

Fort Bragg Physical and Cultural Environment

EVERY HUMAN SOCIETY can be linked to its natural environment in an ecological relationship. This relationship involves the utilization of available organic and inorganic resources, and the unique procurement strategies employed by each society. Although human cultural behavior ultimately is not determined solely by the physical environment, physical parameters such as climate, vegetation, soils, and geomorphological setting limit the options for the nature and types of settlement and subsistence patterns that may evolve. From a regional perspective, environmental variables such as physiography, drainage patterns, climate, and vegetational succession affect the development of those patterns as they relate to the cultural landscape. On a local level, soil type, landform, and proximity to a water source are several of the factors that affect site selection, landscape modification or utilization, and the preservation of cultural remains.

Physical Environment: Geology, Topography, and Soils

Fort Bragg and Camp Mackall are located in the Sandhills physiographic province, a narrow band of xeric, sandy uplands stretching from the Carolinas south/southwest to Texas. In North Carolina, the Sandhills are within the inner Coastal Plain, just east of the Fall Line in a climatic Subtropical-Temperate Zone. Bedrock in this area is composed of volcanic slate and is generally encountered at depths of 200 to 400 feet (ft) below ground surface (USDA 1984). Overlying this bedrock are Cretaceous period (135–65 million years ago or mya) sands and gravel (Bartlett 1967; USDA 1984:2) attributed to the lower Cape Fear and upper Middendorf formations. Cape Fear formation deposits are often exposed along entrenched streams, while Middendorf sands are more likely to be surficially exposed along valley slopes and eroded ridges (Bartlett 1967). Piedmont streams and rivers draining into the area are thought to deposit Middendorf sands. Atop the Cretaceous sands and gravels are Tertiary period sands (65–2 mya) deposited in a shallow marine environment.

Aeolian forces, acting along the Orangeburg Scarp, may have affected the most recent Tertiary sands covering much of the Sandhills uplands. This scarp runs southwest-northeast at an elevation of 60 to 70 m, representing the highest ocean advancement during Pliocene through Pleistocene times (Bartlett 1967). Aeolian sedimentation is also thought to be an important factor affecting ridges and interfluves during the Holocene (Braley and Schuldenrein 1993). While sand predominates throughout the Sandhills and rock outcrops are extremely rare, several sandstone outcrops occur on top of Middendorf beds; notable examples include Blues Mountain, Gaddy's Mountain, Newton Hill and Paint Hill. Such upland formations are characterized by little soil development and prominent ferruginous sandstone occurring along narrow hilltops.

The general upland topography of the Sandhills, with elevations from 270 to 500 ft above mean sea level (amsl) (USDA 1984:2), has been strongly influenced by the local hydrology. Fort Bragg itself is heavily dissected by numerous small, dendritic drainages that cover the landscape. The origins of many of these streams can be traced to clayey sand layers that act as natural aquifers under the overlying loose sediments. When water permeates down to these clayey sands, it is channeled to outlets producing numerous small springs and intermittent streams; as Braley and Schuldenrein (1993:4) aptly state, "it is difficult to be more than a kilometer from flowing water." All streams on Fort Bragg are part of the broader Cape Fear River drainage, while streams at Camp Mackall feed the western Lumber River drainage. The geographic position of Fort Bragg places the military reservation on a watershed divide. A ridge, running roughly east-west from north of Holland Drop Zone (DZ) southeasterly towards main post, forms this divide. Longstreet Road (Old Yadkin Road) follows a substantial portion of this ridge (Russo et al. 1993:3-5). Streams flowing north of this ridge eventually feed the Lower Little River, while southern streams feed Rockfish Creek. These Sandhill drainages are primarily first or second order streams, carrying low levels of nutrients and high levels of tannic acid. The Lower Little River is by far the largest source of running water on Fort Bragg and is a deeply entrenched, meandering stream. A fairly broad terrace rises several meters on the north side of the river. Substantial wetlands, including small streams, swamps and sloughs, have developed in many fluvial bottoms. Such wetlands are home to some of the highest species diversity in the area. Historically, abundant beaver populations in the region most likely heavily influenced the development of these wetlands (Russo et al. 1993:3-11). In addition to natural swamps, man-made ponds and lakes have been developed across the reservation.

Blaney, Gilead, and Lakeland series soils dominate the uplands at Fort Bragg; the following descriptions are from the USDA soil survey of Cumberland and Hoke Counties (USDA 1984). Blaney soils tend to occur on 2 to 15 percent slopes and consist of dark gray loamy sand A-horizons (0–4 inches), light yellowish brown loamy sand E-horizons (4–25 inches), brownish yellow to reddish yellow sandy clay loam B-horizons (25–62 inches), and yellow loamy coarse sand C-horizons (62–80 inches). Gilead soils, occurring on slopes of 2 to 25 percent are characterized by dark gray loamy sand A-horizons (0–4 inches), light yellowish brown loamy sand E-horizons (4–13 inches), brownish yellow sandy clay (13–32 inches), and reddish yellow sandy loam B-horizons (32–70 inches). Lakeland soils occur on slopes of 1 to 8 percent and tend to lack a B-horizon. The Lakeland profile consists of a dark gray sandy A-horizon (0–6 inches) followed by several subdivisions of a C-horizon: yellowish brown sand (6–15 inches), strong brown sand (15–44 inches), reddish yellow sand (44–52 inches), brownish yellow sand (52–62 inches), and yellow sand (62–82 inches). Variations in soil colors and textures occur across the reservation; often the yellowish-browns just described will appear with a more olive hue while some of the reddish hues may appear closer to a strong brown. Most of the soils on Fort Bragg, including the common upland series above, are well-drained, acidic soils that are not conducive to preservation of organic materials. As noted above, the origins of these modern soil conditions can be traced to Cretaceous period deposition.

Modern Flora

Fort Bragg and Camp Mackall are situated in the Southeastern Evergreen Forest region of the coastal plain of eastern North America. The distinct nature of these evergreen forests compared to the deciduous forests of the Appalachian and Piedmont provinces is marked by an abrupt transition at the Piedmont/Coastal Plain margin (Braun 1950). In the Fort Bragg area of North Carolina the upland Sandhills are currently under intensive biological management with efforts geared towards enhancement and preservation of a longleaf pine and wiregrass ecosystem that is known to have historically dominated this area as well as much of the greater coastal Southeast (Russo et al. 1993). The importance of managing for such a specific ecosystem is highlighted by the fact that an estimated 95 to 98 percent of longleaf pine communities have been lost due to historic disturbance, making the preserved and well-managed forests on Fort Bragg especially rare biotic communities (Noss 1989).

In the typical or true longleaf pine and wiregrass forest, these two plant species dominate the overall vegetation mosaic, covering sites ranging from xeric sandhills to the edges of shrub swamps (Noss 1989:211). Some

liken a true longleaf pine and wiregrass forest to a prairie type setting. The development and maintenance of such an ecosystem is attributable to a self-perpetuating edaphic environment ultimately perpetuated by recurring fires (Braun 1950:280). In actuality, the current longleaf pine forest is a fire subclimax, while the climax forest of the area would be oak/hickory, provided humus accumulation is adequate and fires are suppressed. The adaptive nature of the longleaf pine and wiregrass community is illustrated by several properties. The tall longleaf pines, with high limbs to avoid fire, may act to convert lightning strikes into ground fires that are fed by the wiregrass and the pine straw. In turn, fire encouraged the perpetuation of wiregrass and other grasses since these plants will only flower and fruit after burning. Similarly, longleaf pine seeds only germinate on mineral soils that have had duff removed (Russo et al. 1993:3–10). Additionally, fire replenishes the xeric sandy soils with nutrients, removes leaf litter accumulation and reduces the invasion of scrub oaks. The role of fire in maintaining a longleaf pine forest is important in modern and historic contexts. Today, controlled burning of the understory is employed by Fort Bragg biologists to maintain and improve habitats for the endangered red cockaded woodpecker, which tends to abandon areas dominated by hardwoods (Russo et al 1993:3–10; Terry Myers, personal communication, 1997). Prehistorically, wildfires were prevalent in the region. Indigenous peoples' burning practices undoubtedly occurred as well. Indeed, while Russo et al. (1993) point out that the Coastal Plain and Sandhills are in the physiographic region with the highest rate of annual lightning strikes, even the high frequency of natural fires may not have been sufficient to perpetuate these plant communities. There is speculation and increasing evidence that such prehistoric fires may have originated at the hands of Native Americans (Delcourt and Delcourt 1997).

While the true longleaf pine/wiregrass community is present on Fort Bragg today, covering some 65,000 acres of land, certain areas of the reservation lack the characteristics of a pure longleaf pine/wiregrass forest. Due to a lack of controlled burning or historic disturbance, the modern pine forest on Fort Bragg is often a two-storied pine/oak forest with turkey oak proliferating in many localized areas. Many scrub-dominated clearcut areas exist, associated with military land use. Additionally, in the Northern Training Area, slash pine is the predominant upland tree type, though the area will eventually be converted to longleaf pine. Prior to government acquisition of the land, the area was utilized as a commercial timber plantation.

While pines, wiregrass and scrub oak primarily characterize the xeric uplands, starkly different vegetation communities occur in the bottomlands along narrow stream channels, at springheads and in swamps. Cane often signals the occurrence of water, while numerous hardwood species replace the dominant upland pines. Some of the common bottomland hardwoods include red maple, tuliptrees, swamp tupelo, sweet gums, and Atlantic white cedars. In some swampy areas bald cypress trees occur as well. Fairly dense shrubs are encountered in these bottoms with swamp titi, fetterbush, sweetbay, southern maleberry, blueberry, inkberry, gallberry, sweet pepperbush, poison sumac, and blaspheme vine often present. In many upland areas as well there are hydric communities associated with small depression ponds, pocosins, or vernal pools (Russo et al. 1993). The disparity between these wetland areas and the dry upland ridges described above is marked. The greatest diversity of plant and animal species can be found in and around the hydric areas of seeps, streams, and upland ponds or pocosins, a pattern reflected in the location of many archeological sites. Overall, an estimated total plant species count of approximately 1,500 has recently been proffered for the entire military reservation (Russo et al. 1993).

Modern Fauna

At Fort Bragg and Camp Mackall today, there are a confirmed 158 avian species, 88 amphibian and reptilian species, and 32 mammalian species (Schultz 1995). Some of the more common bird species include mallards and wood ducks, northern bobwhites, red-tailed hawks, mourning doves, woodpeckers, crows, bluejays, chickadees, bluebirds, sparrows, and warblers. Common amphibians include numerous frogs, toads, and salamanders, while a variety of lizards and snakes dominate the reptile list. Black bear and coyote have been documented on the reservation. By far, the most common large mammal is white-tailed deer. Other common mammals include fox, rabbit, raccoon, opossum, beaver, squirrel, and mice. Two endangered species, the Saint Francis Satyr butterfly and the red cockaded woodpecker are protected on Fort Bragg.

Paleoenvironment

Late Pleistocene (20,000–13,000 B.P.)

The interglacial period of warmth in which we now live began some 20,000 years ago. The rate of climatic warming appears to have increased at about 17,000 B.P. and again more dramatically around 10,000 B.P. The latter is the official boundary between the Pleistocene and Holocene epochs (Pielou 1991:227), though some now consider such a boundary to be closer to 13,000 B.P. (Gunn 1997). In any case, the Late Pleistocene is the

environment into which the earliest humans migrated from Asia and undoubtedly the environment that human groups had adapted to prior to reaching the Coastal Plain of present-day North Carolina.

The Late Pleistocene environment of North America is generally characterized by Wisconsin glaciers extending as far south as central Pennsylvania and by annual average temperatures estimated to have been 3-8 °C colder than present (Brush 1986). Forest communities south of these glaciers consisted of boreal species dominated by jack pine and spruce, with lesser amounts of fir, birch, hemlock, and alder, while higher elevations of the Blue Ridge Mountains were covered by tundra vegetation (Soller and Mills 1991:306). Fauna were distinctively different during this time, as over 30 now extinct large mammal species (e.g., mastodons, mammoths, bison, horses, and camels) were present.

Late Glacial/Early Holocene (13,000–9,000 B.P.)

Marking the end of the Pleistocene are dramatic climatic changes altering the environment. Warming temperatures, retreating glaciers, and a dramatic rise in sea level characterize the late glacial or terminal Pleistocene period. Changes in floral and faunal communities were significant. The 30 or more large mammal species mentioned above became extinct around this time (Anderson et al. 1996), and forest composition was dynamic, especially above 33 degrees latitude. In these northerly latitudes, the climatic amelioration associated with the retreat of the Laurentide ice sheet was characterized by cool, wet conditions favoring the northward migration of northern hardwoods and conifers (Delcourt 1979; Delcourt and Delcourt 1979, 1981). Meanwhile, oak and spruce also migrated northward towards the Great Lakes as prairie expanded across the mid-continent (Delcourt and Delcourt 1987). The climatic changes occurring during this time frame were apparently, at least in some areas, quite abrupt and dramatic. Although it is commonly portrayed as a gradual process of climatic amelioration, Pielou (1991) suggests that in a single lifetime, a Paleoindian inhabiting the Midwestern United States might have witnessed the replacement of boreal forest with mixed deciduous taxa.

In the Southeast, around 35 degrees latitude, average annual temperatures for the terminal Late Glacial and early Holocene were only slightly different than today, while the climatic and environmental conditions were much different. Winters were far more severe, with colder temperatures (as much as 3-9 °C lower than today) and more occurrences, and higher accumulations, of snow and possibly ice (Cable 1996:138). Pollen cores from North and South Carolina indicate a transition in forest

composition during this time from the preceding boreal forest to a mesic deciduous forest including oak, hickory, beech, ironwood, birch, elm, sugar maple, black walnut, hemlock, and hazelnut (Watts 1980; Whitehead 1973). Hickory appears to develop towards the end of this transition, ca. 9,000 B.P.

Mid-Holocene (9,000–4,000 B.P.)

Following the Late Pleistocene-Early Holocene transition a warming and drying period referred to as the Hypsithermal began around 8,000 B.P. and lasted for some 4,000 years in the Midwest United States (Jefferies 1996). During this period, a strengthening of mean-westerly atmospheric circulation expanded a midcontinental climatic regime of warmth and aridity (Bryson et al. 1970; Delcourt 1979; Delcourt and Delcourt 1979, 1985). This warm and dry period was characterized by zonal-atmospheric airflow that resulted in a reduction of the magnitude and frequency of storms and in an overall reduction in average annual precipitation. At the same time, the post-glaciation stabilization and aggradation of rivers created rich backwater and floodplain habitats (Knox 1983). The creation of such rich resources concentrations, and the concomitant decline of terrestrial resources, is thought to be an important element influencing increasing sedentism and cultural complexity in the Mid-Holocene Midwest (Brown 1985; Smith 1992).

The implications of a Hypsithermal event for the Southeast are not as clear as they are for the Midwest. While some archeologists extrapolate the warmth and aridity to the Southeast, there is increasing recognition that the Mid-Holocene may have been wetter than previously thought, perhaps even wetter on average than our modern climate. The former position maintains that annual average temperatures during the Mid-Holocene may have been as much as 2 °C warmer than at present. Seasonal variation in the Southeast likely consisted of two temperature extremes, i.e., long, dry, cold winters abruptly followed by long, dry, hot summers (Davis 1983; Gunn 1997; Gunn and Foss 1992). The alternative position posits significant amounts of precipitation, perhaps cyclical or monsoonal, in the Southeast with the Mid-Holocene constituting a fairly wet period (Benson 1995; Prentice et al. 1991; Watts et al. 1992). Based on sediment deposition rates from the Savannah River, Blanton and Sassaman (1989) suggest a general trend toward xeric conditions periodically punctuated by wet episodes. Along the coast, at least, sea levels rose substantially along the eastern seaboard creating rich estuarine environments via inland transgression of saline water (Kraft 1985). Further inland in the Southeast, rivers were stabilizing as stream gradients first decreased and ultimately became entrenched with terrace formations

(Schuldenrein 1996). The development of rich coastal resources associated with a rise in sea level has been linked to the appearance of extensive shell middens and a general increase in cultural complexity (Claassen 1996; Russo 1996).

Whether the Mid-Holocene was wet or dry or some cyclical combination therein, the important aspect of environmental change during this time is the development of a Southern pine forest. Pollen diagrams consistently reveal an increase in pine during this period, and data from the Cape Fear drainage clearly show a pine subclimax dominating after an oak-hickory forest succeeds a late-glacial pine-spruce maximum (Frey 1953). The actual point at which pine dominance is reached in the Carolina Sandhills is not known but limited data are available. Delcourt and Delcourt (1987:233–36) state that by 6,000 B.P. the transition from a mesic deciduous forest to a Southeastern evergreen forest is largely complete in the South Atlantic region. Watts et al. (1997) review pollen diagrams from sites in the coastal plain of South Carolina, Georgia, Alabama, and Florida, and conclude an early to late/north to south gradient for the oak-pine transition. Replacing an oak dominated forest, pine dominance appears to have been reached by as early 8,000 B.P. in South Carolina and much later, ca. 4,700 B.P., in southern Florida (Watts et al. 1997). Site-specific data in the Sandhills just south of the North Carolina state line reveal longleaf pines to be clearly established by at least 4,000 B.P. (Gunn and Foss 1992:14).

The initial development of at least an incipient longleaf pine and wiregrass forest can reliably be associated with the several millennia constituting the Hypsithermal, so that by at least the Late Archaic period, peoples in the Carolina Sandhills were likely encountering a natural environment similar to today. What is especially important in considering the Mid-Holocene however, may not be the particular period when pine reached dominance, but the intervening transition period from a deciduous forest to a pine forest. Interestingly, during this interval, Gunn and Foss (1992:14) speculate that the Sandhills uplands may have been a fairly open forest with grassland vegetation supporting bison and elk populations. Their speculation is based on an apparent period of forest desiccation at White Pond, South Carolina, and on the presence of active sand dunes in the Mid-Holocene Sandhills and in the Cape Fear coastal plain drainage (Soller and Mills 1991). Geoarchaeological data from Fort Bragg offers mixed views on this subject; while Schuldenrein's soil analysis of 31HK140 finds evidence for aeolian deposition following an Early Archaic occupation of an upland site, Leigh's (1998a, 1998b) recent analysis of a soil profile at the Chinaberry site (31HT285) reveals no

evidence for aeolian deposition subsequent to an Early Archaic occupation.

Late Holocene (4,000 B.P. to present)

The Late Holocene environment of the Southeast is essentially analogous to that known today or at least that documented in the early historic record (Watts et al. 1997). In the Sandhills, as noted above, it is suspected that the longleaf pine and wiregrass forest was well in place by the Late Holocene. Though by and large, the Late Holocene is thought to be similar to today's environment, Gunn's (1997) global climatic perspective presents some interesting observations. With the end of the Hypsithermal, seasonal variation was reduced and the general climate became punctuated by numerous events. Between 5,000 and 4,000 B.P., volcanism and solar-emissions variations, for example, became more pronounced, and sea levels remained somewhat low, representing a transitional post-Hypsithermal phase (Gunn 1997:145). Following this transitional period, sea levels rose slightly and the global climate was marked by instability, i.e., cold and hot episodes. During this period of climatic instability, coastal settlements decreased in the Southeast, suggestive of sea level fluctuations impacting inland rivers and possibly increasing storm frequency. Following this period of instability, relative stability characterizes the global climate.

A recent paleoecological study from the North Carolina Coastal Plain suggests relative stability in sedimentation rates and vegetation from ca. A.D. 1000 until the early eighteenth century (Cooper 1998). The latter time period corresponds with a significant increase in ragweed pollen in the Neuse and Pamlico estuaries, indicative of an increase in land disturbance by humans. Over the past two and half centuries, the pine/ragweed ratio increased, as did the nut tree pollen. Significant changes in water quality and sedimentation rates have occurred only in the last 50 years, again resulting from contemporary land use practices as well as industrial activity in the region (Cooper 1998).

Historically, the North Carolina Sandhills are included within the "pine barrens," a colloquial name referring to the low agricultural potential of the sandy soils and the predominance of pine. Historic antebellum accounts provide vivid descriptions of these pine barrens as the "Turpentine region of North Carolina:"

The road was a mere opening through a forest of the long-leafed pine; the trees from eight to eighteen inches in diameter, with straight trunks bare

for nearly thirty feet, and their evergreen foliage forming a dense dark canopy at that height, the surface of the ground undulating with long swells, occasionally low and wet. In the latter case there was generally a mingling of deciduous trees and a water-course crossing the road with a thicket of shrubs. The soil sandy, with occasionally veins of clay; the latter more commonly in the low ground, or in the descent to it. Very little grass, herbage, or under-wood; and the ground covered, except in the road, with the fallen pine-leaves" (Olmsted 1904:363-4).

By the time Fort Bragg was established and land purchases were being negotiated there were alternative vernacular terms used to describe the area. "Post-Oak Land" and "Black Jack Land" were used in 1921 in a trial to determine the value of land owned by Neill S. Blue. These terms apparently refer to a Sandhills environment that had been cleared of pine trees, allowing scrub oak to proliferate. Such an environment was even less desirable than the longleaf pine forest, as one witness in Blue's trial claimed in describing Blue's land, "that a possum would have to carry rations with him if he was to start across some of it" (Nye n.d.:36). Today, while clearings and scrub oak areas exist across the post, forestry and wildlife management efforts on Fort Bragg actively target development and maintenance of the longleaf pine forest.

Fort Bragg Cultural Environment

Culture History

This section outlines a chronological sequence and interpretive overview of prehistoric and historic cultures of the southeastern Piedmont and Coastal Plain provinces of North Carolina. The association of artifacts and other features of the archeological record with specific geographic areas and temporal periods provides the basis for modeling culture chronology and settlement patterning. The nature of those archeological elements and their descriptions allow the development of interpretive or explanatory models. This ever-evolving process is the product of both the direct experience of the authors and the published information upon which the synthesis relies. As such, it is heuristic—a framework for modeling prehistory designed to be revised as relevant archeological data permit. Conclusions are based on a synthesis and interpretation of data taken from various relevant publications (Anderson 1996b, 1996c; Anderson et al. 1996; Anderson and Sassaman 1996b; Broster and Norton 1996; Chapman 1985; Clement et al. 1997; Coe 1964; Daniel 1994; Driskell 1996; Eastman 1994; Futato 1996; Herbert 1997; Justice 1987; Larsen and Schuldenrein 1990; Michie 1996; Oliver 1985; O'Steen 1996; Phelps 1983; Sassaman 1993; Sassaman et al. 1990).

Paleoindian Period (10,500–8,000 B.C.)¹

Although research in southwestern Pennsylvania (Adovasio 1982, 1984), South America (Dillehay 1997) and elsewhere points to Late Pleistocene human occupation of North America considerably earlier than 10,500 B.C., most documented Paleoindian sites in the Southeast are thought to date from about 10,500–8,000 B.C. (Anderson et al. 1996:7). The Paleoindian period may be divided into three subperiods within, but not precisely coincident with, the beginning and ending dates for the estimated 2,500-year range. Although absolute dates for Paleoindian sites are scarce in the Southeast, the Early Paleoindian subperiod is marked by Clovis-like point types and is thought to date to ca. 9,250–8,950 B.C. (assuming a continuity between the eastern and western Clovis point types that are securely dated from sites in the Southwest and lower Plains, see Anderson et al. 1996:9). The Middle Paleoindian subperiod is thought to date from ca. 8,950–8,550 B.C. and is marked by Clovis variants (e.g., the Cumberland, Simpson, and Suwannee) that include smaller fluted and unfluted lanceolate points, and fluted and unfluted forms with broad blades and constricted haft elements (Anderson et al. 1996:11–12, Figure 1.2). The Late, or Transitional, Paleoindian subperiod is thought to date from ca. 8,550–7,550 B.C. (Daniel 1998:3) and is characterized by the Beaver Lake and Quad types and fluted and unfluted Dalton and Hardaway types.

As early Holocene inhabitants of this region, Paleoindian peoples occupied the western Coastal Plain and eastern Piedmont Plateau at a time when the climatic and biotic environments were potentially quite different than present. Broad-scale changes in climate, vegetation, and faunal composition occurred at the close of the Pleistocene. Radical and presumably rapid changes in the biotic environment coincided with the extinction of between 35 and 40 species of large mammals in mid-latitude North America. Among the impacted species were 12 genera of grazers that were possibly of economic importance for human hunter/gatherers. Such species included camels, llamas, two genera of deer, two genera of pronghorn, stag-moose, shrub-oxen, woodland musk oxen, horses, mammoths, mastodons, and five species of carnivores that included the giant short-faced bear, American cheetah, dire wolf, saber-tooth tiger, and American lion (Martin 1984:363–364; Pielou 1991:251–256). Such dramatic change in biotic communities at the Pleistocene-Holocene boundary is generally considered to have prompted a shift in hunter/gatherer subsistence strategies. Presumed cultural readaptations to shifting climatic

¹ Dates in this section are presented as B.C., or uncorrected radiocarbon years in the Gregorian calendar.

and biotic environmental conditions are often used to distinguish between the Paleoindian and Early Archaic periods (e.g., Caldwell 1958; Cleland 1976). Archeological evidence denoting substantial shifts in subsistence economies between these periods, however, is inconclusive, with some researchers now stressing “adaptive continuity” between Paleoindian and Early Archaic groups (Meltzer and Smith 1986).

Settlement models for the Paleoindian and Early Archaic periods have taken a number of directions over the past 25 years (for a concise summary see Anderson and Sassaman 1996a:21–28). In general, models have attempted to explain the distribution and type of Paleoindian and Early Archaic sites in relation to regionally varying resources (faunal, botanical, or lithic) presumed critical to group subsistence.

William Gardner’s (1974, 1977) excavations of the Flint Run Complex in Northern Virginia provide the interesting possibility of several functionally interrelated Paleoindian (11,500–10,500 B.P.) sites. The Thunderbird, Flint Run Quarry, and Fifty sites are within a .75-mi² area on the Shenandoah River. Gardner believes that Thunderbird was a Paleoindian base camp where mobile groups, hunting within a broadly prescribed area, returned for retooling with fine-grained jasper from nearby quarries. This model of seasonal coalescence at quarry sites apparently applies well in other parts of the Eastern Woodlands for the transitional Paleoindian-Early Archaic. It may be useful as well in the Coastal Plain region, where lithic resources are scarce or restricted. Moreover, the logic goes, the level of mobility expected of groups at this time would necessitate a reliance on high-quality cryptocrystalline lithic materials (Goodyear 1989).

In a recent study that summarizes the characteristics and geographic distribution of 189 Paleoindian projectile points (Clovis, Quad, Redstone, and Simpson types) found in North Carolina, Daniel (1997) noted a “relative absence” of points from the Coastal Plain. It was speculated that both the absence of high-quality cryptocrystalline lithic sources in the Coastal Plain and post-depositional soil erosion processes that tend to expose points on the surface of deflated uplands in the Piedmont contributed to the low representation of Paleoindian points in the Coastal Plain. A total of 19 Paleoindian points represented the Coastal Plain in Daniel’s survey: six of these were made of metavolcanic material, four were chert, two were quartz, and seven others were of unidentified lithic material. Thirteen of the 19 points were of the Clovis type, five were Clovis-variants, and one odd point was identified as a Simpson type (lanceolate point with an excurvate blade, incurvate base, and ears). One

of the Clovis points in the Coastal Plain collection was found on site 31HK118 at Fort Bragg. Though previously identified as a nonlocal black chert, careful inspection of this Clovis indicates it may be aphyric rhyolite. This represents the only Clovis point curated at Fort Bragg. Two other fluted points, also found on 31HK118, are known to exist but are currently not curated on the installation.

Early Archaic Period (8,500–6,000 B.C.)

Research models of Paleoindian and Early Archaic settlement and subsistence systems in the Southeast region have tended to depict a general trend toward more expedient technologies (Binford 1979) and a mixture of collector/forager adaptive strategies (Binford 1980). Geographically wide-ranging adaptations are indicated by analyses of hafted bifaces from collections in the South Atlantic region (Anderson and Hanson 1988; Anderson and Schuldenrein 1983; Sassaman et al. 1988) with lithic raw materials used to manufacture hafted bifaces occurring at distances of up to 300 km (187 mi) from their sources (Anderson and Joseph 1988:130). This apparent mobility, when contextualized with a gradual reduction in the frequency of lithic raw materials as one moves away from the source locations, suggests minimal social boundaries between groups during the Early Holocene. Syntheses of regional data, such as Anderson and Joseph's (1988) treatment of the upper Savannah River basin, suggest that Early Archaic assemblages represent various types of short-term camps or residential locations. Although small assemblages with little diversity characterize the Paleoindian period components found in this region, more diversified assemblages are found dating to the Early Archaic period. Analyses of excavated assemblages from the Savannah and Oconee drainages indicate that base camps, foraging camps and special-purpose (resources extraction) sites are typical of Paleoindian and Early Archaic period settlement systems in these areas (Anderson and Hanson 1988; Anderson and Joseph 1988:129; O'Steen et al. 1986).

The archeological definition of Early Archaic base camps has been refined by recent analyses of tool assemblage diversity in the North Carolina Piedmont (Cable 1996; Daniel 1998) and in eastern Tennessee (Kimball 1996). In the latter case, Kimball distinguishes between gearing-up residences and main fall residences based on minor differences in tool assemblages and on site location, e.g., proximity to quarry versus strategic location for nut harvesting and hunting. Gearing-up residences (e.g., Icehouse Bottom) are modeled technologically by high percentages of projectile points and pieces esquilles, accompanied by plant-food processing equipment, hide-working tools, celts, chopper-scrapers, and

fabricators. Main fall residences (e.g., Bacon Farm) should exhibit a lower percentage of projectiles and more cutting tools, a slightly lower average percentage of plant-food processing and hide-working tools, and an overall decline in assemblage size and in debitage to tool ratios. At Haw River, Cable (1996) models the Early Archaic occupation (Kirk/St. Albans) as a base camp based on the high representation of both expedient and curated tools and an increase (relative to the earlier Hardaway-Dalton occupation) in the density and variety of features (e.g., rock hearths, fired areas, pits) as well as site furniture (e.g., cobbles, caches). Importantly, Cable (1996) emphasizes the relationship between occupation duration and tool discard as it affects the formation of the archeological assemblage (see Shott 1989). Similarly, Daniel (1998) labeled the Hardaway site, located in proximity to the Morrow Mountain metarhyolite quarry, as a base camp based on the occurrence of both formal and expedient tools and the presence of site furniture (grinding stones, cobbles).

Where such sites as these fit into the seasonal round of Early Holocene hunter/ gatherers is still subject to debate. Based on data from the Savannah River Valley, Anderson and Hanson (1988) have proposed a Band-Macroband mixed forager/collector model for the entire South Atlantic region during the Early Holocene. Extrapolating to include the eight major river drainages in the Piedmont and Coastal Plain, Anderson and Hanson's model presents two levels of settlement organization including seasonal macroband aggregations and dispersed forager camps. The former macroband gatherings manifest archaeologically in the form of base camps proximal to, and associated with, procurement of lithic stone resources (e.g., Allendale chert in coastal South Carolina and Uwharrie rhyolite in Piedmont North Carolina). In Anderson and Hanson's model, these base camps formed in the winter during the season of lowest overall resources availability. Subsequent forager settlement by dispersed groups occurred primarily along the major river drainages.

While Anderson and Hanson's (1988) model has seen extensive use since its development, there are two recent challenges that merit attention. The notion that Early Holocene hunters and gatherers congregated during the winter months to avoid the stress of limited resources is not, Walthall (1998) points out, in concordance with historic ethnographic information from eastern North America. From hunter/gatherers to sedentary agriculturists, native groups in the eastern Woodlands and in the Plains practiced seasonal patterns of population aggregation in the spring and summer and dispersion into hunting parties in the winter. The latter was a response to the potential for nutritional stress, a response that allowed individual hunting parties or families to focus their subsistence on target

game and other resources that might be available (e.g., mast, turkeys, smaller game animals). Walthall's (1998) argument that similar overwinter strategies would have prevailed in the Early Holocene is tenable, particularly for Early Archaic economies that lacked food storage and abundant aquatic resources, but relied heavily on meat in cooler months. Where Anderson and Hanson (1988) and Walthall (1998) concur is on at least some level of social aggregation in the fall. The latter season provides the time of the year with the greatest resources availability, conducive to large social aggregations wherein important information is exchanged and social networks are established and/or maintained.

Daniel's (1998) refutation of Anderson and Hanson's model focuses more on the role of lithic procurement and the mobility evinced in raw material distributions during the Early Archaic. While Anderson and Hanson (1988) argue that a forager site can be identified by a low curated/expedient tool index, Daniel (1998:190) argues that the latter is more likely a function of differential raw material utilization; nonlocal, superior raw materials were used for highly curated tools, hence their minor representation archaeologically. In terms of band range, Daniel's (1994, 1998) survey of Early Archaic projectile points questions the purported confinement of band ranges to major drainages. Uwharrie rhyolite and Allendale chert are now known to reflect a more complex, cross-drainage mobility pattern (Daniel 1994, 1998; Sassaman 1992) wherein groups focused their settlement rounds around lithic sources more so than primary watersheds. In short, Daniel (1994, 1998) emphasizes the importance of curated lithic sources and a more variable, quarry-influenced settlement range. The occurrence of Early Archaic sites across Fort Bragg, and invariable Sandhills microenvironments (McMakin and Poplin 1997), seems to support the latter interpretation of cross-drainage mobility in the interior coastal plain.

The chronology of the Early Archaic period in the Southeast is marked by an initial transitional or terminal Paleoindian phase characterized by a sequence of diagnostic projectile point types beginning with lanceolate Dalton forms (ca. 8,500–7,900 B.C.). Hardaway-Daltons and Hardaway Side-Notched points follow (ca. 8,000–7,000 B.C.; Justice 1987:43), presenting an effective technological and temporal bridge between the late Paleoindian Dalton forms and the Early Archaic corner-notched points, i.e., Palmer, Big Sandy, and Kirk (ca. 7,500–6,900 B.C.). The temporal overlap with the corner-notched points, together with technological similarity to late-Paleoindian forms (i.e., Dalton), prompts placement of Hardaway-Dalton and Hardaway Side-Notched points in a transitional category associated with the Early Holocene. At Fort Bragg we are

cautious to lump the Hardaway point forms into a broad Early Archaic category that already includes not only three corner-notched varieties of points but bifurcates as well. Some justification for such a distinction can be seen in the relative occurrence of Hardaway points versus corner-notched points on Fort Bragg; whereas only 16 Hardaway-Daltons and Hardaway Side-Notched points have been found to date, some 93 corner-notched points have been documented. Thus, while we speak of the above Early Archaic and Early Holocene trends (i.e., Anderson and Hanson 1988; Daniel 1994, 1998), we should be cognizant of the potential for temporal and/or technological distinctions between transitional Paleoindian and Early Archaic to become meaningful. The Early Archaic ends with the sequence of bifurcate-base types such as MacCorkle, St. Albans, LeCroy, and Kanawha (ca. 6,900–6,000 B.C.) (Daniel 1994:4).

Middle Archaic Period (6,000–3,000 B.C.)

The Middle Archaic period is traditionally viewed as a period of gradually increasing population and territorial circumscription. The Mid-Holocene climatic interval, or Hypsithermal, which occurred during this period, resulted in broad scale warming and aridity in the Midsouth and possibly in the South Atlantic region. Concomitant changes in the seasonality and spatial distribution of food resources throughout eastern North America are associated with archeological sites beginning to exhibit a certain degree of functional specificity. Many archeologists in the Middle and South Atlantic area have adopted a tripartite site-type classification of macro and microband base camps, and procurement sites to model this hierarchical patterning of Middle Archaic sites on the landscape. The most conspicuous examples of such settlement during the Middle Archaic however, come from the Midsouth and Midwest, where an increasing riverine adaptation is associated with an increased reliance on aquatic and floodplain resources (Brown 1985; Dye 1995; Sassaman 1995a). While floodplain settlements became more intensively utilized, the uplands were utilized on a more limited logistical level, concordant with Binford's (1980) collector model. Intensified use of riverine base camps in these areas is thought to not only be a response to environmental changes but regional social dynamics as well (Brown 1985; Sassaman 1995a). Brown (1985), for example, argues that sedentism was not fully adopted in the Midwest until intergroup cooperation was established. Meanwhile Sassaman (1995a:188) argues that the production requirements needed to insure social alliances necessitated riverine occupation.

While sedentism and the seeds of social complexity may have been planted in the Mid-Holocene riverine settlements of the Midsouth and Midwest, this was clearly not the case everywhere. In the Piedmont of

North and South Carolina, while there is an increase in population density in the Middle Archaic, differentiation of land use into settlement hierarchies is not apparent. The majority of Middle Archaic Piedmont sites are small, low-density lithic scatters widespread across the landscape (Blanton and Sassaman 1989; Ward 1983). There is no clear evidence for a riverine/inter-riverine distinction in site function as technological assemblages are simple and expedient; the formal tools of the Early Archaic give way to the hafted biface as the primary tool in the Middle Archaic tool kit (Blanton and Sassaman 1989; Claggett and Cable 1982; Poplin et al. 1993; Sassaman and Anderson 1995). Similar technological and settlement trends are apparent in the South Atlantic Coastal Plain with the exception of a significant decrease in population levels (Anderson 1996a; Kowalewski 1995; Sassaman 1995a; Sassaman and Anderson 1995). During the Mid-Holocene, though possibly due to an inability to clearly define Middle Archaic components, groups seem to have proliferated in the Piedmont while the Coastal Plain is seemingly abandoned. Though the evidence for an environmental explanation remains somewhat equivocal (Sassaman and Anderson 1995:149–150), many researchers are quick to associate the dearth of sites on the Coastal Plain to a lack of resources (e.g., the development of pine barrens during the Mid-Holocene) (Anderson 1996a; Larson 1980; Sassaman 1995a).

The Sandhills may offer a different Mid-Holocene story than the Coastal Plain, at least in terms of settlement density. In contrast to the Coastal Plain, there seems to be an increase in the number of sites identified in the Middle Archaic compared to the Early Archaic (Benson 1995). The appearance of these sites is comparable to that seen in the Piedmont as site distribution is widespread across the landscape and their assemblages are technologically simple and low-density. Much like the Piedmont, there is a relatively high degree of mobility evinced in the Sandhills Middle Archaic and a lack of sedentism and differentiation in site function. At the same time, population levels seem to increase, contrasting with the Coastal Plain model of Mid-Holocene abandonment.

Recognition of a Middle Archaic presence in the Sandhills is facilitated primarily by the occurrence of diagnostic projectile points initially characterized from stratified sites in the Carolina Piedmont (Coe 1964), and from the Tennessee and Little Tennessee River Valleys (Chapman 1985). Temporally, the Middle Archaic period is often subdivided into three phases of technological traditions. Kirk Stemmed/ Serrated points (ca. 6,000–5,800 B.C.) and Stanly Stemmed points (ca. 6,000–5,500 B.C.) mark the emergence of a technological change from the preceding corner-notched tradition. These points are followed by the small, broad-bladed

variety of Morrow Mountain (Type I) and the narrow-bladed variety of Morrow Mountain (Type II) contracting-stemmed points, both of which appear to range in age from about 5,500–4,000 B.C. Guilford lanceolate points represent the third phase (4,000–3,000 B.C.). There is some evidence for Guilfords and Morrow Mountains occurring contemporaneously within the same tool kit (Anderson et al. 1979:91; Goodyear et al. 1979:204).

Late Archaic Period (3,000–1,000 B.C.)

The Late Archaic period in the eastern Woodlands is viewed as a period of increasing population, sedentism, group size, and organizational complexity (Smith 1986; Steponaitis 1986). Initially indicated in the Mid-Holocene, long-distance trade networks are more extensive during this period, as raw material and goods, exchanged over wide areas, suggest the development of reciprocal trade relations between distant communities.

Prehistoric population growth in the Late Archaic coincided with the close of the climatic optimum and the final retreat of the Laurentide ice sheet (Delcourt and Delcourt 1981, 1985; Smith 1986; Steponaitis 1986). During this period, oak-hickory (or mast) forests and the Mast Forest Late Archaic culture developed in the area from southern New England to North Carolina and as far west as the Mississippi River valley (Fagan 1991:342). These climatic conditions tended to reduce stream gradients and increase floodplain habitat, while increasing estuarine environments through increased saline transgression. By the beginning of the Late Archaic in the North Carolina Sandhills, the modern longleaf pine forest was likely well established.

This period is characterized by cultures that made efficient use of their local environments in ways that exhibit more regional distinction than observed for the preceding periods. Competing theories have hypothesized that the expansion of semisedentary settlement systems may be linked to greater aridity, which tethered group mobility around critical resources, or may have resulted from population increases, which resulted in territorial circumscription. This increased level of sedentism may have required an expansion of storage technology, and provided an opportunity for kin groups and/or individuals to control resources. Storage technology using baskets, subterranean containers and, somewhat later, steatite vessels, appears to proliferate in the archeological record during this period.

In the South Atlantic region, increasingly logistically organized settlement systems, centered on base camps located near aquatic resources, are thought to have replaced the more mobile, foraging economies characteristic of the preceding Middle Archaic period (Anderson and Joseph 1988; Trinkley 1985).

Several authors suggest an increase in the utilization of riverine and estuarine resources during this period (Custer 1984:97; Gardner 1982:60; Turnbaugh 1975:54–56). The temporary coalescence of several small bands at strategic procurement locations is inferred from the evidence for both large and small base camp sites. This pattern of aggregation and dispersion is also evident in sites from the Mid-Atlantic Slope region (Anderson and Joseph 1988:157). By about 1,700 B.C. large shell midden sites along the coast of South Carolina, and in the floodplains of major rivers in the interior Coastal Plain region, provide evidence for population aggregation, permanent architecture, intensive exploitation of diverse resources, tool and craft manufacture, and ceremonious burial customs (Sassaman 1993:74–75; Sassaman 1995b:51–52; Stoltman 1974:51–54; Trinkley 1980, 1990:8–12). The concomitant presence of small, non-shell riverine and marsh-edge habitation, and inter-riverine resources extraction sites, suggests annual group fissioning and a shifting schedule of residential mobility conforming to spatially and temporally discontinuous resources. Similar evidence for population aggregation and semisedentary residence patterns and related lifestyles, dating to this period on the coast or in estuarine settings in North Carolina, has not been reported. It is assumed that the development of oyster habitat had occurred by this time and that the cultural practice of shellfishing would have followed apace, but the data to support these assumptions have not yet been secured archaeologically.

The 2,300 years comprising the Terminal Archaic and Early Woodland periods are those of the nascence of ceramic technology along the Atlantic Coast. In the Savannah River valley, perforated soapstone disks or slabs, presumably used in basket or bladder cooking, appeared about 3,000 B.C. (Sassaman 1993:185). Soapstone-slab technology was followed by the innovation of ceramic vessel technology at about 2,500 B.C. Sassaman (1993) contends that the earliest fiber-tempered vessels in the Savannah region were used as stone-boiling containers, not frequently placed directly on cooking fires. This may also be true of early pottery types from North Carolina, such as the Croaker Landing and Marcey Creek series. Early vessels along the North Carolina coast were tempered with a variety of substances including fiber (Spanish moss), soapstone, and crushed pottery, or stone such as hornblende, muscovite or hornblende schist.

Tempering ingredients, which reflect Piedmont procurement sources, suggest the perpetuation of the Late Archaic procurement network by which slabs, and later vessels, were acquired (Sassaman 1993; Waselkov 1982). Vessels typically were shallow, oval forms with slab-built, flat bottoms (often bearing woven textile impressions), and thick, low, vertical walls with lug handles. The inclusion of crushed soapstone in ceramic vessels and the similarity in vessel form among early pottery reflects a continuity of coevolving technologies.

Examples of the fiber-tempered Stallings series (Griffin 1943; Sassaman 1993; Stoltman 1972, 1974) ware (2,500–1,100 B.C.), common to the lower Savannah River, north Georgia, and coastal South Carolina south of Charleston, are occasionally found in coastal North Carolina collections. The frequency of fiber-tempered specimens is higher in collections from the southern portion of the North Carolina coast. While fiber-tempered specimens have been found as far north as the Chowan basin and occasionally from sites in the inner Coastal Plain province, such finds are rare (Phelps 1983). Although two sites on Fort Bragg are commonly listed as having fiber-tempered sherds, only one has been confirmed (Wayne Boyko, personal communication 1998).

Specimens of soapstone-tempered ware similar to the Early Woodland, Marcey Creek series (1,200–800 B.C.) of the Potomac basin (Egloff and Potter 1982; Evans 1955; Manson 1948) are occasionally found in the northern part of the coast (Phelps 1983), and rarely in the southern area (South 1976). Contemporary with the Marcey Creek series is the clay and grog-tempered Croaker Landing series (Egloff and Potter 1982; Evans 1955). Croaker Landing specimens are well represented at the Davenport site (3lBR28) and others in the northern area of the Coastal Plain, but have not been found south of Albemarle Sound (David Phelps, personal communication 1996).

In addition to steatite vessels, the stone tool industry of the Late Archaic is largely characterized by the Savannah River hafted biface. Originally defined in two size categories, Large and Small Savannah River (Coe 1964), these bifaces seem to occur in a range of sizes, perhaps more reflective of variable use-life and resharpening episodes more so than discrete size categories.

Early Woodland Period (1,000–300 B.C.)

Data on Early Woodland period sites in the southern Coastal Plain and eastern Piedmont provinces of North Carolina are scarce. Most models of Early Woodland lifeways for this region are based on data from adjacent

geographic areas. Ward (1983:70–71) suggests that Archaic traditions persisted into the Woodland period in the Piedmont of North Carolina and a similar conclusion has been reached by Sassaman's (1993) research on the Coastal Plain of South Carolina.

In the region of the Piedmont province adjacent to the Sandhills, Coe (1964:123–124) proposed a discontinuity between the Savannah River Stemmed and the Badin triangular point-type traditions. Although stratified deposits from the Jordan and Neuse reservoirs provide no evidence of a transitional phase linking the Late Archaic Savannah River materials with later Woodland artifacts, reanalysis of the Doerschuk and Warren Wilson materials does suggest the possibility of a transitional culture phase characterized by a diagnostic small-stemmed projectile point (Ward 1983:70–71). In the Piedmont and Blue Ridge provinces in general, the Savannah River point type tradition appears to have evolved from a larger stemmed version in the early and middle Late Archaic to a smaller version of a similarly shaped stemmed point in the terminal Late Archaic (Oliver 1985:204; South 1959:153–157). The Small Savannah River Stemmed point type is followed by the Gypsy Stemmed type, which is a somewhat smaller stemmed point made of a wider range of stone types. The Gypsy Stemmed type has been found in the earliest ceramic-bearing zones at the Doerschuk and Gaston sites along with Badin pottery and Badin triangular points (Oliver 1985:204). In the final expression of the Savannah River-like stemmed points, the Swannanoa Stemmed types appear to follow the Gypsy Stemmed type and have been found at the Warren Wilson site in context with soapstone bowl fragments and triangular points (Keel 1976:196–198; Oliver 1985:207).

In excavating the Doerschuk site on the lower Yadkin River, Coe (1952) found a rich assemblage of cultural material in Zone III that he defined as the Badin focus. Noting similarities to the Terminal Archaic Indian Knoll culture of Kentucky, Coe (1952:306–307) suggested that the ceramics of the Badin focus were representative of the first pottery-making tradition in the central Piedmont, introduced as a well-developed technology. A decade later Coe (1964:27–30) refined the description of the Badin type to include cord-marked, fabric-impressed, and plain varieties constructed of hard, compact paste with a very fine river-sand temper, similar to the Middle Woodland Vincent series pottery of the Roanoke Basin, Virginia (Coe 1964:101–102; South 1959). The primary vessel forms were simple, straight-sided jars with conical bases, and shallow bowls with rounded bases. Neither form was decorated. Vessels were coil-built and malleated with a paddle wrapped with simple, twined cord or a fabric of twined-

weft cords plaited over broad warps. The thickness of the vessel walls ranged from .5–1.0 cm, with an average of about .6 cm.

No radiocarbon dates were associated with the Badin material at the Doerschuk site and the opportunity to firmly date this ware has not arisen since Coe's excavations there. Subsequent to Coe's (1964) formulation of the Badin series, he has reported on instances of ceramics of this description recovered from the Town Creek site (Coe 1995). In these excavations, 108 Badin sherds with either cord-marked or fabric-impressed surfaces were identified (Coe 1995:Table 9.1). These specimens were reported to "look and feel the same" as Thom's Creek series ware. Although Badin series ceramics are currently thought to be an Early Woodland type, similarities between the Badin and Vincent series, which has an estimated date range of A.D. 500–1200, suggest that Badin may be an early Middle Woodland, rather than an Early Woodland, type. Until further research reveals Badin-like pottery in stratified or dated context, either in the eastern Piedmont or western Coastal Plain, the series is considered provisional and only tentatively representative of the Early Woodland period in these provinces.

In the Coastal Plain Province, Early Woodland period Thom's Creek series pottery (2,000–1,200 B.C.), whose cultural center is located along the Savannah River and South Carolina coast (Griffin 1945; Phelps 1968; Sassaman 1993; Stoltman 1974; Trinkley 1980, 1990), is also occasionally found in collections from the southern coast of North Carolina (Phelps 1983; South 1976). While more common in Brunswick and New Hanover counties, occasional specimens have been found as far north and west as Fort Bragg. In general, Thom's Creek appears to be restricted in its northerly extent to the lower Cape Fear drainage.

A recently identified, limestone or marl-tempered series, Hamp's Landing (Hargrove 1993; Hargrove and Eastman 1997; Herbert and Mathis 1996), has been proposed for the late Early Woodland or early Middle Woodland period. At the type site, Hamp's Landing series pottery was found in stratigraphic context between Early Woodland period Thom's Creek and Middle Woodland period Hanover types (Hargrove 1993). Since that initial report, several radiocarbon dates have been secured for Hamp's Landing sherds that suggest that this series is, in fact, earlier than first thought. A feature containing Hamp's Landing ceramics at the Cape Island site (31ON190) has recently been radiocarbon dated to 1,945 B.C. (calibrated intercept, Beta-104165, Jones et al. 1997). Three possible dates for Hamp's Landing sherds were also recently obtained at the Riegelwood site in Columbus County. These three dates, from features containing

Hamp's Landing sherds range between 2,025 and 525 B.C. (Erica Sanborne, personal communication 1998). So far, Hamp's Landing series pottery has been found in the lower Cape Fear drainage and along the coastal margin as far north as Carteret County. The Hamp's Landing series may also be related to the limestone-tempered, Wando series (Adams and Trinkley 1993) found in Horry County, South Carolina.

As a result of a multi-site survey in the central coastal region of North Carolina (the New River basin), Loftfield (1976) defined an Early Woodland period sand-tempered series (New River). Coarse sand in high proportions and, in lesser amounts, granule and pebble sized particles, were used to temper this series. Surface treatment types include cord-marked, fabric-impressed, plain, simple-stamped and net-impressed (in descending order of frequency). There are no radiocarbon dates for New River series sherds; however there are three TL dates for the type. A single TL date of 593–441 B.C. was obtained for New River samples from site 31ON542 on the Camp Lejeune military reservation (Reid and Simpson 1997). Two additional TL dates for New River series sherds from New Hanover County, reported by Herbert and Mathis (1996) and Herbert (1997), indicate a date range for the series from about 1,200 to 400 B.C.

The Early Woodland, coarse sand-tempered, Deep Creek series (2,000–300 B.C.) defined from collections north of the Neuse River (Phelps 1981, 1983), is the northern equivalent of the New River series. The Deep Creek series is comprised of cord-marked, fabric-impressed and simple-stamped, net-impressed and plain types. Phelps (1983:31) has distinguished three subperiods within Deep Creek that are characterized by trends in the popularity of pottery surface treatments. The predominance of cord-marking, a rise in the popularity of simple-stamping, and a decline in the popularity of simple-stamping, respectively, characterized the three subperiods.

Most previous analyses of collections from the southern coast did not distinguish between the coarse sand-tempered New River and the medium sand-tempered Cape Fear series (cf. South 1976; Wilde-Ramsing 1978). For this reason, the frequency of the occurrence of New River series sherds in collections from the southern region is not known, but it is certain that some of the material previously identified as Middle Woodland Cape Fear series ware is in fact Early Woodland New River series. Crawford's (1966) Lenoir series is also considered equivalent to the New River and Deep Creek series (Eastman et al. 1997), and Trinkley (1980, 1990) has identified coarse, sand-tempered ware from the northern coast of South Carolina as Deep Creek. Although the Deep Creek and

New River series appear to be very similar, the potential for differences in the variety of surface treatments has not been thoroughly explored.

The sand-tempered Deptford series (Caldwell and Waring 1939; Williams 1977) is contemporary (ca. 500 B.C.–A.D. 500) with the later portion of the Deep Creek phase. Some prehistorians place the Deptford series in the Early Woodland period (Anderson et al. 1982; Trinkley 1980, 1990). While Deptford Check Stamped specimens have been found in collections from the southern coast (South 1976), their occurrence is rare (Phelps 1983). Coe (1964:32) also identified a linear check-stamped minority type in the Yadkin series at the Doerschuk site (3IMG22). While the Yadkin series (a Middle Woodland tradition) is defined as tempered with crushed quartz in very high proportions (reportedly 40 to 50 percent) the check-stamped materials from the Doerschuk site suggest some cultural relationship to the Deptford linear check-stamping tradition to the south. Check-stamping appears again in the Piedmont as the Fredricks Check Stamped series, but not until the contact period in the Jenrette and Fredricks phases, about A.D. 1600 to 1710 (Davis 1987:189–203; Ward and Davis 1993:408 Table 14.1). Linear check-stamped, sand-tempered specimens were also found in very low frequency in South's (1976) survey of Brunswick and New Hanover counties.

Middle Woodland Period (300 B.C.–A.D. 800)

The Middle Woodland period along the coast of South Carolina seems to be characterized by a very dispersed settlement pattern. As mentioned above, little data is currently available regarding the distribution and nature of Early Woodland period sites along the North Carolina coast. While Middle Woodland period shell midden sites are found along the coast of South Carolina, the abundance of oyster shell, worked shell, carved bone items, and clay balls, characteristic of the Early Woodland middens are gone. Small sites, located along marsh edges in the Tidewater and interior Coastal Plain, appear to be more common during this period (Anderson et al. 1982; Klein et al. 1994; Trinkley 1989). Site structure at interior marsh-edge locations suggests seasonal or short-term campsites for small groups differing little from the Early Woodland period pattern. Trinkley (1989:78) notes "settlement fragmentation" or "splintering" that begins at the end of the Thom's Creek phase (during the Deptford phase), and corresponds to a 2-m rise in sea level that occurred between 1,200 and 950 B.C. Many authors place the Deptford phase intermediate between the Early and Middle Woodland periods (Anderson et al. 1982:28). During the Middle Woodland period, Mount Pleasant phase however, Phelps (1983:33) notes "a noticeable decrease in the number of small sites along the smaller tributary streams in the interior and an increase in sites along

the major trunk streams and estuaries and on the coast." Site distribution and settlement models for the southern coastal region of North Carolina, that might corroborate or refute models developed either from the coastal region of South Carolina or the interior Coastal Plain in the northern region of North Carolina, have yet to be developed.

An often-cited feature of the Middle Woodland period on the Carolina coast is the extensive distribution of low sand burial mounds (MacCord 1966; Phelps 1983; Poplin et al. 1993). Phelps (1983:35) noted that the association of platform pipes, polished stone gorgets, triangular blades, and conch-shell cups suggested similarity to more southerly traditions. As a result of excavations at the Cold Morning site (31NH28), the question has been raised whether such burials were in fact interred in "mounds" or rather, in natural sand ridges or erosional remnants thereof (Coe et al. 1980; Ward and Wilson 1980). Further doubt about the integrity of this cultural tradition as Middle Woodland arises from the near absence of chronometric data and a lack of understanding of the chronological position of the pottery associated with these mound burials.

There were several changes in ceramic technology during the Middle Woodland period: fiber-tempering dies out and is superseded by sand-tempering on the South Carolina coast; limestone-tempering appears in the Hamp's Landing series on the southern coast of North Carolina and in the Wando series of northern South Carolina; the size grade of sand used to temper Deep Creek series ware appears to shift from coarse to medium; and Mount Pleasant series ware exhibits an increase in the proportion of granule and pebble-sized particles in the northern coastal region. Vessel shapes of Middle Woodland period pottery include larger jars with conical bases and cylindrical walls, a shift that emphasizes the intensified use of ceramic containers as primary cooking vessels. The carved-paddle stamping technique which first emerges in the Refuge and Deptford phases in South Carolina and in the Hamp's Landing, Deep Creek and New River series in North Carolina is expanded to include wrapped-paddle cord-marking, fabric and net-impressing in the Hamp's Landing, New River and Deep Creek series. Trends in surface-treatment types during the Middle Woodland period have not been thoroughly studied; however, it is significant, from a typological standpoint, that none of the Middle Woodland sand-tempered specimens from the Coastal Plain have been found to exhibit simple-stamped exteriors. This stands in distinct contrast to the Early Woodland Deep Creek and Hamp's Landing series that do include simple-stamped types. Simple-stamping reappears in the Late Woodland Colington and Cashie series in the northern coastal region of North Carolina.

Along the Coastal Plain, the Middle Woodland period is dominated by two ceramic series comprising nearly identical arrays of surface treatment types. The Hanover series is grog-tempered and the Cape Fear series is sand-tempered. In the assemblages collected from the surface of sites in Brunswick and New Hanover counties, South (1976) noted that about 75 percent of the Hanover series sherds are fabric-impressed and 25 percent are cord-marked. The proportions are reversed for Cape Fear series sherds with 36 percent being fabric-impressed and 58 percent exhibiting cord-marking. This pattern was corroborated by subsequent survey data from surface collected assemblages from over 300 sites in New Hanover County (Wilde-Ramsing 1978). In the New Hanover County sites sample, about 65 percent of the Hanover sherds are fabric-impressed and 25 percent are cord-marked, while 30 percent of the Cape Fear series sherds are fabric-impressed, 40 percent are cord-marked (Wilde-Ramsing 1978:181).

Following Coe (1952:306) and Haag (1958:108), South (1976:40) assumed that fabric-impressing was an earlier technology than cord-marking. From this and other information, South concluded that the Hanover series was probably associated with an earlier culture phase than the Cape Fear series. Current evidence provided by the Hamp's Landing fabric-impressed type indicates that a fabric-impressed type is part of this Early Woodland series on the southern coast of North Carolina. In the Deep Creek series, however, the fabric-impressed type seems to occur later than cord-marking (Phelps 1983), but the surface treatment types of the Hamp's Landing series have not yet been sequenced. Sequencing these Early and Middle Woodland wares has proven difficult, as contextual data and absolute dates are sparse. An estimated temporal range for the Hanover series, based on radiocarbon dates from South and North Carolina is from about 200 B.C. to A.D. 500. The single radiocarbon date for Cape Fear from the McLean mound (31CD7) is calibrated to A.D. 1028 (Eastman 1994:5). Loftfield's (1976) Carteret and Crawford's (1966) Grifton series are equivalent to the grog-tempered Hanover series. The relationship of the Hanover and Wilmington grog-tempered series is not well understood. The grog-tempered Wilmington and St. Catherine's series (Caldwell 1952; DePratter 1979; Waring 1968) from the Georgia Sea Islands and south coast of South Carolina are contemporary with Hanover (A.D. 400–900), but may extend somewhat earlier and later (200 B.C.–A.D. 1150, see Anderson et al. 1982). Some South Carolina researchers have chosen to subsume Hanover as a variety of the Wilmington series (Anderson et al. 1982:272; Trinkley 1990:17–18). Other analysts have chosen to maintain a distinction between the two series (Poplin et al. 1993:31; Herbert and Mathis 1996).

While the term grog denotes pre-fired ceramic particles used as temper, prehistorically, grog is assumed to have been made by crushing broken potsherds. While this is certainly the interpretation that South had when the Hanover "Sherd Tempered" series was first defined, much of the "grog" observable in Hanover series sherds does not appear to be crushed sherds, but rather sub-rounded clay pellets. This has led many researchers to refer to Hanover as "clay-tempered." Experiments have not yet been conducted to ascertain how the temper in Hanover ware was made (if purposefully made at all). Some authors, however, have hazarded the guess that the technology involved the use of "fire-hardened" clay pellets (see Loftfield's [1976:154] description of Carteret paste). The use of the term "clay-tempered" is, nevertheless, ambiguous at best as one expects the tempering agent to be of a different substance than the paste. For this reason the term grog, as used here (and until otherwise demonstrated), denotes any form of pre-fired ceramic tempering agent.

The "sand-and-grit-tempered" Middle Woodland Mount Pleasant series, found on the northern coast of North Carolina, is thought to be contemporary with the Hanover series. The latest Mount Pleasant date is from the midden at Rush Point (31DR15) and is calibrated to A.D. 1076. The relationship of the Mount Pleasant and Cape Fear series (both sand-tempered wares) is not, however, well understood. Phelps (1983:35) equated the two, suggesting that they formed a single series. Haag (1958) described "grit"-tempered series (apparently similar to or synonymous with Mount Pleasant) for the interior Coastal Plain, which may also have subsumed specimens now classifiable as Cape Fear. Potential differences in the paste and temper characteristics and the range of surface treatments exhibited in each series have not yet been thoroughly investigated. Mount Pleasant also bears some resemblance to the ceramics of the Middle Woodland Vincent series (Coe 1964) of the Roanoke Rapids area of Piedmont North Carolina, and to Evans' (1955) Stoney Creek series from the Potomac River valley.

In the Piedmont province, the Middle Woodland period is distinguished primarily by the Yadkin ceramic series. In Zones I and II at the Doerschuk site, a Middle Woodland component was defined as the Yadkin focus (Coe 1964:30-32). Yadkin series pottery appears to represent a continuation of the basic techniques and styles exhibited by the Badin series. The shape and dimensions of the Yadkin vessels are essentially the same as Badin vessels, but a major change is seen in the tempering methods. Angular fragments of crushed quartz, ranging in size from 0.1-0.8 cm, were added to the paste in proportions up to 40 percent.

Whereas the exterior and interior surfaces of Badin are usually light tan, a large proportion of the Yadkin pottery is dark gray or black on the interior with cores that are black through one half-to-two thirds of the wall thickness. Yadkin vessel walls are somewhat thinner than Badin specimens and range in thickness from .4–.8 cm with an average thickness of about .6 cm (Coe 1964:31). About 50 percent of the Yadkin sherds from the Doerschuk site are fabric-impressed, about 40 percent are cord-marked, and 10 percent are check-stamped (Davis 1987:211, Table 8.22). Contextual problems at Doerschuk did not permit the association of carbonized plant remains with Yadkin cultural material and no radiocarbon dates for this type are yet available.

Yadkin series sherds from Town Creek (n = 6,542) include several surface treatment types including Yadkin Smoothed (or Plain) (51 percent), Cord-Marked (33 percent), Simple-Stamped (12 percent), Fabric-Impressed (2 percent), and Check-Stamped (1 percent). Consistent with his earlier interpretation, Coe (1995:154) sees Yadkin as a direct descendent of Badin which reflects a long period of gradual change characterized by improvements in technology evidenced by the addition of coarse angular aggregate and surface treatments exhibiting cords of more delicate construction and fabrics of finer weave. The discovery of simple-stamped Yadkin specimens at Town Creek may be significant, since there were no simple-stamped sherds found at Doerschuk. Coe (1995:154) suggests that Yadkin at Town Creek “occurred at a late point in the ceramic continuum.” He apparently came to this conclusion by noting that smoothed (51 percent) and cord-marked (33 percent) surface treatments were most common and that fabric-impressed (2 percent) and check-stamped (1 percent) types were nearly absent. No contextual or chronometric data were offered, however, to support the implied sequence of surface treatment types.

Late Woodland Period (A.D. 800–1500)

During the Late Woodland period, the economic, organizational, and possibly ideological structures of the Mississippian culture developed over much of the southeastern United States. The hallmark of the Mississippian economy—corn agriculture—was well established in the Piedmont by about A.D. 1200 (Ward 1983:73). Larger village populations, evidenced by site size, architectural and storage facilities, also cultivated squash, beans and fruit. Current reconstructions suggest that the settlement pattern of the Late Woodland period continued to be relatively dispersed, but with site locations concentrated along the sounds, estuaries, major rivers and their tributaries (Phelps 1983:39). Site types have been interpreted as including large villages, villages, and seasonal camps.

While sites on the estuaries provide evidence for subsistence activities which focused on seasonally abundant maritime resources such as anadromous fish or shellfish, most sites seem to be located where agriculture, hunting, gathering, and fishing could all be accomplished within the same catchment area (Phelps 1983:40). Three culture areas have been proposed for coastal North Carolina which conform to ethnohistorically recorded linguistic regions: Algonkian speakers on the northern coastal margin; Iroquoian speakers occupying the northern interior Coastal Plain; and Siouan speakers in the southern coastal zone. Archaeologically, these culture areas are recognized by regional differences in ceramics and notable differences in burial customs and architectural forms.

Colington Phase

The Late Woodland period on the outer (tidewater) North Carolina coast is considered synonymous with shell-tempered ceramics. The Colington series is found along the coastal margin in the northern region; traditional territory of the Carolina Algonkians (Phelps 1983). No significant differences appear to exist between type descriptions of the Late Woodland shell-tempered series of the southern and central coastal regions of North Carolina (the Oak Island and White Oak series as defined by South (1976) and Loftfield (1976), respectively, see Herbert and Mathis (1996). Both descriptions included fabric-impressed, cord-marked, plain or smoothed and net-impressed types. The shell-tempered White Oak series of the southern coast (Loftfield 1976) differs from the Colington series in a few respects (Herbert and Mathis 1996). Simple-stamping and incised decorations have not been confirmed in White Oak assemblages, while they are common in the Colington series. Burnishing is occasionally seen in the White Oak series while not found in the Colington series.

Phelps (1983:39) proposes that during the sixteenth and seventeenth centuries the southern extent of the Algonkian culture, and the corresponding distribution of Colington ceramics, was just south of the Neuse River (cf. Loftfield 1975). Loftfield and Jones (1995) have suggested that the distribution of Colington phase cultures during prehistoric times may have extended as far south as Onslow County. These authors cite evidence including not only shell-tempered ceramics, comparable in many respects to the Colington series, but also mortuary and architectural features (e.g., ossuary burials and longhouses) typical of Algonkian culture found to the north. Other interpretations suggest that by the fifteenth century the southernmost extent of the Algonkian societies was above the Neuse River, and that some degree of integration of Algonkian-

and Siouan- or Iroquoian-speaking groups may have occurred by this time (Mathis 1995).

The potential for confusion of White Oak and Hamp's Landing sherds, however, is important. A recent reappraisal suggests that previously analyzed "shell-tempered" assemblages from southern coastal sites may include a number of specimens that are limestone or marl-tempered (Herbert and Mathis 1996). The difficulty of distinguishing between these two tempering agents where the temper particles have been leached is a serious problem. As the Early Woodland Hamp's landing series has a well-represented simple-stamped component, this raises doubts about the identification of simple-stamped specimens previously classified as Late Woodland Oak Island or White Oak. Similar difficulties are presented by the "shell-tempered," cord-marked specimens in southern collections. Cord-marking is not found in the Late Woodland Colington series, but is a common type in the Hamp's Landing series.

Cashie Phase

The Cashie series (Phelps 1983) is associated with the Cashie phase, first identified at the Jordan's Landing site (3LBR7) and is considered contemporary with both Colington and White Oak series wares (ca. A.D. 800–1650). The Cashie series includes fabric-impressed, simple-stamped, incised, and plain types tempered with sand and pebble-sized particles (crushed quartz), which often protrude simultaneously through the interior and exterior surfaces of the vessel walls. Cashie simple-stamped is thought to be equivalent to Gaston simple-stamped (Coe 1964) from the Roanoke Rapids area. In Virginia, the Branchville series (Binford 1964) in the Metering and Nottoway localities, and the Sturgeon Head series (Smith 1971) are also thought to be related or equivalent.

Uwharrie Phase

In the Piedmont province, the Uwharrie Phase (A.D. 1000–1200) is the earliest subdivision of the Late Woodland period. Coe (1952:307) envisioned the Uwharrie focus as the most homogeneous and widespread pottery-making culture in the central Piedmont—the cultural stock from which all later Piedmont Siouan ceramic traditions emerged and developed. Coe (1952:308) succinctly described Uwharrie as “simple in form, crude in execution, but functionally adequate.” Uwharrie series pottery is considered significantly different from the preceding Yadkin series in the size (larger) and quantity (higher proportion) of crushed quartz used for temper (Coe 1995:155–160). Exterior surfaces in the Uwharrie series are commonly either cord-marked or net-impressed and frequently scraped smooth following this application. Vessels consistently

take the form of hemispherical bowls and conoidal-base jars, often having slightly restricted necks and straight, vertical rims. Uwharrie paste is tempered almost entirely with particles of crushed quartz; often so large they protrude through both sides of the vessel's walls. From his studies of the Donnaha site (31YD9) and other sites along the Great Bend area of the Yadkin valley, Woodall (1984:76) has noted that Uwharrie ceramics exhibit "poorly mixed paste" characterized by a lamellar structure visible in cross section. Exterior surfaces bear evidence of having been shaped with paddles, often wrapped with heavy nets or cords of loosely twined strands. Wilson's (1976) study of the Uwharrie ceramics from 31CH29 indicates that about 53 percent were net-impressed, 36 percent were plain, while cord-marked and fabric-impressed samples comprised five and six percent, respectively, of the sample (Davis 1987: 211, Table 8.22). Interior surfaces are universally scraped with a serrate-edged tool. The exterior surface of the vessels' necks are also sometimes scraped and crudely incised with groups of parallel lines encircling the vessel below the rim.

Pee Dee Culture

The Pee Dee culture, as represented at the Town Creek, Teal and Leak sites (and cultural phases) on the Pee Dee and Little Rivers, and related sites, constitutes the northernmost diffusion by Muskogean-speaking peoples of the Mississippian cultural tradition into the eastern Piedmont of North Carolina. From about A.D. 900 to 1400 the Pee Dee people occupied the Town Creek mound site on the Little River, some 35 miles, as the crow flies, from the western boundary of the Fort Bragg reservation. Considered to be intrusive, the Pee Dee pottery tradition, for the most part, reflects a significant departure from the Uwharrie series. Pee Dee pottery is tempered with sand (as much as 40 percent in the paste) and is mostly stamped with a carved paddle or smoothed and burnished. Stamped finishes include several distinctive curvilinear and rectilinear designs and, a small minority of stamped sherds exhibits simple-stamped and check-stamped treatments. Burnished vessels are often decorated with applied rosettes, pellets, or punctations around the shoulder. A small proportion of Pee Dee vessels appear to have been impressed with strips of textile (fabric of various weaves and net). Corncob-impressing is also represented as a minority surface treatment type in the Pee Dee series.

No evidence of Pee Dee cultural activities, as might be represented by the presence of Pee Dee series pottery, have been found, thus far, on sites within the approximately 250 square mile area of Fort Bragg, which lies less than 40 miles from the Town Creek site. The presence of serrated Pee Dee triangular points found in surface assemblages, however, suggests the possibility that Pee Dee sites may exist on post.

Dan River Phase

Found in the Dan River drainage along the Virginia-North Carolina border, the Dan River Phase (A.D. 1200–1500) is considered to represent the transition from the Uwharrie culture to the proto-historic and historic Siouan cultures of the Piedmont (Coe 1952:309). Dan River vessel forms are more diverse and tempering includes sand as well as crushed rock. The traditional Uwharrie jar, with restricted neck, short vertical rim, and conoidal base, is replaced by globular, flaring-rim jars. The simple incising commonly seen around the neck of Uwharrie jars changes to a more complicated style of linear and zoned punctation. Interiors are no longer scraped, but are smoothed by hand (Coe and Lewis 1952). Although several varieties of surface treatment are found, (including plain, corncob-impressed, cord-marked, brushed, and complicated stamped), net-impressed vessels are the most common. The analysis of Dan River assemblages from the Lower Saurotown, Reedy Creek (Wilson 1976), and Legget (Gardner 1980) sites indicate that net-impressed sherds compose about 70 percent of the samples at each of the sites, with plain and cord-marked sherds making up about 20 percent (Davis 1987:211, Table 8.22).

Haw River Phase

In the central Piedmont, the Haw River Phase (A.D. 1000–1400) is contemporary with the Dan River phase. Recently, Ward and Davis (1993) have synthesized archeological data recovered over several decades of research conducted by the University of North Carolina in the Haw and Eno River basins in north-central North Carolina. They find that ceramic attributes and settlement patterns in the Haw and Eno River basins differ from those in the Dan River valley. Over 20 sites have been recorded that produced Haw River phase ceramics. These sites are typically small and are thought to represent widely dispersed households with associated large cylindrical storage pits, hearths, and burials. Low frequencies of pit features, postholes, and burials and low densities of artifacts recovered from the surface or from the plowzone, suggest low population density and a lack of extended site occupation (Ward and Davis 1993:407).

The pottery of the Haw River phase includes a late manifestation of Uwharrie (A.D. 1200–1400), characterized by large, thick-walled, undecorated, conoidal jars with straight or slightly constricted necks. Most (about 50 percent) are net-impressed with brushed (33 percent), cord-marked (19 percent), and plain (3 percent) sherds composing the remainder. Temper consists most often of medium-to-fine crushed quartz (49 percent), coarse sand (28 percent), coarse crushed quartz (18 percent), and feldspar (5 percent) (Ward and Davis 1993:407).

Proto-historic Period (A.D. 1400–1600)

The Proto-historic period is marked by regional variability in aboriginal cultures. Although most of the native inhabitants of the Piedmont and interior Coastal Plain may not have had direct contact with Europeans who had begun to explore and colonize the coast, many had access to information and trade items. The brief review of Proto-historic and Historic cultures, known archaeologically in the eastern Piedmont and included in the following discussion, although not in the immediate geographic area of Fort Bragg, provide important information about what might be expected in the Upper Coastal Plain of North Carolina.

Following A.D. 1400 Native American groups in the eastern Piedmont, and cultural materials such as pottery that were made by these groups, are expected to have developed what might be called characteristics of regional differentiation. Archeological evidence for population aggregation exists in the form of village sites, often palisaded, and often providing evidence of ceremonial activities such as ritualized burials. Localized group identification seems also to have been expressed in ceramic traditions that allow the definition of culture phases with greater temporal and geographic resolution. The archeology of the Proto-historic and early Historic periods in the Sandhills and southern Coastal Plain are not known in such detail.

The ability to define culture phases for the northeastern Piedmont of North Carolina has come about largely as the result of decades of concentrated study by students and staff at the Research Laboratories of Archeology, University of North Carolina, Chapel Hill. The prominent palisaded Siouan villages on the floodplain of the Occaneechi River in Hillsborough have been the focus of considerable archeological effort and resources. The size and state of preservation of these sites has provided a remarkable opportunity for understanding regional prehistory after A.D. 1400. Well-preserved sites dating to this period, however, have not been found in the Fort Bragg reservation and opportunities for the study of sites from this period that may exist in the Bragg area have been less frequent.

Hillsboro Phase (A.D. 1400–1600)

On the eastern Piedmont, settlement patterns consisting of widely dispersed, small villages occupied for short periods of time continued during the Hillsboro phase. A few sites, such as the Wall and Mitchum sites, appear to be compact, nucleated villages (Ward and Davis 1993:410). Sites dating to the latter half of this phase are found along valley margins or on uplands adjacent to small tributaries. They appear to represent

scattered communities comprised of only a few families, although the number of pit features increases markedly from Haw River times. A common feature type associated with Hillsboro phase sites is the large, shallow, basin-shaped pit filled with domestic refuse and fire cracked rocks. These are thought to represent communal roasting pits.

The Wall site (31OR11) is an example of the sort of small, palisaded village thought to be characteristic of the Proto-historic period in the Piedmont province. The site is located on the banks of the Eno River near Hillsborough, and consists of a central plaza surrounded by circular houses of post-and-wattle construction. Shaft-and-chamber burials were located within the palisade, and clustered in and around the houses. A dense midden deposit within the compound revealed abundant evidence of the exploitation of nuts, mast, and cultigens, as well as animals (including river mussels). The sparse evidence for subterranean storage pits suggests that most foods were dried and stored in aboveground facilities (Dickens et al. 1987).

The ceramics, which are characteristic of this period, are classified as the Hillsboro series (Dickens et al. 1987; Ward and Davis 1993:412). Vessels are commonly large, simple-stamped and check-stamped jars, tempered with medium-to-fine sand (51 percent) or feldspar (41 percent). Vessels are usually round-bottomed and often have flaring rims and smoothed interiors.

Woodland Period Settlement in the Sandhills

While villages eventually emerge in the Late Woodland period of the Piedmont, there is a conspicuous absence of permanent or semi-permanent Woodland period villages in the Sandhills. Indeed Woodland sites on Fort Bragg can be generally characterized as ranging from small ephemeral upland camps to small habitation sites located along stream margins, quite often on toe ridges or ridge slopes overlooking springheads or streams. Woodland sites are found across the landscape in upland and lowland settings, with no obvious distinction in the types of landforms utilized between the Archaic and Woodland periods (Idol 1999:284). In fact many multicomponent sites on Fort Bragg reveal a common prehistoric land use pattern throughout the Holocene. There is one fairly conspicuous difference in land use between Archaic and Woodland sites, however, in an apparent tendency for Woodland folks to settle in closer proximity to water (Clement et al. 1997:197; Idol 1999:284). The apparent penchant for proximity to water is intriguing, but is not associated with the habitation of major floodplains. Instead, these sites are generally small camps situated on small toe ridges along first or second order streams or

terraces along the Lower Little River. In fact, the current data on Woodland period sites does not indicate the presence of permanent or semi-permanent settlements associated with stable field agriculture or shifting cultivation respectively (Dancey and Pecheco 1997:8).

One measure of village status that has been at least informally posited is site size. Although large sites with Woodland components are found and sometimes suggested as villages (Clement et al. 1997:197–200), the simple measure of site size is problematic. Clement et al. actually found the largest Woodland sites to be situated in the uplands, despite the Woodland penchant for water noted above. But even these large sites lack middens or accumulations of numerous pottery vessels representative of years of occupation. And when overall artifact density is accounted for, the measure of site size as a reflection of a village is less than adequate (Irwin et al. 1998:80). In fact, large sites have been found to exhibit lower artifact density than small sites (Trinkley et al. 1998:109–110). Furthermore, in those instances where single component Woodland villages are posited, there may be subsequent evidence for multiple occupations; of eight purportedly single component Woodland sites documented in one Fort Bragg survey (Clement et al. 1997), three were positively and one possibly identified as multicomponent after further testing (Ollendorf 1999).

Of 551 Woodland sites or sites with Woodland components documented on Fort Bragg thus far, the majority (76 percent) have been identified by pottery alone, i.e., no diagnostic projectile points have been found on these sites. While the absence of projectiles may be at least partly attributable to collector activity, it is instructive to consider why and how pottery occurs on these small ephemeral camp sites. The majority of Woodland components documented at the inventory level are identified based on a few sherds typically representing no more than a single minimum vessel. An initial impression from the consistent presence of pottery on upland Woodland sites is that these are not highly specialized sites utilized by a particular task group within a subsistence economy. In contrast to an uplands riverine/inter-riverine settlement model (e.g. Purrington 1983), Sandhills upland sites appear to be more inclusive of entire family units moving about the landscape. Moreover, the number of pots found on sites is instructive. At those sites where numerous sherds are found (e.g. more than twenty) these are often attributable to one or two vessels via “potbusts” (Clement et al. 1997:139–140, 160). To the extent that the number of vessels discarded is a reflection of site occupation duration (Irwin 1998; Pauketat 1989; Varien and Mills 1997; Varien and Potter 1997), these sites evincing only a single pot, or portions thereof,

seem to represent limited longevity. In short, isolated ceramic vessel deposits constitute the only significant pottery finds on Fort Bragg; secondary refuse accumulations forming over several years of residence are absent.

Beyond Fort Bragg, survey in the Sandhills counties of Robeson (Knick 1988, 1993), and Harnett (Widmer 1975) have revealed similar patterns as those described for the military reservation. The settlement picture is not complete however, without consideration of site types along the upper Cape Fear River, primarily in Cumberland County. It is possible that upland Woodland sites on Fort Bragg reflect the seasonal dispersal component of a riverine/inter-riverine settlement model with more permanent horticultural sites situated along the Cape Fear. A few possible candidates for village sites have been identified, though none have been intensively studied.

At least one Woodland village (i.e., the Breece site) has been proposed along the Cape Fear in proximity to the McLean burial mound (MacCord 1966). The Breece site produced over 600 sherds as well as five hearths and four pit features. The majority of sherds are fabric-impressed, similar to the McLean mound material. However, the Breece site is obviously multicomponent, and our ability to assess it as a permanent or semi-permanent village is not entirely clear. After surveying an area one mile in radius from the McLean Mound, MacCord (1966:39,42) stated his belief that the Sandhills Woodland period population was largely dispersed. While the Breece site inhabitants likely utilized McLean as a mortuary facility, MacCord (1966:42) suggests McLean "was used as a central repository for the dead of a much larger population." Robinson's (1986) selective survey of areas in Cumberland County, most of which are along the Cape Fear or two of its major tributaries (Lower Little River and Rockfish Creek), produced 23 prehistoric pottery sites, two of which produced more than a hundred sherds. Beyond limited collection and testing however, little else is known about these sites. Besides these two relatively productive sites there is a general pattern in Robinson's (1986) survey of low-density, ephemeral Woodland habitations indicated, again, by a few sherds or diagnostic projectile points occurring on multicomponent sites. Recently, a multicomponent site with large Woodland pit features and hearths was documented along the Cape Fear just northeast of Fayetteville (Robinson 1999, personal communication), though it does not appear to be contemporary with McLean. What the upper Cape Fear holds in terms of Woodland period settlement may still be regarded as largely unknown due to a general lack of professional work. Whether sites such as Breece and others producing hundreds of

sherds represent long-term villages, "potbusts", or multicomponent sites is not clear, but the picture as it exists now seems to support a generally dispersed population.

There is one notable exception to the aforementioned continuity between the Archaic and Woodland periods. In the Woodland period there appear several burial mounds in the Sandhills and southern Coastal Plain (MacCord 1966; Wetmore 1978). Most of these were recorded in the late nineteenth century or early twentieth century and have subsequently been destroyed. McLean Mound, just north of Fayetteville, represents the most intensively examined and reported-upon of these sites. At least four other burial mounds are reported in Cumberland County, one in Harnett County, one in Hoke County, five in Robeson County, one in Sampson County, four in Duplin, and at least two have been documented closer to the coast (MacCord 1966; Phelps 1983). These mortuary facilities constitute specialized ritual sites on the landscape unseen in the Archaic period and do not appear to be directly related to domestic villages.

Instead, these mounds seem to reflect ritualized land use and the gathering of locally dispersed, but socially allied groups for sacred activities (*sensu* Dunham 1994). The interment of individuals in these mounds is difficult to assess with extant data and poor preservation, but a general pattern of secondary bundle burials and some cremations is evident. The latter mortuary activity supports the interpretation of a dispersed population transporting their dead to these ritual sites. There is also evidence from these mounds of the local population actively engaged in extraregional interaction. Apparent grave goods at several of these mounds include engraved stone pipes, a shell gorget, shell beads, copper and mica. Thus, despite a fairly redundant settlement picture of short-term occupations by small groups, there is evidence of ritualized land use, complex mortuary behavior, and extraregional interaction in the Woodland period. Accordingly, it may be more appropriate to view the Sandhills during the Woodland period in terms of a ritual landscape (*sensu* Clay 1998). Unfortunately, the chronology of these mounds is not entirely clear. Although they have been traditionally assigned a Middle Woodland affiliation, based on Hanover style ceramics and the occurrence of platform pipes, a recent reanalysis proposes a Late Woodland association for these mounds (Irwin et al. 1999). The single available radiocarbon date from the McLean mound places these mounds in the Late Woodland, ca. 1000 A.D. (MacCord 1966), an association supported by the presence of small triangular points as well as participation in extraregional exchange and ceramics that appear to be a late Hanover manifestation (Irwin et al. 1999).

Early Historic Period (A.D. 1600–1710)

Contact with Europeans began along the coast and in the Piedmont of North Carolina during the sixteenth century. In the southern coastal region some information can be gathered from Lawson's relation of the exploratory venture of William Hilton up the Cape Fear as "delivered by the gentleman who were sent on purpose from Barbados, to make a discovery of the river, in the year 1663" (Hilton 1967:72–79). From this passage several interesting implications may be drawn. By this time the English had been in regular communication with the Native inhabitants along the lower course of the river, as witnessed by the Indians grazing their cattle and pigs on the easily cordoned peninsula of the Cape Fear River, "...A Place fitter to starve Cattle, in our Judgment, than to keep 'em alive; yet the *Indians*...keep the *English* Cattle down there, and suffer them not to go off of the said *Cape*, (as we suppose) because the Country *Indians* shall have no Part with them; and therefore 'tis likely, they have fallen out about them, which shall have the greatest share" (Hilton 1967:78). A small party of Indian men met the Barbadians at the outset of their discoveries with "a great store of fresh fish, large mullets, young bass, shads and several other sorts..." (Hilton 1967:72). We can speculate that such a catch (including anadromous [shad] and other schooling species not often caught on hook and line [mullet]) implies an impoundment capture technique. That this occurred in October suggests that Native fishing activities were not restricted to spring migrations, but also focused on shad schools moving seaward in the fall.

The Barbadians also report a visit to "Necoës, an *Indian* plantation" some 40 miles from the river mouth. The description of this farmstead as a plantation implies that the cultivated crops (probably corn) encompassed a considerable area, suggesting that the well-developed subsistence farming economy known in other coastal areas was also found at this time on the Cape Fear River. Elsewhere they encountered "several Plots of Ground clear'd by the *Indians*, after their weak manner, compass'd round with great Timber Trees, which they are no-wise able to fell, and so keep the Sun from Corn-Fields very much; yet nevertheless, we saw as large Corn-stalks, or larger, than we have seen any where else" (Hilton 1967:76). Elsewhere on the river the explorers observed level land atop high banks of clay and "...as some of our Company did affirm, some Marl," forested with deciduous trees and tall, thick grass. They remark on the abundance of game including deer and turkeys, partridges and great flocks of parakeets, and fruit and mast including mulberries, grapes and acorns. They remark on the size and type of trees, upstream and down, speculating on their uses as timber. They also particularly describe a tract

of land they named “Stag Park,” it being “thin of Timber, except here and there a very great Oak, and full of Grass, commonly as high as a Man’s Middle, and in many Places to his Shoulders, where we saw many Deer, and Turkies...we travell’d in it several Miles, but saw no End thereof” (Hilton 1967:74). This sort of deforestation appears to have been the result of fire—often deliberately set to drive prey (primarily deer) during group-hunting procedures and to enrich understory browse for game animals. We might infer from this that large tracts within the southern Coastal Plain and Sandhills regions of North Carolina, and possibly elsewhere in the southern Coastal Plain, were regarded as hunting territory and managed by burning.

Hilton’s description also records an encounter with “four *Indians* in a Canoe [who] sold us several Baskets of Acorns” (Hilton 1967:75), illustrating that although corn agriculture and domesticated animals were part of the local economy, acorns were a valued trade commodity. Several miles downstream of where the bartering took place, an Indian shot an arrow from a high bank; missing the Barbados boatmen, the arrow shattered on impact in the boat’s gunwale “leaving the Head behind.” From this it may be inferred that bows and arrows tipped with stone points (probably small triangulars) continued to be the common native weaponry of the time. Discovering the canoe suspected to belong to the Indian who ambushed the group, and seeking retribution for this assault, the boatmen “...went on Shoar, and cut the same in pieces...[and] Going to his Hutt, we pull’d it down, broke his Pots, Platters and Spoons, tore the Deer-Skins and Matts in pieces, and took away a Basket of Acorns...” (Hilton 1967:76–77). This description serves as an impromptu inventory of the less portable domestic items commonly found at an Indian residence (presumably the more portable items of value would have been removed by the occupants upon the approach of the Europeans).

In a final observation, it is recorded that Hilton’s group encountered a contingent of natives “to the Number of near 40 lusty men,” among them Wat-Coosa, “and such other *Indians*, as appear’d to us to be the chief of those Parts” from whom they “made a Purchase of the River and Land of *Cape-Fair*.” This is of interest as it contests to some degree of social consolidation of the indigenous people, despite the fact that not a single village was observed by Hilton’s group in their explorations which appears to have extended some 50 or 60 miles up both the Northeast Cape Fear and the main trunk of the Cape Fear itself.

In the eastern Piedmont region, traders from coastal Virginia plied their wares along the well-used trade trails leading south and west. The Great

Trading Path led from Fort Henry, Virginia to the present town of Swebsonville on the Haw River, where it divided, the north fork crossing Great and Little Alamance Creeks leading westward, and the south fork continuing into Catawba Territory (McManus and Long 1986:21). In Lawson's 1701 account (Lefler 1967:60) it is mentioned that the Sissipahaw Indian villages were located along the Haw River. Simpkins (Simpkins and Petherick 1985:50–51) believes that the Mitchum site (31CH452), located in northern Chatham County, is what remains of the largest of the Sissipahaw villages. Later references to the Sissipahaw place them west of Alamance County along the Neuse or Pee Dee and Waccamaw Rivers. By 1711, the Sissipahaw and the Tuscarora settled with the Waccamaw along the Neuse. They were driven from that area in the same year by the Tuscarora and settled with the Waccamaw (then residing along the upper Catawba River). In 1712 some of the Sissipahaw collaborated with John Barnwell against the Tuscarora (Wilson 1983:193). At last mention (1716) the Sissipahaw were living along the Pee Dee River close to the Sara Indians (Wilson 1983:195). Archeologists working in this region have identified several specific culture phases presumed to be associated with these tribes.

Mitchum Phase (A.D. 1600–1670)

The Mitchum phase is attributed to the Sissipahaw tribe and is represented in the Haw valley by a single site, the Mitchum site (31CH452). Excavations at the site determined that it was occupied after 1650 and consisted of a palisaded village of about 1.5 acres, with a single house (about 20 ft in diameter), and two burials. Interaction with Europeans was apparently not yet common and epidemic disease is not thought to have affected the rate of mortality. Settlement and subsistence patterns continued to be very similar to the preceding Hillsboro phase (Ward and Davis 1993). Some European trade goods are found in this phase, and locally made tobacco pipes, which seem to mimic European kaolin pipes, may indicate a shift in smoking from a ceremonial to a somewhat more casual practice.

The pottery of the Mitchum phase is attributed to the Jenrette series. This series apparently developed out of the preceding Hillsboro series and is thought to represent a close cultural association of these phases (Ward and Davis 1993:414). Small-to-medium sized, plain jars and bowls, and large, simple-stamped jars dominate the Jenrette series assemblage from the Mitchum site. Decoration is less common than in the preceding Hillsboro phase.

Jenrette Phase (A.D. 1600–1680)

The Jenrette phase is thought to be associated with the Shakori tribe visited by Lederer in 1670 (Cumming 1958). Ward and Davis (1993:414) define this phase on the basis of excavations at the Jenrette site.

Excavations at the site revealed a palisade that enclosed a village area of about .5 acres. Domestic structures were slightly larger than Fredricks phase houses, and are constructed with wall trenches rather than single-post construction. A single burial at the site suggests that epidemic diseases introduced by the Europeans did not strike the inhabitants while they occupied the site.

Subsistence practices remained largely the same as during preceding phases. Large roasting pits filled with domestic refuse were found to contain evidence of acorns, hickory nuts, walnuts, corn, beans, bottle gourd, and cultivated sumpweed. This is the latest instance of sumpweed cultivation, thus far, verified in the Southeast. Pottery from the Jenrette phase is similar to that of the Mitchum phase. What distinguishes both types from their predecessor— Hillsboro—is that they are more crudely made. Exterior stamping is poorly executed and roughly smoothed; vessel walls are thicker, temper coarser, vessels heavier.

Fredricks Phase (A.D. 1680–1710)

The Fredricks phase denotes the remains of the Occaneechi after their move from the Roanoke to the Eno River, following Bacon's Rebellion of 1676 (Ward and Davis 1993:416). The phase is also represented by a single site, the Fredricks site. Ward and Davis (1993) believe this to be the town visited by John Lawson in 1701 (Lefler 1967:61). By the time of Lawson's visit, disease and warfare had decimated the Occaneechi. A single palisade of small posts, placed in trenches, enclosed a village consisting of 10–12 houses. Ward and Davis (1993:416) estimate a population of about 75, and mortality rates are estimated to have been quite high while the village was occupied. Despite the presence of guns, hoes, axes, knives and kettles, the faunal assemblage at the site indicates that not much had changed in the basic pattern of animal resources procurement strategies. A single horse bone and one pig bone, as well as watermelon seeds and peach pits, attest to the infrequent, but evident utilization of European domesticates.

Pottery of the Fredricks phase is called the Fredricks series, and is represented by plain and check-stamped types. Plain vessels include small jars, large storage jars and small bowls. Apparently, checked-stamped type vessels functioned primarily as cooking jars. The carved-paddle

stamping technique appears to have no antecedent in the immediately preceding phases (Davis 1987:189–198).

In the wake of European settlement the indigenous peoples of the Piedmont region experienced precipitous declines in population levels attendant with the spread of epidemic diseases. Remnant groups from various tribes were forced from their traditional homelands to marginal locations where they formed alliances with other displaced peoples. Many moved to the area north of the James River near Fort Christiana, Virginia, while others like the Sissipahaw merged with groups living to the south.

Early Exploration and Failed Settlement (ca. A.D. 1526–1725)

It has been suggested that the Spanish explorer, Lucas Vasquez de Allyon, undertook the first inland European exploration of southeastern North Carolina (Quattlebaum 1956). In 1526, a colonizing expedition of some 600 persons, under the leadership of Vasquez de Allyon, attempted to establish a settlement on Winyah Bay, South Carolina. The expedition ships, however, were driven off course by shifting storm winds and Gulf Stream currents. The group actually made landfall near the mouth of the Cape Fear River and one ship was lost on the shoals off Cape Fear. A shore party landed near the present day town of Southport and a base camp was established. The explorers investigated the area on horseback and traveled in small boats up the Cape Fear River to an unknown point somewhere beyond the Northeast Cape Fear River. Apparently, unimpressed with the environment of the region, Vasquez de Allyon and his expedition proceeded south to Winyah Bay, South Carolina and established a settlement near the mouth of the Waccamaw River (Quattlebaum 1956). The exact route taken by Vasquez de Allyon's explorers while in North Carolina is uncertain and no permanent Spanish presence was established.

In 1662, English explorers, led by Captain William Hilton, from Massachusetts explored the Lower Cape Fear River valley, but little information was recorded about their expeditions. During the same year, settlers from Massachusetts established a short-lived settlement near the mouth of the river. For obscure reasons, the small colony was completely abandoned before the autumn of 1663 (Quattlebaum 1956; Williamson 1973[1812]). Williamson (1973[1812]) suggested that the region's Cape Fear Indians drove out the New Englanders. The settlers were apparently guilty of capturing Native women and children that they then sold off as slaves. Captain William Hilton led a second exploratory expedition up the Cape Fear River in the winter of 1663 (Hilton 1967[1664]; Lee 1965). Hilton

was the first European to describe the cultural and natural environment of the Cape Fear region in any specific detail.

Although a detailed report of the expedition was produced (Hilton 1967[1664]), there is little information specific to the Sandhills environment or Native-American settlements in the area. Apparently, the explorers did not venture any appreciable distance up the primary tributaries of the Cape Fear River, nor did they venture far from the safety of their boats. Hilton and his party passed through the eastern fringe of the Sandhills when they investigated the lower reaches of the Upper Cape Fear River and its tributaries. The expedition reached a point up the Cape Fear River "...from the Rivers mouth North near fifty leagues" (Hilton 1967[1664]:47). Since Hilton was an experienced mariner, his "league" likely equaled the English nautical mile (6,080 ft/1,853 m). As such, Hilton's boats apparently penetrated the main branch of the Cape Fear River some 278 kilometers (173 statute miles), a distance that would have ended the exploration in the vicinity of present day Lillington, North Carolina. Hilton indicated that his passage was blocked by two islands where fallen trees "...lay athwart both branches, which stopped up the passage of each branch..." (Hilton 1967[1664]:47). Today, a large island splits the river into two narrow corridors just above the mouth of the Upper Little River, just south of Lillington (USDA 1994:sheet 12). This island, which may have formed from two smaller islands, correlates well with Hilton's distance estimate and topographic description of the expedition's endpoint.

Although Hilton published a detailed account of the expedition's passage, he, unfortunately, tended to lump environmental descriptions into general observations. On his party's return down river from the islands that blocked his passage, Hilton (1967[1664]:47) described the Sandhills environment from the vantage of his boat:

We returned, viewing the Land on both sides the River, and found as good tracts of land, dry, well wooded, pleasant and delightful as we have seen any where in the world, with great burthen of Grasse on it, the land being very level, with steep banks on both sides the River...the Timber that the woods afford for the most consisting of Oaks of four or five sorts, all differing in leaves, but bearing Akorns very good...Also a very tall large Tree of great bignesse, which some do call Cyprus...Likewise Walnut, Birch, Beech, Maple, Ash, Bay, Willough, Alder and Holly; and in the lowermost parts innumerable of Pines, tall and good for boards or masts, growing for the most part in barren sandy ground, but in some places up the River in good ground, being mixed amongst the Oaks and other Timber...We found a very large good tract of Land on the N. W. side of the River, thin of Timber, except here and there a very great Oak,

and full of Grasse, commonly high as a mans middle, and in many places to his shoulders, where we saw many Deer and Turkies.

Following Hilton's second expedition and the publication of his findings, another English settlement was attempted on the Lower Cape Fear in 1664. By 1666, farmsteads were scattered some sixty miles up the river and a thriving fur trading center was located at Charles Town on the Cape Fear. Various problems, from poor colonial administration and lack of financial support to bloody Indian warfare, plagued the colony of some 800 persons. The Governor of Virginia reported that the Cape Fear colony had been totally abandoned by the autumn of 1667 (Connor 1973[1919]; Lee 1965). An early account of the settlement by Williamson (1973[1812]) suggested that remnants of the colony actually struggled on until 1690.

The abandoned settlement soon became a haven for pirates who operated from the area. From the 1680s on, various pirate leaders utilized the Lower Cape Fear region to shelter from storms and to make repairs on their ships. The heyday of the pirates ended in 1718 when naval vessels from South Carolina and Virginia engaged and defeated ships operated by two of the region's most notorious pirate leaders, Stede Bonnet and Edward Teach (Blackbeard). Bonnet, captured on the Cape Fear River, was hanged in Charlestown, South Carolina. Blackbeard was killed in battle at Ocracoke Inlet (Connor 1973[1919]; Lee 1965). While it is unlikely that pirates actually ventured far enough up the Cape Fear River to reach the Sandhills, their activities near the mouth of the river undoubtedly discouraged Europeans from settling on the Cape Fear.

During the Tuscarora War, Colonel John Barnwell led a military force from South Carolina to fight the Tuscarora and their allies. His expeditionary army crossed the Cape Fear River near what is now Fayetteville. Based on observations collected on his trek through the backcountry, Barnwell produced a map of the Carolinas sometime around 1721. The Barnwell-Hammerton map (Cumming 1998:Plate 48A) indicated no Native or Euro-American settlements in the Sandhills. Barnwell simply described the land as either "Som Levell Pine Land full of Swamps" or "Poor Pine Land" (Cumming 1998:Plate 48A). By 1725, interest in the Cape Fear region was rekindled and new settlements were built along the lower reaches of the river, primarily by colonists from South Carolina (Lee 1965).

Colonial Expansion and Permanent Settlement (ca. A.D. 1725–1775)

Although, the first permanent European settlements on the Lower Cape Fear were established by English and Scots-Irish colonists in the mid 1720s (Lee 1965), the earliest known European settlement in the region now encompassed by Fort Bragg was apparently not until the mid-1730s (Meyer 1961). There are a number of unsubstantiated reports that indicate some settlement had occurred near the mouth of the Lower Little River by 1716 (Sharpe 1961). Before 1716, however, the presence of a powerful Indian group to the north, the Tuscarora, inhibited early colonial development on the entire Inner Coastal Plain of North Carolina. With the destabilization and eventual break up of the Tuscarora Confederacy after the Tuscarora War (1711–1715) in 1715, most of the Inner Coastal Plain region was opened to unrestricted European expansion (Lee 1963; Parramore 1982, 1987). During the Tuscarora War, the Cape Fear Indians allied themselves with the English colonists and provided a handful of warriors to fight the Tuscarora. At the end of the war, most of the Tuscarora were removed to reservation lands in North Carolina, while others fled north and were “adopted” by the Seneca, one of the more powerful members of the League of the Iroquois (i.e., the Five Nations) (Tooker 1978).

The Siouan-speaking Cape Fear Indians were later forced to relocate after Iroquoian, primarily Seneca and Tuscarora, raids on their settlements became too frequent (Lee 1963, 1965). The Seneca and Tuscarora apparently punished the Cape Fear Indians for fighting with the English during the Tuscarora War. The comparatively weak Cape Fear Indians were unable to protect themselves and sought protection as a tributary tribe from the South Carolina government. Apparently, the Cape Fear Indians shared cultural and political links with other Siouan-speaking groups in South Carolina. The few remaining Cape Fear Indians reportedly emigrated to South Carolina sometime between 1718 and 1720 (Lee 1963, 1965). With all threats of Native American resistance removed by 1720, the Upper Cape Fear River valley opened for unrestricted European expansion.

Purportedly, a small number of European settlers, of German descent, came into the region via a system of overland Indian trading paths from the Pennsylvania and South Carolina colonies during the early 1730s (Meyer 1961; Mitchell 1998). Although historic records are sketchy at best, an apparent “Palatine Settlement” was founded in the eastern Sandhills sometime before 1733. Edward Moseley’s “New and Correct Map of the Province of North Carolina” (1733) indicated the presence of such a

settlement just north of the mouth of Rockfish Creek (Cumming 1998:Plate 54). Apparently, these early settlers were associated with a mass of Germanic settlers who fanned out into the Atlantic fringe colonies of the upper South from Pennsylvania sometime in the late 1720s (Mitchell 1998). Although their settlement was not indicated on the 1733 Moseley Map (Cumming 1998), a group of Scots reportedly founded a small community known as Choffengington in 1729. The settlement was apparently located on the eastern bank of the Cape Fear River near the present day community of Wade (Sharpe 1961). In 1734, however, an English traveler noted that the Cape Fear River was settled inland no more than one hundred miles above its mouth (Connor 1973[1919]:152). This observation suggests that the maximal extent of European settlement along the Cape Fear River was approximately 50 miles below the eastern periphery of the Sandhills in 1734. It must be assumed that the earlier reported settlements on the Upper Cape Fear had failed and were apparently abandoned by the early 1730s.

Information on the earliest settlement of the Sandhills area is sketchy at best. Reports of colonial expansion in the general vicinity of what is now Fort Bragg indicate that there was some limited European settlement in the region between 1716 and the early 1730s (Sharpe 1961). After 1739, however, records subsequent to the immigration of the Scot Highlanders to the region provide more detail. The earliest European settlers in the Sandhills apparently originated from coastal North Carolina settlements on the Lower Cape Fear. As no formal wagon roads existed in the Sandhills during the very early colonial period, most settlers arrived in the region on boats via the Cape Fear River. The European migrants to the Sandhills were primarily of English, Scots-Irish, Lowland Scot or Germanic descent, who came to North Carolina from Great Britain or America's Atlantic seaboard colonies (Meyer 1961). When the Upper Cape Fear area was initially settled, the project area Sandhills were encompassed within New Hanover County, which had been formed from Craven County in 1729. By 1734, further political subdivision was deemed necessary and the study area Sandhills became part of Bladen County when the county was formed from the western portion of New Hanover County (Corbitt 1950).

In 1736, a committee from Argyll, Scotland came to North Carolina to explore the possibility of colonizing the Upper Cape Fear River valley. A few years earlier (1732-1733) three Highland Scots, James Innes, Hugh Campbell and William Forbes, received land grants in the Upper Cape Fear River region (Kelly 1998; Meyer 1961). Kelly (1998) has suggested, however, that no actual settlement of the region by Highland Scots

occurred before 1739–1740. The grants sought by Innes, Campbell and Forbes in 1732–1733 are considered by Kelly (1998) to be simply speculative ventures that did not entail actual settlement. A number of later histories particularly emphasize settlement of the Cape Fear River valley by Highland Scots. Although a small number of Highlander families settled in the vicinity of Wilmington on the Lower Cape Fear in the late 1720s, they did not apparently reach the Sandhills area until a decade later. The first apparent influx of Highland Scots to the Upper Cape Fear came in 1739, when some 350 Argyll emigrants sailed from Campbeltown, Scotland to Bladen County on a vessel named the “Thistle” (Kelly 1998). Some months later, thirty three land grants were issued in Bladen and New Hanover Counties to persons of Highland Scot descent. Early deeds were granted to Highland Scots for lands on the main trunk of the Cape Fear River between Cross Creek and the Lower Little River between the years 1740 and 1745 (Meyer 1961).

It is important to note that large numbers of English and Scots-Irish settlers settled in the Sandhills both before and well after the initial arrival of the Highlanders in 1740. These populations were as significant to the development of the Sandhills as the Highland Scots. Only twenty-five land grants were issued to persons of obvious Highland descent (i.e., surname identification) in both Bladen and New Hanover Counties, combined, between 1741 and 1751 (Meyer 1961). This figure suggests a rather low Scot Highlander population density for the Sandhills during the early Colonial era. It should be noted, however, that the population of Scottish indentured servants and non-land owning tenants in the Sandhills during the period cannot be adequately assessed with the available data. Through time, the Highlanders, however, became a prominent sub-culture in the Sandhills. Meyer (1961) suggested that peoples of Highland descent accounted for about 50 percent of the Upper Cape Fear River population by the end of the eighteenth century. Unlike other ethnic groups, who immigrated to Carolina and dispersed throughout the colony, the clan-conscious Highlanders tended to cluster in large groups, primarily in the Upper Cape Fear River valley (Kelly 1998; Watson 1996).

By 1750, thousands of acres of land had been granted to Highland Scots immigrants who settled in the region between the Cross Creek area on the Cape Fear and the Lower Little River in what are today Cumberland and Hoke Counties. Kelly (1998) and Meyer (1961) both suggested that multiple issues related to socio-political and economic change in early eighteenth century Scotland were responsible for the exodus of Highland Scots to the Coastal Plain of North Carolina. Apparently, the consolidation

of English power in Scotland during the eighteenth century stimulated changes that led to forced removal of working class families from feudal estates, increased rent for tenants on estates, depression of livestock prices, and wide-spread unemployment (Kelly 1998; Meyer 1961). These problems, combined with population growth in Scotland, stimulated many displaced farmers and workers to seek a better life in the American colonies. North Carolina's Royal Governor from 1734–1752, Gabriel Johnston, was a Lowland Scot. He believed that settlement of the colony by a substantial number of Protestant Highland Scots would stimulate growth in the regional economy. Johnson wrote a series of letters to influence his wealthy associates in Scotland by offering free land grants and ten-year tax exemptions to Scottish émigrés (Kelly 1998; Meyer 1961).

The Cape Fear River and its major tributaries served as the main transportation arteries of the southeastern section of North Carolina. Lower Cape Fear port towns, first at Brunswick, and later at Wilmington, were the region's two primary hubs of commerce and political activity. The town of Cross Creek was the earliest community of significance on the Upper Cape Fear. Initially settled by Argyll emigrants in 1739, Cross Creek developed into a small, but thriving regional commercial center by 1750 (Lee 1965; Meyer 1961). With the rapid regional population growth and the subsequent concentration of settlement around Cross Creek, the colonial government formed a new county with Cumberland Court House, located near the mouth of the Lower Little River, as the county seat. In 1754, Cumberland County was formed from Bladen County. With further political subdivision of Bladen County, the Sandhills became part of Cumberland County (Corbitt 1950). The present day environs of Fort Bragg largely fell within the bounds of the original Cumberland County that existed from 1754 through 1784. Although significant portions of Cumberland County were later lost to form Wake (1770) and Moore (1784) Counties, Cumberland's territory was expanded, at the expense of Bladen and Robeson Counties, four times between 1762 and 1791 (Corbitt 1950).

The town of Campbellton was established on the Cape Fear River, approximately one mile from Cross Creek, in 1762. Compared with the development of Cross Creek, Campbellton was not as successful (Lee 1965; Meyer 1961). By the 1760s, several major roads radiated from Cross Creek into the Piedmont backcountry. These roads ensured Cross Creek's place as a key regional trading center. Wilmington merchants established branch stores and commerce agents at Cross Creek in an effort to divert interior Piedmont trade from both Charlestown (South Carolina) and Petersburg (Virginia) to Wilmington. Although the Wilmington and Cross Creek merchants were successful in attracting some trade from the

westerly settlements situated in and around Salem and Salisbury, much of the agricultural (e.g., grain, animal hides) and industrial (e.g., cloth, iron) production that passed through Cross Creek came from the Sandhills and eastern Piedmont until the mid-1770s. By 1775, marketing efforts undertaken by Cross Creek merchants and the addition of direct road link from Salem to Cross Creek paid off. Cross Creek, rather than Charlestown, became the preferred trading center of the backcountry producers (Lee 1965; Merrens 1964). Reportedly, wagonloads of agricultural products came to Cross Creek from as far west as eastern Tennessee (Sharpe 1961). In 1778, the Revolutionary government merged Cross Creek and Campbellton into a single town, which then became the county seat of Cumberland County (Corbitt 1950; Oates 1950).

Population and Ethnicity

Early descriptions of the local people during the eighteenth century are rare. On the eve of the American Revolution, a Scottish traveler to the Lower Cape Fear region, Janet Schaw, described the local populace. Although Ms. Schaw's description of the area's rural population was largely colored by her social class, her observations were echoed by nineteenth century travelers (e.g., Olmsted 1904[1856]) in the Upper Coastal Plain region. In 1775, Schaw (1939:153) reported of the region's yeoman farmers:

...if they can raise as much corn and pork, as to subsist them in the most slovenly manner, they ask for no more; and as a very small proportion of their time serves for that purpose, the rest is spent in sauntering thro' the woods with a gun or sitting under a rustick shade, drinking New England rum made into grog, the most shocking liquor you can imagine. By this manner of living, their blood is spoil'd and rendered thin...hence the constant slow fevers that wear down their constitutions, relax their nerves and infeeble the whole frame...They are tall and lean, with short waists and long limbs, sallow complexions and languid eyes, when not inflamed by spirits. Their feet are flat, their joints loose and their walk uneven. These I speak of are only the peasantry of this country, as hitherto I have seen nothing else...

While Kelly (1998:81) estimated that 50,000 Highland Scots settled in various regions of North Carolina between 1739 and 1776, Watson (1996) suggested that far fewer Highlanders came to the colony during the same the period. According to Watson (1996:5), approximately 5,000, out of some 25,000 Scottish émigrés to North America, came to North Carolina between 1763 and 1775. Watson (1996:81) estimated that the total number of Highland and Lowland Scots in the colony only ranged between ten and twenty thousand by 1775. Meyer (1961) suggested population figures similar to those proposed by Watson (1996). Although such population

figures are subjective, there were over 125 land grants and land purchases made by Highlanders in the region presently encompassed by Fort Bragg between the years 1733 and 1775 (Meyer 1961:34[Map II]). Whereas a few wealthier families were granted larger land tracts, the majority of the Highland settlers in Cumberland County were granted land tracts of 100–300 acres (Kelly 1998; Roussos 1992:28).

Although many of the more well-to-do farmers owned black slaves during the Colonial period, African or African descent slave populations in the area never reached the levels found in the more fertile regions of the South. The number of slaves found in the region's major port towns, such as Brunswick Town and later Wilmington, were much higher. While slaves were more prevalent in the agriculturally rich sections of the Lower Cape Fear River valley, their proportion remained low in relation to the white population in the Sandhills. It is not precisely known when the first enslaved blacks were introduced to the Sandhills. In 1755 there were 1,238 (90 percent) whites and 140 (10 percent) blacks, presumably slaves, in Cumberland County (Kay and Cary 1995:221). As early as 1760, numerous probate records from Cumberland County listed slaves as family assets (Meyer 1961). By 1767, 3,690 (83 percent) whites and 731 (17 percent) blacks were enumerated in the county. Thus, the ratio of black slaves to free whites was approximately one-to-five in Cumberland County at the end of the colonial era. Over time, the proportion of slave-to-free population in the Sandhills increased dramatically. Although free blacks resided in the Sandhills area during the Colonial period, their history is relatively unknown. It was not until after the American Revolution that freedmen became a more prominent segment of the population. A number of slaves were awarded their freedom for military service during the Revolutionary War; others were periodically released from bondage upon the death of their owners through the probate process. The actual population of black freedmen in the Sandhills became much more apparent during the Antebellum period (Lofffield 1979; Parker 1990).

Transportation

Since the English had taken much of the agriculturally productive land of the Lower Cape Fear River valley before 1740, incoming settlers to the Upper Cape Fear area were forced to accept the marginally productive lands of the Sandhills after that time (Kelly 1998; Meyer 1961). Due to the lack of formal roads, the initial settlement of the Sandhills followed the course of the Cape Fear River and the region's navigable trunk streams (e.g., Black River, Upper Little River, Lower Little River). Analysis of early deeds through the 1770s indicates: "With few exceptions, all (land) grants were located either upon or close to rivers..." (Meyer 1961:33), the region's

primary “highways.” The necessity of travel and the need to ship agricultural and forestry products out of the Sandhills ensured the early development of a rudimentary network of roads by the mid-eighteenth century. Such roads were limited, and as several historians later noted, most roads simply led to the nearest river or creek landing (Crittenden 1931; Lefler and Powell 1973).

Although more extensive long-distance road systems were eventually clear-cut, natural waterways provided the main arteries of transportation in the Sandhills during the colonial era. As discussed by Schaw (1939) in 1775, the majority of the inhabitants of the Cape Fear River valley continued to travel by dugout canoe or other type of small watercraft through the eve of the American Revolution. To encourage interior Piedmont producers to ship export products via the port of Wilmington, rather than Charlestown, South Carolina, North Carolina’s colonial Assembly later provided funds for three major roads that linked the backcountry with riverine transshipment facilities at Cross Creek. These roads were authorized by the colonial Assembly in 1755, 1763 and 1773, and linked the settlements of Hillsboro, Salem and Salisbury to Cross Creek (Lee 1965; Meyer 1961:Map III). On the eve of the American Revolution, John A. Collet’s map (1770) indicated that seven major roads formed a transportation network with the major rivers that connected Cross Creek to the budding population centers in both North and South Carolina (Cumming 1998:Plate 65).

Despite the continual growth of the inland road network through the eve of the American Revolution (Crittenden 1931), the extensive number of creeks and rivers, while a boon to mill operation and water transportation needs, greatly hindered overland transportation. There were apparently never enough bridges or ferries constructed to ensure a truly efficient overland transportation system (Lefler and Powell 1973). In Cumberland County, landowners often constructed and operated private toll bridges where they were allowed by law to charge the same crossing fee as the ferry operators (Watson 1996). Many agricultural and forestry products continued to flow out of the region via the riverine transport system. However, travelers, such as itinerant preachers, lawyers, petty traders, and the like, became increasingly dependent upon overland roads to reach landlocked communities that developed in the interior (Crittenden 1931).

Agriculture and Natural Resources Exploitation

During the Colonial period, most North Carolina settlers farmed for subsistence needs and exploited natural resources for profit. Initially, deerskins and other hides/furs were shipped out of the backcountry for

trade and export (Lefler and Powell 1973), but the ubiquitous longleaf pine forests of the Sandhills proved to be of substantial economic value. Longleaf pines (*Pinus palustris*) produce more sap/gum than any other species of pine in eastern North America. The gum was used to produce tar, pitch, rosin and turpentine. The “pine barrens,” although marginal for agricultural purposes, were capable of sustaining extensive naval stores (e.g., “gum” products, shipbuilding timbers and masts) and timber industry (e.g., structural lumber, shingles and barrel staves) (Lefler and Powell 1973; Meyer 1961; Schaw 1939). As such, agricultural exports were comparatively minor elements of the colonial economy, whereas naval stores and timber production flourished in the Sandhills (Lee 1965; Lefler and Powell 1973; Meyer 1961; Schaw 1939). While visiting the plantation of a family friend in 1775, Janet Schaw (1939) noted that most Lower Cape Fear plantation owners primarily harvested timber, collected pine gum and processed tar, pitch and rosin for export. She indicated that rafts were crudely constructed with rough-sawn planks and floated down the river to Wilmington for export shipment. Schaw (1939) described rafts large enough to simultaneously carry 50,000 sawn planks and 100 to 200 barrels of tar, pitch, or rosin. She further noted that a number of her associate’s plantation slaves were skilled coopers and carpenters who produced “...staves, hoops, and ends for barrels and casks for the West India trade...” (Schaw 1939:185).

Before the American Revolution, North Carolina produced more naval stores than any other English colony. Lefler and Powell (1973:161) note: “...seven-tenths of the tar, more than one-half of the turpentine, and one-fifth of the pitch exported to England from her colonies was produced in North Carolina.” Lumber production in the Cape Fear River valley greatly exceeded that of any other area in North Carolina. Between the years of 1768 and 1772, saw mills in the Cape Fear region accounted for 70–75 percent of all lumber shipped from North Carolina ports (Merrens 1964:97). Furthermore, the Cape Fear region accounted for roughly 50 percent of North Carolina’s total naval stores production during the same period (Merrens 1964:88). Although, timber products and naval stores were prominent exports from the greater Cape Fear River valley, Merrens (1964) indicated that the volume of naval stores exported from Cumberland County were comparatively low throughout the colonial era. He attributed the low production figures to the lack of slaves necessary for such a labor-intensive industry (Merrens 1964).

Limited industry developed in the form of water-powered grist and saw mills, tanneries and small iron forges (Kelly 1998; Meyer 1961). Second only to domestic architecture, saw mills and tar kilns, two necessary

features of the naval stores industry, were perhaps the most prominent cultural features in the Sandhills during the Colonial period. By 1766, Governor Tryon reported that fifty sawmills had been constructed on various branches of the Upper and Lower Cape Fear River (Lee 1965; Lefler and Powell 1973). Prominent landowners or merchants operated most of the Sandhills mills. Near Cross Creek, however, a group of less affluent settlers pooled their resources and built a cooperative sawmill operation. These investors shared equally in subsequent profits derived from lumber shipped for export to Wilmington (Merrens 1964).

Arable lands were cultivated for subsistence purposes and the inhabitants produced a variety of crops for local consumption and limited export. Due to the near sterile soil conditions in many parts of the Sandhills, agricultural planting was primarily conducted on bottomland with small fields situated on the floodplains of intermittent streams, creeks and rivers. Agricultural production generally focused on the harvest of corn, peas, beans, sweet potatoes, white potatoes and some fruit (e.g., peaches, grapes) for local subsistence needs. Minor quantities of rye, wheat, oats, cotton, flax and tobacco were also apparently raised for local consumption (Cathey 1966; Lee 1965; Lefler and Powell 1973; Merrens 1964; Meyer 1961; Oates 1950). As in most parts of eastern North Carolina, corn was the primary grain crop of the Sandhills (Cathey 1966). Compared to the Albemarle-Pamlico region of the Carolina colony, the Cape Fear River valley produced, by far, the smallest percentage of exported corn products (Lee 1965; Merrens 1964). The bulk of the corn production was used for local subsistence needs and to feed horses, mules and other domestic farm animals. Excess corn production was exported in the form of ground meal or flour. Wheat from the Sandhills and the Piedmont was shipped from Cross Creek which served both as a collection point for bulk grain and as a processing location. A number of gristmills situated near Cross Creek converted Piedmont wheat into flour for local trade and export (Merrens 1964). Lee (1965) noted that the inhabitants of Wilmington and Brunswick were largely dependent upon meal and flour shipped from Cross Creek.

Tobacco, for export, was not produced in any significant quantity in the Upper Cape Fear region until late in the colonial period. In 1754 there were no public tobacco warehouses or inspection stations on the Cape Fear. By 1767, however, a single public warehouse was located at Cross Creek (Merrens 1964). The eventual development of tobacco production in the region may have been influenced by the influx of Highlanders to the Sandhills. Merrens (1964) noted that Scottish tobacco agents who represented mercantile houses in Glasgow, Scotland were particularly active in North Carolina during the later part of the colonial period. These

agents circulated through the colony and “...promoted the growing of tobacco...through the use of the direct purchase system” (Merrens 1964:124). Although no records have been encountered, local planters may have had familial or business connections with the Glasgow tobacco importers. Such connections likely stimulated, albeit limited, tobacco production in the Sandhills for the export market.

Janet Schaw (1939), shocked at the lack of European farm “equipment” (i.e., plows, draft animals) described regional corn planting methods in 1775. Schaw (1939:163) noted:

How much was my amazement increased to find that every instrument of husbandry was unknown here; not only the various ploughs, but all the machinery used with such success at home [i.e., Scotland], and that the only instrument used is a hoe, with which they at once till and plant the corn.

Although the hoe planting method was most commonly used by small farmers and on some of the largest colonial plantations (Cathey 1966; Meyer 1961; Schaw 1939), Schaw (1939) indicated that “the better sort” of planter actually utilized mechanical equipment in the form of horse drawn plows and seed planters. Ownership of plows and expensive agricultural equipment in the Cape Fear River valley was apparently limited to a few of the more wealthy planters (Meyer 1961; Schaw 1939). Meyer’s (1961) analysis of eighteenth century estate inventories from the Sandhills indicated a similar equipment use pattern.

Whereas large-scale agricultural production for export was obviously limited in the Sandhills, most families tended small plots of corn and beans and maintained kitchen gardens for family use. European and North American vegetables, such as carrots, radishes, beets, onions, pumpkins, squashes, cucumbers and assorted leafy greens, were attempted by the more well-to-do planters. Cathey (1966) has suggested, however, that the average colonist in North Carolina subsisted principally on meat, corn, beans, peas and potatoes. To supplement their domestically produced diet (e.g., garden vegetables, corn, livestock), early settlers fished, hunted game (e.g., wild turkey, bear, deer) and gathered wild fruit (e.g., persimmons, plums, blackberries, grapes) (Lee 1965; Meyer 1961; Schaw 1939).

Livestock (e.g., beef and dairy cattle, swine, sheep and horses) were raised for local consumption, farm use and as export commodities. Processed livestock products, in the form of beef tallow, pork lard, salt-cured meat,

hides and butter were shipped out of the region via the port at Wilmington (Cathey 1966; Lee 1965; Merrens 1964; Sharpe 1961). Apparently, livestock grazing was handled by an open-range system and livestock producers utilized brands or marks that were registered with the colonial government (Lee 1965; Meyer 1961). In terms of exported livestock products, production in the Cape Fear region was rather limited as compared to other sections of the Carolina colony (Merrens 1964). Most of the livestock production was apparently for local use or simply traded within the colony. However, Merrens (1964:137) noted that the Highlanders “More so than any other segment of the population...seemed to place an important emphasis on cattle raising and gave less attention than others to the breeding of hogs.”

Historic Structures and Habitation Sites

No archeological or architectural evidence of early colonial settlement in the vicinity of present day Fort Bragg has been recorded. Presumably, the earliest colonial inhabitants built simple log cabins for habitation and storage structures (Meyer 1961). Historical documents and evidence from existing structures outside the Sandhills indicate:

The earliest houses were one or two room buildings with a loft, which was generally reached by a ladder or narrow stairway. Sometimes a lean-to on the back beside a porch would provide a little additional room. A stick or brick chimney supplied heat for comfort in winter and for cooking year-round. Glass windows were rare for a long time, and if a log cabin had windows, there were solid wooden shutters on wooden or leather hinges to close them. As prosperity followed settlement, houses grew. Rooms and hallways were added, and not infrequently the kitchen and dining room were removed to another building that was set a short distance away (Lefler and Powell 1973:184).

By 1775, Janet Schaw (1939:155) noted of the Cape Fear region’s small population of townfolk: “The people in town live decently, and tho’ their houses are not spacious, they are in general very commodious and well furnished.” After sawmills were constructed and certain settlers achieved a degree of prosperity, many habitation structures became larger and more refined (i.e., plank-on-frame construction). Throughout the eighteenth century, log cabin-type structures, however, were likely to have been the most conspicuous architectural features in the Sandhills. Such buildings were continually erected as habitation structures by the less well-to-do members of the regional society, and as utilitarian buildings by naval stores producers and planters, during the Colonial period (Kelly 1998; Meyer 1961).

Churches and Religious Activities

Apparently, no prominent churches were established in the Sandhills until the early 1760s. Private homes and a handful of scattered meeting houses located on larger plantations served as places of worship when itinerant ministers and missionaries from England or other northern colonies passed through the southern backcountry. Although the Anglican Church (Church of England) was the official church of the Carolina colony, Quakers, Moravians, Presbyterians, Lutherans, Baptists and Unitarians were prominent in various settlements within the colony (Lefler and Powell 1973; Mitchell 1998). The London-based Society for the Propagation of the Gospel in Foreign Parts provided 33 of the 46 clergymen who served the needs of the Anglican faithful in North Carolina between 1701 and 1783 (Lefler and Powell 1973). The majority of the Scots-Irish and Highland Scots who settled the Upper Cape Fear River valley were, however, Presbyterian (Lefler and Powell 1973; Meyer 1961). The Reverend Hugh McAden was purportedly the first Presbyterian minister to visit the Highland Scot settlements of the Upper Cape Fear region. He was apparently not too impressed with the religious fervor of the inhabitants. McAden held services at the home of Alexander McKay on Yadkin Road and reported that many of the attending faithful stayed on, well into the evening, to indulge in a night of heavy drinking (Patterson and Carswell 1925).

In 1757, the Reverend James Campbell came to the Sandhills as the region's first permanent Presbyterian minister. McAden had apparently reported on the "religious destitution" of the Carolina Scots and influenced Campbell's decision to come to the Cape Fear region (Patterson and Carswell 1925). About that time, a meeting house was constructed on Roger McNeil's plantation on the Cape Fear River. Later, a second Presbyterian church was built in 1765 at Barbecue Creek, a tributary of the Upper Little River. In the region now encompassed by Fort Bragg, the first recorded Presbyterian church, Long Street Church, was built on Yadkin Road in 1766 (Meyer 1961). Campbell apparently traveled a circuit through the Sandhills to the various meeting houses and gave two sermons each Sunday. He presented one in Scottish Gaelic for the Highlanders and one in English for the Scots-Irish, Lowland Scots and English inhabitants (Watson 1996). Campbell served these early regional churches until 1770–1771 when the Reverend John McLeod joined him. Their regional ministry continued through the eve of the American Revolution when McLeod joined the British Loyalist militia and Campbell, a Patriot, was forced by local Loyalists to leave the Sandhills (Meyer 1961).

The American Revolution (A.D. 1776–1783)

During the Revolutionary War, local inhabitants fought in a number of small-scale skirmishes that occurred in outlying areas surrounding Fayetteville. Many of the Sandhills' Scottish-descent inhabitants remained loyal to the Crown. Kelly (1998) noted that families who descended from pre-1760s Scottish immigrants were typically Whigs (i.e., Patriots/Rebels), while most Highland settlers who came to North Carolina after the mid-1760s were generally Tories (i.e., British Loyalists). Meyer (1961) and Kelly (1998) suggested multiple factors responsible for Tory sympathies in the Sandhills during the war. In 1775, the last Highland immigrants to land at Wilmington were required by the Royal Governor to take oaths of allegiance to the House of Hanover before they were allowed to settle in North Carolina. The British Board of Trade employed similar measures in the same year and offered land grants in America to volunteers who entered the Royal Regiment of Highland Emigrants. Apparently, the staunchly religious Scottish Presbyterians did not look upon such loyalty oaths as a trifling matter. As such, they remained loyal to the Crown. Many settlers in North Carolina feared English reprisals against themselves or their relatives who remained in Scotland or Ireland. A number of North Carolina Loyalists, while not actively serving at the time of the Revolution, were former soldiers of, or commissioned officers in, the British Army. Other Loyalists simply believed that rebellion against the Crown was socially or morally wrong and not in the best interest of the colonies (Kelly 1998; Meyer 1961). During the early months of the war, Scots-Irish, English and Highland Scot residents of the Upper Cape Fear River valley listened to Patriot and Loyalist rhetoric and chose sides or attempted to remain neutral.

In the summer of 1775, North Carolina's last Royal Governor, Josiah Martin offered to raise a regiment of loyal Scots. Brigadier General Donald McDonald and Colonel Donald McLeod, veteran officers of the British Army, were sent from Boston by General Thomas Gage to organize and command the volunteers. Governor Martin and the British high command hoped to use North Carolina's Loyalist forces to cut-off rebel forces in the South from those in the North. As an enlistment incentive, Governor Martin offered a land grant of 200 acres and a twenty-year tax exemption for each Loyalist volunteer (Wellman 1974:17). A number of loyalists with previous military experience in the British Army were commissioned as regimental officers. By February of 1776, General McDonald reported a regiment of 1,600 Loyalists (Lumpkin 1981), primarily Highlanders from both the southern Piedmont and Sandhills, armed with 650 muskets; soldiers without firearms were armed with broadswords (Meyer 1961; Wellman 1974). McDonald planned to move his regiment to the port of

Wilmington where the troops could be adequately armed and trained. At Wilmington, McDonald's Tory volunteers were to join a mixed force of British Regulars and Loyalist volunteers. Governor Martin planned to use this army to first suppress the rebellion in North Carolina and to, later, destroy Royal opposition in the South Carolina Low Country (Lefler and Powell 1973; Lumpkin 1981; Meyer 1961).

In route to Wilmington, McDonald encountered a mixed Patriot force of local militiamen and Continental regulars who were arrayed in defensive positions to halt McDonald's movement. The Patriot forces and McDonald's Tories met in battle at Moore's Creek Bridge on the Cross Creek-to-Wilmington road on February 26, 1776. McDonald was ill with fever and command of the Loyalist force fell on Colonel McLeod. The Highlanders attempted to cross the bridge and assault a camouflaged and entrenched Patriot force that was supported by light artillery. Caught in the open, the Highlanders were defeated and routed by a smaller force of rebels under the command of Colonels Richard Caswell and Alexander Lillington. The Patriots only lost two men, while McLeod lost at least 50 men. During the headlong retreat from Moore's Creek, some 880 Loyalists along with 1,850 assorted small arms, 13 wagons, a sum of gold and the camp gear were captured by Caswell and Lillington's forces (Lefler and Powell 1973; Lumpkin 1981; Meyer 1961; Wellman 1974).

General McDonald was captured while several of his officers, including Colonel McLeod, were killed. In the aftermath of the battle, captured enlisted soldiers were paroled, but many of the experienced officers were jailed and later released. The significance of the battle at Moore's Creek, a British Loyalist defeat, was that it effectively ended any hopes of establishing North Carolina as a dominion for the loyalist Tories. Without hopes for successful resistance, Governor Martin abandoned Wilmington and fled the colony (Lefler and Powell 1973; Lumpkin 1981; Meyer 1961). Paroled Highlanders and other Tory volunteers were treated with contempt and had their property plundered by local Whigs. The staunchest of the Loyalist officers left their families in the Sandhills and fled to British-occupied Florida, New York or Canada to carry on the fight against the rebels (Meyer 1961; Wellman 1974). Shortly after the battle at Moore's Creek, Patriot leaders took advantage of the situation and canvassed the Sandhills backcountry for Patriot volunteers. Colonels Philip Alston and Thomas Matthews (NC State Militia) raised several companies, including a number of Highlanders, for the cause. Alston's force consolidated Patriot control of the Sandhills and his men continually raided homes and farms of the loyal Tory families. Although Sandhills residents were encouraged to take an oath of loyalty in support of the

Patriot cause, Alston's high-handed tactics hardened the Tory resistance in the region (Wellman 1974).

In the summer of 1780, four regiments of Continentals and a small detachment of militia, under the command of General Horatio Gates, encamped on Drowning Creek (Wellman 1974), in the vicinity of present day Camp Mackall. Gates had recently been given overall command over the Southern Department by General Washington and was ordered to seek out and destroy Lord Charles Cornwallis' army of British Regulars in South Carolina (Connor 1973[1919]; Lumpkin 1981). In transit to Charleston, the poorly supplied Continentals and Patriot militiamen found that provisions were sparse in the countryside that surrounded Cross Creek. The soldiers harvested some green corn from local fields, pirated fruit from "...ragged peach or apple orchards," and slaughtered animals from "...small herds of bony, stunted, half-wild cattle" (Lumpkin 1981:59). Gates' combined forces quickly marched out of the Sandhills to South Carolina where they linked up with other Patriot units from the two Carolinas. At Camden, South Carolina a smaller force of British Regulars and Carolina Loyalists commanded by Lord Cornwallis intercepted the Patriot army. At this point, Gates' effective fighting force had been reduced in number, by sickness and desertion, to some 3,000 troops. Gates, apparently inept at the best of times, had estimated that his force numbered some 7,000 men. As such, he chose to engage the enemy. Cornwallis' well-trained and well-supplied force of some 2,200 men met and destroyed the Patriot army on August 16, 1780 (Lumpkin 1981). In the disaster at Camden, some 800 of Gates' men were killed while 1,000 soldiers were captured (Connor 1973[1919]:465).

Cornwallis inexplicably delayed his invasion of North Carolina long enough for scattered Patriot forces to regroup and prepare for his arrival. The British forces moved into North Carolina in September and occupied Charlotte. Cornwallis soon found his position in the heart of Rebel territory untenable when elements of his command were defeated at Kings Mountain in early October of 1781. After the disaster at Camden, General Nathaniel Greene replaced Gates as commander of the Southern Department. Greene and his subordinate commanders developed a plan to trap and destroy Cornwallis near Guilford Court House, North Carolina. In the first major engagement on North Carolina soil since the Battle of Moore's Creek, Cornwallis' forces narrowly defeated Greene's Patriot army at Guilford Court House in March of 1781. Although Cornwallis forced Greene to retire from the field, British losses were proportionately greater than those of the Patriot forces (Connor 1973[1919]; Lumpkin 1981). Soon after the battle at Guilford Courthouse, a

minor, but locally notorious, engagement followed in the vicinity of Piney Bottom Creek. Here local Tories ambushed and killed nine Whigs who were part of a group of rebel militiamen encamped at the creek. The Patriot militiamen were reportedly elements of Greene's force who fled from the field at Guilford Courthouse.

The ambush became known as the Piney Bottom Creek Massacre. In regional historic overviews, one source places this battle at the intersection of Morgantown Road and Piney Bottom Creek (Nye n.d.), while Loftfield (1979) places it near Holland DZ. Both proposed skirmish areas are located within the boundaries of Fort Bragg, but no evidence of the event has been recovered. In the aftermath of the skirmish, local Whigs raided and destroyed houses belonging to known Tories; seven Tories were killed during the subsequent raids (Nye n.d.; Oates 1950; Wellman 1974). Whig reprisals in the Sandhills may have somewhat cooled the Highlander's Loyalist fervor, but bloody reprisals were undertaken by both sides.

Before the battle at Guilford Court House, Cornwallis, in an effort to outmaneuver Greene, ordered his men to destroy their excess camp baggage. As Cornwallis chased Greene about the Piedmont, his army exhausted their supplies of food provisions and ammunition. After the battle at Guilford Court House, Cornwallis was forced to march back to Wilmington to gather more troops and to resupply his troops (Connor 1973[1919]). Although detachments of Greene's forces harassed the retreating British Army units, Greene was unable to mount a major counter attack. On the march, Cornwallis' regiments crossed the Lower Little River at Monroe's Bridge which was originally located between the mouth of McPherson Creek and the Camp Bragg water processing plant (Nye n.d.). In route to Cross Creek, Cornwallis' troops foraged and raided local farmsteads for food supplies. Cornwallis reportedly visited with Colonel Duncan Ray who lived in a home built by Malcolm Smith on the Yadkin Road (Nye n.d.). This site later became known as the "Cornwallis House" and became part of Camp Bragg in 1918. At the time of the military acquisition, the house was long-abandoned and local residents reported that the house was, in fact, haunted. It was later burned by the military, but the cellar depression and chimney or foundation remains are still apparent above the ground surface (Loftfield 1979; Nye n.d.). The site will be the subject of future archeological investigations on Fort Bragg.

When he finally marched his badly battered, but victorious, army into Cross Creek, Cornwallis had hoped to raise additional companies of loyal Highlanders. He expected the news of his victory over Greene to

encourage the local Tories to fight. Instead, he found the populace at Cross Creek seemingly apathetic to the cause of the Crown. Although the locals provided provisions to the British Army, only a handful of new recruits joined his army (Lumpkin 1981). As noted by Rankin (1976), "There was nothing but disappointment facing Cornwallis. The inhabitants proved timid and allergic to army life." With Patriot forces on the move and few provisions to sustain his forces at Cross Creek, Cornwallis marched on to Wilmington in early April of 1781 (Lumpkin 1981). Although no major battles occurred in the wake of these principal events, sporadic Whig and Tory skirmishes or raids continued on in the Sandhills for the remainder of the war (Oates 1950; Wellman 1974).

The Antebellum Period (ca. A.D. 1783–1860)

The Antebellum period was a time of economic prosperity and further community development in the Sandhills. The greater regional population growth in the Antebellum period was generally centered in Cross Creek, the colonial economic hub of the Sandhills (Lee 1965; Merrens 1964; Tullos 1989), and a number of smaller towns and hamlets in the Sandhills. In 1783, the name Cross Creek was changed to Fayetteville to honor the Revolutionary War hero, General Marquis de LaFayette (Oates 1950).

POPULATION AND ETHNICITY

Cumberland County's population statistics from the beginning and the end of the Antebellum era are particularly illustrative of regional population growth during the period between 1783 and 1860. By 1790 the population of Cumberland County had risen to include 6,407 whites, 2,181 slaves and 83 free blacks. According to the 1790 census, the ratio of black slaves-to-free whites/blacks in Cumberland County was approximately one-to-four, whereas, in the coastal counties, the ratio was closer to one-to-two (Meyer 1961:108). In 1850, a decade before the Civil War, the population of Cumberland County had more than doubled, with 12,447 whites, 7,217 slaves, and 946 free blacks. In neighboring Moore County during the same period, the 1790 population numbered 3,387 whites, 371 slaves, and 12 free blacks. By 1850, Moore County's had a population of 7,196 whites, 1,976 slaves, and 170 free blacks. The specific regional population for the lands now encompassed by Fort Bragg during the Antebellum period is unknown. Ward (township) population data for each county was not collected before 1870. As such, it is impossible to extract rural population data for a specific area within a given county before 1870. Despite the greater regional population growth, the population density in the rural areas of the Sandhills was likely to have been rather low. Clement et al. (1997:51), suggested a maximal 1860

population for the area that now comprises Fort Bragg of about 2,291. This estimate was based on population patterns observed in ward statistics taken from the 1870 census.

With population increases and further economic development in the Sandhills during the Antebellum period, new communities were founded and the vast expanse of Cumberland County was further split to form new counties. In 1855, a portion of northern Cumberland County, north of the Lower Little River, was detached and renamed Harnett County in honor of the Revolutionary War hero and statesman Cornelius Harnett. Since the mid-1980s, several large land tracts in southern Harnett County, totaling some 20,000 acres, have been purchased by the US Army to form Fort Bragg's Overhills and Northern Training Areas.

Historic descriptions of the local populace during the Antebellum period (e.g., Olmsted 1904[1856]; Wellman 1974) tended to be as subjective as those of the colonial era (e.g., Schaw 1939). In the early years of the nineteenth century, a local inhabitant of the Sandhills boasted of his neighbors and associates:

We have not many that may be truly said to be men of wealth...we have considerable Numbers in affluent, and still more in easy circumstances, but take us in the aggregate, and we may be considered in that Medicum, that neither feels the fettering trammels of Indigence; nor the Licentious freedom of pampered wealth—but we have surely more below than above Mediocrity...Of men of talents we are not destitute. In divinity we have held men of abilities, in Law and politics we yet hold men justly intitled to that distinction both Natives & foreigners.

Later in the Antebellum period, Frederick Law Olmsted visited the Sandhills on his journey through North Carolina. In 1856 (Olmsted 1904[1856]), he published an account of his experiences in the Southern states and included many detailed observations about the Sandhills in the vicinity of Fayetteville. Olmsted cast the character of the Sandhills population in a rather disparaging light. In his journal, Olmsted (1904[1856]:388) recalled:

The negroes employed in this branch of industry [i.e., naval stores production], seemed to me to be unusually intelligent and cheerful. Decidedly they are superior in every moral and intellectual respect to the great mass of the white people inhabiting the turpentine forest. Among the latter there is a large number, I should think a majority, of entirely uneducated, poverty-stricken vagabonds...without habitual, definite occupation...They are poor, having almost no property but their own bodies...

Olmsted (1904[1856]:390) further noted that there were few wealthy planters in the area and went on to describe the region's white yeoman farmers and noted:

The majority of what I have termed turpentine farmers—meaning the small proprietors of the long-leafed pine forest land, are people but a grade superior, in character or condition, to these vagabonds. They have habitations more like houses...without windows of glass, but with a few pieces of substantial old-fashioned heir-loom furniture...fewer dogs; more swine, and larger clearings for maize, but no better crops than the poorer class. Their property is, nevertheless, often of considerable money value, consisting mainly of negroes, who, associating intimately with their masters, are of superior intelligence to the slaves of the wealthier class.

Despite such value-laden comments, it is clear that life in the pine barrens of the Sandhills was austere and rather harsh for the average person who simply lived on the marginal lands of the sand barrens. As one later historian (Evans 1967:13) noted of a similar post-Civil War account: “If we delete the writer’s value judgments, what emerges from this account is a description of a mode of life that prevailed among countless backwoods whites.”

Olmsted (1904[1856]) indicated that the enslaved black population of the Sandhills was rather low, when compared to populations in Virginia and South Carolina. Although African descent slave populations in the area never reached the levels found in the more fertile regions of the South, the enslaved population of the Sandhills dramatically increased during the Antebellum period. Although slaves were more prevalent in the agriculturally rich sections of the Lower Cape Fear River valley, their proportion decreased in relation to the white population in the Sandhills. In 1790, the ratio of black slaves-to-free whites was approximately one-to-four in Cumberland County. By 1850, the white population had approximately doubled, but the population of enslaved blacks had more than tripled. According to 1850 census data, the ratio of enslaved blacks-to-free whites was nearly two-to-one. While the history of the region’s free black population is relatively unknown, census records further indicate that freedmen made up approximately 5 percent of the population of Cumberland County in 1850. Since ward statistics for each county were not recorded until 1870 (Clement et al. 1997), the geographic distribution of the free and enslaved black population within the Sandhills during the Antebellum period is not well understood.

Olmsted (1904[1856]) made a number of interesting observations about the free and enslaved black community in the Sandhills. He wrote:

...cotton is rather less productive than in the others [states], in an average of years. Negroes are, therefore, in rather less demand; and their owners oftener see their profit in employing them in turpentine orchards than in the cotton-fields.

It is apparent from Olmsted's account that enslaved blacks in the Sandhills enjoyed a certain degree of autonomy and social integration, as compared to enslaved communities in other regions along the Atlantic seaboard (e.g., South Carolina, Virginia, Georgia). On the outskirts of Fayetteville, Olmsted (1904[1856]:398) encountered a large temporary camp of teamsters and traders where he found "...groups of white men and women and negroes cooking and eating their suppers (black and white from the same kettle, in many cases)." As a general observation, he further observed:

The slave more frequently appears as a family servant—a member of his master's family, interested with him in his fortune, good or bad. This is a result of less concentration of wealth in families or individuals, occasioned by the circumstances I have described [i.e., "poverty of the soil," "expense of reaching market," etc.]. Slavery thus loses much of its inhumanity (Olmsted 1904[1856]:408).

Transportation

With further "urban development" (i.e., Fayetteville) and economic/population growth in the Sandhills, came the addition of a modest industrial base and greater output of agricultural and forestry products through the eve of the Civil War. When the railroads later bypassed Fayetteville in the 1830s, a few of the area's major roads were upgraded with a planked surface. The longest plank road was the Fayetteville and Western Plank Road that extended 129 miles from Fayetteville to Salem, North Carolina (Sharpe 1961; Wellman 1974). The twelve-foot wide plank roads were elevated and bordered by deep drainage ditches. Local planters principally provided labor for the construction by hiring out slaves from the surrounding plantations (Wellman 1974). Maintenance of the plank roads was largely abandoned during the Civil War. However, these roads, combined with well-developed riverine shipping facilities, further ensured Fayetteville's place as the regional transportation and commercial hub (Johnson 1977; Olmsted 1904[1856]; Tullos 1989).

The road system connected raw materials from the backcountry to both processing facilities (e.g., mills, distilleries) and the major navigable water routes in the vicinity of Fayetteville. The road system provided additional routes, other than waterways, to move finished products to the coastal ports (i.e., Wilmington and Brunswick) for exportation. Despite the recorded evidence of such road improvements, inland travel conditions remained rather abysmal (Olmsted 1904[1856]; Watson 1998). On his tour of the Southern states in 1853, Frederick Law Olmsted passed through the Sandhills as he traveled on the Raleigh-to-Fayetteville Road. Of the stage and wagon road, Olmsted (1904[1856]:367–368) noted:

The country, the same undulating pine forest, the track tortuous among the trees, which frequently stood so close that it required some care to work between them. Often we made detours from the original road to avoid a fallen tree, or a mire hole, and all the time we were bouncing over protruding roots and small stumps. There was but little mud, the soil being sand, but now and then a deep slough. In one of these we found a wagon, heavily laden, stuck fast, and six mules and five negroes tugging at it.

Later, as he neared Fayetteville, Olmsted observed other stalled coaches and wagons. He encountered and described numerous stockpiles that contained several thousand barrels of abandoned pine rosin. As he witnessed such waste, Olmsted marveled at the condition of the roads and suggested that the poorly developed regional economy was a direct result of the badly maintained road system (Olmsted 1904[1856]).

With the exception of the region's major plank roads, the Sandhills road system was apparently marginal under the best of circumstances. As such, waterborne transportation continued to play a key role in the settlement and economic development of the Sandhills through the end of the Antebellum period (Johnson 1977; Watson 1998). Since most of the land immediately adjacent to the deeper and wider navigable streams was largely occupied during the Colonial era (Meyer 1961), Antebellum period settlement was concentrated in the upland areas well away from the major regional rivers such as the Cape Fear, Upper Little and Lower Little Rivers. Before the turn of the nineteenth century, many of the Cape Fear River's upland tributary streams were naturally choked with fallen trees and other debris. After the Revolutionary War, intensive efforts were undertaken to improve the navigability of the interior waterways (Johnson 1977; Watson 1998). As noted by Johnson (1977:15), "...by the opening of the nineteenth century virtually every little stream was cleared

of obstructions so as to accommodate small boats and flats, giving many farmers located off the large streams access to water transportation.” Fayetteville, situated at the practical head of steamboat navigation on the Cape Fear River, boasted an extensive complex of wharves, warehouses and other shipping related facilities by mid-century (Johnson 1977; Oates 1950).

A variety of locally constructed watercraft types were utilized on Sandhills waterways. Dugout canoes and split-keel periaugers were used in the narrow creeks and streams, while larger, shallow-draft pole boats and rafts were operated on the larger rivers. Such manually powered workboats dominated the Cape Fear River until the late 1830s, when steamboats became conspicuous as transport vessels (Watson 1998). On the smaller rivers and streams, flats and canoes were used throughout the Antebellum period (Crittenden 1931; Johnson 1977). The first steamboat to make the Fayetteville-to-Wilmington run, the *Henrietta*, was built at Fayetteville in 1818. Throughout the Antebellum period, a number of steamboat companies were founded in Fayetteville where at least twenty steam-driven transport vessels were constructed (Johnson 1977). By 1854, five steamboat lines operated on the Cape Fear River and at least fifteen steamers regularly made the Wilmington-to-Fayetteville run (Watson 1998). These vessels primarily carried naval stores, ginned/milled cotton products, grain and coal to Wilmington for export. On the return voyage from Wilmington, the steamers delivered salt, sugar, coffee, farm produce, molasses and various manufactured goods to Fayetteville merchants (Johnson 1977; Olmsted 1904[1856]). Although all such vessels transported passengers, steamboat company profits were mainly derived from the commercial shipments (Johnson 1977). With the development of a regional railroad system in the 1850s, riverine transportation, as the primary means of agricultural and forestry products shipping, began a long, slow period of decline.

Agriculture and Natural Resources Exploitation

A small cotton spinning industry, primarily fueled by the need to process cotton grown in the Piedmont, developed in the first decades of the nineteenth century. Antebellum period cotton production in the Sandhills was rather minimal; only 12,000 acres of Cumberland County land was cleared for cotton planting compared to 60,000 acres cultivated for corn production (Parker 1990). Purportedly, the Sandhills' first substantial cotton planter was Governor Benjamin Williams, who, in 1801, planted a cotton crop on his estate “Retreat” (“House in the Horseshoe”) (Wellman 1974). Most of the cotton produced in the region was likely grown on the periphery of what is now Fort Bragg where more agriculturally

productive soils can be found (USDA 1984). Such was the case with Governor Williams's plantation, which was located on the far western edge of the Sandhills where richer, Piedmont-Sandhills transitional soils are presently found. Although small pockets of quality soils can be found on Fort Bragg, the area is primarily capped with soils that will only support moderate crops of tobacco or corn (USDA 1984). As Olmsted (1904[1856]:377–378) observed in 1853:

In the region in which true turpentine-trees grow, indeed, there is no soil suitable for growing cotton; and it is only in the swampy parts, or on the borders of streams flowing through it, that there is any attempt at agriculture. The farmer, in the forest, makes nothing for sale but turpentine, and when he cultivates the land, his only crop is maize.

While large-scale agricultural production for export was still limited in the Sandhills, most rural families continued to tend small plots of corn and/or kitchen gardens for family use. Apparently, large-scale, slave-holding turpentine producers grew few food crops and often imported corn and salt pork products, to feed both their families and their slaves, from other areas of the country (Olmsted 1904[1856]). The variety of vegetables grown by the average farmer was limited, perhaps due to the poor soil conditions. Domestic livestock, primarily chickens and pigs, as well as cattle and sheep, were raised for subsistence purposes (Evans 1967; Olmsted 1904[1856]). On his 1853 journey, Olmsted (1904[1856]) commented on the ubiquity of salt pork in various forms and the limited diversity of foodstuffs beyond corn and pork. At a stagecoach stop, described as a “plantation,” along the route from Raleigh to Fayetteville he was served “...five different preparations of swine's flesh, and two or three of corn, most of them just cooked; the only vegetable, pickled beets” (Olmsted 1904[1856]:359). In the average kitchen garden, domesticates were not particularly diverse. Olmsted (1904[1856]:388–390) further observed: “They will cultivate a little corn...a few roods of potatoes, cow-peas, and coleworts...you will find no vegetable but what they call ‘collards’ (colewort) for ‘greens’.” These domestic food sources were typically supplemented with fish, game, wild fruits and honey (Evans 1967; Olmsted 1904[1856]).

Whereas draft animals, primarily mules, were commonly used on small farms, the farming equipment was apparently rather crude. As in the colonial era (Meyer 1961; Schaw 1939), the Antebellum farmers' ownership of plows and expensive agricultural equipment in Sandhills was apparently limited to the few wealthy planters. In 1853, Olmsted (1904[1856]:358) observed:

Stopping frequently, when I came to cultivated land, to examine the soil and the appearance of the stubble of the maize—the only crop—in three different fields I...found the stalks had stood, on an average, five feet by two feet one inch apart, and that, generally, they were not over an inch in diameter at the butt. In one field...I examined a most absurd little plough, with a share not more than six inches in depth, and eight in length on the sole, fastened by a socket to a stake, to which was fitted a short beam and stilts. It was drawn by one mule, and its work among the stumps could only be called scratching.

A local farmer told Olmsted that, on average, corn crops generally yielded about 15 bushels of corn per acre. On particularly poor agricultural land, corn yields only averaged 5 bushels per acre. Alternately, reclaimed swamp lands, as Olmsted was advised, yielded as much as fifty bushels of corn per acre (Olmsted 1904[1856]:358, 378). By contrast, the US Soil Conservation Service estimates an average potential corn yield of 63 bushels per acre for the Blaney-Gilead-Lakeland soil complex. This is the soil complex that is most commonly encountered on Fort Bragg. Such crop yields are only expected when crop lands are highly managed. On the southern periphery of Fort Bragg, Wagram-Faceville-Norfolk complex soils are commonly found. Under the proper conditions, these loamy sands can potentially yield over 100 bushels of corn per acre (USDA 1984).

Although cotton planting was never particularly extensive in the region, cotton ginning, spinning and weaving became a substantial industry in the Sandhills. In Moore County alone, there were 600 looms in operation as early as 1810. At that time, looms were principally operated as part of a cottage industry system (Wellman 1974:46). The first Cumberland County mill was built in 1824 and there were seven listed in the county by 1852 (Sharpe 1961). By the end of the Antebellum period, large factory mills, such as the Lower Little River Mill, Hope Mills (ca. 1831), and Beaver Creek Mills, were built (Sharpe 1961). The construction of the mills stimulated the development of small communities centered on the manufacturing operations. The cotton processed by these various operations, however, largely originated from the Piedmont. The importation of cotton and other raw materials from outside the Cumberland County-Fayetteville area was made possible by the combined riverine-roadway transportation system that connected the Sandhills to the interior Piedmont (Johnson 1977; Parker 1990; Sharpe 1961). Other small-scale Antebellum industries in the Sandhills included a gun making operation, dozens of liquor distilleries and gunpowder plants (Wellman 1974). In addition to the region's ubiquitous farmers, planters, and naval stores producers, other Antebellum occupations included merchants, blacksmiths, carpenters, coopers, millwrights, tailors, weavers, hatters, cobblers, miners, mechanics, wagon and coach makers, wheelwrights, inn

and tavern keepers, newspapermen, merchants, doctors, lawyers, teachers and preachers (Wellman 1974).

Given the ready availability of the region's most prominent raw material, the longleaf pine, turpentine production, in terms of cash value, became the region's leading industry. Before the nineteenth century, naval stores production in North Carolina generally focused on gum (crude/raw sap) extraction and tar, pitch or rosin production (Butler 1998). Although some quantity of turpentine was distilled in North Carolina in the colonial period (Brickell 1969[1737]), most of the large-scale turpentine distillers were located in the northern colonies until the early 1800s. With the increased demand for turpentine as a fuel component for "spirits of turpentine" or "burning fluid" for table lamps after the 1830s, increased prices for distilled pine products stimulated local producers to invest in distilleries (Butler 1998; Olmsted 1904[1856]). In addition to the increased consumption of lamp fuel, an increase in the demand for turpentine-based paints and varnishes in the early 1800s further stimulated growth in the American turpentine distilling industry (Harmon and Snedeker 1997). In the Sandhills around Fayetteville, Olmsted (1904[1856]:384) noted that there were a number of large "...custom distilleries, owned by those who make distilling alone their business." In other instances, Olmsted described the smaller, but ubiquitous "forest distilleries" that were operated by landowners who extracted and processed pine sap on a large-scale.

Pine tar was produced in a larger volume than any other "liquid" longleaf pine product. Pine tar is produced by burning pine logs and collecting the resulting fluids. In the Sandhills during the colonial and Antebellum periods, tar was primarily produced in earthen kilns or pits dug into clayey sand or sandy clay subsoils on hilltops. In order to collect the residual tar created during the burning process, a shallow v-shaped trench, or throat, was dug at the bottom of the kiln basin. As the tar flowed from the burning logs into the throat, it emptied into a collecting pit where workers ladled the product into shipping barrels. Such methods typically ensured that the tar product was grossly contaminated with sand, pebbles and other debris (Butler 1998; Olmsted 1904[1856]; Tidewater Atlantic Research 1988). In other tar producing countries, such as Sweden, different extraction methods were developed to produce tar in a purer form. Accordingly, the bulk of North Carolina tar production was sold at a significantly lower price to both local and northern distillers. By the mid-nineteenth century, iron tar ovens were developed to reduce the contamination problem. Although Sandhills tar producers were

apparently aware of the poor quality of their products, few iron ovens were introduced to the region before the Civil War (Olmsted 1904[1856]).

With the exception of gum extraction and turpentine production, the naval stores and timber industry focused on extractive processes that were not particularly sustainable. Despite the number of local distilleries, unprocessed longleaf pine sap was regularly collected and shipped out of the Sandhills to be processed, but the raw product was of minimal market value. Tar and pitch were of higher market value and required the least amount of capital to produce. The tar and pitch production process was rather labor intensive and required the actual consumption of the forest (Butler 1998; Evans 1967). Turpentine production, on the other hand, relied upon the raw gum or sap that was periodically tapped from the trees. With the cutting and boxing techniques used to extract pine sap during the Colonial and Antebellum periods, trees could be tapped for ten or twelve years before they were “spent.” At such time, the exhausted trees were cut to produce tar or pitch products. Much later in time, a more scientific method of sap extraction was developed in the early twentieth century. The general use of such advanced tapping methods, whereby sap producing trees could be exploited almost indefinitely, were not employed in the Sandhills until well after the Civil War. Despite poor forestry management, however, the longleaf pine forests in southeastern North Carolina were not significantly diminished to any degree that threatened the Sandhills naval stores industry until the 1880s (Butler 1998; Evans 1967). The gradual decline of the naval stores industry in southeastern North Carolina will be further discussed in the following section.

Semiannual, regional fairs were apparently an important aspect of the regional economy. Referred to locally as “Scotch fairs,” members of scattered rural communities gathered in the spring and fall season each year to either purchase imported goods or to sell their products (Kelly 1998). With the exception of a few major roads that were planked, road conditions in the Sandhills were often very poor and a trip from the countryside into town could easily take several days. Semiannual fairs served to ameliorate travel problems and provided a medium where community relations and social bonds could be initiated or reinforced. A local observer described the fair at Laurel Hill, North Carolina, a Sandhills community located approximately twenty-five miles southwest of Fort Bragg. He noted:

The first fair was held in 1783...The fair was begun when there was no railroad in the world and no steamboat. Goods from foreign points were

brought into the interior of the country to the head of navigation on the rivers in small boats. The nearest inland port was Cheraw in South Carolina on the Pee Dee River, and the other river port was Fayetteville, N. C. on the Cape Fear. It was chartered by the State of North Carolina to run as long as the water in Jordan's creek runs. Covered wagons came from the mountains with apples and other produce. There tanners with their leathers, hatters with their hats, tailors and shoemakers, those who had wool to sell, the gingerbread women with their cakes came to sell. Horse racing was a major diversion, there were booths for betting, booths for sale of wine, whiskey, cakes and other food...In 1873, Rev. A. N. Ferguson circulated a petition to the General Assembly and had the fair abolished (Kelly 1998:98–99, citing Carmichael 1935).

Historic Structures and Habitation Sites

Although a number of extant Antebellum structures in the Sandhills have been recorded or evaluated by historians and architects (e.g., Bishir and Southern 1996; Kelly 1998), archeological investigations of non-extant structures are comparatively limited. As noted by Olmsted, log structures were still commonly constructed and inhabited by lower class whites, freedmen and slaves. In addition, log structures were constructed on farms or plantations and used for storage buildings, smoke houses, barns and naval stores operations. Log homes, outbuildings, churches and schools from the period continued to survive and were apparently used well into the early twentieth century (Hairr 1998; Kelly 1998). Substantial, plank-on-frame construction houses were most commonly built by middle and upper class planters and naval stores producers in rural areas and by merchants or professional class residents in the urban communities of the Sandhills. Sandstone and brick were used to construct foundation piers, hearths and chimneys, but stone or brick walled structures were rarely built outside the environs of regional towns such as Lillington and Fayetteville until well into the twentieth century (e.g., Bishir and Southern 1996; Hairr 1998; Kelly 1998; Meyer 1961).

In 1811, an anonymous observer noted of the regional housing: “the Major part of our buildens (sic) are Log Houses—but there are a number of Elegant & commodious buildens (sic) in the County & a taste for improvements in this way is becoming universal” (Wellman 1974:47). By mid-century, little had changed in the rural areas of the Sandhills. As Olmsted (1904[1856]:359) observed of the average Sandhills home: “I do not think I passed, in ten miles, more than half a dozen homesteads, and of these but one was above the character of a hut or cabin.” He further described one structure as:

...a large log-cabin, of two rooms, with beds in each room, and with an apartment overhead, to which access was had by a ladder...The furniture of the house was more scanty and rude than I ever saw before in any house, with women living in it, in the United States. Yet these people were not so poor but that they had a negro woman cutting and bringing wood for their fire (Olmsted 1904[1856]:368–369).

Despite Olmsted's (1904[1856]) observations, plank-on-frame structures were apparently quite common to the region by the 1830s. Numerous photographs of private homes, meeting houses, mills and other structures indicate a proliferation of plank-on-frame structures built after the early 1830s (e.g., Hairr 1998; Kelly 1998; Oates 1950; Scott and Hunt 1998).

To date, few Antebellum house sites have been intensively investigated on Fort Bragg property. National Park Service archeologists tested the Charles Monroe House (ca. 1835) site in 1993–1994 (Scott and Hunt 1998). Archeological data suggested that the original house was a frame-constructed structure, elevated on sandstone foundation piers, with a single brick fireplace and chimney. Although the house site was not completely exposed to determine the actual foundation plan, nail type/frequency analyses did indicate an approximate structure size less than 978 square feet (Scott and Hunt 1998:44).

Churches and Religious Activities

As the colonial period churches continued to expand, a number of the early log cabin style meeting houses and churches were replaced with more sophisticated and imposing edifices during the Antebellum era (Kelly 1998). While organized congregations and permanent houses of worship were well established in many rural communities, the geographic dispersion was often too great to meet the needs of the more remote Sandhills families. Accordingly, itinerant preachers and traveling ministers continued to serve in the area well into the mid-nineteenth century (Patterson and Carswell 1925). In the region circumscribed by Fort Bragg, at least ten historic churches existed in the nineteenth century (Loftfield 1979:Figure 2), but little is known about these churches (e.g., denomination, founding dates) save the Long Street and Sandy Grove Presbyterian churches.

The colonial era Long Street Church building was abandoned and demolished after "...a rather plain and unattractive house..." was built in the early 1800s (McLeod 1923:14). The third Long Street structure, a spacious, two-story Greek Revival-style building, was erected some time between 1845 and 1848 off the original Yadkin Road (McLeod 1923). In 1852, Sandy Grove Presbyterian Church was founded by a group of

second and third generation Scot Highland descendants. The single-story, Sandy Grove church was constructed off the Plank Road in 1854 (Patterson and Carswell 1925). Both churches held regular services until the properties were purchased and taken over by the US Army in 1922. The two buildings and adjacent cemeteries are now protected and maintained by the US Army and annual reunions continue to be held at both churches by descendants of the nineteenth century congregations. Although other church structures existed on Fort Bragg through the early 1920s, the US Army razed the buildings sometime after 1923.

As an aside, it is interesting to note that the Highlander founded Presbyterian churches were the Sandhills' last-bastions of Gaelic language and printed literature in North Carolina. Gaelic, the native tongue of the Scot Highland immigrants, was regularly spoken in church services through the Antebellum era (Kelly 1998). While many Scots were bilingual, a visitor to the region in 1828 noted "...that so many of the people in Fayetteville and 'for four and twenty miles round' understood only Gaelic" (Lefler and Powell 1973:93). Although many regional Presbyterian churches offered two sermons each week, one in English and one in Gaelic, through the 1870s, Gaelic presentations became sporadic events after the Civil War. Whereas Gaelic was obviously spoken by native Scot immigrants, the language was not taught in Sandhills schools during the Antebellum period (Kelly 1998).

Although Colonial period education was primarily restricted to in-home schooling in the Sandhills, formal schools were erected and maintained early in the Antebellum era. In the late 1780s, John Graham, a roving schoolmaster, built a number of schools in Cumberland County. One was located just west of Fort Bragg near the present day town of Aberdeen, while another was eventually constructed on the Long Street Church property sometime before 1800. This school later evolved into the Long Street Academy, a preparatory school that achieved a degree of regional prominence by the eve of the Civil War (McLeod 1923).

The Civil War (A.D. 1861–1865)

As in all areas of the South, the Civil War brought both the destruction of infrastructure and dramatic sociopolitical change to the region. After the fall of Fort Sumter to Confederate forces in April of 1861, North Carolina began to prepare for war against the Union. Although the State did not formally secede until May 20, 1861, plans for coastal defenses were initiated in April of that year. On April 26, 1861, the State Military and Naval Board appointed Brigadier General Theophilus Holmes "Commander of the Coast Defenses of the State," (Ashe 1971[1925]; Hill

1926; King Collection 1902b, 1902c). At the time of Holmes' appointment, North Carolina had no standing, well-trained, well-organized, state militia. In reference to general conditions within the State, Ashe (1971[1925]:646–647) observed:

The Confederate government was a sudden creation, the development of unexpected circumstances, and it had none of the resources of established governments, no arsenals of construction, and no magazines of supplies...The difficulties and obstacles in the way of preparation of remote batteries (i.e., forts) at inaccessible points were almost insuperable.

On the existence of pre-war infantry, artillery and cavalry units within the State, Manarin (1962:1) noted:

When the war broke out, the only military organization in the State, aside from a few volunteer companies, was the Militia. This organization embraced all white males between 18 and 45. Because of a long period of peace, the Militia was only organized on paper and had no practical existence.

To remedy the troop problem, the State Legislature passed an act on May 1st that authorized Governor Ellis to raise ten regiments of State Troops (three years or duration of war service). Pre-secession laws further allowed the state to raise an unlimited number of independent volunteer regiments for twelve months service. Initially, the three-year regiments were designated as "State Troops," while the twelve-month units were referred to as "Volunteers" (Barrett 1963; Gordon 1982[1901]; Manarin 1962). Due to the tremendous confusion created by the dual system, all North Carolina units, except for the first ten regiments of State Troops, were later reorganized with new regimental designations by November of 1861 (Barrett 1963; Gordon 1982[1901]; Manarin 1962). As was the case in other regions of the State, many inhabitants of the Sandhills did not wholeheartedly support secession. When the State ultimately sided with the Confederacy, however, the local population immediately responded by raising a number of volunteer units for North Carolina and Confederate States service (Wellman 1974).

As war seemed imminent, Governor Ellis ordered the State Militia to seize the Federal arsenal in Fayetteville. As one of the first Confederate military moves in North Carolina, the Fayetteville Arsenal was taken without a shot fired by North Carolina troops on April 22, 1861. The arsenal stocks included 37,000 small arms, a battery of field guns and small arms ammunition. Perhaps more significantly, the arsenal included machine

houses and facilities to produce Springfield pattern rifle-muskets and various other types of small arms and ammunition. In June of 1861, the State relinquished control of the arsenal to the Confederate government (Barrett 1963; Oates 1950).

A notable military action in the Sandhills was the Battle of Monroe's Crossroads. This skirmish is well documented and the battlefield location is precisely known. On March 10, 1865 three Confederate divisions attacked a large Union encampment that was part of General William T. Sherman's Army. Although the Confederates were eventually routed, both sides sustained an approximately equal number of casualties. There are five known cemeteries containing Union dead from this battle; the majority of the Confederate dead were buried in the cemetery at Long Street Church (Belew and Scott 1997; Scott and Hunt 1998).

Wilmington fell to Union forces after the fall of Fort Fisher in February of 1865. As Sherman advanced on Fayetteville from the south in the early spring, the Confederate government desperately ordered the Home Guard to round up food supplies and conscripts for a last ditch stand against the vastly superior Union force. On the move through southern North Carolina, with overextended supply lines, Sherman's advance units plundered the countryside for food provisions and spitefully destroyed many farmsteads and plantations along their route. In the Sandhills, many white and black residents looked upon the activities of both Sherman's forces and the Confederate Army with equal fear (Barrett 1963; Evans 1967; Oates 1950). As refugees from the Upper Cape Fear valley sought the perceived protection of occupied Wilmington, one historian observed:

An "immense throng of white and black" refugees had to make the ninety-mile journey from Fayetteville to Wilmington on foot. Fleeing from the desperate Confederate Home Guard recruiting bands, who were beating the bushes of the back country for fresh meat for their heroic last stands; fleeing from the man-made famine that galloped northward with Sherman's foragers; fleeing from the vengeance of late masters, from the communities where they had been known as slaves, refugees of all description merged on the Cornwallis Road leading to Wilmington, where they presented "a most wretched and pitiable sight" (Evans 1967:37-38).

As with most areas in the South, much of the Lower and Upper Cape Fear region had been economically devastated by the Civil War. A regionally significant event was the razing of the Fayetteville Arsenal. In 1865, General Sherman's forces burned all structures associated with the railroad, arsenal shops and armaments factories (Oates 1950). In addition to the loss of the region's only major heavy industrial complex, smaller

factories in surrounding communities suffered as a result of the war. The textile (cotton) industry, a major economic force in Cumberland County before the Civil War, was largely destroyed when Sherman's troops burned six Cumberland County mill facilities on their march through the Sandhills. After the war, it took decades for the textile business to recover its previous status as one of the region's leading industries (Sharpe 1961). Due to lack of funding and manpower to maintain the transportation network, the regional economy was further compromised as a result of the war. The Plank Road to Salem suffered from lack of maintenance, as wagonload after wagonload of Confederate military supplies, guns, and ammunition were shipped to and from the region (Oates 1950).

The naval stores industry, in particular, suffered when the Confederate government seized most of the pre-war turpentine stills to be used as industrial raw material (Evans 1967). The copper, brass and iron parts from the turpentine stills were apparently recycled and used in the arsenals and factories for the production of artillery ammunition (e.g., fuzes, projectiles), small arms (e.g., rifle/pistol parts, percussion caps) and other military accoutrements (Vandiver 1952). In order to deny the enemy spoils of war in 1865, the Confederate government ordered the military to burn large stockpiles of cotton and naval stores. The slash and burn policy was further applied to railroad and manufacturing facilities which were partially destroyed by Confederate troops who retreated before Sherman's inexorable march through the Carolinas. Unfinished demolition activities were readily completed by Sherman's troops when they passed through the Sandhills (Evans 1967).

Reconstruction and Early Twentieth Century Regional Development (ca. A.D. 1865–1917)

Most whites were reluctant to accept the societal changes that resulted from the conditions of surrender in the Civil War. Life did continue in the South, albeit with much social and ethnic tension, particularly after the turn of the century. White southern society was forced into "a world turned upside down" no matter what ethnic or economic background one identified with and the Sandhills was no different (Evans 1967). Incidences of resistance to the new order occurred when the local government in Fayetteville attempted to impose Antebellum Slave Codes after the Union troops departed the area. Former slaves sought the aid of the Freedman's Bureau to counteract this effort (Parker 1990). Change and acceptance of the new social order came slow. Many former slaves continued to live on the same plantations and farms where they had been enslaved. In the first months after the war, freedmen typically poached or squatted on the lands owned by white farmers and planters. In subsequent years, most

freedmen farmed as tenants or tacitly became sharecroppers while other sought work as artisans and laborers in regional towns. Accordingly, white landowners continued to retain a certain degree of control over the lives of the freedmen throughout the later nineteenth century (Evans 1967; Wellman 1974).

In much of the rural South, the failed Reconstruction Plan initiated a trend toward smaller farms where sharecroppers and tenant farmers dominated local agricultural and naval stores production. Thus populations were dispersed in many areas. Landowners who formerly relied on slave labor were forced to adjust to the realities of Emancipation. As many observers noted, slavery, in most instances, proliferated poor agricultural practices in the South. The use of farm machinery and the implementation of scientific land management practices were minimal on most plantations (Evans 1967; Olmsted 1904[1856]). As such, few large plantation owners were able to make the transition to free labor and make a profit. This led to the break up of the plantation system and the development of the tenant and sharecropping systems that became ubiquitous in the rural South through the Depression era (Evans 1967).

From the end of the Civil War until the turn of the century, farms and pine plantations in the Sandhills area went through myriad changes, from tenant and sharecropping operations to, eventually, larger cash-crop operations owned by both black and white farmers (Parker 1990). Such farm and tenancy sites will likely be the most prevalent type of historical archeological site on Fort Bragg. With the implementation of more advanced land management practices (i.e., fertilizing, deep plowing) cash crops, such as tobacco and cotton, yielded a higher financial return than ever before. In turn, regional cotton ginning mills and spinning plants profited extensively and became familiar industrial sites in Sandhills towns. Companies responsible for processing these cash crops for both domestic and export markets were the cornerstones of the limited industrialization in the area. Post-war rebuilding efforts, economic revitalization and population growth in the Sandhills led to the founding of new communities and development of new population centers in previously rural areas. In 1911, Hoke County was carved out of the western portion of Cumberland and a northeastern portion of Robeson counties. Hoke County, named in honor of Confederate Major General Robert F. Hoke, was centered on the town of Raeford which had been incorporated in 1901. Upon its formation, the new county boasted 8,000 residents, many of whom were of Scot Highlander descent (Corbitt 1950).

Population and Ethnicity

The shift from large to small, less labor intensive, farm operations forced many potential farm laborers to seek work in the industrial areas. In many rural regions of the South, this change in economic infrastructure spurred some migration to larger cities in both the North and the South where factory jobs became more abundant during America's Industrial Revolution. This transformation played a large role in the overall Southern population decline. Apparently, this was not the case in Cumberland County where population statistics reveal a different pattern. Despite the exodus to the industrial cities over many regions of the South, the population of Cumberland County doubled between 1870–1910. Cumberland County's total population rose from 17,000 to over 35,000 during the post-war period through 1910; of that number, approximately 56 percent were Euro-American and 44 percent were African-American. The 1870 census was the first in the county's history to list individual ward statistics and blacks by family name (Parker 1990). Despite the countywide growth, the city of Fayetteville's population rose less than 5 percent between 1860 and 1900. One could extrapolate from this data that rural opportunity in Cumberland County was abundant. The resurgence of the naval stores industry, further development of large cotton mill operations to process Piedmont cotton, and the implementation of the tenant/sharecrop farming system likely stimulated much of the population growth in the Sandhills.

Transportation

Although a limited system of railroad lines was constructed in the Sandhills before the Civil War, much of the railroad infrastructure was destroyed at the end of the war, either by invading Union forces or by retreating Confederate troops. In the decades after the war, the railroads slowly returned to the region. In an effort to seek out and develop new markets, railroad companies reportedly sent agricultural and industrial specialists into the Sandhills to evaluate the social, economic and environmental conditions. Apparently, the reports were glowing, as various observers took note of the region's mild winter climate. Entrepreneurs soon followed to construct health spas, sanitariums and resorts in the Sandhills (Haynes 1916). A comprehensive railroad network rapidly developed in the period between 1870–1900 and remote communities were soon directly interlinked with regional urban centers such as Fayetteville, Raleigh and Wilmington. As the railroad system flourished and the naval stores industry declined in the last decade of the nineteenth century (Evans 1967), the frequency of steamboat runs on the Cape Fear waned dramatically (Johnson 1977). By the end of World War I, railroad transport had eclipsed steam navigation on the Cape Fear and

only a handful of steamers continued to cater to Sandhills passengers who needed to make the Fayetteville-to-Wilmington run (Johnson 1977).

Agriculture and Natural Resources Exploitation

Although several cash crops (i.e., tobacco, cotton, peaches) were more intensively developed in the Sandhills after the Civil War, longleaf pine products remained king for a few decades. After the Civil War, turpentine and rosin, in particular, remained in high demand as major components of many industrially produced products (e.g., pharmaceuticals, paper, varnishes, paints, solvents, soaps, lamp fuel) (Butler 1998; Evans 1967). The return of the naval stores industry was, in no small way, the result of policies implemented by Union General Joseph R. Hawley, commander of the Military District of Wilmington, which included Cumberland County. He issued “turpentine and tar” privileges to both displaced white workers and black freedmen who were willing and able to produce. The production privileges were in the form of “leases” for the amount of land that a small-scale naval stores producer could effectively work with a paid crew of freedmen or white laborers (Evans 1967). Within months of the Confederate surrender, Evans (1967:60) noted:

The pine forests were soon humming with activity. Even before the railroads opened up, homemade barrels filled with tar were being loaded on crude log rafts lashed together with vines and floated down the creeks and rivers to Wilmington...It would not be long before the magic hands of the Piney Woods folk and the freedmen would be transforming pine sap into virtual rivers of sparkling turpentine.

A Wilmington newspaper account from August of 1865 took note of the phenomena:

The pine forests...swarm with laborers making turpentine and rosin. Everybody, white and black, who has nothing else to do which constitutes the majority of the people this year has gone into this business because of the small capital it requires. The consequence will be that an unprecedented quantity of naval stores will be brought to market this fall (Evans 1967:60).

Soon after the war, saw mills went into full production to cut lumber stocks needed to replace structures lost to military destruction and neglect during the war years. The rapid rebuilding and expansion of railroad lines in the post-war era led to the further destruction of the pine forests. Rot resistant heart-pine was preferred for railroad ties. As heart-pine forests were largely depleted in North Carolina by the early 1880s, rot-prone hardwoods were then used for railroad tie production. To enhance the

decomposition resistance of hardwoods, creosote (distilled coal tar/wood tar product) plants were built on the Lower Cape Fear to treat lumber for outdoor use (Evans 1967). Turpentine operations were soon revived and sixty-one turpentine stills were counted in Cumberland County in 1870 (Parker 1990). By the 1880s, Fayetteville merchants annually received for shipment some 18,000 casks of distilled turpentine and 60,000 barrels of rosin (Parker 1990). Tar was still produced in the region, but the traditional Sandhills tar production method ensured that much of the exported tar was of poor quality. The rapid consumption of the pine forests for pitch, tar and lumber products after the Civil War eventually led to the demise of the naval stores and lumber industry in the Sandhills by the end of the nineteenth century. As a result, many white and black laborers who called the Sandhills home were forced to travel by train to the longleaf pine forests of Georgia, South Carolina and the Gulf states to seek work. With the development of interior railroads in the pine forested South, previously untapped, virgin longleaf pine forests were opened up for naval stores exploitation in the 1880s (Evans 1967). Despite the gradual destruction of the pine forests, lumber mills reached their prime shortly after the end of the nineteenth century. Parker (1990) noted that 17 sawmills were active in Cumberland County on the eve of World War I.

In the Sandhills, naval stores producers were better able to make the adjustment to free labor than were the planters of the Lower Coastal Plain (i.e., producers of rice, corn and cotton) and Piedmont (i.e., producers of cotton and tobacco) (Evans 1967). Although some improvements were made to increase the efficiency of naval stores production in the late nineteenth century, the industry generally relied on a rather primitive form of technology that required limited capital investment in machinery. Longleaf pine land and a labor force were the two principal necessities required by the naval stores producer. Before Emancipation, slave owners had to keep their labor force in operation throughout the year in order to recoup their long-term investment. When market prices fell and profits were not realized, the enslaved labor force still had to be maintained with adequate clothing, shelter and food provisions. As such, year-round production was required to cover the cost of maintaining large groups of slave laborers. Alternately, when market prices for naval stores dropped in the post-war period, naval stores producers simply laid off workers and rehired them when prices rebounded (Evans 1967). As Evans (1967:252) noted:

The hands he [the naval stores producer] laid off could eke out a meager existence in the Wilderness until they were again needed. On the other hand, if a rise in prices called for an expansion in production, a long-term

investment in slaves no longer absorbed the bulk of his capital. The collapse of rice [on the Lower Cape Fear] had filled the woods with Negroes. He could now expand more rapidly since investment in wages brought about a much steeper increase in production. Railroads, lumber, and turpentine were not languishing because of emancipation.

With the judicious application of scientific land management practices developed after the Civil War, Sandhills soils were stimulated to produce higher crop yields than were generally possible in the Antebellum period. As one observer noted of the soil conditions: "...in the very heart of the Sandhills...the farmers who make corn and cotton the clay, have long scoffed at the sandy slopes where, so the joke runs, you can hear the cotton grunting trying to make a living in the poor soil. Too poor even to give a decent strand of grass" (Haynes 1916:27). Whereas cash crops, such as tobacco, cotton, peaches and grapes, were not particularly fruitful in the relatively sterile sands and clayey sands of the region, the intensive application of fertilizer and irrigation to the near sterile soils allowed land owners to shift from a focus on pine forest products, to a greater focus on agricultural resources produced for profit (Haynes 1916). With increased market accessibility brought about by the widespread development of the railroad in the later nineteenth century, cattle and dairy operations began to flourish in the rural communities of the Sandhills (Haynes 1916).

Historic Structures and Habitation Sites

The majority of the historic sites identified thus far on Fort Bragg properties are from the post-Civil War era. Given the historical record of continual population growth in the Sandhills from the 1740s throughout the Antebellum era, the variables that account for this apparent post-war settlement boom phenomena are not clear. Perhaps, the increased frequency of post-1870 habitation sites on Fort Bragg is related to the emancipation of enslaved blacks at the end of the Civil War. While many freedmen remained on or near former plantations in the southeastern region of the state during Reconstruction, many of the freed African-Americans fanned out from the largely defunct plantations in search of property and a new life (Evans 1967). Given the fact that most of the Sandhills lands are generally marginal where agriculture is concerned, it is likely that freedmen were able to acquire small parcels of land at a much more economical price than in the more fertile areas of the Coastal Plain or Piedmont. As such, cheaper land prices and the strong presence of the revived naval stores and lumber business in the aftermath of the Civil War likely attracted more black freedmen and displaced poor whites to the rural areas of the Sandhills.

Site data indicate that Reconstruction era building practices largely mirrored those of the late Antebellum period. Plank-on-frame construction was the most prevalent method of house construction, but log or split timber houses and agricultural buildings were built in the rural areas of the Sandhills after the turn of the twentieth century. A turn-of-the-century observer noted the presence of crudely constructed houses in the Sandhills. He stated: “The...motorist, as he bowls down the hillsides...will come suddenly upon a slatternly cabin with a curious chimney of clay and crossed sticks” (Haynes 1916:8–10).

Development of Fort Bragg (A.D. 1918-present)

In 1918 the United States War Department, while searching for areas suitable for year round artillery training, had land in the North Carolina Sandhills assessed and surveyed. A substantial tract of land was initially leased, with an option to purchase, and Camp Bragg was established. The camp occupied parts of four counties: Hoke, Moore, Harnett and Cumberland. Local laborers along with a significant contingent of migrant Cuban, Puerto Rican and Haitian laborers constructed most of Camp Bragg’s facilities between 1918 and 1919. The garrison support structures in the Cantonment were primarily temporary quarters built of wood. The original installation plan called for a cantonment area sufficient to support six artillery brigades.

After World War I, Camp Bragg's infrastructure plan was reduced to support two Regular Army artillery brigades and the Post was used to train both Regular Army and regional National Guard units. The War Department initiated the purchase of some 120,000 acres of Camp Bragg lands in the summer of 1921, but soon decided to close the facility. The garrison commander and local business and civic leaders advocated for the continued operation of the installation and the closure order was soon rescinded. In 1922, the Field Artillery Board, responsible for testing the Army's latest long-range weapons, moved to Fort Bragg from Fort Sill, Oklahoma. Later, in the same year, the camp was renamed Fort Bragg when it became a permanent Army post (Headquarters, Fort Bragg 1941 [hereafter cited as Fort Bragg 1941; Headquarters, XVIII Airborne Corps and Fort Bragg 1967 [hereafter cited as Fort Bragg 1967]; Sharpe 1961).

With the permanent military occupation of the land, many of the historic civilian structures (e.g., farmsteads, mills, churches, naval stores operations, etc.) were razed between 1918 and 1925. In 1925, a wildfire destroyed what remained of the pre-military structures, save two historic churches (Longstreet and Sandy Grove Presbyterian Churches), on Fort

Bragg when 90,000 acres of the Post burned. In the 1920s, permanent brick and masonry structures (e.g., officer's and non-commissioned officer's quarters, barracks, magazines, stables, administrative and support facilities, etc.) were built in the Cantonment area. These historic buildings, primarily Spanish/Mission Revival style structures, now comprise the "Old Post Historic District." During the Great Depression, Fort Bragg served as headquarters for District A of the Civilian Conservation Corps (CCC) and a large CCC camp was established near Mott Lake on the south side of Plank Road (Fort Bragg 1941, 1967; Sharpe 1961).

During the inter-war years, conservation minded Post commanders ensured that thousands of longleaf pines were replanted to replace those lost in the great fire of 1925. Although garrison strength was further reduced in the Depression era, infrastructure improvements were made throughout the 1930s. Additional brick and masonry structures (e.g., Post chapel, Post headquarters, Post hospital, etc.) were erected to replace many of the temporary wooden structures built between 1918 and 1920. Major landscaping projects were completed, a number of main streets and access roads were paved, and modernized sewer and drain systems were installed in the Cantonment (Fort Bragg 1941, 1967).

In the summer of 1940, there were only 5,450 soldiers stationed on Fort Bragg, but the Post was greatly expanded during World War II. Facilities to receive and train new recruits were rapidly constructed and Fort Bragg was soon able to process some 1,000 incoming soldiers on a daily basis. Reportedly, 700 sawmills in North and South Carolina supported the building boom that eventually led to the construction of approximately 3,000 temporary wooden structures (e.g., barracks, infirmaries, dental clinics, theaters, fire stations, clubs, etc.). Between the summer of 1940 and the spring of 1941, 1,000,000 board feet of lumber arrived on Post daily. During the World War II period, the training focus on artillery was broadened to include infantry, armor and airborne training operations (Fort Bragg 1941, 1967; Sharpe 1961).

Camp Mackall was established southwest of fort Bragg for the purpose of training airborne troops in late 1942. Although Camp Mackall is still operational today, much of the original training land was given to the State of North Carolina to form the Sandhills Game Land in 1949. Camp Mackall is comprised of portions of Moore, Richmond and Scotland counties. Both Richmond and Scotland counties lie on the western fringe of the Carolina Sandhills. By 1941, approximately 67,000 soldiers and trainees were stationed at Fort Bragg and Camp Mackall. The total civilian

and military population at the Post eventually reached some 159,000 individuals before war's end (Fort Bragg 1941, 1967; Sharpe 1961).

In the late 1940s, many of the facilities at Fort Bragg and Camp Mackall were abandoned in the aftermath of the postwar stand-down. The Post, however, soon came to be the home of the 82nd Airborne Division, after its return from Europe in 1946, and the V US Army Corps. During the Korean War, V Corps relocated to Germany and the XVIII Airborne Corps was reactivated at Fort Bragg. It was during this period that Fort Bragg was ascribed its status as the "Home of the Airborne." In 1952, the Army's first official unconventional warfare unit, the 10th Special Forces Group, was established at Fort Bragg; the 5th Special Forces Group (Airborne) followed on the eve of the Vietnam War in 1961. As the Vietnam War slowly escalated, Fort Bragg facilities were expanded with the addition of the Special Warfare Complex (Fort Bragg 1967; Sharpe 1961).

Since the end of the Vietnam War, Fort Bragg has been continually expanded and modernized with the construction of new facilities and new training land acquisitions in the 1980s and 1990s (Headquarters XVIII Airborne Corps and Fort Bragg 1993[hereafter cited as Fort Bragg 1993]). With the addition of the Northern Training Area and Overhills, a former Rockefeller family retreat, the Main Post area and adjacent training lands, including Camp Mackall, now encompass over 161,500 acres. Within this acreage, seven major airborne Drop Zones, four artillery Impact Areas, and 64 weapons Ranges are found (Headquarters, XVIII Airborne Corps and Fort Bragg 1998[hereafter cited as Fort Bragg 1998]).

Today, Fort Bragg is one of the world's premier military training installations. It is the home of the US Army's only airborne corps (XVIII Airborne Corps), the Army's largest support command (1st COSCOM), and the Special Operations Command. More than a military installation with a garrison of active duty troops, Fort Bragg is a community of more than 60,600 individuals. The population, comprised of 41,154 active military personnel, 11,354 dependents, and a civilian support force numbering 8,154, works together as a team to support the mission of the XVIII Airborne Corps and Fort Bragg. Fort Bragg, "Home of the Airborne," is dedicated to supporting America's contingency force through the development and maintenance of a world class Power Projection Platform. To ensure that this goal is realized under the best possible conditions, the soldier/civilian team works together continuously to improve training and the working and living environment of Fort Bragg's soldiers, families, and civilians (Fort Bragg 1998).

The historic archeological potential of the Fort Bragg properties has been largely untapped. Although a small number of historic sites have been identified (only 60 sites and occurrences to date) none have been extensively investigated. As noted in the introductory segment of this report, many significant research issues can be addressed by the investigation of historic sites at Fort Bragg. To date, little effort has been put into thorough archival research to acquire data that might be used to relocate historically known cultural sites. The issue is problematic, due to a pronounced lack of funding to pursue such research and the scattered nature of archival resources that exist in disparate collections around the state. The problem will not likely be resolved in the foreseeable future. However, some limited materials have been synthesized by historians, such as Meyer (1961), and can be employed to conduct productive surveys to record early historic period sites that undoubtedly left only ephemeral footprints on the land. The Cultural Resources Curation Facility at Fort Bragg has recently acquired detailed property maps that indicate the landowners and land tract boundaries that existed when the US Army purchased land to build Camp Bragg in 1918. These maps are an invaluable resources that can be utilized to conduct research on late nineteenth and early twentieth century archeological sites on Fort Bragg.

Data from archeological and historical investigations of the Monroe's Crossroads site (Scott and Hunt 1998), a Civil War battlefield, have been synthesized to produce an outstanding training aid in the form of a staff ride entitled, *Cavalry Clash in the Sandhills: The Battle of Monroe's Crossroads, North Carolina, 10 March 1865* (Belew and Scott 1997).

The staff ride is designed to place "...soldiers, well grounded in the theory of battle, on actual battle sites to study and critique the tactics and strategy of that engagement" (Belew and Scott 1997:1). As Belew and Scott (1997:12) further noted: the staff ride, "...one of the most powerful instruments available for the professional development of the US Army's leaders," is designed to "...guide professional soldiers through the most complex of intellectual exercises - the analysis of battle in all its dimensions." To date, over 500 copies of the Monroe's Crossroads staff ride (Belew and Scott 1997) have been distributed to officers and non-commissioned officers at Fort Bragg and other US Army installations in the Southeast. Many units have integrated the staff ride into their annual training plans and conduct the staff ride at Monroe's Crossroads independently or with the assistance of Cultural Resources Program staff members. To complement the text and illustrations found in Belew and Scott's (1997) staff ride, artifacts recovered from the battlefield investigation (Scott and Hunt 1998) are displayed at the Cultural

Resources Curation Facility to be viewed and studied by soldiers who participate in staff ride exercises.