this issue has been of considerable importance along the Carolina and Georgia coasts, it has never affected the Piedmont, which seems to have embraced pottery far later, well into the conventional Woodland period. The importance of the issue in the Sandhills, unfortunately, is not well known.

modifications. Prepared burials begin to more commonly occur and storage pits are identified. The work at Middle Archaic river valley sites, with their evidence of a diverse floral and faunal subsistence base, seems to stand in stark contrast to Caldwell's Middle Archaic "Old Quartz Industry" of Georgia and the Carolinas, where axes, choppers, and ground and polished stone tools are very rare.

The available information has resulted in a variety of competing settlement models. Some argue for increased sedentism and a reduction of mobility (see Goodyear et al. 1979:111). Ward argues that the most appropriate model is one which includes relatively stable and sedentary hunters and gatherers "primarily adapted to the varied and rich resource base offered by the major alluvial valleys" (Ward 1983:69). While he recognizes the presence of "inter-riverine" sites, he discounts explanations which focus on seasonal rounds, suggesting "alternative explanations . . . [including] a wide range of adaptive responses." Most importantly, he notes that:

> the seasonal transhumance model and the sedentary model are opposite ends of a continuum, and in all likelihood variations on these two themes probably existed in different regions at different times throughout the Archaic period (Ward 1983:69).

Others suggest increased mobility during the Archaic (see Cable 1982). Sassaman (1983) has suggested that the Morrow Mountain phase people had a great deal of residential mobility, based on the variety of environmental zones they are found in and the lack of site diversity. The high level of mobility, coupled with the rapid replacement of these points, may help explain the seemingly large numbers of sites with Middle Archaic assemblages.

Recently Abbott et al. argue for a combination of these models, noting that the almost certain increase in population levels probably resulted in a contraction of local territories. With small territories there would have been significantly greater pressure to successfully exploit the limited resources by more frequent movement of camps. They discount the idea that these territories could have been exploited from a single base camp without horticultural technology. Abbott and his colleagues conclude, "increased residential mobility under such conditions may in fact represent a common stage in the development of sedentism" (Abbott et al. 1995:9).

The Late Archaic, usually dated from 6,000 to 3,000 or 4,000 B.P., is characterized by the appearance of large, square stemmed Savannah River projectile points (Coe 1964). These people continued to intensively exploit the uplands much like earlier Archaic groups, with the bulk of our data for this period coming from the Uwharrie region in North Carolina.

One of the more debated issues of the Late Archaic is the typology of the Savannah River Stemmed and its various diminutive forms. Oliver, refining Coe's (1964) original Savannah River Stemmed type and a small variant from Gaston (South 1959:153-157), developed a complete sequence of stemmed points that decrease uniformly in size through time (Oliver 1981, 1985). Specifically, he sees the progression from Savannah River Stemmed to Small Savannah River Stemmed to Gypsy Stemmed to Swannanoa from about 5000 B.P. to about 1,500 B.P. He also notes that the latter two forms are associated with Woodland pottery.

This reconstruction is still debated with a number of archaeologists expressing concern with what they see as typological overlap and ambiguity. They point to a dearth of radiocarbon dates and good excavation contexts at the same time they express concern with the application of this typology outside the North Carolina Piedmont (see, for a synopsis, Sassaman and Anderson 1990:158-162, 1994:35).

In addition to the presence of Savannah River points, the Late Archaic also witnessed the introduction of steatite vessels (see Coe 1964:112-113; Sassaman 1993), polished and pecked stone artifacts, and grinding stones. Some also include the introduction of fiber-tempered pottery about 4000 B.P. in the Late Archaic (for a discussion see Sassaman and Anderson 1994:38-44). This innovation is of special importance along the Georgia and South Carolina coasts, but seems to have had only minimal impact in the uplands of South or North Carolina.

There is evidence that during the Late Archaic the climate began to approximate modern climatic conditions. Rainfall increased resulting in a more lush vegetation pattern. The pollen record indicates an increase in pine which reduced the oak-hickory nut masts which previously were so widespread. This change probably affected settlement patterning since nut masts were now more isolated and concentrated. From research in the Savannah River valley near Aiken, South Carolina, Sassaman has found considerable diversity in Late Archaic site types with sites occurring in virtually every upland environmental zone. He suggests that this more complex settlement pattern evolved from an increasingly complex socio-economic system. While it is unlikely that this model can be simply transferred to the Sandhills of South Carolina without an extensive review of site data and micro-environmental data, it does demonstrate one approach to understanding the transition from Archaic to Woodland.

Woodland Period

The Woodland period begins, by definition, with the introduction of fired clay pottery. While this may have occurred as early as about 2000 B.C. along the Carolina coast, it likely didn't happen until about 700 or 1000 B.C. in the North Carolina mountains. In some areas of the Carolina piedmont, pottery may not have made an introduction until 500 B.C. Regardless, the period from 2000 to 500 B.C. was a period of tremendous change. As Ward and Davis note, this period in the Mountains "was a time of increasing cultural diversity stimulated by ideas from outside the region" (Ward and Davis 1999:139).

The subsistence economy during this period was based primarily on deer hunting and fishing, with supplemental inclusions of small mammals, birds, reptiles, and shellfish. Various calculations of the probable yield of deer, fish, and other food sources identified from some coastal sites indicate that sedentary life was not only possible, but probable. Further inland it seems likely that many Native American groups continued the previous established patterns of band mobility. These frequent moves would allow the groups to take advantage of various seasonal resources, such as shad and sturgeon in the spring, nut masts in the fall, and turkeys during the winter. It was probably fairly late in the Woodland before horticulture, much less agriculture, became a significant means of subsistence.

Early Woodland

Artifacts typical of the Early Woodland in the Piedmont and Appalachian region consist of Dunlap (Wauchope 1966:46-47) and Swannanoa (Keel 1976:260-266) ceramics (similar to the Kellogg focus of Northern Georgia). The Dunlap series is characterized by a medium to coarse sand paste, fabric impressions, and vessels with a simple jar or cup form. The Swannanoa ceramics, with heavy crushed quartz temper, are cord marked or fabric impressed conoidal jars and simple bowls. Other surface treatments consist of simple stamping, check stamping, and smoothed plain (Keel 1976:230). Early Woodland projectile point types consist of Savannah River Stemmed (and its variants), Swannanoa Stemmed (Keel 1976:196-198), Plott Stemmed (Keel 1976:126-127), and the Transylvania Triangular (Holden 1966:54-56; Keel 1976:130).

This is ample evidence from both North and South Carolina that there was increased mobility and the exploitation of a greater variety of environmental zones, including much greater use of the inter-riverine zone. Ward and Davis (1999:143-145) also observe that there may be both upland seasonal camps, as well as larger, and more permanent, alluvial floodplain sites. Although no clear evidence of cultigens or "encouraged" plants have been found at North Carolina Swannanoa sites, Ward and Davis (1999:146) suspect that they will be encountered, most likely on buried floodplain sites. The presence of large rock filled hearths and straight-sided or bell-shaped storage pits may suggest greater complexity than has been thus far determined. The Early Woodland in the study area is thought to extend from about 750 B.C. or perhaps earlier through about 350 B.C.

Middle Woodland

Pottery typical of the Middle Woodland in the area consists of the Pigeon (Keel 1976:256-260) with its strong Cartersville and Deptford associations, as well

as the Connestee (Keel 1976:247-255) with its Napier (Wauchope 1966:57-60) connection.

Pigeon is quartz tempered with surface treatments of check stamping, simple stamping, and brushing. This phase is expected to range from about 350 B.C. to about A.D. 300. The Cartersville type is characterized by sand or grit paste with the primary surface treatment being cord marking, although there are also check stamped and simple stamped varieties. The Cartersville series is thought to be closely related to the Deptford series on the Coast. Anderson and Schuldenrein (1985:720) suggest that Cartersville continues well into the Late Woodland period. Projectile points typically found in association with these wares is the Pigeon Side Notched type (Keel 1976:127-129). Also found, and spanning the following Connestee Phase, is the Garden Creek Triangular point (Keel 1976:130-131). The Copena Triangular is a rather vaguely defined point that tends to occur in a broad range of Early to Middle Woodland contexts throughout the Southeast. They are distinguished by recurvate, lanceolate blades, and straight or excurvate bases.

Some suggest that the Middle Woodland period reflects a new pattern of settlement, with a move to the floodplain that is suggested to signal a shift to horticulture (Purrington 1983:136). To date this has not also been accompanied by very convincing ethnobotanical evidence.

Keel (1976:229) and others suggest a strong external influence on the Pigeon culture, with the ceramics suggesting a continuum with the materials found in the Georgia Piedmont or perhaps the east Tennessee area. As Purrington (1983:137) observes, this is not, however, in agreement with Dickens' (1980) analysis of ceramic diversity during the Woodland Period. Nevertheless, there is much about the Middle Woodland for which we have little evidence and the period remains among the least well understood in the mountains.

Napier (Wauchope 1966:57-60) and Connestee (Keel 1976:247-255) Series pottery are typical of the second half of the Middle Woodland for the Mountain area and likely date from about A.D. 300 to 800 or 1000 (cf. Keel 1976:221). The Napier series is a fine sand tempered ware with fine complicated stamped designs. The Connestee series is a thin walled sand tempered ware with brushed or simple stamped surface decorations. There are also cord marked, check stamped, fabric impressed, and plain varieties. Projectile points characteristic of this phase include the Haywood Triangular (Keel 1976:132-133), probably from the late Connestee and perhaps early Pisgah, as well as the Connestee Triangular (Keel 1976:131-132).

External influences are pretty clear during the Connestee Phase and include a range of prismatic blades that Keel (1976:136) notes as being virtually indistinguishable, in metric terms, from those found at Ohio Hopewell sites. Not only was there contact with the Hopewell, but there seems to also have been considerable internal development. For example, Keel (1976:225-226) suggests that the hazy period of transition between Connestee and Pisgah may hold evidence of increasing dependence on cultigens.

Keel (1976) reported on the Garden Creek Mound No. 3 which contained a dominant Connestee component based on George Heye's 1915 examination of the mound. Later work at Garden Creek Mound No. 2 examined a portion of a village with a large quantity of Connestee remains. A number of postholes were exposed revealing one discernable square house with rounded corners measuring about 19 by 19 feet in outline. In addition, there were a number of refuse pits and hearths. The hearths included both rock filled and surface hearths. There were also a number of burial pits (see Keel 1976:99; Figure 15). It is likely that Connestee sites in the region will contain similar features.

There are today several other studied Connestee sites in the region which are worthy of mention. A large Connestee site was encountered at the Horshaw Bottoms site (31CE41) by Ken Robinson (1989). Excavations for pipeline construction revealed a midden with preserved ethnobotanical remains, including a variety of nuts and seeds, as well as two cupules of corn. Features were well preserved, although no human remains were encountered. While postholes were common — indicating that structures were almost certainly present — the confined scope of the

excavations did not allow patterns to be observed.

Wetmore (1990) has provided a valuable overview of both a Connestee and Qualla phase settlement at the Ela site (31SW5). About 1.6 acre of the site was mechanically stripped, with the identification of about 210 features (25 features are discounted since they represent tree disturbances, backhoe disturbances, and similar non-cultural intrusions). This represents about 131 features per acre — a figure very similar to 31MA77, where 1.2 acres were stripped, revealing 168 features, yielding a density of 140 features per acre. It seems likely that the two sites are very similar.

Ten probable Connestee structures were identified from the work by Wetmore. All were circular, measuring from 21.4 to 27.6 feet in diameter, with a mean of 24.7 feet and a standard deviation of 2.4 feet. The number of posts comprising these structures varied considerably, from a low of 25 to as many as 150. Reference to the drawings suggests that the structures were very difficult to identify. The posited houses lacked internal hearths, although large rock filled features were found nearby, suggesting that cooking may have taken place outside. This study also revealed 10 burials, although all for which a cultural affiliation could be ascribed were apparently Qualla. The Connestee pottery from the site was dominated by plain surface finishes (86.0%), followed by smoothed (6.2%), brushed (3.0%), and cord marked (2.7%). Minor quantities of simple stamped, check stamped, and "other" were also reported (Wetmore 1990:163).

Most recently Wetmore et al. (1996) report a somewhat similar Connestee component from the Macon County Industrial Park site (31MA185). Completion of that study should provide very significant additional information concerning Connestee phase occupation in the Macon County area.

Ward and Davis (1999:154) suggest that Connestee sites are larger and "reflect greater occupational intensity" than earlier Pigeon sites in the region. They are found in floodplain settings and often cover several acres. Where investigated they seem to possess numerous features, including structures. While they don't believe that corn agriculture was present (discounting the corn from Horshaw Bottoms), they are inclined to believe that the settlements focused on "the cultivation of indigenous small-grain seed plants," as well as hunting, gathering, and fishing.

The available research on Connestee sites suggests a variety of significant research topics. Ward and Davis (1999:155) point out that not only is the terminus of the phase poorly understood, but the phase itself needs to be broken into finer chronological units. This will require the excavation of a number of Connestee sites, far more radiocarbon dates, and additional fine-scale analysis of ceramic assemblages. They also suggest that it would be productive to pay more attention to the extra-local pottery types, such as Napier and Swift Creek, in the hope that these assemblages would denote "recognizable temporal boundaries." They go on to suggest that:

> the artifacts and ideas derived from the Hopewell area may be more typical of the first half of the Connestee phase and that the Swift Creek-Napier ceramic styles, with their southernly origins, may be more typical of the last half of the Connestee phase (Ward and Davis 1999:156).

Late Woodland

Ward and Davis (1999:157) note that the Late Woodland is poorly understood, or documented, in the Mountains. They suggest that the Connestee phase may extend into the Late Woodland and draw connections between this assemblage and the pottery recovered during salvage excavations at the Cane Creek site (31MI3) in Mitchell County, about 100 miles northeast of Franklin.

Mississippian Period

The South Appalachian Mississippian period, from about A.D. 1100 to A.D. 1640 is the most elaborate level of culture attained by the native inhabitants and is followed by cultural disintegration

brought about largely by European disease.[3] The period is characterized by complicated stamped pottery, complex social organization, agriculture, and the construction of temple mounds and ceremonial centers.

In the Appalachian region, Mississippian pottery includes the Pisgah and Qualla series. Pisgah ceramics (A.D. 1000 - 1450) are tempered with unmodified river sand, although some earlier examples contain both river sand and crushed quartz. It is decorated with complicated stamping (characteristically rectangular stamped), check stamping and ladder-like rectilinear patterns (Dickens 1970; Holden 1966). Other artifacts associated with the Mississippian period include triangular projectile points, flake scrapers, microtools, gravers, perforators, drills, ground stone objects (celts, pipes, and discoidals), and worked shell and mica (Keel 1976).

The largest amount of regional work has taken place in the North Carolina mountains at sites such as Tuckasegee, Garden Creek, and Warren Wilson. At Tuckasegee a possible town house was uncovered measuring about 23 feet in diameter with a central hearth (Keel 1976). At Warren Wilson several roughly square structures were uncovered and they all measured on the average about 21 feet square. Burials were common inside of these houses and pit features were abundant. Artifacts at the Warren Wilson site included ceramics from the Swannanoa series up through the Pisgah series (Dickens 1970; see also Ward and Davis 1999:161-165). More recently Moore (1981) has examined the Pisgah assemblage of the Brunk Site (31BN151). This site is of special interest since it is found in an anomalous setting at the head of a mountain cove, rather than in the more typical Pisgah floodplain setting.

Burials at Pisgah sites tend to be flexed, to be wrapped in a fetal position pointing westward, and are found in one of three types of grave shafts: simple, straight-sided pits, shaft and side-chamber pits, and shafts with central chamber pits (Figure 5). Burial goods were most commonly shell (beads, gorgets, ear pins), animal bone (rattles and beads), or mica (cut plates or disks).

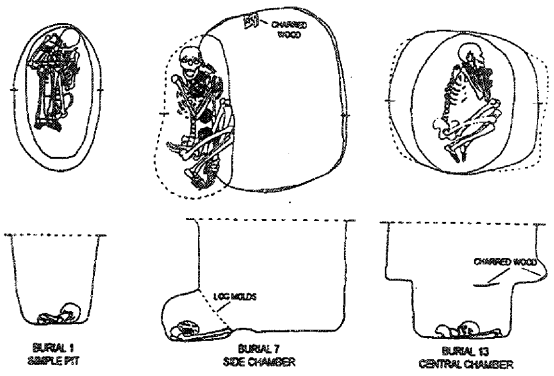

Figure 5. Types of Pisgah phase burials (from Dickens 1976:104).

Homes Hogue Wilson (1986) examined burials from the Warren Wilson site in western North Carolina and provided some preliminary conclusions regarding social structure based on location of burials according to age and sex. For instance, she found more males than females were buried under structure floors. These males included primarily those under 25 or over 35 years old. She also found that individuals buried inside of structures were more likely to have burial goods than those buried in public areas. Burial feature types included pit burials, side-chambered burials, and central-chambered burials. Studies such as this can give great insight into the social organization of prehistoric societies.

It is during the Pisgah Phase that evidence of agriculture is clearly documented and the settlement system seems to include both large villages — sometimes with mounds — and smaller hamlets or farmsteads located along the valley margins. Dickens uses this to suggest that the Pisgah people were still dependent on hunting and gathering.

[3] Small pox was a major cause of death to a large number of Native Americans during the historic period. The smallpox epidemics of 1734 and 1783 reportedly killed half of the Cherokee population (Hatley 1993).

While the traditional view has been that of a Pisgah to Qualla evolution, some authors are suggesting that this is untenable and an "artifact" of the sites chosen for early research (see, for example, Moore 1986 and more recently Ward and Davis 1999:178-179). Ward and Davis (1999:180-181) argue that the Pisgah phase had little impact and is a rare component at sites west of the Tuckasegee drainage — such as the area of 31MA77. Moreover, they suggest that, "an as-yet-unrecognized early Qualla (or Lamar) phase culture was thriving in the western mountains at about the same time Pisgah influence was being felt in the central portion of the Appalachian Summit" (Ward and Davis 1999:180). This view emphasizes their belief that the Qualla phase is best understood in the context of the Lamar culture of northern Georgia and eastern Tennessee.

Given this belief that an "Early Qualla" will eventually be identified, Ward and Davis suggest that Middle Qualla, which they date to A.D. 1450 through 1700, is characterized by jars with flaring rim forms which are decorated with a notched applique strip beneath the lip. The surface treatment included complicated stamping using both rectilinear and curvilinear designs, with the latter becoming more common through time. Often the designs were blurred through smoothing. Other types described by Egloff (1967) include burnished, plain, check stamped, cord marked, and *corncob* impressed. At Tuckasegee brushed examples were also identified (Keel 1976).

Although it has been often suggested that the quality of the stamps declined into Late Qualla, Ward and Davis (1999:181) suggest that this trend is not always clear. Perhaps more significantly, cazuela bowl forms were introduced along with incised designs (which they suggest are similar to the motifs found in the Middle Lamar Tugalo phase of northern Georgia). The check stamped and cord marked stamps also seem to increase in popularity during the Late Qualla.

Much discussion of Qualla lifeways focuses on the research at the Coweeta Creek site (on the west side of the Little Tennessee River near its junction with Coweeta Creek in Macon County). There houses similar in size and shape to those at Pisgah sites (i.e., square with rounded corners about 20 feet on a side) were found. They possessed vestibule entrances and had interior supports. In the center of the structures were clay hearths. Excavations revealed not only residential architecture, but also a mound and a series of six superimposed town houses. All but the most recent town house were square, about 36 feet on a side, with rounded corners and a vestibule entrance. The most recent town house was roughly circular.

Ward and Davis suggest that villages were larger and more nucleated in the Middle Qualla phase, but became more dispersed later in time. They, however, observe that the continued use of the Coweeta Creek mound and town house, even though there was no longer a surrounding village, "indicates a strong sense of community even though people may have lived some distance apart" (Ward and Davis 1999:187). Alternatively, it may indicate the exceptionally strong cultural or religious attachment to the townhouse itself.

Burials at Qualla sites are found in pits similar to those identified at Pisgah sites. The 83 burials from Coweeta Creek (which included 87 individuals) were in either simple, straight-sided, oval to rectangular pits or in pits with cylindrical shafts and side chambers. Orientation was typically to the southeast. Grave goods, when present, included shell beads, gorgets, pins; stone and clay pipes; pottery vessels; rattles; and ocher. Graves were typically in the village area, often associated with houses and many times at or below hearths. Ward and Davis also note that there were burials within and surrounding the town house — suggesting that these individuals were especially important members of the community (Ward and Davis 1999:189). Given the available information, they suggest that the cycles of town house destruction and rebuilding were associated with the death and burial of significant leaders. They also suggest that while males were dominant in town leadership, females filled the roles of clan leaders.

Cultivation continued to be the most important subsistence activity, although wild plants were collected and a broad range of animals were hunted (although deer provided the bulk of the meat).

The previously mentioned Ela site (31SW5)excavations by Wetmore (1990) also revealed a large quantity of Qualla phase material. At least seven

of the 10 burials were thought to be Qualla. The most common burial pit (n=3) was a shaft and chamber style, with the pit being oval (averaging about 2.8 by 2.2 feet). Two graves were described as "stepped pits," or probably pits with central chambers. The grave shafts were again oval, with the two examples measuring 2.6 by 2.4 and 3.8 by 3.4 feet. The single example of a simple pit was also oval, measuring 4.1 by 2.4 feet. Of the five posited Qualla houses all were rectangular. The three which were complete had measurements averaging 25.4 by 28.7 feet.

The most common Qualla pottery at the Ela site was plain (45.1% of the collection), followed by smoothed (34.8%). Complicated stamped surface treatment is reported on only 6% of the pottery, followed by cord marking on 4.5% of the sherds. Simple stamping, brushed, and "other" are minor finishes. Other artifacts worthy of mention include hematite which exhibited grooved surfaces (Wetmore 1990:158) and quartz crystals (which Mooney [1900:298] noted as having special powers and being used by conjurers).

More recently Scott Shumate and Larry Kimball (1997) examined a small, ca. A.D. 1650 Qualla settlement (31SW273) in the Nantahala National Forest. At this site they found two structures which were likely related. One appears to be a roughly circular winter house measuring about 22.5 feet in diameter. The structure had a central hearth, as well as three shallow basin-shaped interior pit features. Just outside the structure, they suggest that an elliptical rock filled pit functioned as an exterior hearth or earth oven. Also present was a rectangular summer house measuring about 32.5 by 14.6 feet. The interior of this structure contained a number of postholes which they interpret to be interior partitions. Also present are several shallow hearths. Nearby were several large pits which they interpret to be storage pits.

Also in 1997 Brett Riggs and his colleagues reported on a ca. A.D. 1405 settlement in Jackson County (31JK291) with sherds which "resemble both Pisgah phase or Qualla phase materials, but do not conform neatly to either of these previously defined late Mississippian configurations" (Riggs et al. 1997:vi). The ceramics may reflect a transition from Pisgah to Qualla, or they may reflect a Lamar antecedent. The relatively early date may also suggest that the wares are representative of the "Early Qualla" sought by Ward and Davis (1999).

A single structure from the excavations is suggestive of a squared house with rounded corners and a vestibule entrance (Riggs et al. 1997:68). The site also documented a corn economy, supplemented by a diverse range of wild foods.

Research questions proposed for the Qualla include, of course, an effort to determine the existence and nature of any "Early Qualla" phase, as well as the overall relations between the Pisgah, Qualla, and Lamar ceramics. In addition, Wetmore and her colleages note that "information about 18th century Middle Cherokee villages and homestead organization" is critical (Wetmore et al. 1996:17). The same can be said for earlier Qualla assemblages since the changes which occur between Early, Middle, and Late phases — when recognized at all — are based exclusively on the pottery.

Overhill/Qualla Cherokee

The Cherokee were divided into five distinct settlements by the British Colonial government. While the rationale for the division itself was based on the needs of establishing and controlling trade, the actual divisions reflect not only historical factors, but also the physiography of the region.

The five areas include the **Lower Towns**, situated at the foot the Blue Ridge along the major rivers flowing into the Atlantic. Found in South Carolina and Georgia, clustered around the Savannah River, these include Chauga., Tugalo, and Estatoe. The **Middle Towns** were found along, and at the headwaters of, the Little Tennessee River and include Cowee, Joree (also spelled Jore), and Nequasee. These towns are about 30 miles north of the Lower Towns and the two are separated by a series of primarily small mountains. The **Valley Towns** may be considered a western subdivision of the Middle Towns and were located along the Valley, Nottely, and Hiwassee rivers in western North Carolina. These towns tended to be more isolated, being separated from the east by the Nantahala Mountains and from the north and west by the Great Smoky Mountains.

Villages here include Peachtree. The **Out Towns** were situated to the north of the Middle Towns on the southeastern slopes of the Smoky Mountains along the banks of the Tuckasegee and Oconaluftee rivers. Here the terrain is very rugged and the villages of Nununyi and Kituhwa, as well as the Cherokee Reservation are found. The **Overhill Towns**, sometimes called the Upper Towns, were situated in the Appalachian Great Valley Province. The towns extend from Great Tellico and Settacco westward along the Little Tennessee, Hiwassee, and Tennessee rivers.

The history of English-Cherokee relations is a history of misunderstanding, broken promises, and horrific suffering. Because of the advancement of the white frontier, there was a great deal of intertribal strife and boundary rearrangements precipitated by the dislocation of tribes east of the Cherokee. With direct contact with the white pioneers war ensued and a number of Cherokee villages were destroyed. Both war and disease reduced the population dramatically. The Carolina trader James Adair reported that the Cherokee population was reduced by half in 1738 by disease (Wright 1981:218).

Historically, the Lower Cherokee used the western Piedmont of South Carolina as a hunting territory. The eastern limits of this hunting territory were defined by the presence of the Catawba Indians. According to Logan (1859) there was a common hunting ground between the Lower Cherokee and the Catawba Indians which encompassed the districts of Richland, Fairfield, Chester, and York. Hatley (1993) states that the Cherokee hunting grounds had been modified by years of purposeful intervention and some of the most productive hunting areas were the old fields and planting lands. "These patches — soil licks, sand ridges, canebrakes, and old fields, maintained in a sere of young growth by light burning — provided a habitat where deer could predictably be found" (Hatley 1993:212).

The settlement pattern for the village sites and individual house sites was at the base of hills adjacent to tillable land and sources of fresh water. If arable land was abundant, houses would sometimes be clustered in the middle of fields (Fogelson and Kutsche 1961:90). The seasonal planting cycle seems to have strongly affected the rhythm of eighteenth century Cherokee life. Small hunting parties went out from late October to the early spring, with shorter hunting trips during the summer (Gearing 1958:1150). Often, these summer hunting forays took place only after the corn was planted and before it was ready to be harvested (Fogelson and Kutsche 1961).

Bartram describes their pattern of settlement:

> An Indian town is generally so situated, as to be convenient for procuring game, secure from sudden invasion, having a large district of excellent arable land adjoining, or in its vicinity, if possible on an isthmus betwixt two waters, or where the doubling of a river forms a peninsula. . . . At other times however they choose such a convenient fertile spot at some distance from their town, when circumstances will not admit of having both together (Bartram 1980 [1791]:400-401).

Artifacts associated with the historic Cherokee include the previously discussed Qualla ceramic type. It should be noted that Egloff (1967:68-75) argues that there is marked variation in Qualla ceramics between the Georgia and South Carolina towns, the North Carolina towns, and the Tennessee towns. This argument was later bolstered by evidence from Tuckasegee (Keel 1976). In addition to Qualla ceramics, small triangular projectile points are also typical, as well as evidence of European interaction.

The Cherokee in the Historic Period

While the first Europeans to make contact with the Cherokee were the Spanish, it isn't entirely certain whether de Soto's 1539-1540 *entrada* into the interior managed to find its way to the Cherokee (for a discussion of the various interpretations, see Wilson 1983:Appendix 1). It seems reasonable that the mountains were reached, and that the Cherokee became acquainted with the Spanish, although the impact may not have been as great as might be imagined. It is more clear the expeditions led by Pardo and Boyano reached

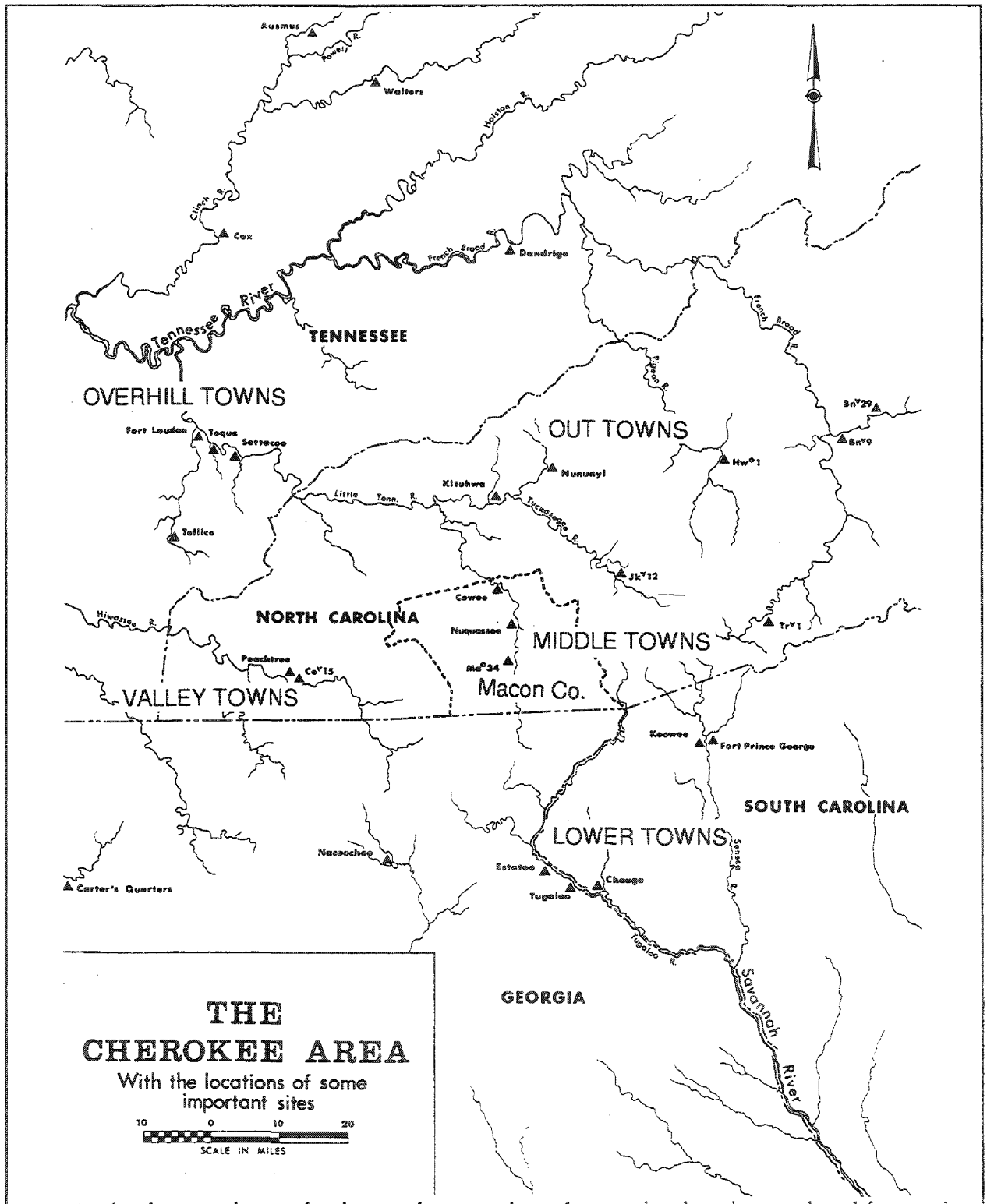

Figure 6. Cherokee area showing distribution of towns and significant archaeological sites (adopted from Dickens 1970:Figure 1).

the Cherokees. Regardless, the first substantive, and continued impact, came from English trading ventures, largely originating from Virginia (Crane 1928; Rights 1957). If his enthusiasm for presenting the Hebraic origin of the Cherokee can be discounted, Adair's (1930) *History of the American Indians* presents invaluable information on the tribe during the English Colonial Period.

Given the often unscrupulous trading practices of many whites, coupled with the constant encroachment by planters cutting down the forests and creating plantations, the Yemassee War (1715-1718) should have come as no surprise.

During the first half of the Yemassee War there were scattered reports of Cherokee hostility, counterbalanced by frequent assurances from the western traders that the Cherokee were, at worst, neutral. The fear that the Cherokee would align with Creek and wipe out the English settlements, however, was strong. It was also strengthened by the appearance that the Cherokee were involved in the raid on Schenkingh's Cowpen near the Santee River (Hatley 1993:23). A delegation of Cherokees, from the Middle Towns, came to Charleston and promised to join with the English against the Creeks.

Heartened by this show of solidarity, Maurice Mathews led troops out of Charleston, intending to meet with a large Cherokee force and wage war on the Creeks. The Cherokee, however, failed to appear and Mathews instead of waging war on the Creeks marched to the Lower Towns, arriving at Tugaloo. There he found a considerable diversity of opinion regarding the wisdom of going to war against the Creeks. While the more western Middle Towns were somewhat isolated from the Creeks, many in the Lower Towns feared the cost of such an undertaking.

The Cherokee also quickly discovered that the English were more interested in whipping the Lower Towns into a war frenzy than in going to war themselves. Mathews repeatedly avoided promising any "joint undertaking" and was hard pressed to even make promises of weapons or powder.

Eventually a Creek party, under a banner of truce, came to Tugaloo to discuss peace. The entire Creek delegation was killed by the most hostile of the Cherokee. Hatley observes that, "sensing that the war against the Creeks which they had hoped to incite among the Cherokees, but which the colonists wished personally to avoid themselves, was about to begin, the English troops hurried out of Tugaloo" (Hatley 1993:26). The Lower Cherokee Towns would pay a high price for their "alliance" with the English. The act of violence was returned almost immediately and constituted "the beginnings of an episode of inter-tribal war which would continue over the next thirty years" (Hatley 1993:27). Muskhogean people as far south as Apalachee joined forces and began raiding the Cherokee. The effects were so damaging to the Cherokee that in 1724 they attempted to make peace directly with the Spanish in order to dampen the crippling slave raids by the Creeks. The overture to the Spanish was largely rejected and the Cherokee continued to suffer for their "alliance" with Charleston.

This event affected the future assumptions of both the English and Cherokee for years to come. For example, the English seized on the massacre of the Creeks as proof of a Cherokee-English alliance. The Cherokee, however, came away with a very different understanding which largely focused on the failure on the English to fulfill the basic obligation of allies to fight together. This lack of trust would still be strongly felt among the Cherokee forty years later.[4]

In 1720 ex-Governor Johnson wrote to the Council of Trade and Plantations about the number of Indians on the border of South Carolina (see Wilson 1983:160-161). Using data gathered by traders just before the Yemassee War in 1715, Johnson reported that the Cherokee, divided into "Upper," "Middle," and "Lower" towns, accounted for 10,200 individuals and were located between 320 and 450 miles northwest of

[4] Curiously, many modern historians still fail to understand the hesitancy of the Cherokee to open old war scars and the duplicity of the English. Lee (1963:42), for example, speaks of Mathews' "skill at Indian diplomacy" and the Cherokee's "pledge [of] support to South Carolina." Vernon Huff (1991:81) comments in a school text that, "Governor Craven persuaded the Cherokees to go to war with the Creeks . . . ."

Charleston. By 1725 the Cherokee were complaining bitterly about the influx of white settlers, suggesting that this buffer between the Cherokee and Catawba was primarily considered to be Cherokee land. The colonial response was limited, at best. The effects of the Yemassee War had crippled South Carolina, nearly destroyed her economy, and drove a wedge between the colonists and the Proprietors.

It was during South Carolina Governor James Glen's 13 year term — the longest of any colonial governor in the state — that he advocated Carolina's manifest destiny. Harkening back to such expansionists as Naire, Glen realized that the Cherokee blocked South Carolina's perceived right to more land. While Cherokee trade increased (at a time when Indian trade was beginning to decline in economic value), there was a growing fear of the Cherokee among South Carolinians. In what seems almost to be a repeat of history, Glen attempted to organize a conference with the Cherokee in 1755 to determine their support. The importance of the timing cannot be overstated, since this marks the beginning of what elsewhere was known as the Seven Years War, but is known as the French and Indian War in the colonies.

The Cherokee, perhaps tired of colonial gamesmanship, refused to come to Charleston, suggesting a more neutral location midway between the two seats of government. Saluda was selected and Glen put on a grand show. Rounding up local pioneer settlers for show, there was a great deal of talk, with the Cherokee eventually proposing an alliance. Glen, either through ignorance or greed, misinterpreted the Cherokee intention of good will, believing that the Cherokee had provided him with a fee-simple deed to all of their lands in the region. Known as the Treaty of Saluda, much of the Indian land in South Carolina was given up by the Cherokee. The lands in Pendleton — the modern counties of Anderson, Pickens, and Oconee — and Greenville County, were reserved for the Cherokee, along with their holdings in North Carolina and Georgia (Milling 1969:284). The present line dividing Greenville and Spartanburg was established as the Indian Boundary by this treaty. Two forts also resulted from the treaty — Fort Prince George at Keowee and Fort Loudon on the Tennessee River.

Of course the Cherokee had no such intention. As previously mentioned, while this territory was largely devoid of settlement, it served as a buffer between the English and Cherokee, between the Cherokee and the Catawba, and likely between the Cherokee and the Creek (Hatley 1993:82). Hatley observes that not only were there population shifts in the Lower Towns, with the Creeks taking on increased prominence, but there also seems to be some evidence of Cherokees moving northward from the Lower Towns, coming into contact with the emerging colonial settlements of the region.

After the 1755 Treaty of Saluda, settlers from Maryland, Pennsylvania, Virginia, and North Carolina began to flood into the newly opened territory. The range of ethnic groups distinguished this migration from many others and Scotch Irish, Germans, Swiss, Welsh Baptists, Quakers, and even French Huguenots made up the assemblage. Largely, however, the Ninety Six District became associated with the Scotch-Irish who settled the Spartanburg area to the east of Greenville around the Tyger River in the 1760s. With settlement came increased tensions — and conflicts.

In August of 1759 South Carolina's Governor Lyttelton halted arms and ammunition sales to the Cherokees. Not satisfied that this had the desired effect, in October he announced that he would "take command of the forces myself and carry the war into the Enemy's country" (quoted in Hatley 1993:114). Sensing that tensions were high, the Cherokee sent a delegation to Charleston to make peace with the English.[5] This effort was rebuffed by Lyttelton who went beyond the realm of the acceptable and took the delegation hostage. This began what historians usually call the Cherokee War, lasting from 1759 through 1761, although there is no evidence that the Cherokee called it, or wanted it. In actuality, it consists of three separate campaigns launched into the Cherokee territory, but they are usually blurred together, likely because no one campaign was decisive. Hatley comments that in spite of this:

[5] The actual cause of the hostilities is relatively clear. The Cherokees, most particularly those in the Overhill town of Settico and a few of the Lower Towns, returned the injuries they received at the hands of Virginia settlers attacking several western settlements of South Carolina.

> the three initiatives, like acts in a play, were distinct, with each moving toward the same ending. A kind of public drama for Carolina society, the Cherokee War moved from near failure in 1759 to half-success a year later, to the achievement, at least on paper, of military objectives under James Grant's leadership in 1761 (Hatley 1993:119-120).

The first campaign was described as "a wild and ridiculous parade" by no less than James Adair, who pointed out that Lyttelton has no understanding of Indian politics. He marched to Keowee and camped across the river from the town. Over the course of many weeks he threatened and bullied, but failed to either win concessions or show any meaningful force. Smallpox finally drove him out of Indian country and back to Charleston, where his gift to the City was to introduce a smallpox epidemic. He, however, had left his Cherokee hostages at Fort Prince George and these Indians were eventually "butchered . . . in a Manner too shocking to Relate" by the troops in reprisal for the killing of one of their number (Hatley 1993:126). In response, the Cherokee and Creek began negotiations, an event which sent shock waves through Charleston.

In the early Spring of 1760 the killing of the Indian hostages was revenged by Cherokees as they swept through the backcountry. The area dissolved into chaos and South Carolina convinced London that British troops were needed. Regulars under the command of Archibald Montgomery began the second campaign. The Lower Towns of Keowee, Estatoe, Toxaway, Qualatchee, and Conasatche were all burned along with their food supplies. On the way to the Middle Towns, however, Montgomery's troops were attacked by the Cherokee and routed. After regrouping they marched to the abandoned town of Echoe, only to retreat back to Charleston. Immediately upon his arrival Montgomery announced that he would board ships in the harbor and set sail out of South Carolina's Indian problems. This, as might be imagined, caused a new round of panic and paranoia in Charleston, which was only deepened by the discovery that the troops of the Overhill Fort Loudon garrison were slaughtered by the Cherokee under a flag of truce.

The third campaign was organized and initially lead by Lt. Governor William Bull. This campaign resulted in 33 days of raising havoc in the Cherokee settlements. Enough damage was done this time to cause Little Carpenter, recognized as an overall leader of the Cherokee to seek peace that fall (Hatley 1993:153-154).

The campaigns were traumatic, revealing the embarrassing military and financial weakness of the South Carolina colony, the inability of its leaders to devise military operations, and the lack of enthusiasm on the part of North Carolina to be brought into troubles to the south. The war also challenged the myth of a special relationship between the Cherokee and English. Both sides behaved in reprehensible fashion, slaughtering innocents and those under flags of truce. But perhaps most of all, it continued to gnaw at the psyche of South Carolina, emphasizing the discord between planter and merchant, upcountry pioneer and lowcountry planter, and white owners and black slave. Further, peace did not come quickly or convincingly. The relations between red and white were so strained that the Cherokee did not welcome back traders as they had in the past. In particular, the younger members of the Cherokee towns expressed an intensive denial of white culture, wanting nothing to do with the white man, his way, or his trade goods.

The boundary line was re-established and, for the Cherokee, it offered an opportunity to re-establish their relationship with South Carolina. The Cherokee desired what could be called a semi-permeable boundary, which might allow trade when it was advantageous and permit diplomacy to keep the peace, but which would curtail, perhaps even prevent, the swelling farmer settlements. This problem was recognized by Superintendent of Indian Affairs John Stuart, who cautioned that a more eastern boundary should be established than that desired by Bull, "the inhabitants of those back Countries are in general the lowest and worst Part of the People, and as they and the Indians live in perpetual Jealousy and Dread of each other, so their rooted Hatred for each other is reciprocal" (quoted in Hatley 1993:206).

Although little more than a footnote in the history of Cherokee-English relations, there are a

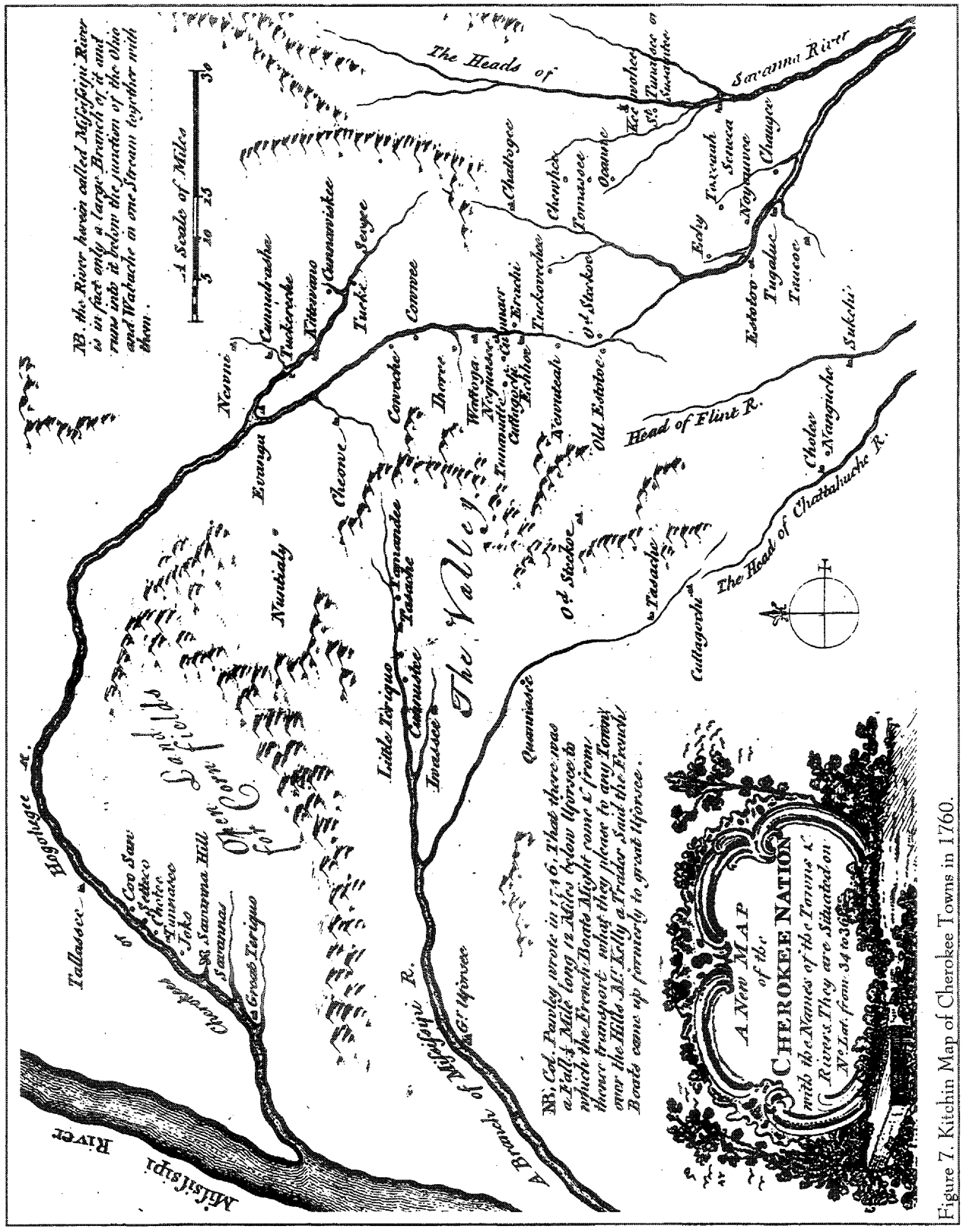

Figure 7. Kitchin Map of Cherokee Towns in 1760.

number of documents which outline the efforts of Richard Henderson to acquire vast tracts of Cherokee land. Hatley (1995:217) refers to Henderson as representing "a group of North Carolina land speculators" and notes that he acquired the territory between the Cumberland River to the south and the Kentucky River to the north for £10,000 of trade goods. Other documents recount how the Cherokee Chief Little Carpenter traveled with Henderson in order to select the trade goods needed to acquire the land between the Cherokee and Great Kanawha rivers (Anderson and Lewis 1983:392).

Henderson appears to have made at least two purchases, one for 400 square miles and another for 35 million acres (Anderson and Lewis 1983:227). While it seems clear that much of Henderson's work was speculative, at least 1,000 settlers were reported to have taken advantage of these private land cessions. Moreover, Henderson was apparently encouraging others to individually purchase Cherokee lands — a practice which the North Carolina government held to be illegal (Anderson and Lewis 1983:227). Of course, Henderson's private actions were not opposed by the Crown simply because they tended to disturb the peace. The land called Transylvania, which had been acquired from the Cherokee by Henderson, belonged to Lord Granville — so the private land deals were seen as cutting into the land holdings of the Crown and his agents. In addition, Henderson demanded that the Crown either acknowledge the land cessions or he would establish his own government (Anderson and Lewis 1983:392). Eventually Henderson was ordered to be arrested (Anderson and Lewis 1983:458).

The American Revolution caused the next clash between the colonists and the Cherokees. The period between 1776 and 1780 was one of relative calm in the backcountry, while the revolution raged on primarily in the northern colonies. There were pillaging raids in the backcountry by loyalists based in East Florida, but these were minor compared to what would occur later. The greatest raid, in the backcountry, was the final Cherokee solution. It seems that whatever hopes the whigs had of continuing peaceful relations with the Cherokee were abandoned in the spring of 1776. There were occasional Indian raids, which *might* have been participated in by the Cherokee (see Milling 1969:313-315). As in the past, however, anger was generated more by what the Cherokee *might do*, rather than by what they, in fact, *had done*.

Individuals such as William Henry Drayton, who in the past supported the Cherokees, suddenly spoke out urging their virtual elimination:

> It is expected you make smooth work as you go — that is you cut up every Indian corn field, and burn every Indian town — and that every Indian taken shall be the slave and property of the taker; that the nation be extirpated, and the lands become the property of the public. For my part I shall never give my voice for a peace with the Cherokee Nation upon any other terms than their removal beyond the mountains (Drayton quoted in Hatley 1993:192).

The old voices of colonial manifest destiny were thereby united with the whig philosophy of freedom and independence.

To achieve their goals the whigs quickly devised an intercolonial campaign with troops from several colonies penetrating the tribal territory for the purpose of destroying the Cherokee. As in the past, the campaign was marred by poor planning, poor coordination, and poor leadership, but it did succeed in seriously damaging the Cherokee landscape, with one participant noting that the Cherokee "were reduced to a state of the most deplorable and wretched being often obliged to subsist on insects and reptiles of every kind" (Hatley 1993:195). Soconee, Keowee, Sugar Town, Estatoe, Tugaloo, Tamassee, Cheowee, and Eustaste were burned and fields full of crops were destroyed.

The Cherokees were to face at least seven major offensives before the Revolutionary War was over.[6] For example, in August 1776, Griffith Rutherford lead North Carolina troops against the

[6] These are briefly discussed by Milling (1969:320-321).

towns along the Tuchasegee, Oconaluftee, Hiwassee, and upper Little Tennessee rivers. In September South Carolinians attacked the Lower Towns and then aided Rutherford in destroying the Middle Towns. Colonel Samuel Jack burned towns at the heads of the Chattahootchee and Tugaloo rivers, while the Virginians burned the Overhill towns found on the Little Tennessee.

Each attack was similar to the previous and eventually the Cherokee will was broken. With only a handful of settlements intact and many of her people starving, the Cherokees sued for peace, signing two separate treaties. The first was signed on May 20, 1777 at DeWitt's Corners. Here the Cherokee surrendered nearly all their remaining territory in South Carolina. The Indians, however, were permitted to remain in the ceded Indian territory, "by political indulgence" and it is clear that they began to rebuild a number of their Lower Towns in Oconee County (Milling 1969:319). A second treaty was signed on July 20, 1777 at the Long Island of the Holston. Here the Cherokee ceded everything they possessed east of the Blue Ridge, fulfilling the colonial governments' lust for land and driving the Cherokees (at least on paper) "beyond the mountains." Sporadic raids, however, continued until the Treaty of Paris in 1782.

By this time there were signs of political and social disintegration. The population was slowly shifting to the southwest, into Alabama, northwestern Georgia, and the far western portions of North Carolina. Migration also began to the Indian Territory west of the Mississippi River. In 1789 the federal government began a "civilization program" of training and subsidies to entice the Cherokee into Anglo-agricultural activities. Most of this aid was distributed to the region which had become the political center of the Cherokee, focusing on the southern Overhill and norther Lower Town areas, with little attention paid the Middle Towns (Riggs 1988:10). Riggs notes that the more traditional Cherokee — many in the Middle Towns — resisted these efforts.

The Middle Towns, suffering from war, depopulation, a decline in the fur trade, and a lack of viable alternative economic opportunities continued to suffer. A census of the Cherokee in 1809 records a population of about 1054 individuals in the region and documents their extraordinary poverty. Riggs observes that the census reveals 0.21 horse, 0.68 cattle, and 0.62 hogs per capita, compared to averages 15 to 20 times as great in the more mixed-blood Overhill Towns (Riggs 1988:13).

The United States/Cherokee Treaty of 1819 ceded Cherokee lands in Tennessee, North Carolina, Georgia, and Alabama for lands in the Western Cherokee Nation. A brief clause in this treaty allowed Cherokees who wished to stay to become citizens and thus be granted a 640 acre "individual reservation" (Riggs 1988:13). The response was far greater than the United States Government anticipated and a number of these parcels were eventually laid out in the study area of the Middle Towns (including one to the west on Iotla Creek to Ah-leach). North Carolina, however, refused to grant citizenship to these Indians, at the same time that the Cherokee Nation passed a law that refused citizenship to those who emigrated to Arkansas or who took individual reservations.

Milling notes that there were not less than 17 treaties with the Cherokee between 1785 and 1835. In more the 75% of these treaties the Indians ceded land and in each case the remainder of their territory was "guaranteed forever." He notes that this eternity was, on average, about four years (Milling 1969:334; see also Royce 1975).

During the early nineteenth century there was a growing mestizo class which adopted many of the features of white society (see, for example, Wright 1981:236-237). Riggs (1997) reports on one such mestizo family from the excavation of their cabin site (31CE274) on the south side of the Hiwassee River. He notes that while the historic documents suggest that the family was "Cherokee in name only," the archaeological evidence reveals a far more bicultural household. For example, it appears that traditional Qualla pottery was still in use, carved stone pipes were present, and the family maintained something approaching a traditional diet. Riggs suggests that this blending, or "ambiguity" may reflect an attempt by the family "to 'hedge their bets' in a social and political climate where cultural identify was crucial" or that the mixed assemblage may simply represent the transition of the family, caught

midway between two different worlds. No conclusion is really possible, based on this one excavation, but it reveals that there is still much to learn about even the historic Cherokee.

The Removal Act of 1830 and the 1835 Treaty of New Echota resulted in an unprecedented crisis for the North Carolina Cherokee. This treaty exchanged all remaining Cherokee lands east of the Mississippi for western territory and required the removal of all Cherokee nationals. As Riggs observes:

> Because of the reservees' peculiar citizenship status (they had renounced Cherokee citizenship, but North Carolina would not acknowledge them as citizens) they were not legally subject to the forced Cherokee Removal of 1838. Many were aware, however, of the inability or unwillingness of federal troops and militia to discriminate between Cherokees, and took refuge in the mountains to avoid internment and deportation (Riggs 1988:19).

The final removal is widely recognized as one of the cruelest and most despicable events in American history. Of the 17,000 Cherokees rounded up for forced deportation, 4,000 died during the journey. Those which were able to flee and hide in the mountains formed the nucleus of what later became legally recognized as the Eastern Band of the Cherokee and who continue to live in the Qualla Boundary Reservation.[7]

A Euro-American Historic Synthesis

Western North Carolina began to be opened to Anglo-American settlement in years shortly after the American Revolution. For example, the area of Buncombe and Haywood counties were opened to settlement by the Treaty of Hopewell in 1785, although it wasn't until the Treaty of Tellico that at least some of the area of modern-day Macon County was officially opened for white settlement. The Meigs-Freeman Line, surveyed in 1802, placed the Cherokee-Anglo border along the northeastern shore of the Tuckasegee River, about 20 miles east of Franklin, in central Macon County. Virtually all of Macon County came under Anglo control as a result of the 1819 treaty.

Macon County wasn't created until 1828, when it was broken off from Haywood County. By 1839 Cherokee County was further created from the old Macon County, although that left Macon still holding land which would eventually become Jackson and Swain counties (Corbitt 1950).

By 1850 the population of Macon County (which stretched as an irregular rectangle from the Tennessee border southward to the Georgia border) had grown to 6,389 from only 4,869 in 1840. Of these, 5,734 were whites and only 655 African American slaves were recorded for the County (DeBow 1854). There were 631 farms in the county, holding on average 225 acres of land, with an average value of $636. In contrast, Cherokee County, roughly the same size and stretching from Macon's border westward to the Tennessee and Georgia lines, reported 459 farms, each with only 211 acres, but an average value of $884. To the east lay Haywood County, slightly smaller but still spanning the area from Tennessee to Georgia. This County contained 653 farms, averaging 600 acres in size and boasting an average value of $749. To the northeast lay Buncombe County, with 1,105 farms, each with an average of 526 acres and an average value of $1,202.

As might be imagined, Buncombe County was, in the immediate region, the leader in the production of rye (143,095 bushels compared to only 74,826 in Macon County), wheat (27,548 bushels compared to 3,687), and corn (487,014 bushels compared to 225,397). Buncombe also produced more Irish potatoes (29,342 bushels compared to 23,014) and hay (3,244 tons compared to only 721 tons). Yet surprisingly, Macon County did produce over a third more rye than neighboring Cherokee and Haywood counties (each of

[7] It wasn't until 1874 that the United States courts finally affirmed that the Cherokee had title to the Qualla Reservation and it wasn't until 1930 that the United States Congress finally agreed that members of the Eastern Band were U.S. citizens.

which produced under 47,000 bushels). And Macon County produced more corn and wheat than Cherokee County, and more potatoes than Haywood County. But the single biggest difference was in the area of tobacco. Macon County's yield was 34,710 pounds, compared to 18,999 pounds in Buncombe, 14,324 pounds in Haywood, and 7,934 pounds in Cherokee. Macon, and the counties formed from its land, was to become an area where the Burley tobacco would be grown into the twentieth century. This tobacco, cured by air and heavier-bodied than Bright, would become a major commodity in the 1860s (Brooks 1962).

Consequently, while the Macon County's farms were smaller and had lower values, they weren't necessarily producing less than those in neighboring counties. In fact, the tobacco crop suggests that the Macon farmers were finding a special niche and exploiting it successfully, while still managing to focus on food crop production.

Because of the isolation, there tended to be economic stagnation in much of the rural mountain area of North Carolina. Industrial development was slow and few towns were formed. The Civil War had relatively little impact on the area, and many of the region's farmers were openly sympathetic to the Union cause. The area also became a safe haven for Union deserters. Powell (1989:364) notes that Macon County was known for its Union deserters and their frequent raids on surrounding farms. Perhaps even more debilitating, however, were the taxes imposed by the Confederate government, amounting to a 10% levy on all farm products.

After the Civil War there was return to an emphasis on agricultural production focused on self-sufficiency. This region, unlike many areas of the South, had never relied on African American slavery and there was not the extent of either economic or social shock after the war. Nevertheless, Macon remained isolated, particularly from much of North Carolina. The transportation network, and particularly the Talullah Falls Railway, encouraged connections with northern Georgia over contact with western North Carolina. It wasn't until the completion of the highway through the Cowee Mountain Gap in 1926, when Franklin became connected to Dillsboro and the Western North Carolina Railroad, that this changed.

As Macon County moved further into the twentieth century the forces of agriculture began to slowly give way to tourism and, particularly, an increase in retirement communities and vacation homes. This is resulting in additional pressures on the fragile archaeological resources of the region.

Previous Archaeological Investigations

A number of sites were identified in the Iotla Valley as a result of the Cherokee project initiated by Joffre Coe and his students in the early 1960s (Ward and Davis 1999:138-139). These include 31MA3, 31MA72, 31MA74, 31MA75, 31MA79, 31MA80, 31MA81, and 31MA83 (variously recorded by Dolan in 1963 and Egloff in 1965).

An investigation of an earlier airport runway expansion project was conducted by Dr. Harvard Ayres of Appalachian State University in 1991. At that time archaeological site 31MA342, a posited Qualla farmstead or hamlet immediately north of the airport runway, was identified and was determined to be potentially eligible for inclusion on the National Register. The site was to be greenspaced and not disturbed by the construction. Some additional recoverage of this area resulted from a survey of the proposed Macon County Industrial Park (Southerlin et al. 1996), which identified and assessed a number of Qualla sites. Of particular note site 31MA73 was found to contiguous, and likely an extension of 31MA3.

RESEARCH METHODS

Introduction

As previously indicated, the primary goals of this testing program was to collect information on the data sets present at the site, and their integrity. With this information it would be possible for the SHPO to offer an opinion concerning eligibility to the lead agency. Moreover, it would be possible to develop an appropriate data recovery plan (outlined in Appendix 2 of this report) that would meet the requirements of 36CFR800 and that would be consistent with the Secretary of the Interior's *Standards for the Treatment of Historic Properties*, the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation*, and the Advisory Council on Historic Preservation's *Treatment of Archaeological Properties: A Handbook*.

The current work complies with the *Draft Scope of Work for Intensive Mapping of the Runway Expansion at the Macon County Airport*[1] dated July 11, 2000 and prepared by Dr. David Moore, then Staff Archaeologist with the North Carolina Office of State Archaeology, Western Field Office. In general, that plan called for:

> an intensive mapping regimen to locate intact feature deposits within the approximately 20 acre area of the proposed expansion. . . . The general field methodology shall consist of removing topsoil (plowzone) with a backhoe (or other appropriate machinery), mapping and photographing features, and replacing the topsoil with the backhoe (Moore 2000).

[1] No "final" of this document was ever prepared and all parties accepted the draft document as guiding the work.

Testing Plan

The project area was divided into two sections for the purpose of sampling. Section A, consisting of about 13 acres, was identified as possessing a high potential for archaeological remains because of its general level or gently sloping topography. This area was to be explored using an 8% sample. Section B, consisting of about 7 acres, was identified as possessing a low potential for archaeological remains because of its more steeply sloping topography and evidence of erosion. This area was to be explored using a 2% sample.

The excavation was to use a backhoe with a toothless bucket in order to remove the overlying plowzone and expose features. The units for this work were to be a series of trenches, each approximately 6 feet in width and 100 feet in length. At the base of the plowzone, the data recovery plan anticipated that shovel skimming or troweling would be used to clean the exposed surface, allowing the mapping of features and postholes. A total of 75 trenches (6 by 100 feet) were anticipated in Section A and 10 trenches (again, approximately 6 by 100 feet) were anticipated in the low probability Section B.

The testing plan did not anticipate the need for any hand excavation, although should buried midden be identified, it recognized that hand excavation would be necessary.

The mapping of the individual trenches was to use some horizontal control point. Individual mapping of features was not required, nor was vertical control. Features were to be numbered sequentially and marked with an aluminum tag prior to backfilling. The document also required that "specific features identified as burials should be clearly noted" and also stipulated that the identification of human remains would require compliance with North Carolina Code, Article 3, Section 70-26 et. seq. ("Unmarked Human Burial and

Human Skeletal Remains Protection Act").

Where features and postholes were encountered, the scope required both B/W and color slide photography, although individual feature photographs were not required. The plan allowed photography of trench sections and specified that where no features were present, no photography was necessary. Documentation of up to 300 features and 4,000 postholes was required by the scope.

When the documentation work was complete, the trench was to be covered with filter fabric and backfilled.

Within two weeks of the completion of the project a letter management summary was to be provided, with a final report to be submitted as soon as practical. This final report was to include "standard reporting information as well as complete drawings of each transect map as well as a full project map showing the locations of each transect within the overall project area" (Moore 2000:3). The report was also to contain a list of features providing as much information as possible within the scope of the project, as well as an inventory of photographs. The report, however, was not to "address any level of artifact analysis unless it is deemed necessary by the contractor."

The testing plan also specified that Macon County would be responsible for providing both the backhoe and operator, as well as a water tank to allow watering-down of the trenches to enhance feature soil colors for photography.

Testing Plan as Implemented

The proposed testing plan was implemented with relatively few modifications.

The original survey grid used at the site for shovel testing and consisting of pin flags was no longer present. The control point, previously established in the centerline of SR 1434, 61.5 feet grid south of the 150R1900 point, was still present. In addition, a second control point, a ½-inch rebar, was also placed on the site. Both points were picked up by the site survey and can be used to relocate both the original shovel test grid and the various trenches. Survey work was provided by W.K. Dickson and they have established additional control points which can be independently used to reconstruct the locations of the trenches.

Figure 8. Excavation and screening of Unit 2.

The County initially provided a small Kubuta tractor with a backhoe. This equipment was not large enough to open the area needed in order to complete the testing program prior to severe winter weather. A subsequent piece of equipment, on loan from the Macon County landfill, while larger, did not have a toothless bucket and could not be devoted to the project for more than a day. Lacking appropriate equipment, the first week allowed relatively few of the needed trenches to be opened.

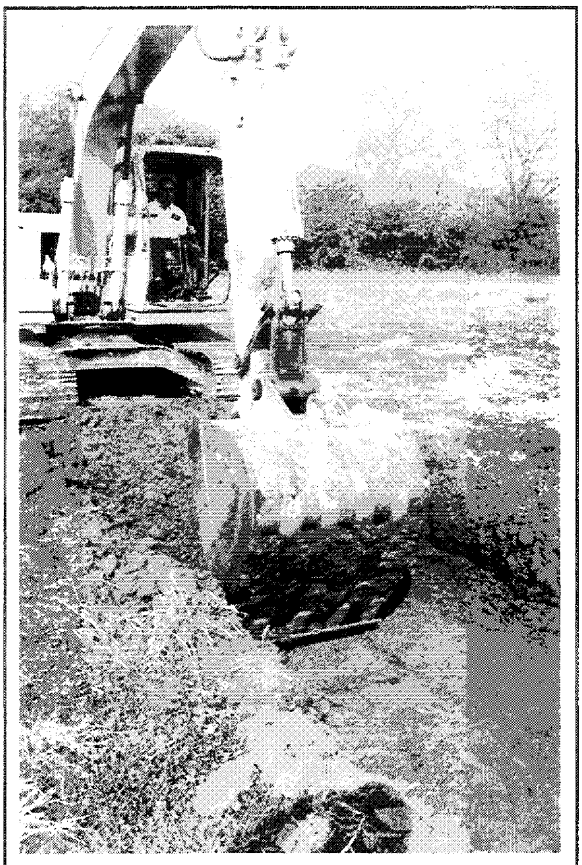

Figure 9. Tracked backhoe opening a trench.

During this "down time" we decided to open two 5-foot units at the western edge of the site (Figure 8). While not required by the Scope of Work, we felt that since the lack of equipment provided some unanticipated time, it would be helpful to have some controlled excavations to better explore stratigraphy and also evaluate the artifact content of the plowzone. These units were oriented to magnetic north-south and were tied into the previously established horizontal control points. Vertical control was maintained using the extant ground surface. The unit fill was screened through ¼-inch mesh. Plan drawings were created at a scale of 1-inch to 2-feet. Profile drawings using this same horizontal scale with an exaggerated vertical scale of 1-inch to 1-foot.

At the end of the first week the County contracted with Appalachian Construction. Work thus far had revealed that the clay soils (not cultivated in a year or more and subjected to a year-long drought) were very hard. It was decided that a relatively large piece of equipment would be needed. In addition, we determined that a pan would require a pusher in order to cut through the clay. We doubted that a rubber tired pusher would have sufficient traction. But either a tracked or rubber tired pusher would require considerable clean-up of the clay floor. Our experience with the smaller equipment had revealed that substantial time was being lost in attempting to clean up the very hard clay floors.

Consequently, the best piece of equipment seemed to be a large tracked backhoe. A grading bar was welded to the removable bucket teeth, allowing about a 3-foot swath to be opened at a time (Figure 9). This allowed a relatively clean surface to be created by working the equipment backward. It also allowed a crew

Figure 10. Shovel skimming behind stripping.

to work immediately behind the bucket, shovel skimming the floor in order to identify features and postholes which were temporarily marked with survey flags (Figure 10).

With the equipment at hand, we found that it was more convenient to open trenches about 8 feet in width, allowing the plotting of an area about 6.5 to 7.5 feet in width, then to maintain a 6-foot width. In addition, while we typically sought to open trenches 100 feet in length, they tended to vary from about 95 to 110 feet. A few were also intentionally laid out longer than 100 feet in order to provide coverage of particular areas.

Figure 11. Portion of Trench 16 showing identified feature and postholes with metal tags.

We found that even with this equipment and a very skilled operator, it was difficult to maintain level excavations. In some cases the clay subsoil, instead of peeling back, broke apart with large "chunky" fragments being removed. In addition, even when it was possible to slowly peel off thin layers, there were times when the blade hit the softer soil of a feature and caused a gouge. Both, we believe, are related to extraordinarily dry clay soils present as a result of the year-long drought. While we experimented with several different methods, we were not able to find a consistent solution.

With the available equipment we averaged opening, shovel skimming, photographing, and plotting 131 square feet a person hour. The speed of the work was dependent on the condition of the soil, the number of features, and their complexity and ranged from a low of about 97 square feet/person hour to about 151 square feet/person hour. In terms of any data recovery operations at the site, we would not recommend expecting to open more than about 130 square feet/person hour, assuming similar soil conditions, a similarly skilled operator and crew, and a minimal distance to deposit the spoil.

The identified features were further cleaned, if necessary, by troweling and the pin flags were replaced by pre-numbered aluminum tags for features and unnumbered aluminum tags for postholes as they were plotted (Figure 11). Plotting was conducted at a scale of 1-inch to 2-feet. While not required by the Scope of Work, we also recorded occasional profiles since that information will be of assistance to any future data recovery operations. All trenches were photographed using fine grain Ilford Delta 100 B/W print film and Fujichrome Sensia II 100 color transparency film. The typical procedure was to include 9 to 13 foot sections of the trench in each image. In some cases we chose to also take close-up photographs of features. While not required by the Scope of Work, we also photographed even "empty" trench sections.

As a result of this work, a series of 80 trenches, incorporating 52,680 square feet, were opened during the four weeks of field investigation. This included 6,197 square feet in the portion of the site identified as low probability, reflecting a 2.03% sample, and 46,483 square feet in what was identified as high probability, reflecting an 8.21% sample. Consequently, while fewer trenches than anticipated by the Scope of Work were opened, the actual square footage and sample size exceeded the Scope's requirements.

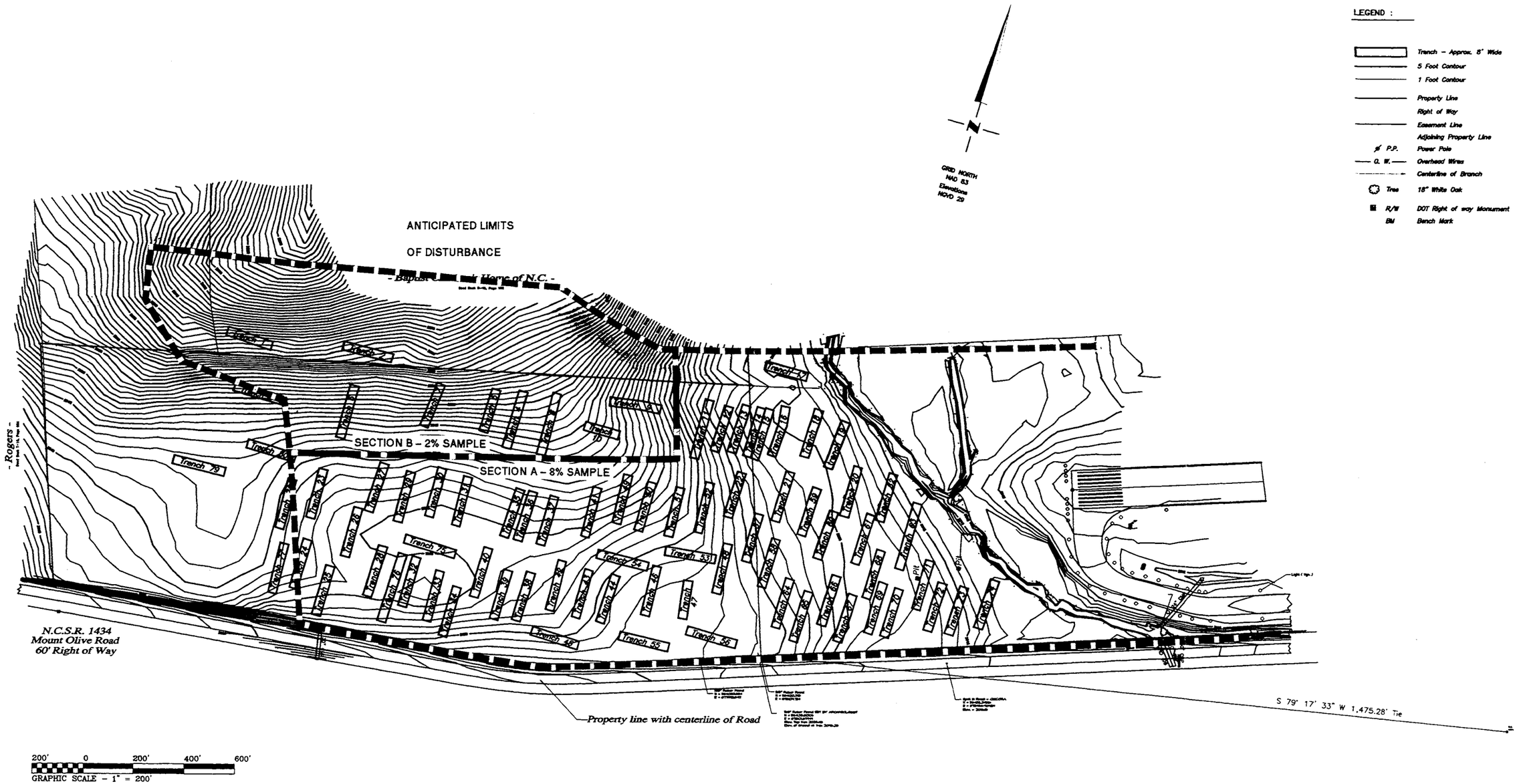

Figure 12. Site map showing the limits of anticipated disturbance, the two sampling areas, and trench locations.

Figure 13. Installing filter fabric after cleaning and plotting a trench.

These trenches were laid out on either magnetic north-south or east-west orientations. Their placement was intended to provide even, uniform coverage of the site area and is shown in Figure 12.

At the conclusion of the work 3.5 ounce nonwoven filter fabric was placed over the trench surface (Figure 13). A lens of clean white sand, about 0.2 foot in depth, was placed over the filter fabric in the area of four identified burials. Should these areas need to be re-excavated, the white sand will provide an immediate indication of the burial lying below.

It was not possible to backfill the individual trenches until about three weeks after the conclusion of the field investigations. The trenches were inspected immediately prior to the backfilling. No damage was noted as a result of this delay.

Laboratory Methods

The cleaning of artifacts and cataloging of the specimens was conducted at Chicora's Columbia, S.C. labs at the completion of the project. These materials have already been curated with the North Carolina Office of State Archaeology and the cataloging is consistent with the system used by that facility. The collection was assigned the Accession Number 200281. Specimens were packed in plastic bags and boxed. Field notes were prepared on alkaline buffered paper and these were curated with the collections. The B/W photographic materials were processed to archival standards. Two contact sheets were provided to the curatorial facility. The color transparencies are not considered archival, but were processed to Fuji specifications.

Since this work was not intended to produce collections, relatively few remains were collected. Materials are present from the two 5-foot units. In addition, diagnostic materials encountered during shovel skimming were retained by trench number. Diagnostic artifacts shovel skimmed out of features were also collected and provenienced by feature number.

The Scope of Work specified that only minimal analysis was necessary. As a result, our work was only adequate to permit cataloging of the materials. This included identification of raw materials of lithics, collection of metric data for projectile points, and typological identification of pottery over an inch in diameter.

The diagnostic lithic material was compared to the published typological descriptions for the various projectile points such as Coe (1964) and Keel (1976). The primary material were identified in the lithic collections was quartz, which was usually a translucent white. As previously discussed, this material is widely available. Small quantities of orthoquartzite were also observed. This material was fine grained and tended to have a slightly yellow color. A small quantity of black and gray chert was also identified in the assemblages.

This material seems most familiar to the Ridge and Valley cherts of eastern Tennessee, although we attempt no more precise locational analysis. One item of a reddish-tan translucent chalcedony was also identified in the collection.

Several other geological materials were also found during the testing. Several quartz crystals were also identified in the collection. A single fragment of hematite, partially used by the site occupants, was also recovered. Finally, a small quantity of book mica was also recovered from several features.

Debitage categories included primary (defined as flakes with 90% or more cortex), secondary (defined as having 1% to 90% cortex), and interior (defined as having no cortex). At this stage, tools are defined very simply, being placed in broad morphological categories. Our laboratory methods, for example, define biface as an artifact with flakes removed on both sides (not distinguishing between preforms, early stage reductions, and so forth); a core is a piece of raw material from which flakes have been removed; an end scraper is a blade tool with at least one convex end which exhibits a steep angle; a used flake is a chip of stone that was used as a tool, exhibiting edge damage or wear; and a side scraper is a flake tool in which one of the long edges was retouched to serve as the scraping edge.

Pottery examples were compared to typological descriptions provided by Coe (1964), Dickens (1970), Keel (1976), Moore (1981) and Egloff (1967).

At the very simplest level, **Swannanoa** pottery was characterized by crushed quartz and/or coarse sand inclusions in the paste. The sherds would be hand smoothed and gritty or sandy to the touch. Surface treatments might include cord marked, fabric-impressed, simple stamped, check stamped, or plain.

Connestee pottery would be identified by the presence of fine to medium sized sand. The paste would be compact and the interior surfaces would be smoothed, yet have a sandy feel. Surface treatments would include brushed, cord marked, simple stamped, check stamped, and plain.

Pisgah pottery would be characterized by fine to coarse sand. The interiors might be burnished to lightly smoothed. The pottery would have a compact texture. Surface treatments include complicated stamped (both rectilinear and curvilinear), check stamped, and plain. Another characteristic of this ware is its collared rims, frequently with a series of short diagonal punctations.

Qualla pottery would be identified by its moderate to abundant quantities of grit (although the burnished specimens would have only fine sand). Interior burnishing would be variable. Surface treatments would include complicated stamped, burnished, check stamped, cord marked, cob impressed, brushed, and plain.

As will be discussed in the following section, very fragmentary human remains were recovered from four features exposed by the tracked backhoe. In each case the spoil piles were carefully searched for fragments of the remains. These were not washed, but were only lightly brushed off.[2] The only "analysis" undertaken of these remains was identification sufficient for inventory purposes.

Site Evaluation

Archaeological sites will be evaluated for further work based on the eligibility criteria for the National Register of Historic Places. Chicora Foundation only provides an opinion of National Register eligibility and the final determination is made by the lead agency in consultation with the North Carolina State Historic Preservation Officer.

The criteria for eligibility to the National Register of Historic Places is described by 36CFR60.4, which states:

the quality of significance in

[2] The Inter-Tribal Council of the Five Civilized Tribes' Resolution 98-28 adopted in 1998 that specifies, "Any cleaning or washing of these bone fragments or articles [from a burial] is a violation of human rights. The excavated Earth remains sacred even with the absence of Human remains or funerary objects." Our decision to only brush loose soil and maintain all fragments, regardless of the size, was in respect for this concern on the part of the EBC.

> Amerian history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and
>
> a. that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> b. that are associated with the lives of persons significant in our past; or
>
> c. that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> d. that have yielded, or may be likely to yield, information important in prehistory or history.[3]

National Register Bulletin 36 (Townsend et al. 1993) provides an evaluative process that contains five steps for forming a clearly defined explicit rationale for either an archaeological site's eligibility or lack of eligibility. Briefly, these steps are:

- identification of the site's data sets or categories of archaeological information such as ceramics, lithics, subsistence remains, architectural remains, or sub-surface features;
- identification of the historic context applicable to the site, providing a framework for the evaluative process;
- identification of the important research questions the site might be able to address, given the data sets and the context;
- evaluation of the site's archaeological integrity to ensure that the data sets were sufficiently well preserved to address the research questions; and
- identification of important research questions among all of those which might be asked and answered at the site.

This approach, of course, has been developed for use documenting eligibility of sites being actually nominated to the National Register of Historic Places where the evaluative process must stand alone, with relatively little reference to other documentation and where typically only one site is being considered. As a result, some aspects of the evaluative process have been summarized, but we have tried to focus on the **ability of 31MA77 to address significant research topics within the context of its available data sets.**

[3] In addition to these criteria, properties with traditional religious and cultural importance to Native American or Native Hawaiian groups may be eligible for the National Register, even if they don't seem to fit any of the outlined categories.

FINDINGS

Features and Postholes

The 80 trenches, incorporating 52,680 square feet, identified 167 features and 1,569 postholes. In the identification of each we attempted to be conservative. For example, all were cleaned sufficiently well to eliminate those which were clearly trees or animal disturbances. If a stain was intermediate between a feature and posthole in terms of size and general appearance, it was identified as a posthole in order not to artificially inflate the number of features. There were also a number of what appeared to be very small postholes, frequently about 0.15 foot in diameter. While these may be postholes, they may also represent rodent borrows and the only way to determine this is to excavate them. Consequently, we again took a conservative approach and ignored these very small stains in order not to inflate the posthole inventory. This approach assures that our projections reflect the minimal numbers of features and postholes which might be present at the site.

In the low probability area this work identified 71 postholes and one feature. Over a third of these postholes and the single feature were found in Trench 10, situated at the toe of the site's slope, an area which might better be considered intermediate or high probability. Nevertheless, **this suggests that potentially as many as 349 postholes and 49 features exist in the low probability area.**

In the high probability area this work identified 1,498 postholes and 167 features. The mean number of postholes per trench is 20, although the standard deviation of 16 reflects the considerable variation between the trenches (the number of postholes ranges from 2 to 76). Regardless, **it is possible that as many as 18,246 postholes and 2,034 features are present in the high probability portion of the site.**

A list of the trenches, their total square footage, and the number of identified features and postholes is provided by Table 1.

A number of feature "types" or classifications have been proposed, most based on very general functional interpretations. For example, at the Ela site Wetmore (1990:40) suggests hearths, storage pits, borrow pits, cooking pits, rock-filled pits, other pits, burials, and cashes. Wilson (1977:29), working with a Siouan site, is more conservative, suggesting only shallow basins, storage pits, hearths, and burials. Regardless, both approaches have the luxury of using post-excavation data. At 31MA77 we can only guess at the "function" of a feature based on its size and the nature of the fill.

Table 2 provides a list of identified features, including size and whatever comments seem appropriate concerning function. Again, we have tried to maintain a certain consistent degree of conservatism. Where there wasn't relatively clear and convincing evidence of a feature's function, we have left this table category blank.

Human remains were identified in three different site areas, each time as a result of intrusion by the stripping equipment.

The first includes two burials (designated Features 25 and 27) in close proximity to one another in Trench 21. In each case a small area of the right side of the skull (including the right mastoid process and external auditory meatus)was removed. No excavation of the burials took place and no grave associations were observed. In this same trench we also identified what appears to be a skull within a posthole.

The next is a shallow burial pit (designated Feature 109) encountered in Trench 40. Flat shoveling revealed the presence of teeth (including molar fragments and probable mandible fragments). The bone here is in very poor condition. The loose fragments were

Table 1.
Trenches, Postholes and Features

Trench #	Post Holes	Feature #s	Trench #	Post Holes	Feature #s	Trench #	Post Holes	Feature #s
1	--	--	28	37	60 - 64	55	20	127 - 130
2	1	--	29	23	65, 66	56	8	131 - 137
3	8	--	30	59	67 - 77	57	23	138 - 141
4	7	--	31	76	86 - 85	58	18	--
5	5	--	32	24	92 - 95	59	3	142
6	10	--	33	12	--	60	17	--
7	9	--	34	8	--	61	16	143
8	3	--	35	14	97, 98	62	26	--
9	3	--	36	12	99 - 101	63	7	144
10	25	1	37	24	102, 103	64	31	145 - 148
11	9	--	38	17	104, 105	65	7	149
12	8	2	39	13	--	66	7	150
13	15	4	40	17	106 - 109	67	34	151, 152
14	54	5 - 8	41	7	--	68	22	--
15	51	9 - 11	42	56	110 - 112	69	31	153, 154
16	26	12, 13	43	27	113	70	14	155 - 158
17	15	--	44	40	114 - 116	71	11	--
18	6	14, 15	45	2	117, 118	72	8	159
19	10	--	46	31	119 - 123	73	9	--
20	21	16 - 20	47	48	124, 125	74	4	160 - 162
21	30	22, 23,25 - 27	48	18	--	75	8	--
22	8	24	49	10	--	76	9	163 - 165
23	20	--	50	10	--	77	21	166, 167
24	10	28 - 35	51	7	--	78	5	--
25	17	36, 37	52	7	--	79	16	168
26	72	38 - 46	53	6	--	80	8	--
27	44	47 - 59	54	23	126			

Table 2.
Size and Nature of Identified Features

Fea #	N-S (ft.)	E-W (ft.)	Type	Fea #	N-S (ft.)	E-W (ft.)	Type	Fea #	N-S (ft.)	E-W (ft.)	Type
1	?	2.0	Hearth	28	3.8	3.4		55	2.0	2.4	Burial?
2	2.4	?	Burial?	29	2.2	?		56	3.0	3.4	
3	3.0	~2.9		30	3.1	~3.4		57	~4.5	?	
4	2.9	?		31	4.5	4.0	Storage	58	~2.0	~3.0	Burial?
5	4.8	?		32	1.7	2.1	Burial?	59	4.6	?	
6	1.6	~1.7		33	1.8	?	Hearth	60	3.0	1.9	Burial?
7	3.6	?	Irregular	34	4.4	?		61	4.0	2.7	
8	1.7	?	Burial?	35	2.2	?		62	1.9	3.0	Burial?
9	2.8	2.7		36	2.1	3.0	Burial?	63	2.7	2.7	Storage
10	1.9	?	Burial?	37	2.0	1.6		64	3.5	?	
11	1.9	?	Burial?	38	2.2	?		65	1.7	?	
12	2.9	2.7		39	1.8	1.0		66	2.0	2.0	
13	?	~3.8		40	2.1	2.4	Burial?	67	3.0	?	
14	3.0	2.8	Rock hearth	41	2.3	?		68	2.0	?	
15	1.6	?		42	3.5	?	Irregular	69	2.1	2.3	
16	1.7	1.7		43	2.8	2.4		70	2.0	?	
17	1.5	2.3	Burial?	44	?	?		71	2.6	2.8	
18	2.4	?		45	1.3	?		72	?	?	
19	3.5	?		46	1.7	?		73	1.5	?	
20	4.6	2.6	Irregular	47	1.7	?		74	1.6	~1.9	Burial?
21	Fea	# not	assigned	48	1.5	1.4		75	1.6	1.5	
22	5.2	?		49	2.5	?		76	2.5	?	
23	3.7	?	Irregular	50	1.8	1.8		77	1.8	?	
24	?	3.5	Storage	51	2.5	?		78	2.1	2.9	
25	2.0	2.4	Burial	52	4.2	?		79	1.6	?	
26	2.9	1.7	Burial?	53	1.6	?	Burial?	80	2.1	2.2	
27	1.4	2.3	Burial	54	2.0	2.6	Burial?	81	1.5	?	

Table 2, cont.
Size and Nature of Identified Features

Fea #	N-S (ft.)	E-W (ft.)	Type	Fea #	N-S (ft.)	E-W (ft.)	Type	Fea #	N-S (ft.)	E-W (ft.)	Type
82	2.3	?		109	2.0	2.6	Burial	136	3.1	2.8	Storage
83	3.1	3.0		110	1.5	?		137	1.8	1.6	
84	1.6	?		111	1.8	?		138	1.2	~1.6	
85	2.8	3.0		112	2.6	?	Hearth	139	2.0	1.50	Hearth
86	1.9	?		113	1.6	1.5		140	1.3	1.6	
87	~2.0	?		114	2.3	2.3	Hearth	141	1.1	1.3	
88	~2.0	~3.0		115	2.0	2.1		142	2.0	~2.0	
89	3.2	3.3		116	2.0	2.1		143	1.8	~2.3	Burial?
90	2.4	?		117	4.3	4.0	Burial?	144	1.2	?	Burial
91	3.3	3.3		118	2.3	?		145	1.0	?	
92	1.7	~1.8		119	2.0	1.7		146	1.1	1.8	
93	1.8	?	Burial?	120	1.9	1.9		147	3.5	?	
94	1.4	1.8	Hearth?	121	1.2	?		148	3.2	?	Storage
95	8.2	?	Hs. floor	122	1.7	1.6		149	2.6	2.6	Burial?
96	2.8	?		123	2.8	2.9		150	2.1	?	
97	3.6	?		124	?	1.4		151	3.0	2.2	Storage
98	?	?		125	3.5	4.1	Hearth	152	1.8	1.3	
99	2.3	~3.5	Burial?	126	?	1.7		153	?	1.5	
100	2.2	~3.3	Burial?	127	?	2.6		154	1.3	1.6	
101	2.7	~6.0	Rock hearth	128	1.5	1.5		155	2.0	2.89	Burial?
102	2.0	~4.0		129	?	1.9		156	1.4	2.5	Burial?
103	2.9	?	Burial?	130	?	4.7		157	3.9	2.9	Storage
104	5.2	?	UID trench	131	~2.4	2.4	Storage	158	3.0	1.8	Burial?
105	2.1	?	Hearth	132	2.2	2.8		159	2.2	?	
106	1.7	1.8	Hearth	133	2.4	2.2		160	3.0	2.9	
107	2.6	2.4		134	~1.7	1.8	Storage	161	3.0	2.7	Storage
108	1.6	?		135	2.2	2.2		162	2.5	?	

Table 2, cont.
Size and Nature of Identified Features

Fea #	N-S (ft.)	E-W (ft.)	Type	Fea #	N-S (ft.)	E-W (ft.)	Type	Fea #	N-S (ft.)	E-W (ft.)	Type
163	3.0	3.0	Hearth	165	3;.1	?		167	1.6	~2.8	Burial?
164	3.2	?	Burial?	166	3.3	4.2	Storage	168	?	1.0	

? = dimension not exposed by stripping, ~ = dimension estimated based on curvature of feature

collected, but no excavation of the burial was undertaken and no grave associations were noted.

The third involves a shallow burial (identified as Feature 144) encountered during machine work in Trench 63. Scraping revealed bone (including a portion of the internal occipital crest and other skull fragments). No bone was collected, except for that found in the spoil pile. No grave associations were identified.

Figure 14. Trench 70, Feature 158 (a possible burial, to the left) intruding into Feature 157 (a probable storage pit to the right). View is to the east.

Table 2 indicates that in addition to the four known burials, 28 additional features *may* be burials. If this is correct, then with the four known burials, there may be as many as 390 burials on the site.

During these investigations a fifth location produced human bone. A posited posthole in Trench 21 also produced skull remains during stripping. A more careful inspection of the photographs from this find suggest that this, too, may represent a very shallow burial pit with indistinct edges. If this is the case, then not only may the number of anticipated burials be slightly higher, but future research should pay particular attention to diffuse, difficult to recognize stains.

However, most features were clearly defined as dark organic soil in the red clay matrix. Figures 14, 15, and 16 illustrate a range of feature types present at the site, as well as how distinct the features tended to be at 31MA77.

Several of the features, such as Features 131, 133, and 134 in Trench 56, revealed fairly large fragments of mica which often appeared cut or formed. These are likely Connestee pits which contain refuse or

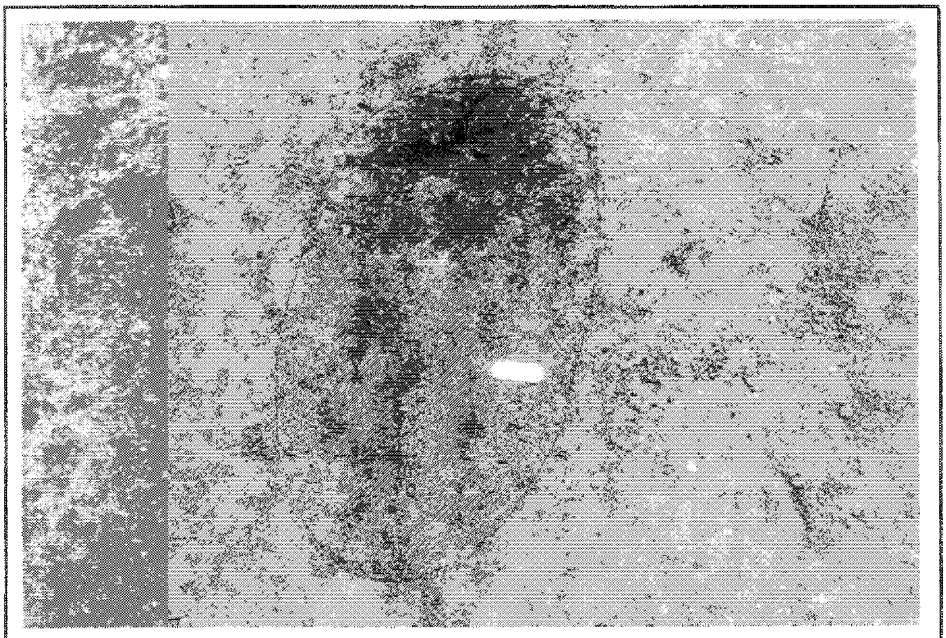

Figure 15. Trench 70, Feature 156, a possible burial.

partially finished mica intended for trade. The cluster may represent association with a specific house site or work area. Feature 31 in Trench 24 represents a very large trash or storage pit filled with Qualla pottery, as well as a lead seal. On this seal were scratched the initials, "R H." While perhaps coincidental, Richard Henderson's association with the Cherokee and efforts to purchase large tracts of land during the mid-1770s has been previously discussed.

One seemingly anomalous feature is a dark trench-like stain in Trench 38, designated Feature 104. This stain is about 3 feet in width and runs northwest to southeast, with a slight curve. In terms of Native American features it most closely resembles the large pits found at the Warren Wilson site and thought to represent roasting pits used in community-wide celebrations (Ward and Davis 1999:163). Without excavation, however, the function at 31MA77 remains uncertain.

Our work revealed that while many postholes were equally well defined — and often evidenced by charcoal — there were a number that were far more mottled, with somewhat less distinct edges. We interpret these as perhaps representing earlier, possibly Connestee structures, while the darker postholes may more typically represent Qualla structures. We also identified a surprising number of square or squared postholes, many of which were also burned.

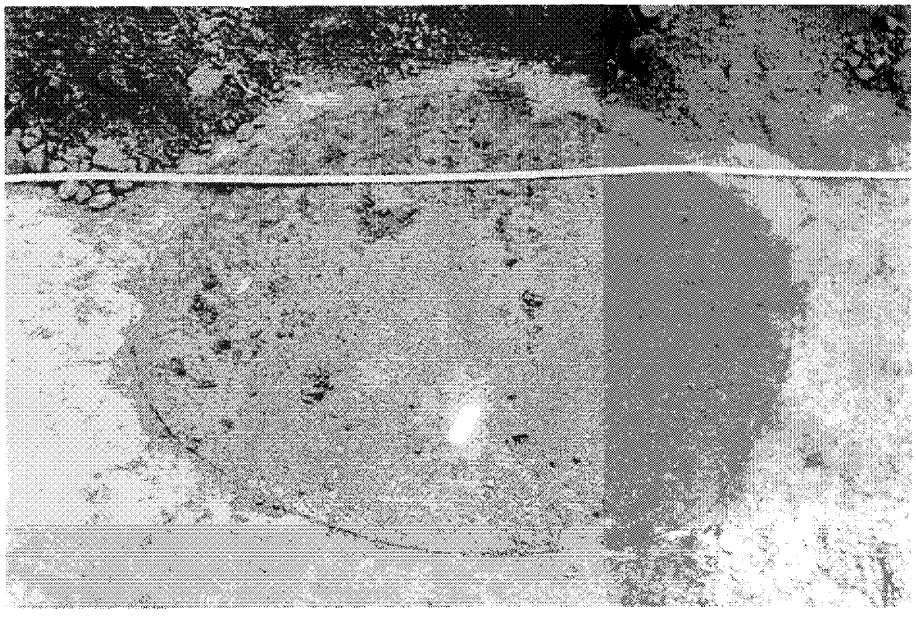

Figure 16. Trench 74, Feature 160, pit with no determined function.

We had the same problem expressed by other researchers attempting to identify posthole patterns based on narrow cuts. While some patterns appear to be present, we suspect that many others were simply overlooked.

A possible corner for a square structure is found Trench 10, between the 30 and 40 foot points. A somewhat more convincing straight wall segment is found between the 30 and 40 foot points in Trench 14, with another in that same trench at its northern end. Another straight line wall segment may be present in Trench 27, between the 80 and 90 foot points, terminating in Feature 59. A possible burned square structure is present in Trench 32, between the 15 and 30 foot points and possibly intruded into by Feature 95, interpreted to be a burned house floor. Another possible corner is found between the 80 and 85 foot points in Trench 42.

While less common, there are also segments which appear to come from circular structures. Examples are found in the 70 to 80 foot segment of Trench 48, the 0 to 20 portion of Trench 54, and the 48 to 60 foot area of Trench 61.

The presence of both square and circular posthole lines suggests that excavations at the site will identify summer and winter houses.

When Table 1 is examined, it appears that the distribution of postholes and features is not homogeneous. This becomes even more clear when the trench plans are examined. The site appears to consist of a series of occupation clusters. We have outlined 12 concentrations of postholes and features on Figure 17. These range in size from about 100 by 100 feet, at the north end of Trench 32, to an area measuring 600 by 200 feet and encompassing all of Trenches 26, 27, and 28.

This is not intended to suggest that no remains exist outside of these area, or even to suggest that no significant remains exist outside these concentrations. In fact, quite the contrary is the case. Reference to Table 1 reveals that a number of postholes and features, including a number of possible burials, are found in portions of the site not shown as concentrations in Figure 17. But these 12 areas of dense occupation appear to have been intensively used, and reused. These areas appear to represent multiple building episodes and certainly appear to contain high densities of features (including, we believe, burials).

These areas seem to cluster at the foot or toe of the slopes. Occupation seems to have a high degree of association with slope. None of the occupation concentrations have a slope greater than 3% (between Trenches 24 and 25) and most have slopes of 1 to 2% (for example, the concentration including Trenches 44, 46, 47, and 56 is found on 1% slopes). In contrast, Trenches 1 through 7 are found on slopes of about 5.5%. The one trench in the low probability area with a feature (Trench 10) is found on a slope of 2.3%, likely explaining why it produced far more remains than other low probability trenches. Whether this finding can be applied to other mountain sites is unclear, but at least at 31MA77, it appears that slope was a determining factor.

The dispersed occupation at 31MA77 is suggestive of a series of hamlets or individual structures scattered on the lower edge of the slope, overlooking the Iotla Branch floodplain to the south. This certainly seems consistent with Bartram's description, "we passed through the Jore village, which is pleasingly situated in a little vale on the side of the mountain; a pretty rivulet or creek winds about the vale, just under the village" (Bartram 1928 [1791]: 291). It seems likely that the areas between structures might have functioned as small gardens spaces.

Test Excavations

As previously mentioned, two 5-foot units were opened at the east edge of the site (Figure 17). The more eastern one, Test Unit 1, revealed a dark brown (7.5YR3/3) sand loam plowzone about 0.6 to 0.8 foot in depth over a transition zone or possibly old plowzone of very dark grayish brown (10YR3/2) sandy clay about 0.2 foot in depth. This terminated on a mottled dark brown(7.5YR3/4) sandy clay subsoil. At the base of the unit two postholes were identified, both with very dark brown sand fill (Figure 18).

The upper plowzone is clearly that which has

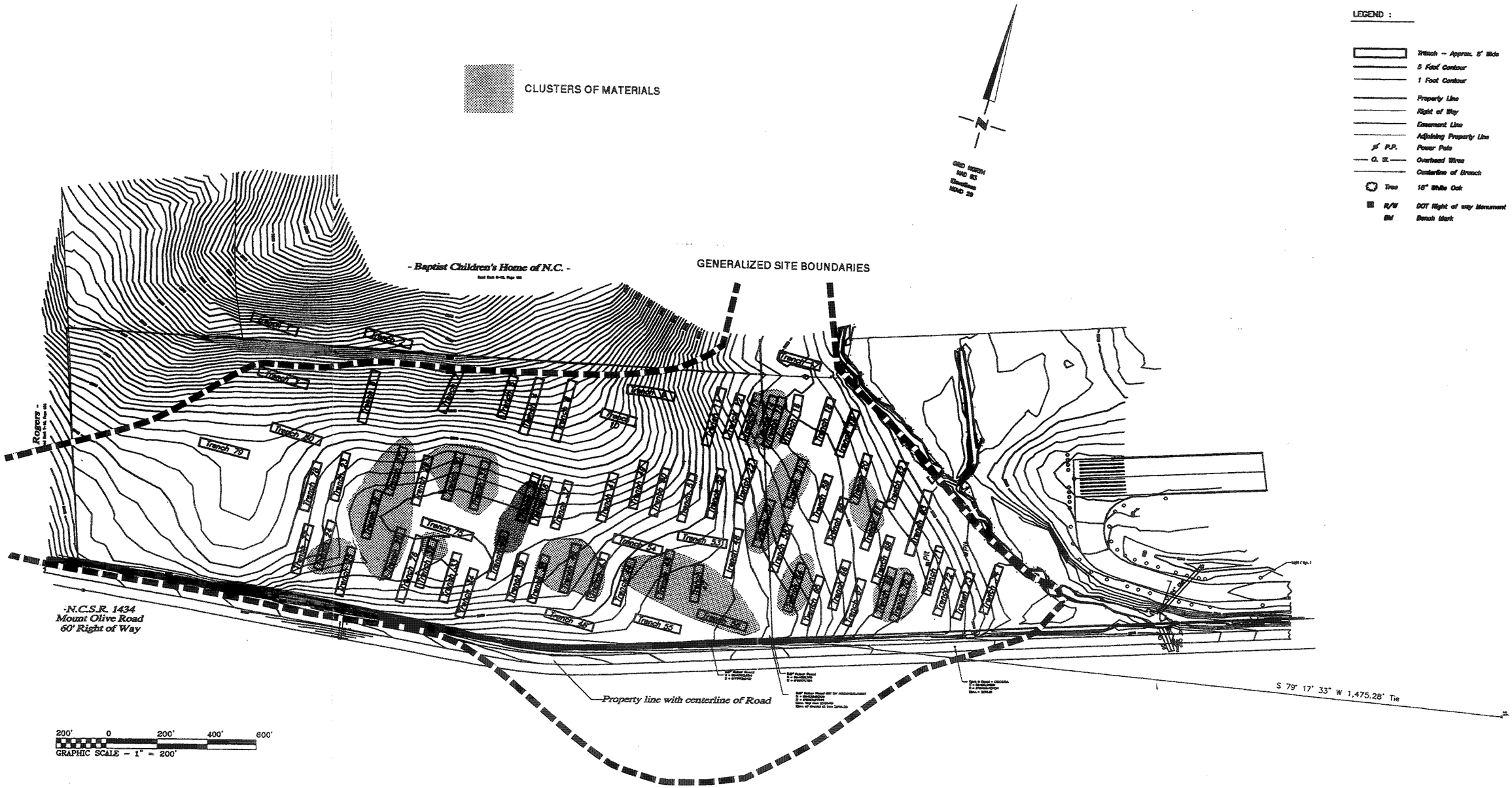

Figure 17. Clusters of material at 31MA77 and generalized site boundaries.

Figure 18. Test Unit 1, top of subsoil, view to the north.

been most recently plowed. The lower plowzone, we believe, represents an older period of agriculture, with the upper plowzone consisting at least partially of soils washed down the slope and deposited in this area through years of poorly managed cultivation.

This unit produced a small collection, consisting of three Qualla Complicated Stamped sherds, 15 small sherds, 10 quartz flakes, and eight chert flakes in the upper plowzone. In the lower plowzone one Qualla Complicated Stamped sherd, one Qualla Plain sherd, two Connestee Brushed sherds, three Connestee Cord Marked sherds, 25 small sherds, one rhyolite flake, 14 quartz flakes, and eight chert flakes were recovered. While the presence of Connestee materials in the lower plowzone might indicate some remanent stratification, we believe that this is simply an illusion of the small sample and that the plowzone throughout the site is very mixed. What is more important, we believe, is that this unit produced only 10 identifiable sherds.

Test Unit 2 was placed further to the west. In this area only one plowzone was identified — about 0.7 foot of dark brown sandy clay overlying a lighter colored clay subsoil. In this unit one posthole was identified, on the western profile (Figure 19). The absence of a lower plowzone is almost certainly related to this unit's up slope position, where there was erosion, but no deposition.

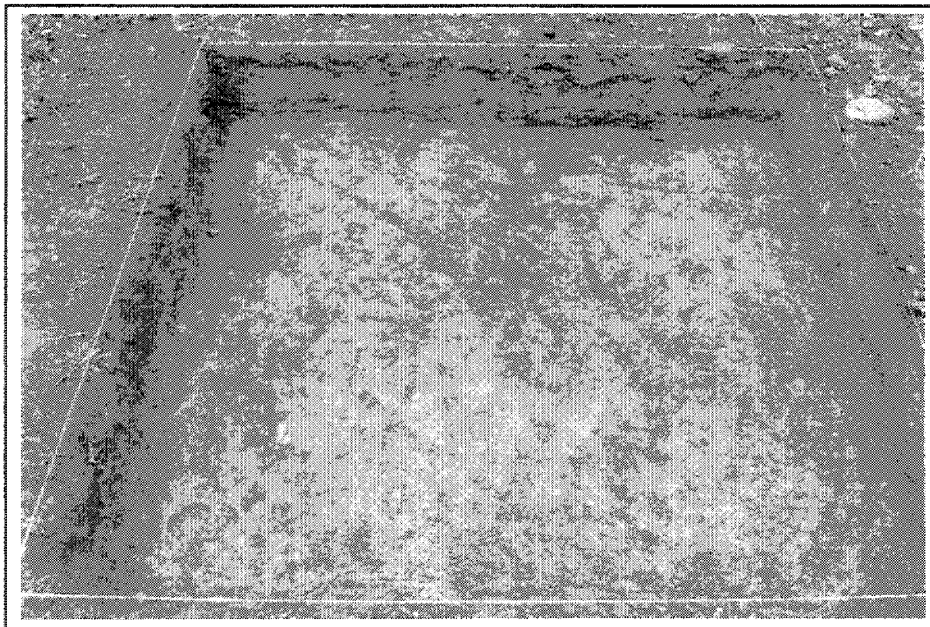

Figure 19. Test Unit 2, top of subsoil, view to the north.

The unit produced a very sparse assemblage of one Qualla Check Stamped sherd, one undecorated whiteware, one quartz biface fragment, eight quartz flakes, and two chert flakes.

Site Stratigraphy

Beyond the profiles provided by the two test units, profiles were occasionally drawn for various trenches and these are shown on the various site maps. In general, however, they reveal an "average" plowzone about 0.9 to 1.3 foot in depth, consisting of soils that vary from a dusky red (2.5YR3/2) to a dark reddish brown (5YR3/3) to a yellowish red (5YR4/6) clay loam. In most cases the subsoil varied from a dark reddish brown (2.5YR3/4) to red (2.5YR4/6) clay, although there were areas where the subsoil was a yellowish red (5YR4/6), dark red (2.5YR3/4), or yellowish brown (10YR5/8) clay.

The profiles exhibit areas of extensive erosion. For example, at the north end of Trench 33 there is only 0.4 foot of plowzone, while at the north end of Trench 6 there is only 0.25 foot of plowzone (largely consisting of plowed subsoil). In contrast, there are numerous areas at the toe of the slope where there is deposition — soil from the slopes having washed down and gradually built up. For example, Trench 30 revealed between 1.8 and 1.9 feet of plowzone, while the south end of Trench 13 revealed 2.95 feet of plowed soil. In the cases of most deep deposits, careful inspection revealed a very homogenized soil profile that seems to suggest the build-up was slow enough that the soils were merged together through years of plowing.

Outside of Unit 1, we found additional stratigraphy at the north end of Trench 30, where an upper plowzone of dark reddish brown (5YR3/4) loamy clay about 1.0 foot in depth overlaid a very dark red (2.5YR5/3) loamy clay plowzone about 0.9 foot in depth — suggestive perhaps of a hiatus in the erosive conditions. A somewhat similar situation was found at the south end of Trench 13, where the upper plowzone, 2.0 feet in depth, of reddish brown (5YR4/3) loamy clay was found over about 0.95 foot of dark reddish brown (5YR3/2) loamy clay. The south end of Trench 23 reveals a reddish brown (5YR4/3) clay loam 0.8 foot in depth overlying a dark red (2.5YR3/2) zone 0.8 foot in depth.

A comparison of these deep profiles to site density suggests that where the site has been buried by deep plowzones, feature and posthole preservation is at its greatest. The down slope erosion, while denuding the upper portions of the site, tended to protect the lower portions. This, however, should not be taken to suggest that the eroded areas of the site are insignificant. In fact, three of four burials were encountered in areas of very thin plowzone. This suggests that while erosion and plowing have affected the site, much still remains in a very good state of preservation.

Artifacts

Not including the specimens from the two five foot units, the trenches produced five quartz biface fragments and six identifiable projectile points. The finished tools included one Early Archaic quartz Palmer Corner Notched (Coe 1964:67-70), one Middle Archaic quartz Guilford Lanceolate (Coe 1964:43-44), the base of a Late Archaic quartz Savannah River Stemmed (Coe 1964:44-45), a Late Archaic or Early Woodland Small Savannah River Stemmed (Oliver 1981:151-154), an Early Woodland quartz Plott Stemmed (Keel 1976:126-127), and one chalcedony Bradley Spike (see Keel 1976:126) which is likely associated with the Early Woodland. Metric data on these points is provided in Table 3.

We should note that Oliver (1981:170) recommend subsuming the Plott into the Gypsy Stemmed type. While this seems to have merit, there seems also to be some resistance. It seems that there is insufficient data at this point (Oliver himself recognizes the "small sample sizes and limited stratigraphic data") to discontinue their use. Clearly it is always possible to collapse typologies; it is much harder to resurrect one once it has been abandoned.

The dominance of quartz as a raw material was not only observed in the test units, but also in the variety of both bifaces and finished tools made of this material. Three of the four flakes collected during the stripping were quartz, with the fourth being chert. Other stone materials include two fragments of slate, one quartz crystal, and one fragment of hematite.

Table 3.
Projectile Points Recovered at 31MA77
(measurements in millimeters)

Type	L	W	Th	Stem L	Stem W
Palmer	40	27	11	10	
Guilford	52	23	9		
Sav R Stem		40	12	10	22
Sm Sav R Stem	40	26	10	10	16
Plott	43	26	8		
Bradley	52	18	7		

L= length, W=width, Th=thickness

Fifteen fragments of mica were collected, primarily from features exposed during this work.

Four pottery series were identified from this work — Swannanoa, Connestee, Pisgah, and Qualla — although only the Connestee and Qualla were common. The Early Woodland Swannanoa series was represented by two plain sherds and five fabric impressed sherds. The Mississippian Pisgah series is represented by a single Pisgah Complicated Stamped.

The Middle to Late Woodland Connestee pottery includes 80 Connestee Plain, eight Connestee Simple Stamped, and six Connestee Check Stamped. The Late Mississippian and Early Historic Qualla series includes 51 Qualla Complicated Stamped, two Qualla Check Stamped, two Qualla Plain, and five Qualla Burnished.

While we are inclined to believe that the sparsity of recovered Swannanoa and Pisgah materials is consistent with their low occurrence on the site, we doubt that the proportion of Connestee and Qualla materials provides much indication of their relative significance. These materials were rather randomly collected when observed during the flat shoveling of features and probably indicate only that the two time periods dominate the site. What remains something of a mystery is why Egloff (1967:29) reports almost no Connestee at this site. Even if all of his "unclassified" specimens (typically meaning small sherds) were considered to be Connestee, this would still seem to under-represent their importance at the site. It may be that he actively selected against anything which wasn't clearly Qualla, at least at this particular site.

The dominance of complicated stamped Qualla and the absence of incised wares (consistent with Egloff's earlier study) suggests that the site dates from the Middle Qualla period (ca. A.D. 1450 to 1700 according to Ward and Davis [1999:181]). In spite of this, the site has produced one historic item clearly in association with a Qualla pit — a lead seal. Noël Hume (1969:269-271) observes that while most commonly associated with woolen goods, they were also found on a variety of merchants' goods. A much more extensive discussion is provided by Stone (1974) from Fort Michilimackinac (which dates from the mid to late seventeenth century — consistent with this Qualla site). Most of the recovered seals consist:

> of two, thin, circular, lead disks which are connected by a narrow band of lead. A circular knob or post appears on the center of one disk and a corresponding hole is present on the other disk. . . . A seal of this type is attached to a bale or parcel of goods by first passing the knob through a hole in the parcel binder and then bending the seal so that the hole in one disk passes over the knob on the other. The seal is permanently fastened by pressing the two disks together, thereby flattening the knob and interlocking the disks. A mark is also pressed into one or both sides of the seal during this procedure. This mark may identify the manufacturer, country, or city of origin of the sealed goods (Stone 1974:281).

While generally descriptive of the seal from 31MA77, this specimen is actually very different. The original use is represented by the bent knob and retained ring, but the connector tab has been removed. In its place is a thin lead connector which has been added to

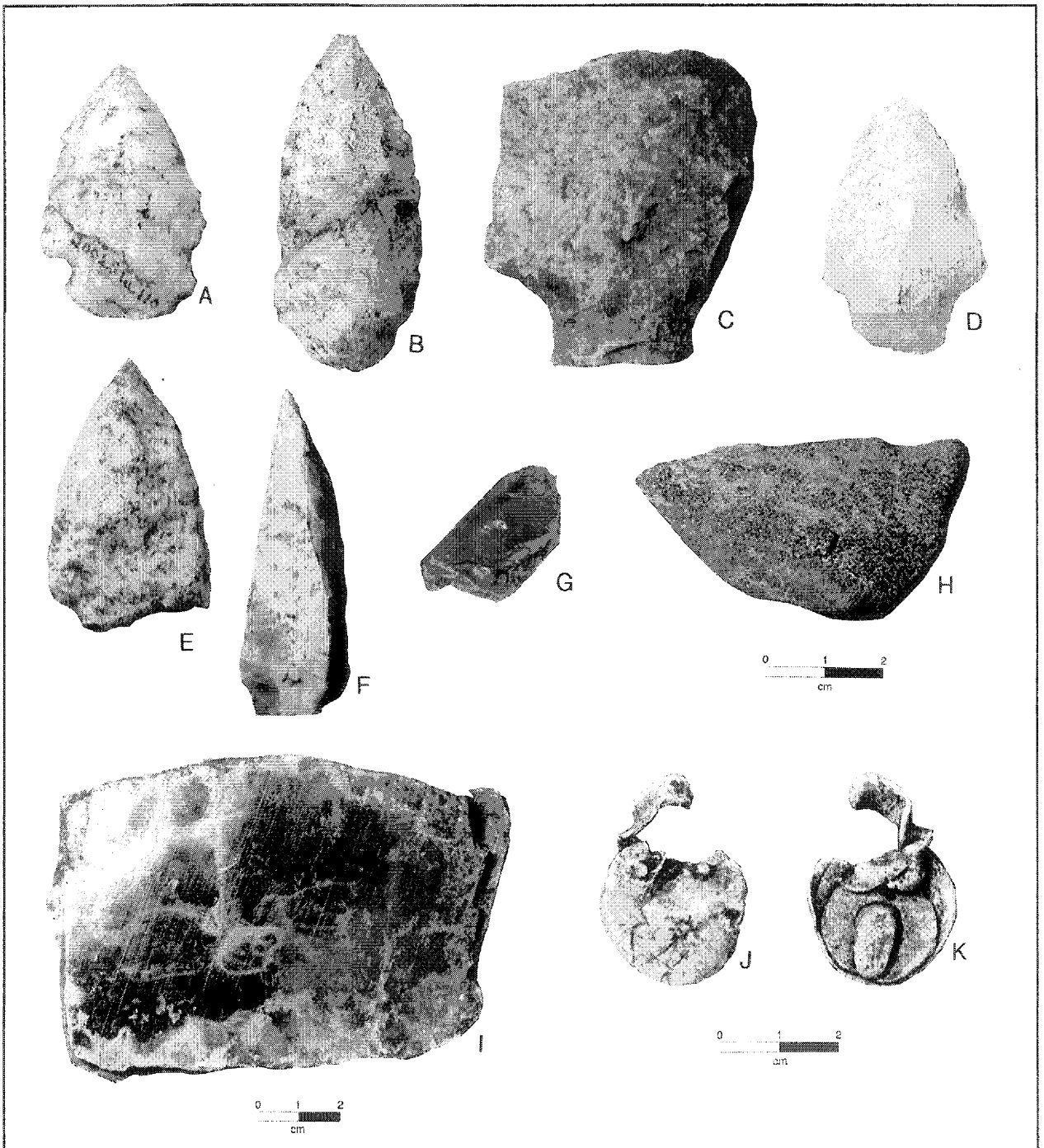

Figure 20. Artifacts from 31MA77. A, Palmer Corner Notched; B, Guilford Lanceolate; C, Savannah River Stemmed; D, Small Savannah River Stemmed; E, Plott Short Stem; F, Bradley Spike; G, quartz crystal; H, abraded hematite; I cut sheet mica; J, front of lead seal; K, reverse of lead seal.

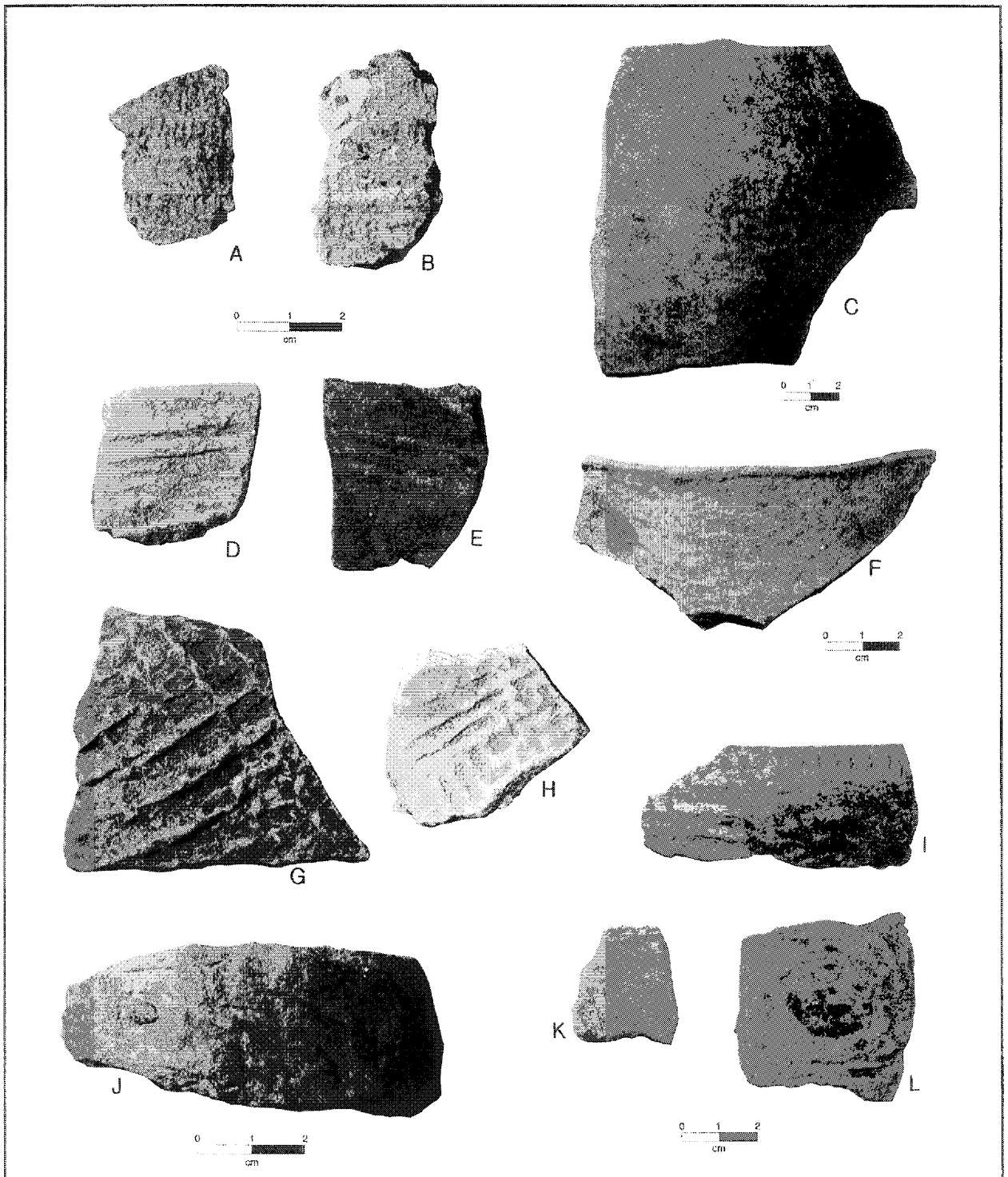

Figure 21. Pottery from 31MA77. A-B, Swannanoa Fabric Impressed; C, Connestee Plain; D-E, Connestee Simple Stamped; F, Connestee Check Stamped (smoothed); G, Qualla Check Stamped; H-L, Qualla Complicated Stamped.

the outer seal face. It is as though the seal was removed and adapted for reuse.

The only mark on the seal is an "R H" scratched in the lower front surface. We have previously discussed the activities of Richard Henderson and his efforts to purchase Cherokee lands in this portion of North Carolina. Regardless of whose initials these represent, it is likely that the item dates from the mid to late 1700s and represents an item which arrived at the site in association with trade goods.

CONCLUSIONS

Site Assessment

Data Sets

Data sets from 31MA77 include pottery; lithics tools and raw materials; at least one historic trade item; ethnobotanical remains; sparse zooarchaeological remains; human skeletal material in fair to good condition; postholes, including evidence of patterns reflective of structures; and well-preserved features. There is also reason to believe that the features may contain additional data sets, such as pollen and phytoliths, although these specific materials have not been sought by this work.

The pottery from the site includes remains from at least four distinct cultural periods: Swannanoa, Connestee, Pisgah, and Qualla, although two periods — Connestee and Qualla — dominate the collection and likely represent the periods of site occupation for which there is the best and most compelling evidence. While the pottery assemblage from the plowzone is sparse and heavily impacted by plowing, the assemblage recovered from the base of the plowzone seems better preserved and a number of large, well preserved sherds have been recovered from the features.

Lithic tools in the current collection are dominated by projectile points, with materials recovered from the Early Archaic through the Early Woodland. These materials were primarily associated with shovel skimming at the base of the plowzone, suggesting that the site may not have been as intensively collected as some sites in the region. Besides these projectile points the site has also produced a small collection of bifaces, suggesting that a variety of tools may be recovered with more intensive investigations. The lithic assemblage also includes a number of flakes. Those of extralocal chert suggest primarily tool resharpening, while the quartz flakes suggest a variety of tool production and resharpening activities.

In addition to these remains, the site has also produced a large quantity of book mica, typically found in feature contexts. This suggests that the site may contain data sets able to contribute significant information concerning mica production and trade during the Early Woodland Connestee phase. Also present are both hematite and quartz crystals — both thought to play important parts in Native American religious and cultural activities. These materials, like the mica, tend to be associated with distinct features.

Historic items at the site are sparse and consist of only one whiteware ceramic (of dubious association) and the lead bale seal. This latter specimen is of special interest and may suggest that there is a more significant late Qualla occupation at the site than previously thought (or suggested by the current ceramic assemblage).

Ethnobotanial remains are common at the site and are found as charcoal in both features and postholes. One feature produced large (ca. 2-3 inch) fragments of charred post, many postholes contained abundant charcoal, and hearths were present with not only charcoal, but burned clay. These materials provide numerous opportunities for dating of associated ceramic assemblages as well as dating of specific structures. Zooarchaeological remains, based on this study, seem to be sparse. This is certainly related to the heavy plowing of the site and acid soils. Nevertheless, we believe that they may exist in feature contexts. Certainly the condition of some human bone on the site suggests that faunal preservation is possible.

This human skeletal material has been found in association with at least four, and possibly five, burials. We suggest that upwards of nearly 400 burials may be present at the site. The condition of the bone is friable, but it exists as more than just staining. This indicates that recovery of significant bioarchaeological data is possible, although much of the metric analyses may need to be conducted in situ.

Postholes are abundant and are generally very distinct as darker stains in the reddish subsoil. Many of these posts also contain a loamy sand fill which is also very distinct from the clay subsoil. Posts often contain charred remains. In addition, segments of both square and circular structure walls have been identified. Based on our sampling, it is reasonable to expect the site to contain in excess of 18,000 postholes.

Features are also abundant, with at least 168 being identified during this work. Based on our sampling, we expect the entire site to contain in excess of 2,200 features. As indicated by the previous discussions, these often contain carbonized material and may contain zooarchaeological remains as well. A number of large sherds, as well as other artifacts (such as the mica sheets) have been recovered from these contexts. The features are distinct, containing a fill which is typically very easy to discern even in the process of mechanical stripping.

Context and Research Questions

The previous background discussions have established a fairly detailed context for the Connestee and Qualla phases and have provided some general research questions which are appropriate to these assemblages.

For the Connestee phase there are a wide range of fairly simple, but significant research questions:

- Chronology — does the Connestee phase extend into the Late Woodland? What is the period(s) of occupation at this particular site?

- Subsistence — what the is extent of horticulture and can evidence of corn agriculture be identified? Is it possible to better document the subsistence base?

- Typology — can the Connestee phase be broken down into finer chronological units? Can more precise gross typological analysis contribute to our understanding of issues such as temper?

- Extralocal Influences — what can the mica-related activities at the site tell us about possible Hopewell interaction? Is there evidence of goods traded into the region?

- Intrasite Patterning — what sort of organizational framework is present at Connestee villages? Are palisades present? What is the variability in Connestee structures?

- Bioarchaeology — what information on health, diet, genetic relationships, microevolution, and population characteristics (such as mean age-at-death and sex ratios) can the Connestee burials provide?

Many of these questions are equally applicable to the Qualla assemblage at 31MA77:

- Chronology — is there any indication of an Early Qualla assemblage at this site? What is the period(s) of occupation at 31MA77? Can this site be identified as the named Cherokee town of Joree?

- Subsistence — expanding on existing data, how did the Qualla diet change at contact? By combining data bases of zooarchaeology, pollen, phytoliths, and paleoethnobotany is it possible to obtain a more balanced, and thorough, view of the Qualla diet?

- Typology — does a more detailed typological analysis contribute to our understanding of Qualla pottery? What "outside" Lamar-like traits or pottery is present? What can the assemblage contribute to our understanding of Qualla variability?

- Intrasite Patterning — what sort of organizational framework is present at Qualla villages? Are palisades present? What is the variability in Qualla structures? Will both square and round Qualla houses be present and associated with one another?

- Bioarchaeology — what information on health, diet, genetic relationships,

microevolution, and population characteristics (such as mean age-at-death and sex ratios) can the Qualla burials provide?

Equally important, we believe, are more general research interests that revolve around very basic and simple questions such as, "how did these people live," "what did their villages look like," and "what did they eat." These are the questions which the public — the ultimate and most significant audience — are inclined to ask and they should not be dismissed as "insignificant" in favor of more esoteric scholarship.

Evaluation of Integrity

There is no denying that some site areas have been damaged by cultivation. This is clearly indicated by the exposed red clay subsoil being cultivated on the ridge slopes along the northern edge of the site. Yet even in these areas we have found both features and postholes — clearly indicating that while damaged, there are still remnant data sets.

More importantly, the work revealed that at the base of these slopes the core of the site — covering nearly 20 acres — is intact. In fact, there is evidence that some site areas have been covered by several feet of erosional deposits, so that feature preservation in those areas can only be described as excellent. Elsewhere, even where plowing has truncated some features, the preservation is good. Features are clearly revealed by stripping and contain a variety of artifactual remains. The pottery sherds from the features are identifiable; large fragments of charred wood are present; at least one burned house floor was identified; and large sheets of mica are intact.

It is on these subsurface (base of the plowzone) features where analysis should focus. Our studies have revealed that the plowzone remains are of regrettably little assistance in addressing significant archaeological research questions. Further study may reveal that some buried plowzone deposits contain larger and more intact remains, but we did not identify any buried midden deposits in our research.

As a result, we believe that the focus of any future data recovery should be on the intact feature, with little or no additional work devoted to the plowzone itself.

In reference to issues of integrity typically considered in National Register assessments, 31MA77 clearly exhibits integrity of location (i.e., the site is where it has always been), the excellent feature preservation indicates that the site possesses integrity of design (i.e., organization of space, patterning of structures, location of discrete activity areas, etc.), and the broad range of artifactual data reveals integrity of materials (i.e., the artifact/feature record is complete and of high quality). Finally, the site also possesses integrity of association in that the data sets are present to clearly and convincingly address a broad range of significant research questions.

Site Assessment

Based on this information, we recommend the site eligible for inclusion on the National Register of Historic Places under Criteria D (potential to provide important information about prehistory or history) at the state level of significance.

In addition, the site *may* also be eligible under Criterion A (associated with events that have made a significant contribution to the broad patterns of our history). As the putative site of Joree, 31MA77 represents linkage of a series of events in the evolution of Qualla society and culture.

It is worth noting that even if the site did not meet these clearly defined criteria, the property would likely still be eligible for inclusion on the National Register for its traditional religious and cultural importance to Native Americans.

Site Boundary

These tests, combined with the earlier shovel testing (Trinkley 2000), provide good information for establishing general site boundaries (see Figure 17). The site extends south across SR-1434 to incorporate the knoll bisected by this road, but excludes the bottomlands, where no cultural remains were identified. To the east, the boundary (while somewhat artificial) is Iotla Branch. The boundary to the northeast has not

been established since the site is known to extend north into the less sloping portions of the fields beyond the county property. The north and northwest boundaries occur about at the edge of the county property. In this area site density is low, although there is some indication that occupation continues even on these steeper slopes. The western boundary has not been well identified by this work. While there is little indication of the site in the northwest corner of the county property (which is steeply sloping), it seems likely that the site extends west in areas of less slope.

As previously discussed, the northern edge of the site, in the area of slopes around 5%, exhibits a very low density of cultural remains. While relatively few postholes or features have been found in this area, the current study is not adequate to state that no features, most importantly burials, will be found in this area. As a result, data recovery operations should include this site area, as well as those with more obvious remains.

SOURCES CITED

Abbott, Lawrence E., Jr., John S. Cable, Mary Beth Reed, and Erica E. Sanborn

1995 *An Archaeological Survey and Testing of the McLean-Thompson Property Land Acquisition, and the Ambulatory Health Care Clinic Project, Fort Bragg, Cumberland County, North Carolina*. Technical Report 349. New South Associates, Stone Mountain, Georgia.

Adair, James

1930 *Adair's History of the American Indians*. Watauga Press, Johnson City, Tennessee.

Anderson, David G.

1990 A North American Paleoindian Projectile Point Database. *Current Research in the Pleistobene* 7:67-69.

1992a A History of Paleoindian and Early Archaic Research in the South Carolina Area. In *Paleoindian and Early Archaic Period Research in the Lower Southeast: A South Carolina Perspective*, edited by David G. Anderson, Kenneth E. Sassaman, and Christopher Judge, pp. 7-18. Council of South Carolina Professional Archaeologists, Columbia.

1992b Models of Paleoindian and Early Archaic Settlement in the Lower Southeast. In *Paleoindian and Early Archaic Period Research in the Lower Southeast: A South Carolina Perspective*, edited by David G. Anderson, Kenneth E. Sassaman, and Christopher Judge, pp. 28-47. Council of South Carolina Professional Archaeologists, Columbia.

1994 *The Savannah River Chiefdoms: Political Change in the Late Prehistoric Southeast*. University of Alabama Press, Tuscaloosa.

Anderson, David G. and Joseph Schuldenrein (editors)

1985 *Prehistoric Human Ecology Along the Upper Savannah River: Excavations at the Rucker's Bottom, Abbeville and Bullard Site Groups*. Commonwealth Associates, Inc., Jackson, Michigan. Submitted to National Park Service, Archaeological Services Branch, Atlanta.

Anderson, William L. and James A. Lewis

1983 *A Guide to Cherokee Documents in Foreign Archives*. Scarecrow Press, Metuchen, New Jersey.

Ayres, Harvard

1991 *An Archaeological Survey of the Macon County Airport*. Appalachian State University, Department of Anthropology, Boone, North Carolina.

Bartram, William

1928 [1791] *Travels through North & South Carolina, Georgia, East & West Florida*. Philadelphia. Mark Van Doren, ed., New York.

Bass, Q.R.

1977 *Prehistoric Settlement and Subsistence Patterns in the Great Smoky Mountains*. Unpublished M.A. Thesis, Department of Anthropology, University of

Tennessee, Knoxville.

Bense, Judith A.
1994 *Archaeology of the Southeastern United States: Paleoindian to World War I*. Academic Press, New York.

Braun, Lucy
1950 *Deciduous Forests of Eastern North America*. Hafner Publishing, New York.

Brennan, Louis A.
1982 A Compilation of Fluted Points of Eastern North America by County and Distribution: An AENA Project. *Archaeology of Eastern North America* 10:27-46.

Brooks, Jerome E.
1962 *Green Leaf and Gold: Tobacco in North Carolina*. State Department of Archives and History, Raleigh.

Cable, John S.
1982 Differences in Lithic Assemblages of Forager and Collector Strategies. In *Archaeological Survey and Reconnaissance Within the Ten-Year Floodpool Harry S. Truman Dam and Reservoir*, edited by Richard Taylor. Report submitted to the U.S. Army Corps of Engineers, Kansas City District.

Chapman, Jefferson
1977 *Archaic Period Research in the Lower Little Tennessee River Valley, 1975: Icehouse Bottom, Harrison Branch, Thirty Acre Island, Calloway Island*. Report of Investigations 18. University of Tennessee, Knoxville.

1985a Archaeology and the Archaic Period in the Southern Ridge-an-Valley Province. In *Structure and Process in Southeastern Archaeology*, edited by Roy S. Dickens and H. Trawick Ward, pp. 137-179. The University of Alabama Press, University.

1985b *Tellico Archaeology: 12,000 Years of Native American History*. Reports of Investigations 43, Occasional Paper 5, University of Tennessee, Knoxville.

Coe, Joffre L.
1961 Cherokee Archaeology. In *Symposium on Cherokee and Iroquois Culture*, edited by William N. Fenton and John Gulick, pp. 51-60. Bulletin 180, Bureau of American Ethnology, Smithsonian Institution, Washington, D.C.

1964 *The Formative Cultures of the Carolina Piedmont*. Transactions of the American Philosophical Society 54(5).

Corbitt, David L.
1950 *The Formation of the North Carolina Counties, 1663-1943*. State Department of Archives and History, Raleigh.

Crane, Verner W.
1928 *The Southern Frontier: 1670-1732*. Duke University Press, Durham.

Daniel, I. Randolph, Jr.
1992 Early Archaic Settlement in the Southeast: A North Carolina Perspective. In *Paleoindian and Early Archaic Period Research in the Lower Southeast: A South Carolina Perspective*, edited by David G. Anderson, Kenneth E. Sassaman, and Christopher Judge, pp. 68-77. Council of South Carolina Professional Archaeologists, Columbia.

DeBow, J.D.B.
1854 *Statistical View of the United States*.

A.O.P. Nicholson, Washington, D.C.

Dickens, Roy

1970 *The Pisgah Culture and its Place in the Prehistory of the Southern Appalachians*. Ph.D. dissertation, Department of Anthropology, University of North Carolina, Chapel Hill.

1980 Ceramic Diversity as an Indicator of Cultural Dynamics in the Woodland Period. *Tennessee Anthropologist* 5:34-36.

Egloff, Brian J.

1967 *An Analysis of Ceramics from Historic Cherokee Towns*. Unpublished masters thesis, Department of Anthropology, University of North Carolina, Chapel Hill.

Fenneman, N.W.

1938 *Physiography of the Eastern United States*. McGraw-Hill, New York.

Fogelson, Raymond D. and Paul Kutsche

1961 Cherokee Economic Cooperatives: The Gadugi. In *Symposium on Cherokee and Iroquois Culture*, edited by William N. Fenton and John Gulick, pp. 87-121. Bulletin 180. Smithsonian Institution, Bureau of Ethnology. Washington, D.C.

Gade, Ole and H. Daniel Stillwell

1986 *North Carolina: People and Environments*. GEO-APP, Boone, North Carolina.

Gearing, Frederick O.

1958 The Structural Poses of 18th-Century Cherokee Villages. *American Anthropologist* 60:1148-1157.

Goodyear, Albert C., III , James L. Michie, and Tommy Charles

1989 The Earliest South Carolinians. In *Studies in South Carolina Archaeology: Essays in Honor of Robert L. Stephenson*, edited by Albert C. Goodyear, III and Glen T. Hanson, pp. 19-52. Anthropological Studies 9. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Hatley, Tom

1993 *The Dividing Paths: Cherokees and South Carolinians Through the Era of the Revolution*. Oxford University Press, New York.

Holden, Patricia

1966 *An Archaeological Survey of Transylvania County, N.C.* Unpublished M.A. thesis, Department of Anthropology, University of North Carolina, Chapel Hill.

Huff, Archie Vernon , Jr.

1991 *The History of South Carolina in the Building of the Nation*. n.p., n.p

Hunt, Charles B.

1967 *Physiography of the United States*. W.H. Freeman, New York.

Keel, Bennie

1976 *Cherokee Archaeology: A Study of the Appalachian Summit*. University of Tennessee Press, Knoxville.

Lee, E. Lawrence

1963 *Indian Wars in North Carolina, 1663-1763*. Carolina Charter Tercentenary Commission, Raleigh.

Lee, W.D.

1934 *Reconnaissance Erosion Survey of North Carolina*. U.S.D.A., Soil Conservation Service, Washington, D.C.

Logan, John
1859 *A History of the Upper Country of South Carolina from the Earliest Periods to the Close of the War of Independence*, vol. 1. np, Columbia.

Mathis, Mark A. and Jeffrey J. Crow
1983 *The Prehistory of North Carolina An Archaeological Symposium*. North Carolina Division of Archives and History, Raleigh.

Michie, James L.
1977 *The Late Pleistocene Human Occupation of South Carolina*. Unpublished Honor's Thesis, Department of Anthropology, University of South Carolina, Columbia.

Milling, J. Chapman
1969 *Red Carolinians*. University of South Carolina Press, Columbia.

Mooney, James
1891 The Sacred Formulas of the Cherokees. *Seventh Annual Report of the Bureau of American Ethnology*, pp. 301-397. Washington, D.C.

1900 Myths of the Cherokee. *Nineteenth Annual Report of the Bureau of American Ethnology*. Washington, D.C.

Moore, David G.
1981 *A Comparison of Two Pisgah Assemblages*. Unpublished M.A. Thesis, Department of Anthropology, University of North Carolina, Chapel Hill.

Moore, David G., editor
1986 *The Conference on Cherokee Archaeology*. Warren Wilson College, Swannanoa, North Carolina.

Noël Hume, Ivor
1969 *A Guide to Artifacts of Colonial America*. Alfred A. Knopf, New York.

Oliver, Billy L.
1981 *The Piedmont Tradition: Refinement of the Savannah River Stemmed Point Type*. Unpublished Master's Thesis, Department of Anthropology, University of North Carolina, Chapel Hill.

1985 Tradition and Typology: Basic Elements of the Carolina Projectile Point Sequence. In *Structure and Process in Southeastern Archaeology*, edited by Roy S. Dickens and H. Trawick Ward, pp. 195-211. The University of Alabama Press, University.

Peck, Rodney M.
1988 Clovis Points of Early Man in North Carolina. *Piedmont Journal of Archaeology* 6:1-22.

Perkinson, Phil
1971 North Carolina Fluted Points: Survey Report Number One. *Southern Indian Studies* 23:3-40.

1973 North Carolina Fluted Points: Survey Report Number Two. *Southern Indian Studies* 25:3-60.

Phelps, David A.
1983 Archaeology of the North Carolina Coast and Coastal Plain: Problems and Hypotheses. In *The Prehistory of North Carolina: An Archaeological Symposium*, edited by Mark A. Mathis and Jeffrey J. Crow, pp. 1-52. North Carolina Division of Archives and History, Department of Cultural Resources, Raleigh.

Powell, William S.
1989 *North Carolina Through Four Centuries*. University of North Carolina Press, Chapel Hill.

Purrington, Burton L.
1983 Ancient Mountaineers: An Overview of the Prehistoric Archaeology of North Carolina's Western Mountain Region. In *The Prehistory of North Carolina An Archaeological Symposium*. Edited by Mark A. Mathis and Jeffrey J. Crow, pp. 83-160. North Carolina Division of Archives and History, Raleigh.

Rights, Douglas L.
1957 *The American Indian in North Carolina*. Second Edition. John F. Blair, Winston-Salem, North Carolina.

Riggs, Brett H.
1988 *An Historical and Archaeological Reconnaissance of Citizen Cherokee Reservations in Macon, Swain, and Jackson Counties, North Carolina*. Department of Anthropology, University of Tennessee, Knoxville.

1997 The Christie Cabin Site: Historical and Archaeological Evidence of the Life and Times of a Cherokee *Métis* Household (1835-1838). In *May we All Remember Well*, vol. 1, edited by Robert S. Brunk, pp. 228- 248. Robert S. Brunk Auction Services, Inc., Asheville.

Riggs, Brett H., M. Scott Shumate, and Patti Evans-Shumate
1997 *Archaeological Data Recovery at Site 31JK291, Jackson County, North Carolina*. Blue Ridge Cultural Resources, Boone, North Carolina.

Robinson, Kenneth W.
1989 *Archaeological Excavations Within the Alternate Pipeline Corridor Passing Through the Harshaw Bottoms Site (31CE41), Cherokee County, North Carolina*. Ms. on file, Western Office, North Carolina Division of Archives and History, Asheville.

Royce, Charles C.
1975 *The Cherokee Nation of Indians*. Aldine Publishing, Chicago.

Sassaman, Kenneth E.
1983 *Middle and Late Archaic Settlement in the South Carolina Piedmont*. Unpublished master's thesis. Department of Anthropology, University of South Carolina, Columbia.

1993 *Early Woodland Settlement in the Aiken Plateau: Archaeological Investigations at 38AK157, Savannah River Site, Aiken County, South Carolina*. Savannah River Archaeological Research Papers 3. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Sassaman, Kenneth E. and David G. Anderson
1990 Typology and Chronology. In *Native-American Prehistory of the Middle Savannah River Valley*, edited by Kenneth E. Sassaman, Mark J. Brooks, Glen T. Hanson, and David G. Anderson, pp. 143-216. Savannah River Archaeological Research Publication 1. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

1994 *Middle and Late Archaic Archaeological Records of South Carolina: A Synthesis for Research and Resource Management*. Council of South Carolina Professional

Archaeologists, Columbia.

Service, Elman R.
1966 *The Hunters*. Prentice-Hall, Englewood Cliffs, New Jersey.

Shumate, M. Scott and Larry R. Kimball
1997 *Archaeological Data Recovery at 31SW273 on the Davis Cemetery Tract, Nantahala National Forest, Swain County, North Carolina*. Laboratories of Archaeological Science, Appalachian State University, Boone, North Carolina.

South, Stanley A.
1959 *A Study of the Prehistory of the Roanoke Rapids Basin*. Master's thesis, Department of Sociology and Anthropology, University of North Carolina, Chapel Hill.

Southerlin, Bobby G., William R. Jordan, Dawn Reid
1996 *Intensive Cultural Resources Survey of the Proposed Iotla Valley Industrial Park, Macon County, North Carolina*. Brockington and Associates, Atlanta.

Stone, Lyle M.
1974 *Fort Michilimackinac, 1715-1781*. Publications of the Museum, Michigan State University, East Lansing.

Thomas, Douglas J.
1996 *Soil Survey of Macon County, North Carolina*. U.S.D.A., Soil Conservation Service, Washington, D.C.

Walthall, John A.
1980 *Prehistoric Indians of the Southeast: Archaeology of Alabama*. University of Alabama Press, University.

Wann, E.V.
1977 Sweet Corn. In *Gardening for Food and Fun: The Yearbook of Agriculture, 1977*, pg. 181-186. U.S. Department of Agriculture, Washington, D.C.

Ward, Trawick
1983 A Review of Archaeology in the North Carolina Piedmont: A Study in Change. In *The Prehistory of North Carolina An Archaeological Symposium*. Edited by Mark A. Mathis and Jeffrey J. Crow, pp. 53-81. North Carolina Division of Archives and History, Raleigh.

Ward, H. Trawick and R.P. Stephen Davis
1999 *Time Before History: The Archaeology of North Carolina*. The University of North Carolina Press, Chapel Hill.

Watson, Harry L.
1983 *An Independent People: The Way We Lived in North Carolina, 1770-1820*. University of North Carolina Press, Chapel Hill.

Wauchope, Robert
1966 *Archaeological Survey of Northern Georgia*. Memoirs No. 21. Society of American Archaeology, Salt Lake City.

Webb, Robert S. And Scot J. Keith
1998 *Heritage Resources Survey, Trimont and Shingletree Timber Sales, Wayah Ranger District, Nantahala National Forest Macon County, North Carolina*.

Wetmore, Ruth Y.
1990 Draft Report, The Ela Site (31SW5): Archaeological Data Recovery of Connestee and Qualla Phase Occupations at the East Elementary School Site, Swain County, North Carolina. Archaeology Laboratory, Western Carolina University, Cullowhee, North Carolina.

Wetmore, Ruth Y., David Moore, and Linda Hall
1996 *Summary of Archaeological Investigations at the Macon County Industrial Park Site (31MA185), Macon County, N.C.* North Carolina Department of Cultural Resources, Division of Archives and History, Western Office, Asheville, North Carolina.

Williams, Stephen B., editor
1965 *The Paleo-Indian Era: Proceedings of the 20th Southeastern Archaeological Conference*. Bulletin 2. Southeastern Archaeological Conference.

Wilson, Homes Hogue
1986 Burials from the Warren Wilson Site: Some Biological and Behavioral Considerations. In *The Conference on Cherokee Prehistory* assembled by David Moore, pp. 42-72. Warren Wilson College, Swannanoa, North Carolina.

Wilson, Jack H., Jr.
1983 *A Study of the Late Prehistoric, Protohistoric, and Historic Indians of the Carolina and Virginia Piedmont: Structure, Process, and Ecology*. Unpublished Ph.D. dissertation, Department of Anthropology, University of North Carolina, Chapel Hill.

Wood, Dean, Dan Elliott, Teressa Rudolph, and Dennis Blanton
1986 *Prehistory in the Richard B. Russell Reservoir: The Archaic and Woodland Periods of the Upper Savannah River: The Final Report of the Data Recovery at the Anderson and Elbert County Groups: 38AN8, 38AN29, 38AN126; 9EB17, 9EB19, and 9EB21*. Atlanta Interagency Archaeological Services Division, National Park Service, Russell Papers.

Wright, J. Leitch, Jr.
1981 *The Only Land They Knew: American Indians in the Old South*. University of Nebraska Press, Lincoln, Nebraska.

APPENDIX 1.
ARTIFACT CATALOG

CHICORA FOUNDATION, INC.
PO Box 8664
Columbia, SC 29202

ARTIFACT CATALOG

State: N C County: Macon Site #: 31MA77 Acc. No.: 200281

Project: Macon County Airport, Site Name:

Spec. No	Location	Number	Description
p92	Trench 4	1	Qualla comp stamp, 9.6 g
p93	Trench 6	1	Qualla comp stamp, 3.8 g
a94		1	Connestee plain, 26.0 g
p95	Trench 13	1	Connestee plain, 6.7 g
p96		1	Connestee simple stamp, 6.7 g
p97	Trench 15	1	Swannanoa plain, 5.6 g
p98		2	Connestee plain, 10.9 g
a99	Trench 17	2	Quartz biface fragment
p100	Trench 24	1	Qualla comp stamp, 3.4 g
p101		1	Connestee plain, 4.7 g
p102	Trench 26	1	Connestee plain, 8.9 g
a103		1	Quartz Guilford CSPP
p104	Trench 30	3	Connestee plain, 27.0 g
p105	Trench 31	1	Qualla comp stamp, 14.4 g
p106		4	Connestee plain, 33.0 g
m107		1	Quartz flake, 5.1 g
m108		1	Quartz crystal frag, 5.2 g
p109	Trench 35	2	Connestee plain, mend, 4.9 g
a110	Trench 36	1	Quartz Palmer CSPP
b111	Trench 37	1	Animal bone fragment, 1.0 g
m112	Trench 40	3	Mica frags, 0.2 g
p113	Trench 42	6	Qualla comp stamp, 58.8 g
m114		1	Chert flake, 1.6 g
p115	Trench 43	1	Qualla comp stamp, 4.7 g
p116	Trench 44	1	Swannanoa plain, 6.6 g
p117	Trench 46	1	Connesteee plain, 4.5 g
p118		1	Connestee simple stamp, 2.4 g
p119	Trench 47	1	Connestee simple stamp, 4.2 g
a120	Trench 72	1	Quartz Small Savannah River Stemmed

Recorded By: Debi Hacker Date: 11/15/00

CHICORA FOUNDATION, INC.
PO Box 8664
Columbia, SC 29202

ARTIFACT CATALOG

State: N C County: Macon Site #: 31MA77 Acc. No.: 200281

Project: Macon County Airport Site Name:

Spec. No	Location	Number	Description
p121	Trench 74	2	Connestee simple stamp, 6.3 g
p122		1	Connestee check stamp, 18.3 g
p123		1	Qualla comp stamp, 2.4 g
p124		1	UID sherd, 4.8 g
m125		1	Quartz flake, 4.7 g
m126		1	Hematite frag, 28.4
p127	Trench 75	4	Connestee plain, 47.6 g
a128	Trench 77	1	Quartz biface frag
eb129	Feature 1	1	bag of charcoal, 114.9 g
p130	Feature 21	4	Swannanoa fabric impressed, 13.1 g
m131		1	Quartz flake, 6.4 g
a 132		1	Quartz Plott CSPP
p133	Feature 22	3	Connestee check stamp, 2 mend, 19.4 g
a134		2	Quartz biface frag
p135	Feature 23	2	Qualla comp stamp, 17.7 g
p136		1	Qualla plain, 3.3 g
p137	Feature 24	1	Connestee plain, 47.2 g
Hb138	Feature 25	18	Human bone frags, 26.8 g
Hb139	Feature 27	23	Human bone frags, 38.2 g
Hb140	Features 25/27	64	Human bone frags, 29.3 g
a141	Feature 31	1	Lead seal
p142		28	Qualla comp stamp, 267.2 g
p143		4	Qualla burnished, 17.8 g
p144	Feature 40	4	Connestee plain,
p145	Feature 41	1	Pisgah comp stamp, 4.0 g
p146		5	Connestee plain, 22.3 g
p147	Feature 42	1	Connestee plain, 17.3 g
p148	Feature 43	3	Connestee plain, 36.5 g
p149		1	Swannanoa fabric impressed, 7.9 g

Recorded By: Debi Hacker Date: 11/15/00

CHICORA FOUNDATION, INC.
PO Box 8664
Columbia, SC 29202

ARTIFACT CATALOG

State: N C County: Macon Site #: 31MA77 Acc. No.: 200281

Project: Macon County Airport Site Name:

Spec. No	Location	Number	Description
a150	Feature 44	1	Quartz Savannah River Stemmed CSPP base
p151	Feature 47	9	Connestee plain, 21.7 g
p152	Feature 56	1	Connestee plain, 4.3 g
p153	Feature 57	6	Connestee plain, 39.1 g
p154	Feature 59	12	Connestee plain, 77.6 g
p155		1	Qualla plain, 7.6 g
p156	Feature 69	1	Connestee plain, 4.8 g
p157	Feature 71	4	Connestee plain, 161.4 g
p158	Feature 75	3	Connestee plain, 2 mend, 8.6 g
p159	Feature 83	1	Connestee plain, 89.3 g
p160	Feature 85	6	Connestee plain, 2 mend, 49.7 g
p161		1	Qualla burnished, 3.7 g
m162		1	Quartz fire cracked rock, 200.0 g
p163	Feature 88	2	Connestee plain, 14.3 g
p164		1	UID sherd, 2.0 g
m165		1	Slate frag, 15.3 g
a166	Feature 91	1	Chalcedony Bradley Spike CSPP
p167	Feature 94	1	Connestee plain, 7.2 g
Hb168	Feature 109	17	Human bone frags, 11.1 g
p169	Feature 112	5	Qualla comp stamp, 24.2 g
p170	Feature 123	2	Connestee check stamp, mend, 37.8 g
p171	Feature 125	3	Connestee simple stamp, 18.9 g
p172		1	Connestee plain, 7.4 g
m173		1	Slate frag, 14.3 g
m174	Feature 131	1	Mica frag, 3.4 g
m175	Feature 133	10	Mica frags, 6.3 g
m176	Feature 134	1	Mica frag, 40.6 g
p177	Feature 136	1	Qualla check stamp, 14.2 g
Hb178	Feature 144	11	Human bone frags, 2.9 g

Recorded By: Debi Hacker Date: 11/15/00

CHICORA FOUNDATION, INC.
PO Box 8664
Columbia, SC 29202

ARTIFACT CATALOG

State: N C County: Macon Site #: 31MA77 Acc. No.: 200281

Project: Macon County Airport Site Name:

Spec. No	Location	Number	Description
m179	Feature 161	1	bag clay sample, 63.0 g
p180	Feature 164	1	Connestee plain, 7.2 g
p181	Feature 166	4	Qualla comp stamp, 16.3 g
p182		1	Qualla cord marked, 9.1 g
m183		2	Fired clay frags, 14.0 g
p184	TP 1, Lv. 1	3	Qualla comp stamp, 11.4 g
p185		15	Small sherds, 33.4 g
m186		10	Quartz flakes, 15.8 g
m187		8	Chert flakes, 9.7 g
p188	TP 1, Lv. 2	1	Qualla plain, 9.9 g
p189		1	Qualla comp stamp, 5.4 g
p190		2	Connestee burnished, 10.9 g
p191		3	Connestee cord marked, 10.8 g
p192		25	Small sherds, 61.6 g
m193		1	Rhyolite flake, 0.8 g
m194		8	Chert flakes, 2.5 g
m195		14	Quartz flakes, 12.1 g
p196	TP 2, Lv. 1	1	Qualla check stamped, 2.9 g
p197		1	Whiteware, undec.
a198		1	Quartz biface frag
m199		2	Chert flakes, 1.2 g
m200		8	Quartz flakes, 6.9 g

Recorded By: Debi Hacker Date: 11/15/00

APPENDIX 2.
PHOTO DATA SHEETS

PHOTOGRAPHIC DATA

Site Number 31MA77

Accession Number 200281

B/W, Roll 1

Field No.	File No.	Subject	Date	Direction	Comments
1		Stripping Trench 6	10/16/00	E	
2		same as above		N	
3		Trench 6 N0-13'	10/16/00	E	
4		N13-26'			
5		N26-39'			
6		N39-52'			
7		N52-68'			
8		N68-78'			
9		N78-91'			
10		N91-104'			
11		Trench 3 E0-14'	10/17/00	N	
12		E14-28'			
13		E28-42'			
14		E42-56'			
15		E56-70'			
16		E70-84'			
17		E84-98'			
18		E98-112'			
19		Overall view of Trench 13	10/17/00	W	
20		Trench 5 N0-13'	10/17/00	E	
21		N13-26'			
22		N26-39'			
23		N39-52'			
24		N52-65'			
25		N65-78'			
26		N78-91'			
27		Trench 4 N0-13'	10/17/00	E	
28		N13-26'			
29		N26-39'			
30		N39-52'			
31		N52-68'			
32		N68-78'			
33		N78-91'			
34		N91-104'			
35		N104-120'			
36		Cleaning Trench 7	10/17/00	N	

PHOTOGRAPHIC DATA

Site Number 31MA77

Accession Number 200281

B/W, Roll 2

Field No.	File No.	Subject		Date	Direction	Comments
1		Trench 4	N0-15'	10/17/00	E	
2			N15-30'			
3			N30-45'			
4			N45-60'			
5			N60-75'			
6			N75-90'			
7		Trench 8	N-15'	10/17/00	W	
8			N15-30'			
9			N30-45'			
10			N45-60'			
11			N60-75'			
12			N75-90'			
13			N90-105'			
14			N105-120'			
15		TU 1, base of plowzone		10/18/00	N	
16		as above				
17		Excavation TU 2		10/19/00	N	
18		as above				
19		Screening TU 2		10/19/00	W	
20		as above				
21		Welding bar on bucket of backhoe		10/19/00	E	
22		Trackhoe in Trench 10		10/19/00	N	
23		as above				
24		Trench 10	E0-12'	10/19/00	S	
25			E12-25'			
26			E25-37'			
27			E37-50'			
28			E50-62'			
29			E62-75'			
30		Trench 9	E0-17'	10/19/00	N	
31			E17-34'			
32			E34-51'			
33			E51-68'			
34			E68-85'			
35			E85-100'			
36		Trench 9, putting down filter fabric		10/19/00	N	

PHOTOGRAPHIC DATA

Site Number 31MA77

Accession Number 200281

B/W, Roll 3

Field No.	File No.	Subject	Date	Direction	Comments
1		Trench 1 E0-110'	10/20/00	E	
2		Trench 2 E15-25'	10/20/00	N	
3		Trench 2 E0-100'	10/20/00	E	
4		Area of Trench 1 and 2	10/20/00	E	
5		Trench 11 N0-15'	10/23/00	E	
6		N15-30'			
7		N30-45'			
8		N45-60'			
9		N60-75'			
10		N75-90'			
11		Trench 12 N0-17'	10/23/00	E	
12		N17-34'			
13		N34-51'			
14		N51-68'			
15		N68-86'			
16		Trench 13 N0-13'	10/23/00	E	
17		N13-26'			
18		N26-39'			
19		N39-52'			
20		N52-65'			
21		N65-78'			
22		N78-91'			
23		N91-104'			
24		Trench 14 N0-10'	10/23/00	E	
25		N10-20'			
26		N20-30'			
27		N30-40'			
28		N40-50'			
29		N50-60'			
30		N60-70'			
31		N70-80'			
32		N80-90'			
33		N90-102'			
34		Trench 14, overall view	10/23/00	N	
35		Working in Trench 15	10/23/00	N	
36		Trackhoe working in Trench 15	10/23/00	NE	

PHOTOGRAPHIC DATA

Site Number 31MA77

Accession Number 200281

B/W, Roll 4

Field No.	File No.	Subject		Date	Direc-tion	Comments
1		Trench 15	N0-12'	10/23/00	E	
2			N12-24'			
3			N24-36'			
4			N36-48'			
5			N48-60'			
6			N60-72'			
7			N72-84'			
8			N84-96'			
9			N96-105'			
10		Trench 16	N0-12'	10/23/00	E	
11			N12-24'			
12			N24-36'			
13			N36-48'			
14			N48-60'			
15			N60-72'			
16			N72-84'			
17			N84-96'			
18			N96-105'			
19		Trench 17	E0-11'	10/24/00	N	
20			E11-22'			
21			E22-33'			
22			E33-44'			
23			E44-55'			
24			E55-66'			
25			E66-77'			
26			E77-88'			
27		Trench 18	N0-14'	10/24/00	E	
28			N14-28'			
29			N28-42'			
30			N42-56'			
31			N56-70'			
32		Bad shot				
33			N70-84'			
34			N84-98'			
35		Cleaning Trench 20		10/24/00	S	
36		as above				

PHOTOGRAPHIC DATA

Site Number 31MA77

Accession Number 200281

B/W, Roll 5

Field No.	File No.	Subject	Date	Direction	Comments
1		Trench 19 N0-14'	10/24/00	E	
2		N14-28'			
3		N28-42'			
4		N42-56'			
5		N56-70'			
6		N70-84'			
7		N84-98'			
8		Trench 20 N0-12'	10/24/00	E	
9		N12-24'			
10		N24-36'			
11		N36-48'			
12		N48-60'			
13		N60-72'			
14		N72-84'			
15		N84-96'			
16		N96-105'			
17		Trench 20, Feature 21	10/24/00	S	
18		Trench 22 N-13'	10/24/00	E	
19		N13-26'			
20		N26-39'			
21		N39-52'			
22		N52-65'			
23		N65-78'			
24		N78-92'			
25		Trench 21 N0-12'	10/24/00	E	
26		N12-24'			
27		N24-36'			
28		N36-48'			
29		N48-60'			
30		N60-72'			
31		N72-84'			
32		N84-96'			
33		N96-105'			
34		Trench 21, Feature 27	10/24/00	N	
35		Trench 21, Feature 25	10/24/00	N	
36		Trench 21, Posthole 7	10/24/00	vertical	

PHOTOGRAPHIC DATA

Site Number 31MA77

Accession Number 200281

B/W, Roll 6

Field No.	File No.	Subject		Date	Direc-tion	Comments
1		Trench 23	N0-13'	10/25/00	E	
2			N13-26'			
3			N26-39'			
4			N39-52'			
5			N52-65'			
6			N65-78'			
7			N78-91'			
8			N91-100'			
9		Trench 24 being cleaned		10/25/00	S	
10		Trench 24	N0-13'	10/25/00	E	
11			N13-26'			
12			N26-39'			
13			N39-52'			
14			N52-65'			
15		Bad shot				
16			N65-78'			
17			N78-91'			
18			N91-100'			
19		Feature 31		10/25/00	E	
20		Feature 30		10/25/00	E	
21		Feature 28		10/25/00	E	
22		Trench 25	N0-13'	10/25/00	E	
23			N13-26'			
24			N26-39'			
25			N39-52'			
26			N52-65'			
27			N65-78'			
28			N78-91'			
29			N91-100'			
30		Trench 26	N0-11'	10/25/00	E	
31			N11-22'			
32			N22-33'			
33			N33-44'			
34			N44-55'			
35			N55-66'			
36			N66-77'			

PHOTOGRAPHIC DATA

Site Number 31MA77

Accession Number 200281

B/W, Roll 7

Field No.	File No.	Subject		Date	Direction	Comments
1		Trench 26	N77-88'	10/25/00	E	
2			N88-99'			
3			N99-105'			
4		Trench 27	N0-12'			
5			N12-24'			
6			N24-36'			
7			N36-48'			
8			N48-60'			
9			N60-72'			
10			N72-84'			
11			N84-96'			
12			N96-105'			
13		Trench 28	N0-10'	10/25/00	E	
14			N10-20'			
15			N20-30'			
16			N30-40'			
17			N40-50'			
18			N50-60'			
19			N60-70'			
20			N70-80'			
21			N80-90'			
22			N90-100'			
23		Trench 29	N0-10'	10/26/00	E	
24			N10-20'			
25			N20-30'			
26			N30-40'			
27			N40-50'			
28			N50-60'			
29			N60-70'			
30			N70-80'			
31			N80-90'.			
32			N90-100'			
33			N100-105'			
34		Trench 30	N0-14'			
35			N14-28'			
36			N28-42'			

PHOTOGRAPHIC DATA

Site Number 31MA77

Accession Number 200281

B/W, Roll 8

Field No.	File No.	Subject		Date	Direction	Comments
1		Trench 30	N42-56'	10/26/00	E	
2			N56-70'			
3			N70-84'			
4			N84-100'			
5		Trench 31	N0-13'	10/26/00	E	
6			N13-26'			
7			N26-39'			
8			N39-52'			
9			N52-65'			
10			N65-78'			
11			N78-91'			
12			N91-105'			
13		Trench 32	N0-10'	10/26/00	E	
14			N10-20'			
15			N20-30'			
16			N40-100'	10/26/00	S	
17		Trench 32, area of dense remains		10/26/00	N	
18		Trench 33	N0-10'	10/26/00	E	
19			N10-20'			
20			N20-30'			
21			N30-40'			
22			N40-50'			
23			N50-60'			
24			N60-70'			
25			N70-80'			
26			N80-90'			
27			N90-100'			
28		Trench 34	N0-13'	10/26/00	E	
29			N13-26'			
30			N26-39'			
31			N39-52'			
32			N52-65'			
33			N65-78'			
34			N78-91'			
35			N91-105'			

PHOTOGRAPHIC DATA

Site Number 31MA77

Accession Number 200281

B/W, Roll 9

Field No.	File No.	Subject		Date	Direction	Comments
1		Shovel skimming Trench 36		10/30/00	E	
2		as above				
3		Trench 35	N0-11'	10/30/00	E	
4			N11-22'			
5			N22-33'			
6			N33-44'			
7			N44-55'			
8			N55-66'			
9			N66-77'			
10			N77-88'			
11			N88-100'			
12		Trench 36	N0-11	10/30/00	E	
13			N11-22'			
14			N22-33'			
15			N33-44'			
16			N44-55'			
17			N55-66'			
18			N66-77'			
19			N77-88'			
20			N88-100'			
21		Trench 37	N0-11'	10/30/00	E	
22			N11-22'			
23			N22-33'			
24			N33-44'			
25			N44-55'			
26			N55-66'			
27			N66-77'			
28			N77-88'			
29			N88-100'			
30		Trench 38	N0-11'	10/30/00	E	
31			N11-22'			
32			N22-33'			
33			N33-44'			
34			N44-55'			
35			N55-66'			
36			N66-77'			

PHOTOGRAPHIC DATA

Site Number 31MA77

Accession Number 200281

B/W, Roll 10

Field No.	File No.	Subject	Date	Direction	Comments
1		Trench 38 N77-88'	10/30/00	E	
2		N88-100'			
3		Trench 39 N0-13'	10/30/00	E	
4		N13-26'			
5		N26-39'			
6		N39-52'			
7		N52-65'			
8		N65-78'			
9		N78-91'			
10		N91-100'			
11		Trench 40 N0-11'	10/30/00	E	
12		N11-22'			
13		N22-33'			
14		N33-44'			
15		N44-55'			
16		N55-66'			
17		N66-77'			
18		N77-88'			
19		N88-100'			
20		Trench 40, Feature 109	10/30/00	E	
21		Trench 41 N0-20'	10/30/00	E	
22		N20-40'			
23		N40-60'			
24		N60-80'			
25		N80-100'			
26		Trench 42 N0-13'			
27		N13-26'			
28		N26-39'			
29		N39-52'			
30		N52-65'			
31		N65-78'			
32		N78-91'			
33		N91-100'			
34		Working in Trench 43	10/30/00	NE	
35		Trench 43 N0-11'	10/30/00	E	
36		N11-22'			

PHOTOGRAPHIC DATA

Site Number 31MA77

Accession Number 200281

B/W, Roll 11

Field No.	File No.	Subject		Date	Direc-tion	Comments
1		Trench 43	N22-33'	10/30/00	E	
2			N33-44'			
3			N44-55'			
4			N55-66'			
5			N66-77'			
6			N77-88'			
7			N88-100'			
8		Trench 44	N0-11'	10/30/00	E	
9			N11-22'			
10			N22-33'			
11			N33-44'			
12			N44-55'			
13			N55-66'			
14			N66-77'			
15			N77-88'			
16			N88-100'			
17		Trench 45	E0-13'	10/30/00	N	
18			E13-26'			
19			E26-39'			
20			E39-52'			
21			E52-68'			
22			E68-78'			
23			E78-91'			
24			E91-104'			
25		Trench 46	N0-11'	10/30/00	E	
26			N11-22'			
27			N22-33'			
28			N33-44'			
29			N44-55'			
30			N55-66'			
31			N66-77'			
32			N77-88'			
33			N88-100'			
34		Trench 47	N0-11'	10/30/00	E	
35			N11-22'			
36			N22-33'			

PHOTOGRAPHIC DATA

Site Number 31MA77

Accession Number 200281

B/W, Roll 12

Field No.	File No.	Subject	Date	Direction	Comments
1		Trench 47 N33-44'	10/30/00	E	
2		N44-55'			
3		N55-66'			
4		N66-75'			
5		Trench 47, Feature 125	10/30/00	E	
6		Trench 48 N0-11'	10/30/00	E	
7		N11-22'			
8		N22-33'			
9		N33-44'			
10		N44-55'			
11		N55-66'			
12		N66-77'			
13		N77-88'			
14		N88-100'			
15		Trench 49 N0-10	11/1/00	E	
16		N10-20'			
17		N20-30'			
18		N30-40'			
19		N40-50'			
20		N50-60'			
21		N60-70'			
22		N70-80'			
23		N80-90'			
24		N90-100'			
25		Trench 50 N0-11'	11/1/00	E	
26		N11-22'			
27		N22-33'			
28		N33-44'			
29		N44-55'			
30		N55-66'			
31		N66-77'			
32		N77-88'			
33		N88-100'			
34		Trench 51 N0-13'	11/1/00	E	
35		N13-26'			
36		N26-39'			
37		N39-52'			

PHOTOGRAPHIC DATA

Site Number 31MA77

Accession Number 200281

B/W, Roll 13

Field No.	File No.	Subject		Date	Direction	Comments
1		Trench 51	N52-65'	11/1/00	E	
2			N65-78'			
3			N78-91'			
4			N91-100'			
5		Trench 52	N0-13'	11/1/00	E	
6			N13-26'			
7			N26-39'			
8			N39-52'			
9			N52-65'			
10			N65-78'			
11			N78-91'			
12			N91-100'			
13		Trench 53	E0-13'	11/1/00	S	
14			E13-26'			
15			E26-39'			
16			E39-50'			
17			E50-100'			
18		Trench 54	E0-13'	11/1/00	S	
19			E13-26'			
20			E26-39'			
21			E39-52'			
22			E52-65'			
23			E65-78'			
24			E78-91'			
25			E91-100'			
26		Trench 55	E0-9'	11/1/00	S	
27			E9-18'			
28			E18-27'			
29			E27-36'			
30			E36-45'			
31			E45-54			
32			E54-63'			
33			E63-72'			
34			E72-81'			
35			E81-90'			
36			E90-100'			

PHOTOGRAPHIC DATA

Site Number 31MA77

Accession Number 200281

B/W, Roll 14

Field No.	File No.	Subject	Date	Direction	Comments
1		Trench 56 E0-8'	11/1/00	S	
2		E8-16'			
3		E16-24'			
4		E24-32'			
5		E32-40'			
6		E40-48'			
7		E48-56'			
8		E56-64'			
9		E64-72'			
10		E72-80'			
11		E80-88'			
12		E88-96'			
13		E96-102'			
14		Trench 56, Feature 131	11/1/00	N	
15		Trench 56, Feature 133	11/1/00	N	
16		Trench 56, Feature 134	11/1/00	S	
17		Trench 57 N0-13'	11/2/00	E	
18		N13-26'			
19		N26-39'			
20		N39-52'			
21		N52-65'			
22		N65-78'			
23		N78-100'			
24		Trench 58 N0-11'	11/2/00	E	
25		N11-22'			
26		N22-33'			
27		N33-44'			
28		N44-55'			
29		N55-66'			
30		N66-77'			
31		N77-88'			
32		N88-100'			
33		Working in Trench 59	11/2/00	NE	
34		as above			

PHOTOGRAPHIC DATA

Site Number 31MA77

Accession Number 200281

B/W, Roll 15

Field No.	File No.	Subject		Date	Direction	Comments
1		Trench 59	N0-11'	11/2/00	E	
2			N11-22'			
3			N22-33'			
4			N33-44'			
5			N44-55'			
6			N55-66'			
7			N66-77'			
8			N77-88'			
9			N88-100'			
10		Trench 60	N0-13'	11/2/00	E	
11			N13-26'			
12			N26-39'			
13			N39-52'			
14			N52-65'			
15			N65-78'			
16			N78-91'			
17			N91-104'			
18		Trench 61	N0-10'	11/2/00	E	
19			N10-20'			
20			N20-30'			
21			N30-40'			
22			N40-50'			
23			N50-60'			
24			N60-70'			
25		Bad photo				
26			N70-80'			
27			N80-90'			
28			N90-100'			
29		Trench 62	N0-11'	11/2/00	E	
30			N11-22'			
31			N22-33'			
32			N33-44'			
33			N44-55'			
34			N55-66'			
35			N66-77'			
36			N77-88'			

PHOTOGRAPHIC DATA

Site Number 31MA77

Accession Number 200281

B/W, Roll 16

Field No.	File No.	Subject	Date	Direction	Comments
1		Trench 62 N88-100'	11/2/00	E	
2		Site area from Trench 62	11/2/00	SW	
3		Trench 63, Feature 144	11/2/00	W	
4		Trench 63 N0-13'	11/2/00	E	
5		N13-26'			
6		N26-39'			
7		N39-52'			
8		N52-65'			
9		N65-78'			
10		N78-91'			
11		N91-104'			
12		N104-117'			
13		N117-130'			
14		Trench 64 N0-13'	11/6/99	E	
15		N13-26'			
16		N26-39'			
17		N39-52'			
18		N52-65'			
18		N65-78'			
20		N78-91'			
21		N91-100'			
22		Trench 64, Feature 148	11/6/00	E	
23		Trench 65, N0-100'	11/6/00	N	
24		Trench 65, N85-100'	11/6/00	E	
25		Trench 66, N0-11'	11/6/00	E	
26		N11-22'			
27		N22-33'			
28		N33-44'			
29		N44-55'			
30		N55-66'			
31		N66-77'			
32		N77-88'			
33		N88-100'			
34		Trench 67 N0-11'	11/6/99	E	
35		N11-22'			
36		N22-33'			

PHOTOGRAPHIC DATA

Site Number 31MA77

Accession Number 200281

B/W, Roll 17

Field No.	File No.	Subject	Date	Direction	Comments
1		Trench 67 N33-44'	11/6/00	E	
2		N44-55'			
3		N55-66'			
4		N66-77'			
5		N77-88'			
6		N88-100'			
7		Trench 68 N0-11'	11/6/00	E	
8		N11-22'			
9		N22-33'			
10		N33-44'			
11		N44-55'			
12		N55-66'			
13		N66-77'			
14		N77-88'			
15		N88-100'			
16		Trench 69 N0-11'	11/6/00	E	
17		N11-22'			
18		N22-33'			
19		N33-44'			
20		N44-55'			
21		N55-66'			
22		N66-77'			
23		N77-88'			
24		N88-100'			
25		Trench 70 N0-10'	11/6/00	E	
26		N10-20'			
27		N20-30'			
28		N30-40'			
29		N40-50'			
30		N50-60'			
31		N60-70'			
32		N70-80'			
33		N80-90'			
34		N90-100'			
35		Trench 70, Feature 156	11/6/00	E	
36		Trench 70, Features 157 and 158	11/6/00	E	

PHOTOGRAPHIC DATA

Site Number 31MA77

Accession Number 200281

B/W, Roll 18

Field No.	File No.	Subject	Date	Direction	Comments
1		Trench 71 N0-11'	11/7/00	E	
2		N11-22'			
3		N22-33'			
4		N33-44'			
5		N44-55'			
6		N55-66'			
7		N66-77'			
8		N77-88'			
9		N88-100'			
10		TP 2, base of plowzone	11/7/00	N	
11		as above			
12		Trench 72 N0-11'	11/7/00	E	
13		N11-22'			
14		N22-33'			
15		N33-44'			
16		N44-55'			
17		N55-66'			
18		N66-77'			
19		N77-88'			
20		N88-100'			
21		Trench 73 N0-13'	11/7/00	E	
22		N13-26'			
23		N26-39'			
24		N39-52'			
25		N52-65'			
26		N65-78'			
27		N78-91'			
28		N91-100'			
29		Trench 74 N0-11'	11/7/00	E	
30		N11-22'			
31		N22-33'			
32		N33-44'			
33		N44-55'			
34		N55-66'			
35		N66-77'			
36		N77-88'			

PHOTOGRAPHIC DATA

Site Number 31MA77

Accession Number 200281

B/W, Roll 19

Field No.	File No.	Subject	Date	Direction	Comments
1		Trench 74 N88-100'	11/7/00	E	
2		Trench 74, Feature 162	11/7/00	E	
3		Trench 74, Feature 161	11/7/00	E	
4		Trench 74, Feature 160	11/7/00	E	
5		Trench 31 and up slope	11/8/00	N	shows extent of re-sculpting caused by erosion
6		Trench 75 E0-10	11/8/00	S	
7		E10-20'			
8		E20-30'			
9		E30-40'			
10		E40-50'			
11		E50-60'			
12		E60-70'			
13		E70-80'			
14		E80-90'			
15		E90-100'			
16		Trench 76 N0-10	11/8/00	E	
17		N10-20'			
18		N20-30'			
19		N30-40'			
20		N40-50'			
21		N50-60'			
22		N60-70'			
23		N70-80'			
24		N80-90'			
25		N90-100'			
26		N100-110'			
27		N110-120'			
28		N120-130'			
29		Trench 77 N0-13'	11/8/00	E	
30		N13-26'			
31		N26-39'			
32		N39-52'			
33		N52-65'			
34		N65-78'			
35		N78-91'			
36		N91-103'			
37		Trench 77, Feature 166	11/8/00	E	

PHOTOGRAPHIC DATA

Site Number 31MA77

Accession Number 200281

B/W, Roll 20

Field No.	File No.	Subject		Date	Direc-tion	Comments
1		Trench 78	N0-13'	11/8/00	E	
2			N13-26'			
3			N26-39'			
4			N39-52'			
5			N52-65'			
6			N65-78'			
7			N78-91'			
8			N91-100'			
9		Trench 79	E0-11'	11/8/00	N	
10			E11-22'			
11			E22-33'			
12			E33-44'			
13			E44-55'			
14			E55-66'			
15			E66-77'			
16			E77-88'			
17			E88-100'			
18		Trench 80	E0-11'	11/8/00	N	
19			E11-22'			
20			E22-33'			
21			E33-44'			
22			E44-55'			
23			E55-66'			
24			E66-77'			
25			E77-88'			
26			E88-100'			

APPENDIX 3.
31MA77 DATA RECOVERY PLAN

1. Guiding Principles

A. This data recovery plan treats both grading and filling as equally damaging construction activities. Grading will remove soil which likely contains archaeological remains as well as human remains. This will result in the loss of these resources and sacred items. Fill activities are equally intrusive since they frequently require organic materials to be grubbed out, can be accomplished only through the use of heavy equipment which is likely to cause damage to underlying remains, and will require extensive compaction. Both the Eastern Band of the Cherokees (EBC) and the NC State Historic Preservation Office (SHPO) have established this as a precedent in the case of 31JK291. In that case, mechanical backfilling and compaction of previously excavated trenches was found to have an adverse effect on the archaeological resources.

B. This data recovery recognizes two legal mandates. Both are of equal importance and both require special consideration in the development of the methodology.

1. The use of federal funds in the Macon County Airport Expansion requires compliance with federal historic preservation laws, such as 36 CFR Part 800. In particular, the data recovery plan for the site must be consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties, the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation, and the Advisory Council on Historic Preservation's Treatment of Archaeological Properties: A Handbook.

2. The presence of known, but unmarked, human burials throughout the site area requires compliance with North Carolina's Unmarked Human Burial and Human Skeletal Remains Protection Act, NC Code, Article 3, Section 70-26 et. seq.

C. The data recovery plan must also recognize additional quasi-legal and ethical mandates. These include, but are not limited to:

1. Since the results of the data recovery plan will be reviewed by the NC SHPO, the work must be conducted in compliance with the North Carolina State Historic Preservation Office's Guidelines for the Preparation of Reports of Archaeological Surveys and Evaluations.

2. Since Chicora Foundation subscribes to the goals and standards of the Register of Professional Archaeologists (RPA), the work must be conducted in compliance with the RPA's Code of Conduct and Standards of Research Performance.

3. Since Chicora Foundation subscribes to the goals and standards of the American Institute for Conservation of Historic and Artistic Works (AIC), the work must be conducted in compliance the AIC's Code of Ethics and Guidelines for Practice.

4. Since Chicora Foundation is a member of the Society of American Archaeology (SAA), the work must comply with the SAA Statement Concerning the Treatment of Human Remains.

2. Results of Previous Research Relevant to the Project

A. Shovel testing at 31MA77 consisted of 86 shovel tests placed at 100 foot intervals along transects spaced 100 feet apart. All fill was screened through ¼-inch mesh. This work revealed that virtually all of the 27 acre field west of Iotla Branch included remains attributable to 31MA77. At the northern edge there was extensive erosion, typically with all of the A horizon removed to the underlying stiff red clay subsoil. In the center of the field considerable deposition was identified, with shovel tests to depths of 1.5 to 1.8 feet before subsoil was encountered. In several tests subsoil was not identified, suggesting the possibility of features. At the southern edge of the survey tract a more common Ap horizon about 0.8 food in depth overlying subsoil was found. The site was found to be bisected by SR-1434 (Mount Olive Road) and that artifacts continued to the south on the terrace above the floodplain. No artifacts were found, however, in the Iotla Branch floodplain. Site 31MA77, based on the range of materials recovered, site size, depth of the plowzone, inability to identify the subsoil in multiple tests, and associated historic connections, was recommended potentially eligible for inclusion on the National Register of Historic Places. As a result of this work, the NC State Historic Preservation Office recommended a testing phase to consist of mechanical stripping to identify features and further assess the site.

B. A series of 80 trenches, incorporating 52,680 square feet, were opened during the testing work within the 20 acre area identified by W.K. Dickson as being within the construction area. This included 6,197 square feet in the portion of the site identified as low probability, reflecting a 2.03% sample, and 46,483 square feet in what was identified as high probability, reflecting an 8.21% sample. In the low probability area this work identified 71 postholes and one feature. Over a third of these postholes and the single feature were found in Trench 10, situated at the toe of the slope, in an area which might better be considered intermediate or high probability. Nevertheless, this suggests that potentially as many as 349 postholes and 49 features exist in the low probability area. In the high probability area this work identified 1,498 postholes and 167 features. The mean number of postholes per trench is 20, although the standard deviation of 16 reflects the considerable variation between the trenches (the number of postholes ranges from 2 to 76). Regardless, it is possible that as many as 18,246 postholes and 2,034 features are present in the high probability portion of the site. Of the 168 features identified in this work, four are known to represent burials with in situ human remains. All four were identified in the high probability site area and were accidentally uncovered during stripping operations. The identification of these four burials suggests that at least 48 burials are present at 31MA77. Since there are at least an additional 28 potential burials, the number of total inhumations at 31MA77 may be considerably higher, potentially numbering 390.

C. Artifacts identified during the stripping operations suggest that significant Connestee (A.D. 200-800) and Qualla (ca. A.D. 1450-1838) components are present, with smaller (and potentially insignificant) Archaic, Swannanoa, and Pisgah components.

D. This investigation revealed a wide variety of data sets, including a large number of well preserved features (including human burials), the presence of potholes (which are likely to reveal house patterns), and cultural remains including pottery, cut mica, stone tools, and at least one historic artifact. Moreover, the work reveals that these data sets are well preserved and distinct. There is limited evidence of faunal remains, but very good preservation of ethnobotanical remains. The sealed deposits may be especially important for the recovery of pollen and phytolith evidence. As a result, the entire site was recommended eligible for inclusion on the National Register of Historic Places under Criteria D (ability to yield important information) at the state level of significance. In addition, the linkage between this site and the historic Cherokee village of Joree suggests that

the site is also eligible under Criterion A (association with historic events or activities). It is worth noting that even if the site did not meet these clearly defined criteria, the property might still be eligible for inclusion on the National Register for its traditional religious and cultural importance to Native Americans.

3. Research Questions

A. For the Connestee phase there are a wide range of fairly simple, but significant research questions:

- Chronology — does the Connestee phase extend into the Late Woodland? What is the period(s) of occupation at this particular site?

- Subsistence — what the is extent of horticulture and can evidence of corn agriculture be identified? Is it possible to better document the subsistence base?

- Typology — can the Connestee phase be broken down into finer chronological units? Can more precise gross typological analysis contribute to our understanding of issues such as temper?

- Extralocal Influences — what can the mica-related activities at the site tell us about possible Hopewell interaction? Is there evidence of goods traded into the region?

- Intrasite Patterning — what sort of organizational framework is present at Connestee villages? Are palisades present? What is the variability in Connestee structures?

- Bioarchaeology — what information on health, diet, genetic relationships, microevolution, and population characteristics (such as mean age-at-death and sex ratios) can the Connestee burials provide?

B. Many of these questions are equally applicable to the Qualla assemblage at 31MA77:

- Chronology — is there any indication of an Early Qualla assemblage at this site? What is the period(s) of occupation at 31MA77? Can this site be identified as the named Cherokee town of Joree?

- Subsistence — expanding on existing data, how did the Qualla diet change at contact? By combining data bases of zooarchaeology, pollen, phytoliths, and paleoethnobotany is it possible to obtain a more balanced, and thorough, view of the Qualla diet?

- Typology — does a more detailed typological analysis contribute to our understanding of Qualla pottery? What "outside" Lamar-like traits or pottery is present? What can the assemblage contribute to our understanding of Qualla variability?

- Intrasite Patterning — what sort of organizational framework is present at Qualla villages? Are palisades present? What is the variability in Qualla structures? Will both square and round Qualla houses be present and associated with one another?

- Bioarchaeology — what information on health, diet, genetic relationships, microevolution, and population characteristics (such as mean age-at-death and sex ratios) can the Qualla burials provide?

4. Field Methods

A. Data recovery is necessary for the entire 20 acres of the site identified by W.K. Dickson as being within the construction area. This data recovery will involve 100% mechanical stripping of the affected area, followed by mapping of *all* recognizable features, burials, postholes, and other cultural remains as appropriate. No hand excavation of plowzone is required.

B. Because there is only one practical entrance/exit from the field, the stripping will need to be phased, moving from the west site edge eastward toward Iotla Branch. Initially a small site area will be used for stockpiling site spoil; however, as the process works eastward, cleared site will be used for stockpiling soil.

C. Stripping will be accomplished through the use of a tracked backhoe no smaller than that used during the 2000 testing operations. Only skilled operators will be used. A grading bar will be welded to the bucket teeth and other measures will be taken to close the bucket, minimizing the spoil lost during the stripping operations. Stripping will be conducted from south to north, with the stripping terminating at the northern slope when no additional features are found, but prior to the fence marking the edge of the County property. No stripping will be conducted north of this line. An area no wider than 25 feet will be open at any one time to minimize the need for the tracked backhoe to move large amounts of spoil and to avoid the use of dump trucks (the operation of which on the site would lead to unwarranted site damage, especially in wet weather and on slopes).

D. Once stripped, the areas will be shovel skimmed and/or trowelled to clean the resulting soil surface. Stripped areas will be kept covered with black plastic while active excavations are in process, but will not be covered once the excavations are complete in that strip. All features, postholes, and other cultural anomalies will be mapped, either by total station or with survey grade GPS.

E. All features will be photo documented in B/W print and color transparency film. Individual features will be drawn at a scale of 1-inch to 2-feet. Features will be numbered sequentially, beginning with the last number used during the testing phase.

F. At least 50% of all features will be excavated. It will be within the discretion of the field archaeologist whether 100% of a feature is excavated or if the sample is adequate for cultural interpretations. If a feature is identified as a burial, it will be completely excavated (see below). Excavation may be by natural soil zones where identifiable, by arbitrary levels, or as one zone, as determined by the field investigator. At least a 2 cup sample will be retained from each feature for eventual pollen and phytolith study. Where possible a 5-gallon sample will be retained for water flotation. The remaining fill will be hand screened through ⅛ or ¼-inch mesh (as possible given soil conditions). Artifacts will be collected and maintained by provenience. At the conclusion of the initial 50% excavation, the feature profile will be cleaned, drawn (at a horizontal scale of 1-inch to 2-feet and an exaggerated vertical scale of 1-inch to 1-foot), and photographed in B/W print and color transparency film. If the remainder of the feature is then excavated, this process of cleaning, mapping, and photography will be repeated once the entire feature has been excavated.

G. While all postholes will be mapped (per 4.D. above), only those associated with identifiable house patterns will be excavated, at the discretion of the field archaeologist.

H. Burials, whether clearly identified as such initially or identified during feature excavation, will be assigned a burial number (beginning sequentially with 1) as well as a feature number. All fill will be removed working from the center of the burial outward (i.e., burials will not be bisected) and dry screened through ⅛ or ¼-inch mesh (as possible given soil conditions). Burial fill will not be waterscreened nor will any portion be subjected

to flotation. A 2 cup sample will be retained from those burials with convincing cultural associations (i.e., clearly Connestee or Qualla) for eventual pollen and phytolith study, as well as for archaeoentomological study. The remainder of the fill will be bagged and tagged with the burial number and will be stored on-site (but under a tarp or similar cover) for eventual reburial with the associated skeletal remains. Every burial, once cleaned, will be photographed in B/W print and color transparency film and will be drawn at a scale of 1-inch to 2-feet. In situ metric data will be obtained from every burial. The bones will then be removed and transferred to the field laboratory. Artifacts from the fill will be treated as normal feature collections; artifacts in association with the burial and which may reasonably be interpreted as intentionally placed in the grave, will accompany the skeletal material.

I. Based on previous work at the site, we anticipate that it will be possible to strip, clean, and plot approximately 130 square feet per person hour. Utilizing one tracked backhoe and a crew of approximately 10 field technicians, it will be possible to open approximately 37,500 square feet a week. This means that approximately 23 weeks, or 6 months, will be required to strip the entire site — and this is not allowing for detailed mapping, photography or feature excavation. We anticipate that upwards of 16 person hours will be required for the excavation of a single burial. With a minimum of 50 burials at the site, this equates to 800 person hours. With as many as 390 burials, this would require 6,240 person hours. It would require six crews of trained burial excavators approximately 26 weeks to completely remove this many burials (assuming that all were exposed). With as many as perhaps 2,000 features expected, and at least half of each feature being excavated, this time easily doubles. The best way to approach an excavation of this scale is to conduct the work during two field seasons, each about 6 months in duration. Crew size will need to be approximately 10 to 15 field technicians (including at least six trained in burial removal and two trained in situ metric measurements), and 3-4 crew chiefs. There will need to be both an osteology field supervisor and an archaeology field supervisor, as well as a laboratory supervisor, and a laboratory crew of between 5 and 8 individuals (at least two trained in osteological studies) to handle both the processing of general collections and the processing and analysis of human remains. An additional 2-3 specialists will be needed to handle ethnobotanical flotation, ceramic analysis, and lithic studies on-site. The osteological research will be conducted under the supervision of a Ph.D. in physical anthropology with a specialization in paleo-osteology. The entire project will be conducted under the supervision of a Ph.D. in anthropology with a specialization in Southeastern archaeology.

5. Laboratory Analysis Methods

A. Because of the quantity of remains anticipated, all analysis, conservation, and cataloging will be conducted on-site so that at the end of the field season the collections will be in a condition suitable for final curation. This will necessitate a field lab capable of processing both archaeological and osteological collections. The only exception to this will be specialized studies, including but not necessarily limited to radiometric dating, pollen studies, phytolith studies, archaeobotanical studies, archaeoentomological studies, and zooarchaeological analysis. These special materials will be pulled during cataloging and thereafter boxed and stored separately.

B. All materials coming into the field lab (with the exception of human skeletal remains and grave goods as noted in 4.H.). will be washed, dried, and cataloged using the system of the curatorial facility. All materials will be packed in 2 or 4 mil ziplocks and placed in pH neutral, alkaline buffered 1 cubic foot storage boxes.

C. Analysis of the ceramic assemblage will minimally include counts, typological assessments, and gross level studies of temper size, temper shape, frequency of inclusions, core cross-section, interior and exterior treatments, rim diameter, thickness, and shoulder form. Where appropriate some additional analysis may be undertaken, for example to classify cordage diameter and angle of twist for cord marked wares or identification of specific complicated stamped designs. A small number of representative sherds may be subjected to petrographic analyses

to help characterize the paste. Since the initial testing also revealed at least one feature containing what appeared to be pottery clay, an effort will also be made to compare this stockpiled clay to known sherds.

D. Analysis of the lithic assemblage will minimally include counts, identification of lithic raw material, and visual examination for evidence of heat alteration. Hafted bifaces will have metric attributes recorded and typological assessments will be conducted. Further data will be collected to allow statements regarding manufacturing and maintenance of the bifaces. Large stone tool analysis will include metric analysis and functional interpretations. Debitage analysis will use common analytical techniques, with some additional approaches necessary to help interpret stone tool curation. Flakes will be categorized (i.e., primary, secondary, non-cortical, etc.) and weighed or measured. Flakes will also be examined for information on platform categories and edge damage.

E. Analysis of other artifacts will be at a level and scope sufficient to ensure reasonable characterization of the material. Other materials which may be recovered include beads, other historic artifacts, worked shell, and worked mica.

F. Soil samples selected for their likelihood to contain relevant materials will be floated in the field for the recovery of ethnobotanical remains. These remains will not be examined during the field phase, but will be sorted and studied between or after field seasons. The analysis will include identification of foods and food remains, as well as the identification of wood charcoal species.

G. Pollen samples will be collected from sealed features with good cultural contexts and subjected to off-site analysis. The goal of this research is to expand our knowledge of cultigen present on-site, as well as to further the environmental reconstruction of the site area. Pollen studies may be of special assistance in the analysis of "storage pits" and may also help identify season of burials. Approximately 1 to 3% of the features will be subjected to this analysis.

H. Phytolith samples will be collected from sealed features with good cultural contexts and subjected to off-site analysis. The goal of this research is to expand our knowledge of cultigens present on-site, as well as to better understand the presence of grassy weeds in and around structure areas. Phytolith studies may be of special assistance in the analysis of "storage pits," the identification of mats and other organic materials placed in graves, and may help identify both season of use and also environmental conditions. Approximately 1 to 3% of the features will be subjected to this analysis.

I. Archaeoentomological samples will be collected from areas of organic remains, such as burials and storage pits. These materials, to be examined off-site, may contribute information on various compost and dung fauna, carrion fauna, mold and fungus fauna, and stored product pests.

J. Zooarchaeological remains will be examined off-site, with analysis focusing on class, suborder, or species identification, identification of individual bone elements, calculation of MNI, and estimation of biomass. Where possible information will also be sought on issues associated with butchering, preparation, and cooking practices.

K. Human skeletal analysis will be entirely conducted on-site and begin with the in situ metric analysis even prior to removal. Once transferred to the field lab the remains will be lightly brushed to remove adhering soil and allow for collection of additional metric and non-metric data. This soil will be maintained with the skeletal remains for reburial. In some cases it may be necessary to wash small, limited portions of the bone. This will be limited and conducted with care and dignity. No consolidates or other chemicals will be applied to the bones. The initial level of analysis will allow the compilation of thorough descriptions of each individual (including

appraisals of sex, age at death, stature, body build, distinguishing characteristics, and skeletal pathologies). Information on taphonomic changes will be collected. Detailed observations and measurements will be entered on standardized forms, similar to those used by SOD. Since the analysis will be limited to the field season, special materials — specimens exhibiting unusual or difficult to characterize data — may be subjected to X-ray or CAT scans. Both are non-intrusive and will leave no residues in the remains. The teeth are especially important for studies of ancient peoples because they reflect age-at-death, diet, disease, health, and genetic affiliation. Dental inventories will be created, but these are not always adequate. Because of the translucent nature of the tooth crown, adequate photography requires coating or dusting the teeth with ammonium chloride fumes. Since this is an invasive procedure, we have selected as an alternative to make high quality silicone casts of selected dentition. This is a far more benign technique, but it allows vitally important data to be collected, and stored, for detailed analysis.

L. At least 30 C-14 dates will be obtained from 31MA77. The primary goal will be to identify features with known cultural affiliations, however no human skeletal remains will be used in dating. Extending counting times will be used where ever necessary to enhance low precision results and all samples will also receive stable isotope rations (C13/12). These 30 dates will represent only 1.5% of the anticipated 2000 features, so they will be very carefully chosen, based on preliminary ceramic analysis.

M. The field lab will consist of at least 672 square feet of usable space, sufficient for an office/meeting room, a lab for both osteology and archaeology (with ca. 16 linear feet of counter space each), and a storage area for tools. The lab will have both telephone and electrical service. It will have 24/7 security monitoring for the safety of materials being held in the lab overnight, as well as for the security of tools and equipment. The access code will be provided to only the PI and the two field directors. The lab will not have potable water, but will have a water storage system sufficient to allow washing of collections. The lab will be available for the duration of all field seasons and will be located at the southeast corner of the site.

N. There will be at least one storage containers present on the airport facility for the storage of both archaeological collections and human remains. Depending on the quantity of materials recovered, additional storage containers may be necessary. It may be possible to use these containers to directly truck archaeological collections to the curatorial facility at the conclusion of the field season. These will be fitted with high security locks. One key will be held in Columbia, and one key each will be given to the archaeology and osteology field directors.

O. Chicora Foundation will accommodate any Cherokee healer, shaman, or religious leader or practitioner who desires to view excavations, laboratory processing, or storage of any remains associated with this work during normal working hours, subject to normal and routine safety limitations. Similar accommodations will be provided for non-working hours with 24 hours notice. Similar accommodations, under similar conditions, will be provided for any Native American group wishing to hold religious services or ceremonies in areas outside active excavation.

6. Methods to be Used in Artifact, Data, and Other Records Management

A. Field investigations will be conducted using a set of standard forms maintained by the field archaeologist. These will include:

1. Daily Report Form, to record work progress on a daily basis. This will assist in tracking over-all progress, the stripping of different site areas, and the excavation of burials, features, and postholes.

2. Feature Form, to record essential information concerning individual features. Associated with this form will be the plots and profiles of each feature previously discussed (4.F.).

3. Photo Data Form, to track field photography.

4. Bag Inventory Form, to track all collections leaving the field and going into the field laboratory. This form will be completed by the field archaeologist and handed over to the laboratory director on a daily basis. These will form the basis for inventory control and cataloging.

5. Additional forms will be developed to deal with other field situations. For example, a means of maintaining control over identified house patterns and posthole excavation will be required.

B. All field forms will be printed on pH neutral, alkaline buffered paper except for commercially available graph paper. Only pencil will be used for field recordation.

C. Ilford Delta 100 or equivalent will be used for B/W photography, with archival processing including double fix baths and a hypo-removal. Speed or "overnight" processing will not be used without proof of archival processing. No C-41 B/W film processing will be used. Two proof sheets of each roll will be provided to the curatorial facility (one for primary use and one for backup). Fujichrome Sensia II 100 or equivalent will be used for color transparencies. While not archival, processing will be to Fuji specifications and the slides will be maintained in dark storage throughout the project. These same films will be used for both field and laboratory work. Where X-ray are required, standard processing will be used and the film will be stored in pH neutral envelopes.

D. Overall site mapping, by either total station or survey grade GPS, will be conducted at least weekly, with the resulting data downloaded and printed within 48 hours. This will ensure that no area is completed and covered by spoil prior to all mapping being conducted and the data being printed and field checked to ensure accuracy. Final mapping will be on dimensionally stable mylar. No effort will be made to archives the electronic file (s).

E. A variety of lab forms will be created by specialists in different areas for recordation of data. These forms will be printed on pH neutral, alkaline buffered paper. Consultants engaged in specialized analysis will be requested to submit copies of their original data on pH neutral, alkaline buffered paper. All lab and analysis forms will be curated.

7. Methods to Disseminate the Results to the Professional Community

A. A draft report which incorporates all of the research questions and data analyses will be prepared for submission to the NC SHPO, the EBC, and Macon County, within two years of the conclusion of the final field season. This draft report will be complete, except that photography and oversize drawings need not be in final form.

B. The final report will be printed, doublesided, on pH neutral, alkaline buffered paper. The document will be perfect bound. Color copies may be used where necessary, but will not be required.

B. Upon final acceptance, at least 40 copies of the technical report will be provided to major research centers and repositories in the Eastern United States.

8. Methods to Disseminate the Results to the Public

A. Chicora will maintain an open site, allowing free access and inspection by any interested party during normal working hours, subject to safety regulations, checking in with the field directors, and being accompanied by a Chicora employee. Limitations will be established only as a means to prevent loss of work time.

B. Upon final acceptance, copies of the technical report will be provided to the Library of Congress, the N.C. State Library, the Georgia State Library, the Tennessee State Library, the S.C. State Library, and the Macon County Public Library.

C. A popular version of the monograph will be prepared in booklet form with 3,000 copies printed. Approximately a third of these copies will be made available to the public by Macon County, and additional third will be provided the public visiting the Macon County Airport, and the remaining third will be provided tot he EBC for their use and distribution.

D. A museum quality display will be designed by Chicora Foundation for installation at the Macon County Airport. This exhibit will be a minimum of 15 linear feet and will focus on the lifeways of the Native Americans at 31MA77. The exhibit will include artifacts from the excavation, on permanent loan from the curatorial facility.

9. Curation

A. All artifacts, field records, B/W and color slide photography, and associated materials will be curated with the Archaeology Branch, NC SHPO. These materials will be transferred to that curatorial facility as soon as practical after the completion of each field season.

B. All curatorial requirements of the facility ("Archaeological Curation Standards and Guidelines, 1995 Revision) will be complied with, excepting that the artifacts, because of the quantity anticipated, will not be individually numbered. A combination of both poly-paper and impressed metal tags will be used.

C. Macon County, as owner in fee simple of the land on which the excavations are to be conducted, agrees to provide fee simple ownership of all archaeological artifacts, field records, B/W and color slide photography, and associated materials to the curatorial facility.

D. All materials will be assessed for conservation needs prior to curation. In particular bone, mica, and shell items may require consolidation. A conservation plan (treatment proposals) for such items will developed for all specimens and will become part of the permanent curatorial record.

E. Neither curation nor conservation treatments apply to human skeletal remains, regardless of their association, or to any grave goods intentionally placed with human burials. These materials will be handled as materials for repatriation.

10. Repatriation of Human Remains

A. All human remains (excepting those for which Chicora, the NC SHPO, and the EBC have made alternative, written agreements) will be turned over by Chicora Foundation to the NC SHPO or his representative, within 10 working days of the conclusion of any field season's investigations. It shall then be the responsibility of the NC SHPO to ensure transfer of the remains to the EBC or any other party as determined by the NC

Commission on Indian Affairs.

B. Macon County will provide the necessary acreage for repatriation beyond the site boundaries, but immediately adjacent to 31MA77. If the land currently owned by the County is not adequate for this purpose, the County will acquire whatever additional land is necessary immediately adjacent to and contiguous to the original tract. The goal is to ensure that the burial area is one tract, not several dispersed parcels. It may, however, be necessary to conduct additional archaeological investigations to ensure that the land proposed to be used for reburial will not damage other archaeological or human remains.

C. Macon County will, within one calender month of the repatriation, fence the burial area. Macon County will also be responsible for the security, maintenance, and upkeep of the tract in perpetuity, in consultation with the EBC. The tract shall be maintained as publicly accessible land in perpetuity. The County may never use, alter, sell, lease, or otherwise engage in any activities which will alter the sacred nature of this burial tract. Maintenance will minimally consist of mowing the grass at least four times a year during the growing season, as well as maintaining any other appurtenance, such as the fence and access road/path. The use of large mechanical equipment (such as bush hogs) within the burial area is not to be permitted since these are likely over time to compact the soil and will cause rutting or other damage if used during wet weather.

D. Macon County will agree to hand excavate burial pits for the repatriation activities, under the supervision of Chicora Foundation and any representatives of the EBC who might be appointed or who might desire to be present. The burial pits will, in so far as possible, replicate the original pits in terms of size and shape. No effort will be made to attempt to replicate side chamber burial pits. The depth of each pit will be, minimally, 24 inches below the existing ground surface. The fill from each pit will be removed from the burial location by the County.

E. The County will be responsible for placing the original grave fill associated with each burial, clearly marked, by the side of the corresponding pit.

E. The repatriation procedure will be handed by the EBC in a manner, time, and nature appropriate to their religious and cultural beliefs without hindrance or undue pressure from the County or any other party. The EBC will be responsible for using the available fill from the original burial pit to fill in the grave after excavation.

F. Within 48 hours of the conclusion of the repatriation service, the County will complete the filling of the individual graves by hand. No mechanical equipment may be used within the confines of the burial area and all movement of fill soil will be by wheelbarrow. The area will be established in a drought resistant, low maintenance grass as soon as possible after the reburials.

11. Procedures for Dealing with "Late Discoveries"

A. For the purpose of this data recovery plan, a "late discovery" will be any condition which may substantively alter the nature or procedures of the data recovery plan. It may include the identification of more burials or features than is otherwise anticipated, or the identification of archaeological features which are not anticipated based on the current level of survey work.

B. Since "late discoveries" can take any number of forms, Chicora Foundation will be responsible for providing weekly summaries of the data recovery plan during all field seasons. Once out of the field, these summaries will be provided on a monthly basis. The goal of this reporting will be to allow parties to anticipate any problems which may be reasonably foreseen, such as longer than anticipated periods of field work, weather delays, and other similar issues. These reports will be provided to Chicora's contractor, the lead agency, the NC SHPO,

the EBC, the NC Commission of Indian Affairs, Macon County, and other legitimate parties who may formally request copies.

C. In the event of a late discovery which requires immediate attention, all work in the immediate area of the discovery will cease and Chicora will, within 24 hours, seek to notify Chicora's contractor, the lead agency, the NC SHPO, the EBC, the NC Commission on Indian Affairs, and Macon County. Notification will be considered achieved with a phone call and, where the party is not present, either a voice mail message or transcribed message. The lead agency, the NC SHPO, the EBC, and (as appropriate) the NC Commission on Indian Affairs will coordinate and determine what action is necessary within 48 hours of being notified (not counting weekends or federal holidays). Chicora will not be responsible for any costs associated with such delays.

APPENDIX 4.
ANALYSIS AND REPORTING ON THE HUMAN SKELETAL REMAINS FROM SITE 31MA77, MACON COUNTY, NORTH CAROLINA

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Abstract

This proposal describes the methods to be used in the analysis of, and reporting on, human remains from the archaeological site 31MA77, a Native American site in Macon County, North Carolina. The analysis of the remains will be conducted under the direction of Dr. David S. Weaver of Wake Forest University, and should provide description and interpretation of the human skeletal remains. The description and interpretation should provide information concerning the physical characteristics and lifestyles of the persons buried at 31MA77. Examination, analysis, and reporting on the human skeletal remains will be conducted in accordance with relevant law and agreements. The procedures and methods outlined in the proposal should allow expeditious reburial of the remains at a location, and in a manner, designated under relevant law and agreements.

Introduction

This proposal details the goals and methods for analysis of human skeletal remains that will be recovered from archaeological site 31MA77 in Macon county, North Carolina. Although the number of remains that will be discovered at the site is unknown at this time, the budget that can be adjusted as the number of burials becomes known. The remains almost certainly are Native American in origin, and so this work will be conducted under the provisions and restrictions of relevant statutes and existing agreements concerning the treatment and analysis of the remains.

The excavation of the remains will be conducted by the Chicora Foundation and other persons that Chicora Foundation may designate. To minimize the amount of time the remains are out of the ground while ensuring adequate examination and study of the remains, we propose to conduct on-site study of the remains. We do not propose removing any remains from the vicinity of the site (excepting materials which may need to be x-rayed or for CAT scans are appropriate). We do not propose any destructive testing or sampling of the remains. There will be no long term curation costs. Custody and security of the remains will be the responsibility on-site of the excavators and other appropriate parties.

Analysis of Human Skeletal Remains

Analysis Goals

31MA77 is an important site in the region. The human skeletal remains from 31MA77 will represent a large and important collection of remains, and their study will provide significant information concerning the late prehistoric Native American peoples of Macon county and the region.

The human skeletal analysis will have several goals. An initial goal will involve compiling through descriptions of each individual (including appraisals of sex, age at death, stature, body build, distinguishing characteristics, and any skeletal pathologies).

The analysis also will attempt to verify, by accepted methods, the Native American status of the skeletal remains. Clearly, there is a very strong likelihood that the remains are Native American, but confirmation of that fact is important to the legal status of the remains.

The final goal of this study will be to create a report that characterizes the population represented by the skeletal sample from 31MA77. We hope to describe the people who were buried at 31MA77, to characterize and explain any skeletal traits, pathologies or anomalies of the people, and to provide information concerning the lifestyles and life histories of the people. This report may then form a basis for comparison to information on the human skeletal remains elsewhere in the region and beyond.

Analysis Procedures

Because under the terms of existing agreements the human skeletal remains cannot be removed from the vicinity of the archaeological site, we propose to establish a field laboratory in which the remains can be cleaned, studied, photographed (as necessary), and packaged for transport to the reburial site. Following the model established by Rose (1985), who was working under similar site constraints in a case involving exhumation, study, and rapid reburial, we propose that a small building (or other suitable structure, such as a construction site office type trailer) be set up on site. The remains would enter the building, go through a process of cleaning and study (as described below), and then be made available for reburial at the site (or other designated location). The field laboratory would need water (although running water is not needed), electricity, and approximately 20 linear feet of working counter space. The field laboratory building, which can be locked and secured, is needed to insure security of the remains. The work flow will be standardized and the progress of the remains through the study process will be monitored and logged at each important step of the process. Standardized forms will be created and used for each phase of the study. If storage of the remains before reburial is contemplated, then of course adequate secure storage space also will have to be provided, probably on site.

Because of other existing commitments during spring and summer of 2001, Dr. Weaver cannot be present at the site on a continuous basis. Therefore, a field and laboratory supervisor with training and experience in human skeletal recovery and analysis will be needed on site. We believe that Ms. Driscoll should be that person. Ms. Driscoll is a doctoral student at the University of North Carolina at Chapel Hill, and will finish her Ph.D. in the early spring of 2001. We propose to train six individuals (at least 2 of whom should have M.A. level training in human skeletal recovery and analysis) to conduct the initial cleaning, measurements and observations, and photography, and to record results and prepare the remains for reburial under Ms. Driscoll's supervision. The two individuals with familiarity with human skeletal analysis will serve as crew supervisors, one person working in the laboratory and one person working in the field on the site. The other four individuals, who should have familiarity with the recovery and analysis of human skeletal remains, would handle each burial case each day, under Ms. Driscoll's supervision, and Dr. Weaver would come to the site at least once a week to review the week's work, supervise the study procedures, and make any more detailed

observations that might be warranted.

Because the condition of the remains may make intact excavation of the remains problematic, we propose taking a standard set of *in situ* measurements, drawings, and photographs on each burial before removing the remains from the burial feature. The standard data collection approach, and forms, provided in Buikstra and Ubelaker (1994) will form the basis of this phase of data collection.

The initial steps of the laboratory analysis will be to clean and prepare the skeletal material. Usually, cleaning only will require brushing the adhering soil from the remains to allow examination of the surfaces of the bone. If it is necessary, brushing with clean water will remove any remaining material. No consolidants or preservatives will be applied to the remains because reburial of the remains is required under existing agreements. Because the soil surrounding the remains is considered part of the sacred context of the burial, the soil that is cleaned from the remains will be saved and kept with the remains, so that the soil and the remains can be reburied together at the end of the study.

The next step in the analysis will be detailed observation and measurement of the remains. We will conduct detailed osteological and paleopathological analyses of the remains. These analyses will be central to characterizing the lifeways and life experiences of the people buried at 31MA77 (see Larsen 1997). We expect to characterize the presence of various skeletal conditions, including signs of bone infections and diseases, healed and unhealed fractures, and skeletal abnormalities. We also expect to be able to confirm that the remains are those of Native Americans (Bass 1995, Gill and Rhine 1990). Observations and measurements will proceed using the methods and guidelines provided in Buikstra and Ubelaker (1994), Bass (1995), Bramblett and Steele (1988) and other resources as needed. We will use a standard approach to each set of remains, so that the persons doing the analysis will take the same measurements, using the same methods, on each individual who is excavated for study. Photographs and radiographs (as needed) will be taken of important characteristics of each individual. This standardized approach also will allow comparison of our findings with other published, and future, studies on human skeletal material from the area.

The next step in the analysis will be to determine the sex, age at death, stature, body build and other distinguishing characteristics of the individuals from the site. We will determine the individual sex using standard observations of cranial and skeletal characteristics, especially pelvic traits and skeletal robusticity, and standard measurements and indices (Bass 1995, Buikstra and Ubelaker 1994 and other resources as needed). We will use standard methods for determining age at death, including examining skeletal and dental growth and development, evaluating skeletal maturity, evaluating age related changes in the pelvis, examining age related joint changes, examining dental wear and development, and looking at signs of life-long "wear and tear" (Buikstra and Ubelaker 1994, Bass 1995, Bramblett and Steele 1988, and other resources as needed). In addition to characterizing each individual for whom enough skeletal material is present, we expect to prepare a demographic profile of the individuals from 31MA77. An unusual demographic profile would suggest unusual events at the site, such as higher than usual mortality in specific age groups, that may be of historic and archaeological value.

Stature and body build can be appraised using standard measurements, indices, and formulas of long bones of the individuals (Bass 1995 and Buikstra and Ubelaker 1994). We expect that the estimates of stature and body build will be consistent with those of modern Native Americans in the region.

We will conduct observations of dental and oral conditions using standard methods and criteria (Buikstra and Ubelaker 1994, Hillson 1996, Turner, Nichol and Scott 1991). We will take casts of the dental remains (a nondestructive technique), using standard dental casting methods. The casts will allow detailed study of the dentition that could not be accomplished during the short interval that the original remains will be available for study. Dental conditions provide indications of probable diet and can provide information concerning relationships between the sample at 31MA77 and people at other sites in the region. For example, the presence and patterns of dental and periodontal

disease may imply a diet that was heavily dependent on agriculture, or that was a broader diet combining wild and domestic foods (Larsen 1997). Specific dental traits, such as shovel-shaped incisors, may strongly suggest Native American historical and biological affinity (Larsen 1997, Hillson 1996, Turner, Nichol and Scott 1991).

As a final stage of the analysis, we will combine the various analyses to produce cumulative information concerning the probable biological affinity, population characteristics, demography, nutritional and disease states, and other relevant characteristics of the sample from 31MA77. This information should provide a look at the lifeways and life histories of the people buried at the site, and the information can then be integrated with other reports concerning 31MA 77 and the people of the time in the region.

Reporting

We will provide periodic reports of our progress as required by any pertinent agreements. We will provide a final report of our analyses and interpretations to the contractor for incorporation into other reports as necessary. If requested, we will provide copies of our analyses and data to any approved authorities as consistent with applicable laws and procedures.

Schedule

Analysis of the human skeletal remains will begin as soon as the remains are excavated. We expect that cleaning, measurement, photography, and initial analysis of each set of remains should take one to two weeks, after which time the remains may be stored or reburied as required under relevant agreements. Thus, the initial analysis of the remains should be completed within two weeks after the excavation of the last of the remains in the field. Detailed analysis and interpretation of the initial measurements and observations should be completed within 9 months after closure of the site.

References Cited

Bass, W.M.
1995 *Human Osteology*. University of Missouri Press, Columbia.

Buikstra, J.E. and Ubelaker, D.H. (editors)
1994 *Standards for Data Collection from Human Skeletal Remains*. Research Series No. 44. Arkansas Archeological Survey, Fayetteville.

Gill, G.W. and Rhine, S. (editors)
1990 *Skeletal Attribution of Race*. Anthropological Papers No. 4. Maxwell Museum of Anthropology, Albuquerque.

Hillson, S.
1996 *Dental Anthropology*. Cambridge University Press. Cambridge.

Larsen, C.S.
1997 *Bioarchaeology*. Cambridge University Press. Cambridge.

Rose, J.C.
1985 *Gone to a Better Land: A Biohistory of a Rural Black Cemetery in the Post-Reconstruction South*.

Research Series. No. 25. Arkansas Archeological Survey, Fayetteville.

Steele, D.G. and Bramblett, C.A.
1988 *The Anatomy and Biology of the Human Skeleton*. Texas A&M Press, College Station.

Turner, C.G., Nichol, C. and Scott, G.
1991 Scoring Procedures for Key Morphological Traits of the Permanent Dentition; the Arizona State University Dental Anthropology System. In *Advances in Dental Anthropology*. Edited by M. Kelley and C.S. Larsen, pp. 13-31. Wiley-Liss, New York.

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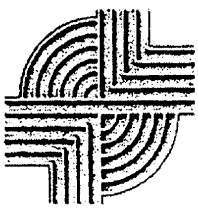

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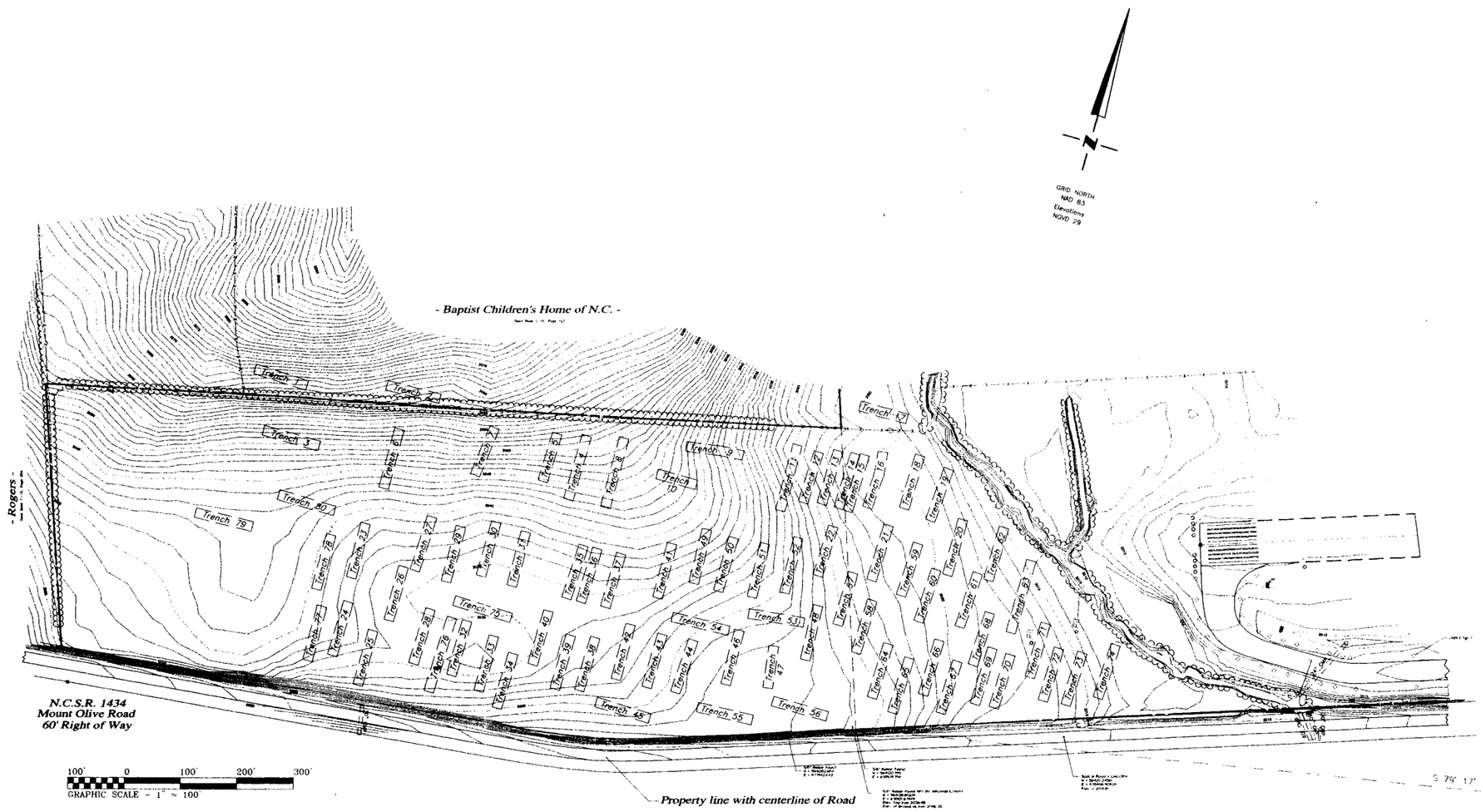

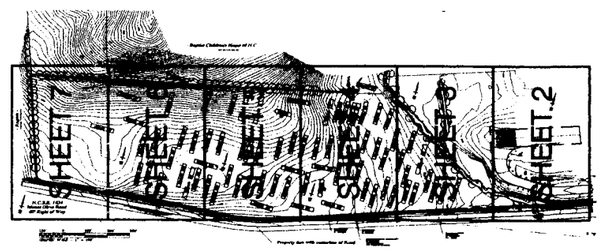

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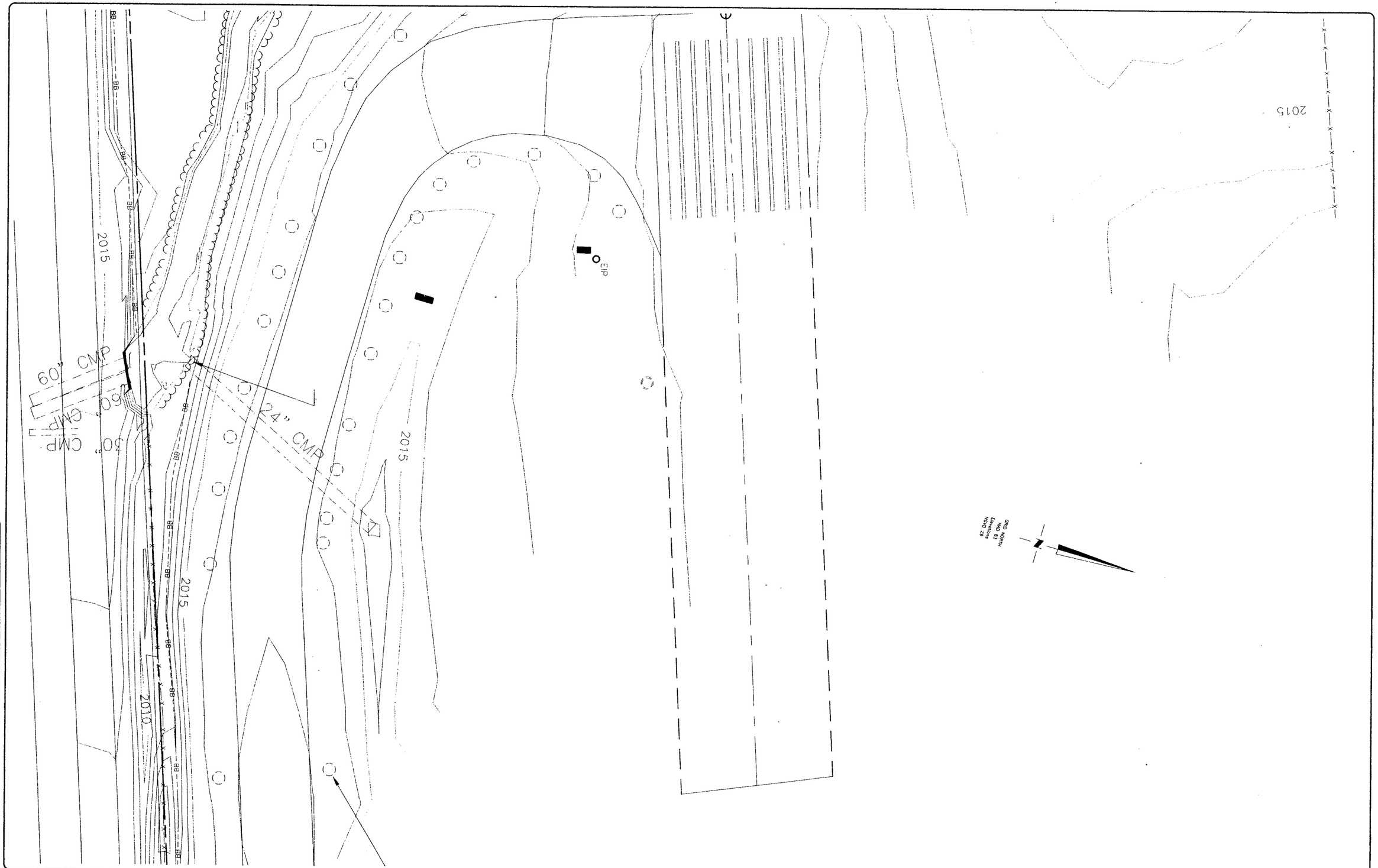

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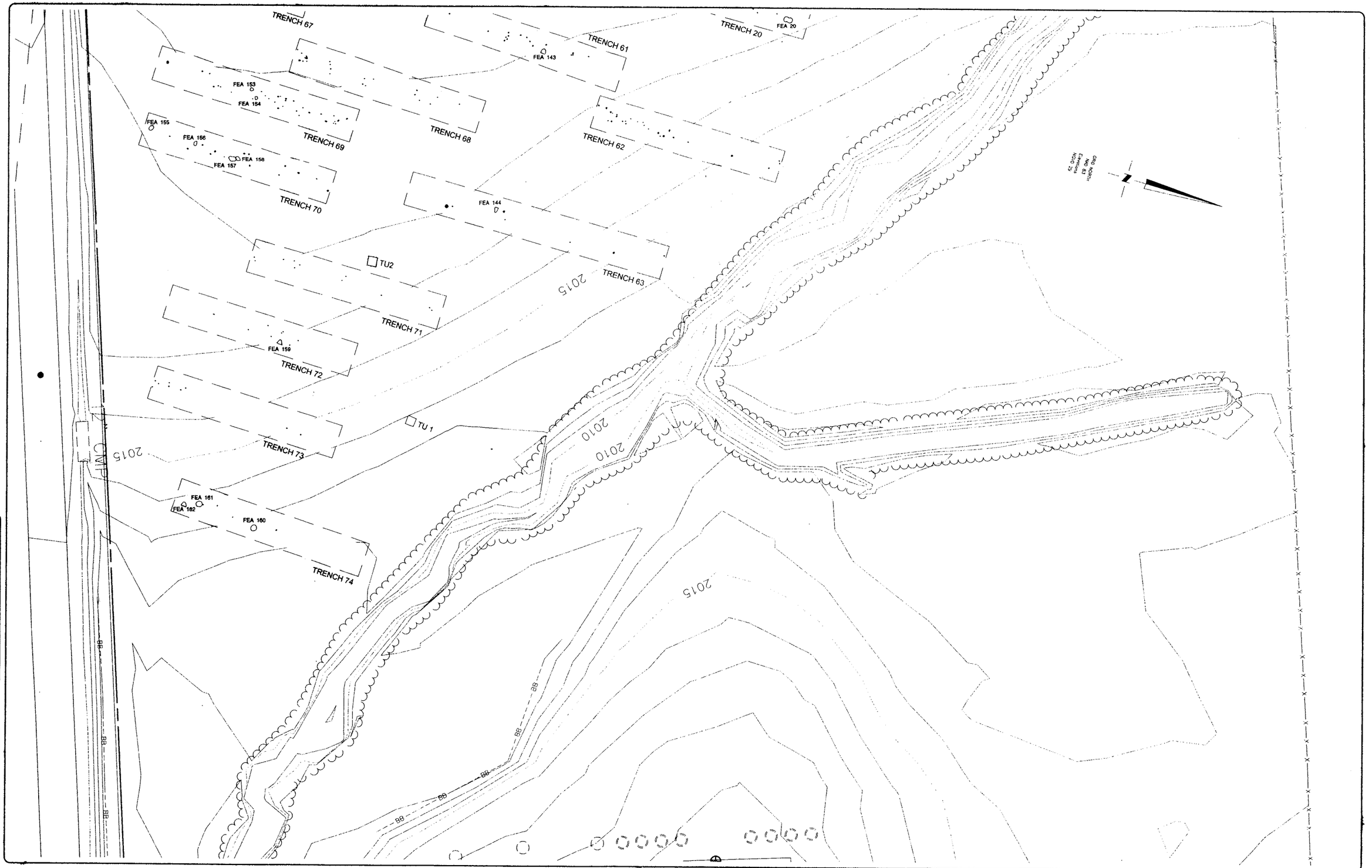

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DARK REDDISH BROWN (5YR3/2) LOAMY CLAY
YELLOWISH BROWN (10YR5/6) CLAY SUBSOIL
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YELLOWISH RED (5YR4/6) LOAMY CLAY
RED (2.5YR4/8) CLAY SUBSOIL
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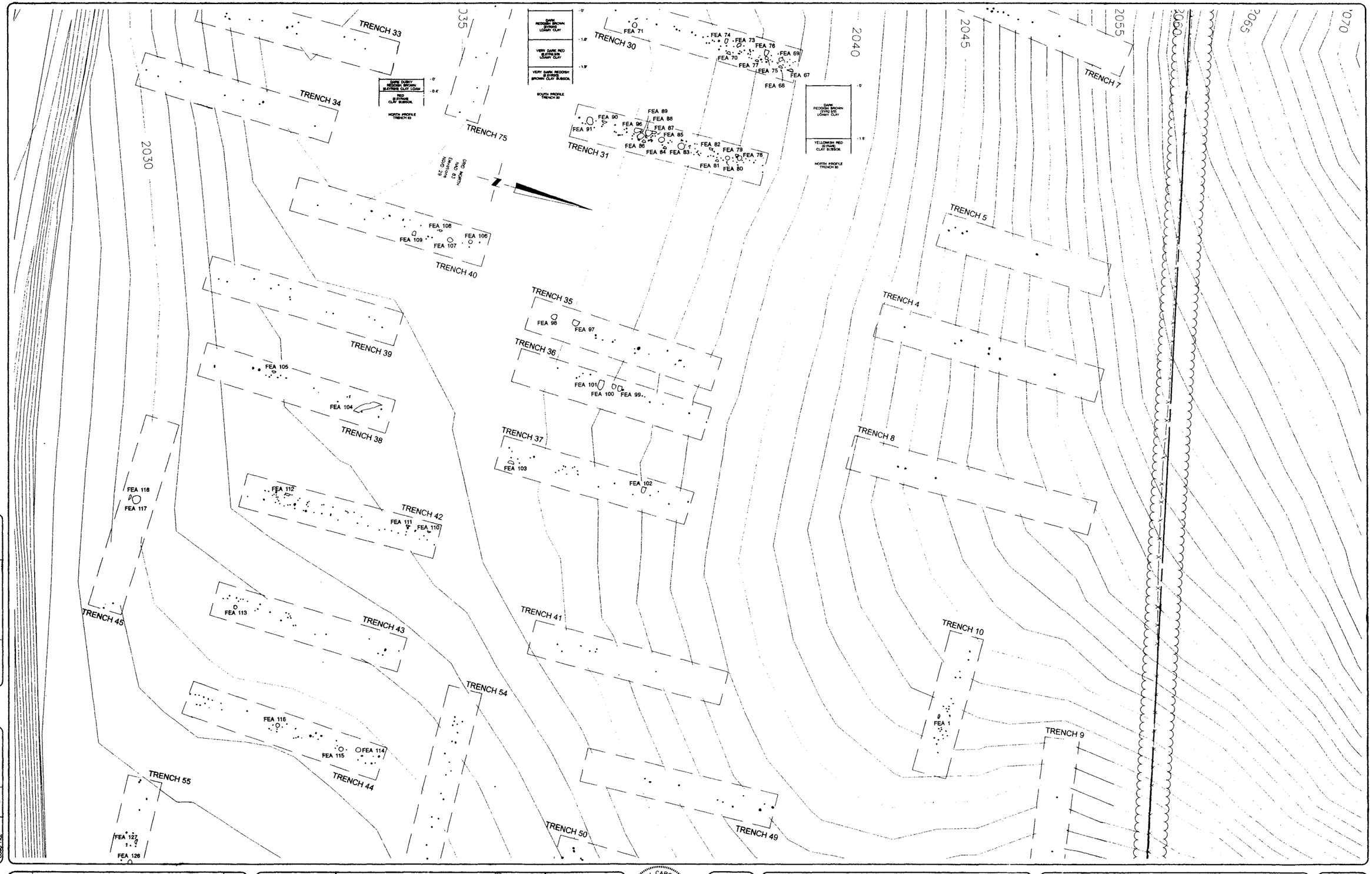

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NORTH PROFILE TRENCH 23

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