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# CURRENT RESEARCH INTO THE PALEOINDIAN AND ARCHAIC PERIODS IN THE NORTH CAROLINA COASTAL PLAIN

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A decade ago, Ward and Davis (1999:226) noted that the North Carolina Coastal Plain was "arguably the least understood of all the major physiographic regions in the state." That statement is still particularly applicable to our understanding of the archaeology of the Paleoindian and Archaic periods in the region. In part, this knowledge gap reflects the absence of specific research focused on addressing archaeological problems related to late Pleistocene and early Holocene human adaptations in the region. Over the last decade, however, East Carolina University initiated long-term research projects aimed at elucidating Coastal Plain chronology, typology, and settlement patterns of the Paleoindian and Archaic periods. Specific examples of this research include 1) recording the types and distributions of fluted points from the region; 2) completing the first comprehensive analysis of the only known Clovis assemblage in the state (from the Pasquotank site); and 3) conducting geoarchaeological remains at the Barber Creek site. Here, we outline the results of this work—much of which is still in progress—as it to relates to issues of chronology and typology. We conclude with a tentative revision of the Paleoindian and Archaic cultural historic sequence for the region.

# PALEOINDIAN PERIOD RESEARCH

As elsewhere in the Southeastern United States, most of the Paleoindian archaeological record in the state is known from typological studies of scattered surface finds. Perkinson's (1971; 1973) and Peck's (1988) compilations of fluted point occurrences in North Carolina have been virtually the sole source of Paleoindian data in the state. Despite the importance of these inventories in documenting fluted point occurrences, little systematic analyses of these data have been produced. Consequently, North Carolina has lagged behind other southeastern states (e.g., Virginia and South Carolina) with regards to Paleoindian studies. Various reports of this work have appeared elsewhere (Daniel 2000, 2005, 2006; Daniel and Goodyear 2006). Here, we present an update on the study. While we focus on the Coastal Plain, we make reference to regions elsewhere in the state since the archaeology of the Coastal Plain cannot be understood apart from other regions.

#### Survey Parameters

Point data has been collected from both institutional and private collections across the state. Attributes recorded for each point were similar to those used in statewide studies elsewhere in the Southeast (e.g., South Carolina and Georgia). Metric attributes, for instance, primarily focused on artifact dimensions. Recorded nonmetric attributes included basal form, artifact condition, retouch characteristics, and raw material type. County location served as the basic provenience unit, although more specific site location data were also recorded when

possible. The data set consists of 281 points. Since so little is known concerning the Paleoindian occupation of the state, it is difficult to know what proportion of the recovered or recoverable fluted points in the state this sample represents. The number is probably on the low side, however, if fluted point totals from surrounding states are any indication (e.g., Anderson et al. 2005; Anderson and Sassaman 1996).

#### Spatial Distributions

A total of 281 points are present in 67 of North Carolina's 100 counties (excluding three points for which provenience is uncertain), of which 60 are recorded for the Coastal Plain (Figure 3-1). Several broad patterns emerge in the in the statewide distribution of points by county. First, the current tally results in a mean score of 4.14 points per county, this statistical average is misleading due to the influence of five counties with counts greater than 10. Indeed, fewer than three points were recorded in about half (n=32, 47.8%) of the 67 counties. In this case, the mode represents a more meaningful average score in that 20 (29.8%) of the 67 counties exhibit a count of one point.

Second, there is a significant difference in point frequencies by region ( $\chi^2 = 58.4$ , df = 2, p. < .000). Given their comparable size, one would expect that similar point frequencies would occur in both the Piedmont and Coastal Plain (i.e., each regions covers about 45% of the state's area), yet this is not the case. While the Piedmont (n=177) contains greater frequencies of points than expected for a region that size, the Coastal Plain (n=60) contains less than half as many points as expected. Likewise, the Mountains (n=35) exhibit a greater frequency of points than expected for its size.

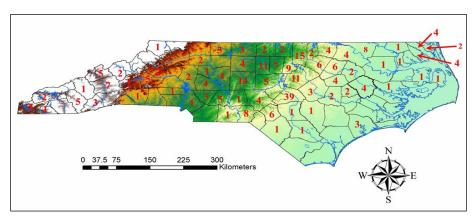


Figure 3-1. Frequency distribution of fluted points by county.

Third, both concentrations and gaps occurs in point spatial distributions. Most apparent is a nearly contiguous concentration of counties with points that covers most of the Piedmont and Fall Line. This concentration contains four counties with the greatest point totals: Harnett (n = 39), Granville (n = 15), Randolph (n = 14), and Alamance (n = 11). Counties with low to no recorded points occur to the east along the outer Coastal Plain and to the west along a corridor of counties between the Piedmont and Mountains. This western gap helps define a second potential spatial clustering of points in the Mountain region—although it covers a much smaller area than the Piedmont/Coastal Plain concentration. Nevertheless, the relatively high density of points

from the Mountains suggests it may have been as intensely occupied as the Piedmont. In effect, the mountain concentration in North Carolina is probably just a portion of a larger area that encompasses high frequencies of fluted points across the state line in eastern Tennessee (Broster and Norton 1996)

In any case, the Coastal Plain region retains the lowest density of Paleoindian points in the state: 9.77 points per 10,000 km<sup>2</sup> as compared to 28.88 points per 10,000 km<sup>2</sup> for the Piedmont and 25.64 points per 10,000 km<sup>2</sup> for the Mountains. It may be of some significance that the Coastal Plain counties that contain points tend to parallel major river valleys such as the Cape Fear (in Hoke, Cumberland, Bladen, and Sampson counties), the Neuse and Tar (in Wayne, Greene, Edgecombe, Pitt, and Beaufort counties), and the Chowan (in Gates, Chowan, and Pasquotank counties).

Taken together, it is tempting to view the spatial patterning as real. As discussed elsewhere (Daniel 2000; Daniel and Goodyear 2006) this spatial patterning is interpreted to represent portions of two Paleoindian settlement regions in the state: a Piedmont/Fall Line region in the east and a Mountain region in the west. Of course, prudence is warranted in interpreting this pattern given the potential biases that might exist in this survey. Collector habits and/or geological processes are two possible biases that readily come to mind. With respect to the former, we cannot ignore the obvious fact of sea level rise that has inundated a significant portion of the coastline since the early Holocene, rendering any potential Paleoindian occupations on the continental shelf essentially invisible. Likewise, the relative absence of points in the Coastal Plain as compared to the Piedmont may, in part, reflect the deeper and less eroded soils of the former. Thus, greater soil exposure would favor a greater chance of artifact recovery in the Piedmont. Still, it is likely that both the abundance and density of fluted points in the Piedmont may reflect some prehistoric reality, as the eastern Piedmont is the source of the best knappable stone in the state (Daniel 1998; Daniel and Butler 1996; Steponaitis et al. 2006) and metavolcanic stone is the predominate raw material represented in the survey (Daniel 2000). Researchers have often noted the spatial correlation between high densities of fluted points and cryptocrystalline raw materials elsewhere in the Southeast (e.g., Goodyear et al. 1989).

# Typological Considerations

Several Paleoindian point types were recognized during the survey including Clovis, Redstone, Cumberland, Gainey, Simpson, and some apparent fluted point preforms. It should be emphasized that this classification has been largely qualitative, based upon morphological forms recognized elsewhere in the Southeast (e.g., Anderson et al. 1990; Goodyear et al. 1989). Clovis and Redstone are the predominant types present in the Coastal Plain. A brief description of these two types follows.

*Clovis*. Clovis points were the predominate Paleoindian form identified in the survey (n=196, 70%). While this category generally corresponds to the Southwestern form (Haynes 2002) and is characterized by a relatively large size, straight sided base, and shallow basal concavity, there is considerable size variability within this class that is at least partially attributed to stone raw material. With respect to geographic distributions, Clovis points were recorded in every region of the state.

*Redstone.* Redstone-like points (Mason 1962; Perino 1968) represent the second most frequent category in the survey (n=59, 21%). Redstone points are scattered in the eastern Piedmont and inner Coastal Plain. It exhibits a distinctive full facial fluting, relatively deep basal concavity, and triangular form similar to what is called Redstone in the mid-South. As such, this type may represent a post-Clovis manifestation in the Piedmont and Coastal Plain of North Carolina (Daniel and Goodyear 2006).

## The Pasquotank assemblage

Taken at face value, the relatively low density of fluted points in the Coastal Plain would suggest that the region is lacking in important Paleoindian sites. The presence of the Pasquotank site, however, serves as a reminder that this is not the case. To the best of our knowledge the Pasquotank assemblage is unique in North Carolina, and represents one of the few Clovis assemblages in the Southeast (Daniel et al. 2007). The Pasquotank Site is located in the vicinity of the Great Dismal Swamp on the south side of the Pasquotank River, northwest of Elizabeth City, in Pasquotank County. James Pritchard of Suffolk, Virginia, has been surface collecting on his family's farm for over five decades resulting in the recovery of a Paleoindian assemblage of over 100 stone tools and several hundred pieces of flaking debris recovered from about 7 ha.

Despite the fact that the Pasquotank assemblage is a surface collection with multiple components, there is a remarkable clarity in the assemblage with respect to the Paleoindian occupation. One complete and two broken fluted points temporally define the assemblage. In addition to the fluted points, the unifacial tools exhibit forms that are readily classifiable as Paleoindian in character including end scrapers, side scrapers, *limaces*, and graver. A single *pièce esquillée*, apparently manufactured from a side scraper is also present in the assemblage.

Regarding raw material patterning, virtually all of the tool stone in the assemblage is considered nonlocal. Indeed, the Pasquotank site does not appear to be anywhere near a stone source as the Coastal Plain of North Carolina is generally regarded as a stone deprived environment. While over a dozen stone types were identified in the assemblage, a particular type of metavolcanic stone dominates the assemblage. A fine-grained green metavolcanic stone that may be a rhyolitic tuff can be observed in virtually all artifact classes including fluted points providing some evidence that temporally links the fluted points with much of the other artifacts in the assemblage. The closest source of this material as well as the other metavolcanic stone in the assemblage was either the Eastern Slate Belt approximately 140 km to the west or more likely the Carolina Slate Belt at least 200 km away. Furthermore, if Uwharrie rhyolite from the Carolina Slate Belt is present in the assemblage, then at least some metavolcanic stone was acquired some 360 km from Pasquotank. Chert, a distance second in abundance to metavolcanic stone in the Pasquotank assemblage, was likely nonlocal to Pasquotank as well and may have been acquired from the Williamson location about 140 km to the northwest.

The array of artifacts in the assemblage can be interpreted to represent some portion of a portable hunter-gatherer toolkit. It seems evident that the focus on the acquisition of high quality tool stone combined with the practice of tool curation and recycling reflects a strategy to reduce tool stone bulk while maintaining toolkit flexibility as it is carried to locations of tool use. Additional analyses suggests that the primary stages of tool production, including core preparation and tool blank production did not occur at the site. Rather, the preponderance of late stage flaking debris attests to lithic reduction practices at the site weighted towards finishing and maintenance. In fact, the character of the entire assemblage is one of retooling—toolkit

maintenance rather than toolkit (i.e., stone) provisioning. Moreover, whatever the planned functions of the Pasquotank tools, it was likely the case that the need to carry a tool influenced its form more than its intended use (e.g.,Kuhn 1994).

#### **ARCHAIC PERIOD RESEARCH**

Recent geoarchaeological work on relict dunes in the North Carolina Coastal Plain has shown the potential for contributing data regarding chronology, typology, and geoarchaeology (Daniel et al. 2008; Moore 2009). While the widespread occurrence of dune fields in Georgia and the Carolinas (Ivester and Leigh 2003; Ivester et al. 2001; Markewich and Markewich 1994) have been the focus of many geological studies-particularly in regards to their paleoclimatic implications-the archaeological potential of these landforms remains unrealized in North Carolina. To date, we have obtained archaeological, geophysical, and grain size data from several sites along the Tar River that suggests multiple phases of dune-building with varying rates of deposition (see Moore and Daniel, this volume). In particular, this work aims to address poorly understood aspects of the region's archaeology including Archaic period (ca. 8000 – 1000 BC) and Woodland period (ca. 1000 BC - AD 800) chronologies and settlement systems. Stratigraphic histories of site use are being constructed for several sites based on sedimentological studies, geophysical data, temporally diagnostic artifacts, and chronometric dates. The lynchpin of this work has been the long-term excavations at the Barber Creek site (Daniel 2002; Daniel et al. 2008). More recently, additional survey and testing of several other stratified sites along the Tar River are placing Barber Creek in a broader regional context (Moore 2009). Here, we summarize the cultural-historic sequences from five of these sites including Barber Creek.

# Methodology

Specifically, relict dune locations were targeted along three terraces of the Tar River: the upper and lower "paleo-braidplain" and "upland alluvial terrace" (Figure 3-2). Relict alluvial braided stream terraces are preserved to the east and north of the Tar River and are divided into an upper and lower paleo-braidplain. Although generally recognizable with high resolution Light Detecting and Ranging (LiDAR) elevation imagery, the upper paleo-braidplain is only marginally higher in elevation than the lower paleo-braidplain; however, it is characterized by larger relict braided and sandy scroll-bar topography and larger and more numerous relict dunes.

Source-bordering dunes or relict aeolian "sand sheets" along the Tar River are present along terrace boundaries or escarpments overlooking either the paleo-braidplain or the modern river floodplain. Areas north and east of the Tar River contain extensive relict braided river deposits along with aeolian sediments and source-bordering dunes. Relict braided river and terrace deposits north and east of the river have been preferentially preserved as the river system has migrated to the south. In many areas, the Tar River has migrated to the extreme southern limit of the river basin. Alluvial terraces to the north and east of the Tar River were targeted for survey with small numbers of shovel tests placed strategically along ridges and landforms in areas deemed to have high probability for archaeological sites. The vast majority of sites were located along the north and east side of the Tar River along a 42 km transect from northeastern Pitt County to the city of Tarboro in Edgecombe County. Nineteen sites were identified as a

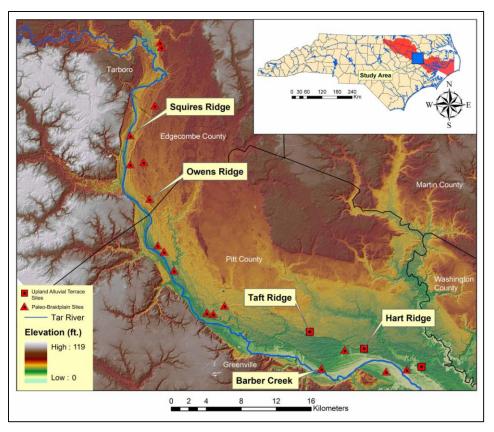


Figure 3-2. Site locations along the Tar River.

result of the strategic shovel testing. Additional test unit excavations were then conducted at four sites suspected of containing significant stratified cultural deposits. Two sites (Hart Ridge and Taft Ridge) were chosen from the upland alluvial terrace and two sites (Squires Ridge and Owens Ridge) were selected from the paleo-braidplain. Additional data were also used from the on-going excavations at Barber Creek (also located on the paleo-braidplain) which contains the best documented archaeological sequence yet identified along the Tar River.

In brief, test unit excavations included digging two  $2 \text{ m}^2$  units at each of the above sites. Excavation proceeded in 10 cm arbitrary levels with the piece plotting of temporally diagnostic artifacts for chronological control. Relatively large (i.e., 2.5 cm) artifacts were also plotted to detect potentially buried occupation surfaces under the assumption that they were less likely to have been displaced vertically by postdepositonal processes. Samples were also collected for sedimentological analyses, radiocarbon, and luminescence dating.

# Barber Creek

The Barber Creek site (31Pt259) is located along the edge of the lower Paleo-braidplain near the confluence of the Tar River and Barber Creek—a small first order tributary of the Tar River (Figure 3-2). Maximum elevation of the site is approximately 5.9 meters above mean sea level. In similar fashion to the Squires Ridge site, Barber Creek is oriented roughly parallel to the Tar River channel and extends for approximately 300 meters along the scarp separating the upper paleo-braidplain from the modern Tar River channel (Daniel 2002; Daniel et al. 2008).

Extensive shovel testing and unit excavations (ca.  $250 \text{ m}^2$ ) have revealed stratified Woodland and Archaic period remains concentrated in the upper 1 meter of the site (Daniel 2002; Daniel et al. 2008). The presence of features, artifact clusters, and artifacts in chronological order suggest that former occupation surfaces have been buried by wind-blown sand throughout the Holocene. Associated radiocarbon dates have focused on dating the Archaic component and supports the stratigraphic integrity of the site (Daniel et al. 2008).

Here we present the initial results of a geoarchaeological analysis intended to understand site formation as it relates to the prehistoric chronology of the site (Moore 2009). Excavations of adjacent 2 m squares conducted during the 2004-2006 field seasons produced a 4 x 12 m block along the crest of the site (i.e., 443 and 445 East Trench) Figure 3-3 depicts the archaeological profile of this trench along with backplots of piece-plotted diagnostic artifacts (n = 37), a histogram of artifact frequencies by level, grain size analyses.

Stratigraphy. Sediments within the upper 1.4 meters at the Barber Creek site were designated into five different zones based on color and texture. Zones I and II represent the uppermost and highly organic O/A horizon and extend from the ground surface to approximately 30 cmbs. These zones are heavily disturbed with numerous roots and include a very dark brown medium to fine sandy loam (Zone I) and a dark brown medium to fine sandy loam (Zone II). Woodland period artifacts are present in both zones and peak in level 3. Zone III consists of a dark yellowish-brown medium to fine sand and represents a leached (illuviated) E-horizon extending to about 80 cmbs. This zone contains the highest frequency of artifacts and appears to represent cultural deposits spanning the Early through Late Archaic periods although some Early Woodland artifacts are present in the uppermost portion of this zone. Zones IV and V represent a poorly developed B-horizon; the latter being somewhat arbitrarily distinguished from the former by being lighter in color. Zone IV and consists of a massively bedded yellowish-brown medium to fine sand that extends to roughly 100 cmbs. Zone V extends beyond 100 cmbs and is a massively bedded yellowish brown to light yellow fine to medium sand. Although absent in this profile, numerous lamellae are present in units slightly down slope from this trench. While cultural material is present in the top of Zone IV, Zone V is essentially culturally sterile.

*Grain size analysis.* Close interval (5 cm) grain size samples were collected to a depth of 1.4 meters below surface along the east profile of the 445 East trench. The grain size signature of the aeolian sand-sheet or dune drape at Barber Creek is very similar to that for other relict dune sites along the Tar River (Moore 2009). Grain size analysis of the sand fraction from the aeolian facies consists of nearly symmetrical, medium, moderately sorted and mesokurtic sand. Mean grain size for the upper meter (Zones I – III) of sand at Barber Creek is 1.77 phi. The upper meter of sand at Barber Creek consist of ca. 15-16 percent very coarse and coarse sand, ca. 45-48 percent medium sand, 30-31 percent fine sand and 6-7 percent very fine sand. Total fines (silt and clay) at Barber Creek range from ca. 5-8 percent in the upper aeolian sand. This surficial sand unit most likely represents the (predominately aeolian) component of the "Q6a fine sand unit" described for sand ridges along the lower paleo-braidplain of the Tar River (Maddry 1979).

Between 1 and 2 meters below surface (i.e. Zones IV and V), percent fine sand first increases and then fluctuates with slight increases in very coarse and coarse below 1.6 meters. Grain size parameters for this sand unit are similar to overlying aeolian sediments; however,

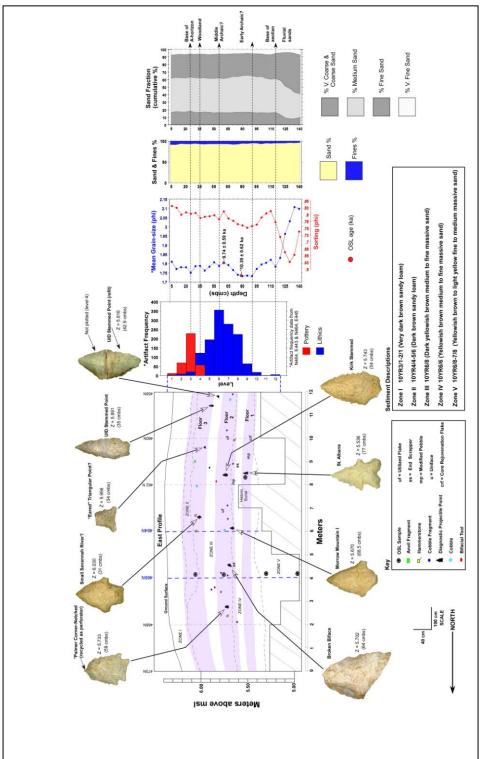


Figure 3-3. Artifact backplot for 445 East Trench at the Barber Creek site illustrating piece-plotted, OSL ages, artifact frequency by level and grain-size data. Note: Artifacts are not to scale. <sup>1</sup>Minimum age model (Galbraith et al. 1999) used to calculate OSL age estimate. Other OSL age estimate determined by central age model (Galbraith et al. 1999) (adapted from Moore 2009). statistical measures fluctuate considerably more than the aeolian sediments and fines decrease from 6.5 percent to 1.5 percent. This zone is probably the lower (predominately fluvial) portion of the Q6 fine sand unit described by Maddry (1979). Areas underlain by unit Q6 exhibit a rolling topography with large remnant braid-bars and swales (Maddry 1979). Together, the upper aeolian and lower fluvial medium and fine sands represent the sand unit (Q6) originally deposited in a rejuvenated Tar River as braided river deposits during lowered sea level (Maddry 1979). In short, unit Q6a likely represents sediments deposited as sand-sheets or sourcebordering dunes over remnant braidplain topography. Lastly, the prevalence of very coarse and coarse sand (ca. 15-16%) and trace amounts of very fine gravel (0.01-0.12%) within the upper meter sediments at Barber Creek suggests fluvial sediments may have contributed to site burial in addition to aeolian sedimentation (e.g., Leigh 1998a). These would have likely been relatively minor contributions as a result of infrequent overbank flood events. Coarse fluvial sediments are present below 100 cmbs. These sediments apparently predate any human occupation in the area and were probably deposited as a result of alluvial channel fill or as flashy and high energy braided river deposits (Moore 2009).

Artifact analysis. For the purposes of this analysis, typlogical classification was done on artifacts recovered from two units (464 North/443 East and 464 North/445 East) within the trench as well as diagnostic stone artifacts piece-plotted within the remaining part of the trench (see Moore 2009). A backplot of diagnostic stone artifacts along with a histogram of total artifact counts by level is illustrated in Figure 3-3. Piece-plotted stone artifacts for the entire trench included points (n=8), other bifaces (n=3), end scrappers (n=2), hammerstones (n=4), cobble fragments (n = 9), unmodified cobbles (n = 3), utilized flakes (n = 2), modified pebbles (n = 3)= 2) along with a single uniface, anvil fragment, and core-rejuvenation flake. Additional diagnostic artifacts excavated within the two test units (and not depicted on the backplot) for which only level provenience exists include biface fragments (n = 2), cobble fragments (n = 4), unmodified cobbles (n = 2), and single specimens of a core and unidentified point fragment. Flaking debris (i.e., debitage) constitutes the most abundant stone artifact type (n = 1.390). Projectile points include Early Archaic (Palmer Corner-Notched, St. Albans Side Notched?), Middle Archaic (Kirk Stemmed, Morrow Mountain), and Late Archaic (Small Savannah River? and Thelma?) types. A heavily reworked unidentified stemmed point and a small "eared" triangular point are also present; the latter likely is associated with the Early Woodland component. In addition to lithics, a large number of ceramic sherds (n = 369) are present in the assemblage of which only 150 are identifiable as to type. Early Woodland (Deep Creek) pottery dominates the ceramic assemblage (n = 128) with minor amounts (n = 20) of Middle Woodland (Hanover) and unidentified specimens (n = 2) with possible shell temper.

Temporally diagnostic artifacts indicate Early Archaic through Early Woodland occupations. With few exceptions (to be discussed below), these artifacts are in correct stratigraphic order. With respect to the artifact histogram, two patterns are evident. First, a bimodal distribution is quite evident in the distribution of artifact totals by level. Peaks occur at levels 6 and 3 that broadly represent the Archaic and Woodland components at the site. A second pattern is evident with the distribution of ceramics. Ceramics are present in levels 1 - 4 with a peak frequency in level 3 (20-30 cmbs) lending further support to the ceramic versus preceramic component distinctions. Ceramic frequencies drop significantly through levels 4 and 5. Level 5 contained a single Deep Creek sherd, along with one residual sherd too small to be identified by type.

*Discussion.* In the absence of distinct changes in soil strata that might indicate cultural stratigraphy, emphasis was placed in the field on documenting changes in artifact frequency and type with depth that might reveal former occupation floors. As noted in the excavation methods, digging in 10-cm levels along with the judgmental piece plotting (i.e., recording precise horizontal and vertical location) of particular artifacts allowed excavators to recognize potential occupation floors in the field. In particular, emphasis was placed on plotting temporally diagnostic and/or relatively large artifacts (ca. >2.5 cm). Temporally diagnostic artifacts provided chronological control and larger artifacts suggested buried surfaces since they were less likely to have been moved vertically by postdepositional process (Brooks and Sassaman 1990; Brooks et al. 1996; Hughes and Lampert 1977; Moore 2009).

Using diagnostic and large lithic artifacts to determine occupational boundaries, a multimodal distribution of artifacts becomes apparent. This suggests three periods of occupational stability at the Barber Creek site designated as occupation "floors" in Figure 3-3: one dating to the Early Archaic, a second Middle/Late Archaic occupation, and a third identified during the Woodland period. There is a relative absence of diagnostic artifacts between these former occupation floors. Taken together, artifact distributions and sedimentology suggests periods of surface accretion punctuated by periods of surface stability and eventual burial at Barber Creek.

The earliest evidence of human occupation occurs once fluvial deposition ceased. Changes in the mean grain size and sorting at about 110 centimeters below surface (cmbs), suggest fluvial deposition stopped and aeolian deposits began to build the land form (Moore 2009). Calibrated radiocarbon dates and an OSL date from level 11 elsewhere on the site suggest that this event began sometime after 12,500 years (Daniel et al. 2008; Moore 2009). This date is also consistent with the onset of inland dune formation across the Southeast (Markewich and Markewich 1994). The high frequency and continuous distribution of artifacts between levels 6-8 suggest that the 60-80 cmbs depth range represents a relatively slowly but continuously accreting land surface. The grain size pattern for this depth exhibits a fining upward sequence that would suggest little anthropogenic disturbance (Figure 3-3). Among the plotted artifacts, a bifurcate point (St. Albans?) was recovered in level 8 (at 77 cmbs). With the exception of the Palmer point (discussed below) recovered stratigraphically higher, the bifurcate point represents the earliest and deepest diagnostic artifact recovered in the trench (assuming it has undergone no significant postdepostional vertical displacement). Although relatively few plotted artifacts were recovered at this level, we suggest that an Early Archaic surface was present at about 70-80 cmbs which is consistent with the recovery of at least two other bifurcate points elsewhere on the site (Choate 2011; McFadden 2009). This is indicated by occupation floor 1 in Figure 3-3.

Occupation floor 2 is identified at roughly 60 cmbs based on soil grain size changes and the presence of stemmed stemmed points. Grain size analysis shows erratic changes in both mean grain size and sorting around 60-65 cmbs that are similar to what would be expected in anthropogenically disturbed deposits (i.e., buried occupation surfaces) (e.g., Brooks et al. 1996). Peak artifact counts occur at this depth along with two Archaic stemmed points (e.g., Kirk Stemmed and Morrow Mountain Stemmed) and other plotted artifacts from levels 6 and 7. A Palmer Corner-Notched point was also recovered at the base of level 6. Taken at face value, the association of corner-notched and stemmed points at about 60 cmbs suggests a period of surface stability during the early to middle Holocene that may have lasted several millennia. Accordingly, the single Palmer Corner-Notched point recovered from level 6 would have been deposited in the early Holocene followed by stemmed points latter in the Holocene. Of course, this interpretation is hard to reconcile with the stratigraphically lower recovery of the bifurcate point. Of possible significance, however, is the clear evidence of artifact recycling in the form of the manufacture of a spur-like projection on the point tip—as evidenced by the presence of differential patination seen in the flake scars. Thus, the location of the Palmer point may be stratigraphically correct and is associated with later stemmed points as a result of being scavenged and used by Middle to Late Archaic groups visiting the site. In any case, a change in mean grain size sorting again resumes with a slight coarsening upward sequence between about 50-40 cmbs and corresponds with a drop in artifact density. This would likely span the Late Archaic as represented by one refitted but, as yet, unclassified stemmed point recovered from level 4. This pattern suggests a period of sediment accumulation and less intense human occupation.

Another increase in artifact densities, including the presence of ceramics, which were absent in the lower levels indicates the presence of occupation floor 1 at about 30 cmbs. Ceramic frequencies peak in level 3 and indicate the presence of a Woodland component. This represents yet another period of relative surface stability on the site that corresponds with an erratic shift in grain size at about 30-35 cmbs. In addition to the ceramics, temporally diagnostic points recovered in the upper levels include two small stemmed points and one "eared" triangular point. The points are somewhat difficult to classify with respect to existing cultural-historical types in North Carolina. One point resembles a Small Savannah River Stemmed while the second resembles a Thelma Stemmed (South 2005). Regardless of their classification, their small size, overall morphology, and stratigraphic position are consistent with a technological transition from stemmed to triangular points. The "eared" triangular point is more difficult to classify; however, it is almost certainly associated with the Woodland component.

To summarize, excavation data from the 443 Trench at Barber Creek suggests multiple phases of site burial. Archaeological and soil data suggests the potential for several long-term stable surfaces that provided occupation surfaces for multiple cultural components. Occupation surfaces were subsequently buried by episodic aeolian sedimentation with likely minor fluvial contributions due to large overbank floods. Variable amounts of vertical mixing due to bioturbation and/or cultural or anthropogenic effects are likely; however, sedimentological and archaeological data indicate relatively intact cultural deposits can be discerned during the early to middle Holocene.

#### Squires Ridge

Squires Ridge (31Ed365) occupies the lower paleo-braidplain overlooking the modern incised floodplain of the Tar River (Figure 3-2). The site is situated on a narrow (ca. 80 meter wide) vegetated sand ridge elevated about 11 meters above the Tar River floodplain near its confluence with Lancaster Creek. Following judgmental placement of shovel test pits two test units excavated along the crest of the ridge. Archaeological materials including diagnostic Woodland and Archaic age artifacts were found to a maximum depth of 1.2 meters (Moore 2009).

Three pedogenic soil zones were recorded in unit profiles based on sediment color and texture. Zone I comprised the uppermost active horizon or A-horizon and was described as a dark yellow brown loamy medium to fine sand (10YR2/1-2/2) containing many roots. Zone I

extended from the ground surface to between 15 and 20 cmbs. Zone II was present to a depth of between about 95 to 100 cmbs, consisting of a dark yellowish brown medium to fine sand (10YR4/6). Zone III continued to the base of the unit consisting of a lighter yellowish brown medium to find sand (10YR6/6-5/6) with a noticeable increase in small gravels. Grain size analysis for Squires Ridge suggest aeolian deposits approximately 1 meter in thickness overlay finer and coarse skewed fluvial deposits associated with remnant Pleistocene braid-bars. The grain size signature of the aeolian sand-sheet or dune drape at Squires Ridge is typical of surficial aeolian sands and source-bordering dunes all along the Tar River.

Test unit 1 produced a large amount of debitage (n = 817) and two projectile points. The first point appears to have been reworked into a drill as it exhibits a heavily resharpened blade, while the second is a small corner-notched Palmer point. Both artifacts were plotted at a depth of 50-53 cmbs and 94.5 cmbs, respectively. The former point remains unclassified as it exhibits a somewhat eared base uncharacteristic of conventional point types for the Coastal Plain.

Cobble and tabular stone and core fragments were noted in test unit 1 in small numbers primarily with levels 5, 7, 8 and 10. Level 7 through 9 contained the highest concentration of debitage, with small numbers of flakes found through level 12 (110-120 cmbs). Low frequencies of Deep Creek (Early Woodland) fabric impressed pottery shards were found through level 4, with peak frequency occurring in level 3 (n = 11). Vertical artifact frequency by level appears multimodal in test unit 1, with artifact modes in level 3, 7 and 9. Peak concentration of artifacts occurs in level 9 and falls off rapidly in subsequent levels.

Test unit 2 at Squires Ridge contained large quantities of debitage (n = 2,312), numerous cobble, cobble fragments and core fragments (n = 16), biface fragments (n = 11), points fragments (n = 3), hammerstone and hammerstone fragments (n = 6), a single endscraper and pottery (n = 14). In addition, six whole projectile points were found, including five Guilford points and one Kirk Stemmed/Serrated point. A single and very large Guilford point was found in level 4 (38 cmbs) while the remaining Guilford points were piece-plotted together in level 5 and are suggestive of a buried surface or "floor." Three Guilford points were found at irtually identical depths below surface (ca. 50 cmbs), all lying flat or very slightly angled. In addition to the Guilford occupation, a single Kirk Stemmed/Serrated point was found near the southwest corner of test unit 2 at the base of level 7 (about 70 cmbs) and was associated with cobble fragments, flaked cobbles and biface fragments also clustered in the southwestern quadrant of test unit 2. Level 7 (60-70 cmbs) also contained the highest frequency of artifacts (n = 698) with artifact frequency following a unimodal vertical distribution. Only trace amounts of debitage were recovered below level 10 (90-100 cmbs). Woodland pottery shards (n = 14) were restricted to the first four levels with peak ceramic frequency occurring in level 3 (20-30 cmbs). Artifacts drop off dramatically in level 10 (n = 32) and appear to represent the base of archaeological deposits. Only 6 flakes were recovered from levels 11 and 12 (100-120 cmbs) and these most likely represent displacement from higher levels. Test unit 2 exhibited an increase in small pebbles below level 9 (n = 141) with very large amounts of pebbles recovered in level 13 (n = 141) 1,480). Test unit 1, on the other hand, has similar frequencies of pebbles in level 11 to unit 2 in Level 10. As noted above, artifacts appear to "bottom-out" at level 10 in both test units. Both deeper vertical artifact modes, grain size analysis and pebble frequency suggest that unit 1 is located in an area of the site with slightly deeper aeolian sediments overlying fluvial braid-bar sediments.

Taken together, the two test units produced a stratigraphic sequence characterized by Palmer, Kirk Stemmed, Guilford, and Deep Creek phase occupations. Furthermore, it is

interesting to note that the two test units produced different diagnostic artifacts with different vertical artifact density modes. Test unit 1 produced an Early Archaic component around levels 7-9 with another presumably Middle to Late Archaic component near level 5. An Early Woodland occupation is present in level 3. Test unit 2 produced Kirk Stemmed, Guilford, and Deep Creek components in good stratigraphic order. The Kirk Stemmed component is present around 70 cmbs with a relatively strong Guilford occupation at about 50 cmbs. As with test unit 1, Deep Creek occurs at about 30 cmbs.

## **Owens** Ridge

Owens Ridge (31Ed369) occupies the edge of the upper paleo-braidplain of the Tar River (Figure 3-2) overlooking a very narrow section of lower paleo-braidplain and is relatively close (ca. 1200 meters) to modern Tar River channel. Oriented parallel to the Tar River, Owens Ridge is a large linear sand ridge (ca. 850 meters long) and exhibits geometry diagnostic of linear or coalescing parabolic source-bordering sand dunes. Maximum elevation (amsl) at Owens Ridge is about 16 meters (Moore 2009).

Limited shovel testing of Owens Ridge revealed buried archaeological deposits located along the highest section of the landform or crest of the sand ridge. Test unit excavations were conducted along the relatively narrow crest of the landform as it gently rises in elevation from west to east (representing the relict stoss dune surface). Test unit excavations produced buried archaeological deposits of low to moderate density including one diagnostic Early Archaic projectile point base, an endscraper and debitage frequencies suggestive of stratification to a depth of 80-90 cmbs.

Soil types for Owens Ridge excavation units are divided into three zones. Zone I (0-20 cmbs) consists of a medium to fine dark brown loamy sand (2.5Y3/2 to 2.5Y3/3). Zone I is the modern O/A soil horizon with numerous roots and high amounts of decaying organic matter. Zone II (ca. 20-98 cmbs) is the illuviated E-horizon and consist of a medium to fine dark brown massive sand (10YR5/5 to 10YR5/8). Most artifacts were found in the middle and lower portion of this soil zone. Finally, Zone III (>98 cmbs) is a medium to fine soil unit (10YR5/6 to 10YR5/8) slightly lighter in color than Zone II, although somewhat arbitrarily defined. Very few artifacts were found in this zone. As with Squires Ridge, grain size data for Owens Ridge suggest a fluvial origin for sediments underlying aeolian dune deposits and most likely represent braided terrace sequences that make up the upper paleo-braidplain.

Test unit 1 produced low frequencies of artifacts (n = 136) consisting primarily of flaking debris. Peak artifact frequency was encountered in level 5 (n = 36) with only minor amounts of flakes recovered in levels 8 and 9 (n = 11). Level 10 was sterile; however, part of the test unit along the west wall was arbitrarily excavated and screened to a depth of 160 cmbs for purposes of grain size and luminescence sampling. No artifacts were found below level 9. Most significantly, two large quartzite cobbles were found lying together (one leaning against the other) at 70 cmbs and is suggestive of a buried surface at that depth. Although no temporally diagnostic artifacts were found at this level, they were recovered from a depth consistent with Early Archaic artifacts recovered from unit two 2.

A second test unit was excavated approximately 20 meters north/northwest of the first. Although test unit 2 is slightly lower in elevation than test unit 1, both units were situated along the ridge crest. Temporally diagnostic artifacts recovered in this unit include a Palmer Corner-Notched point 9 (level 6) and a formal end scraper (level 8). Test unit 2 produced low to moderate artifact frequency (n = 249), most of which was flaking debris. Interestingly, however, the majority of artifacts occurred in level 8 including debitage (n = 110) with the formal end scraper suggestive of a buried occupation surface between 70 and 80 cmbs. Morphologically, the end scraper resembles and Early Archaic or Paleoindian age unifacial stone tool. Of particular note, flake concentrations appeared to be concentrated near the southwest corner of level 8 rather than scattered over the entire unit while the Palmer base was found in the northeast corner of the test unit in level 6. Minor amounts of historic artifacts (n = 6) including barbed wire, brick fragments and ceramics were also found in the upper three levels of test unit 2 from.

To summarize, analysis of archaeological data from the Owens Ridge Site revealed low to moderate density lithics with generally continuous and unimodal to weakly bimodal artifact distributions. Total artifact frequency and modal tendencies varied between test units, with test unit 1 producing the highest frequency of artifacts in level 5, while test unit 2 had a much larger spike in artifact frequency in level 8. Two large cobbles were found lying together in test unit 1 at 70 cmbs, suggestive of a buried surface at that depth, while the recovery a broken Palmer point in level 6 and high artifact frequencies including a formal endscraper in level 8 suggest buried cultural occupations during the Early Archaic or earlier. Although lateral continuity between the two test units has not been established, the presence of a buried occupation floor in level 8 of test unit 2 most likely represents the general location of the 70 or 85 cmbs buried surfaces indicated by grain size data for unit 1.

# Hart Ridge

The Hart Ridge Site (31Pt605) is located a few miles west of Greenville, NC and is very close to both Barber Creek and Taft Ridge (see below). This landform is a large linear sand dune with hummocky topography (Figure 3-2). Both Taft Ridge and Hart Ridge occupy the edge or scarp of the same upland alluvial terrace. Both sites also overlook the paleo-braidplain to the south. Maximum elevation at Hart Ridge is 9.5 meters amsl, while maximum vertical relief is ca. 3 meters above the surrounding alluvial terrace and ca. 7 meters above the adjacent paleo-braidplain terrace (Moore 2009).

Following selected shovel test placement, two test units were placed along the central and most elevated portion of the ridge near a large blowout containing numerous small flakes and pottery. These units were positioned next to shovel tests that revealed lithic debris located within the upper 40 cm of the soil column.

Test unit excavations revealed very low artifact density primarily consisting of lithic debitage (n = 64) a single hammerstone fragment, one tabular stone fragment and ceramics (n = 10). In addition, numerous historic artifacts such as broken glass, brick, iron and shell (n = 70) were found mixed with prehistoric artifacts through level 2 (10-20 cmbs). Prehistoric pottery at Hart Ridge consists of fabric impressed Deep Creek pottery (n = 2), a single Hanover pottery sherd, one unidentifiable and six residual sherds. All artifacts were confined to the upper 40 cm in test unit 1 and were confined entirely within the upper 20 cm (A-horizon/plowzone) in test unit 2. Ephemeral evidence of plowscars was evident in both test units in level 2. Test unit 1 had what appeared to be a recent burned stump feature in level 2, with large burned chunks of wood. No other burned root or cultural features were evident.

Three soil zones were mapped in profile including a medium to fine dark gray loamy sand (10YR4/6) A-horizon in the upper 20 centimeters (Zone I), and medium to fine massive sand (7.5Y4/6) E-horizon from 20 to about 60 cmbs (Zone II). The E-horizon continues into

Zone III as a medium to fine massive sand that is slightly lighter in color (10YR6/8) than Zone II. Very thin and weakly developed lamellae were visible in the soil profile of unit 1 in Zone III from approximately 60-65 cmbs until termination of the excavation at one meter below surface. Iron staining was also sporadically visible in the soil profile of both units.

As reported elsewhere grain size and ground-penetrating radar data are typical of relict aeolian dune facies (Moore 2009). As revealed by radar profiles, no other major stratigraphic boundary is present until 2.6 - 3 meters below surface. This stratigraphic boundary differentiates the upper fine-grained unit (mostly aeolian) from underlying fluvial terrace deposits. Radar profiles consist of a very shallow high amplitude surficial zone followed by a low amplitude aeolian sand unit. A strong and continuous reflector at 2.6 meters below surface represents the base of dune deposits and the top of the buried alluvial terrace. Below 2.6 meters, very strong laminar reflectors represent silty and interbedded fluvial sands and mud.

In sum, a relatively shallow deposit of cultural material is present in the top 20-40 cm of Hart Ridge. Excluding historic artifacts, the primary component appears to have been a Woodland occupation although the presence of undiagnostic flaking debris could also reflect an Archaic presence on the ridge. Aeolian deposition appears to have been the primary mode of site burial although any cultural stratigraphy at the site, if present, is largely obscured by recent farming practices.

# Taft Ridge

The Taft Ridge Site (31Pt606) occupies the edge of an incised alluvial terrace of the Tar River that overlooks both upper and lower paleo-braidplains (Figure 3-2). Due to the asymmetry of the Tar River valley in the Coastal Plain, much of this former alluvial terrace has been destroyed to the west and south as the river has migrated to the extreme western and southern limit of its floodplain. Both Taft Ridge and Hart Ridge occupy the remnant scarp of this alluvial terrace north of the active channel. Taft Ridge is about 2 km north of the Barber Creek Site and overlooks a large swath of remnant braided river topography to its south (Moore 2009).

The site is located on a large sand ridge situated along the scarp of a former upland alluvial terrace at ca. 10.7 meters above mean sea level. Taft Ridge is more than 400 meters long (east to west) and slightly over 200 meters at its widest (north to south). Vertical relief above the underlying alluvial terrace is estimated at ca. 1.9 meters based on LiDAR elevation data. LiDAR elevation data reveal several similar landforms along the edge of this upper alluvial terrace. Several of these, including Hart Ridge appear to be large source-bordering aeolian dunes.

Strategic shovel testing revealed low to moderate density cultural material scattered across the landform; however, the area with highest artifact density was found along the most elevated section of the ridge near the south side of the alluvial scarp separating the older alluvial terrace from lower elevation paleo-braidplain deposits. Perhaps not coincidently, this vantage point offers one of the best views of the paleo-braidplain in Pitt County and is a southern exposure. Two test units were placed along the south side of the landform immediately adjacent to edge of the terrace.

Soil profiles are divided into four pedogenic soil zones. Zone I (0-15 cmbs) consists of a medium to fine dark brown loamy sand (10YR4/4-10YR4/6). This zone is the remnant A-horizon and part of an historic plowzone that appears to have been partially deflated. Zone II (ca. 15-50 cmbs) is a compact reddish brown loamy sand (10YR6/6-10YR6/8) and has a highly oxidized appearance. Most artifacts are found in the middle and upper portion of Zone II. Zone

III (ca. 50-90 cmbs) is a very compact medium to fine reddish brown sand (5YR5/8). This zone is very slightly lighter in color than Zone II and has very few artifacts. A fourth soil zone was recorded for unit 1, between about 85 and 110 cmbs that was not encountered in unit 2. It is a very well developed soil zone with extremely thick and well-developed clayey lamellae (5YR5/6-5YR6/6) surrounded by a much lighter colored sand unit (10YR7/3-10YR8/3). No artifacts were recovered from this zone.

Test unit 1 produced moderate amounts of debitage (n = 237), projectile point and biface fragments (n = 4) along with historic artifacts (i.e., nails, shotgun shells, bullet casings, asphalt, styrofoam, shell and aluminum pie plate fragments) found within the upper 3 Levels. Very small and tabular pieces of slate were also found and may represent historic activities at the site. Artifacts within the upper 20 to 30 cm of soil appear to be deposited within an historic plowzone (as evidenced by the presence of plow scars in level 2) with minor erosion and deflation of the original surface. Non-diagnostic tool fragments included a biface fragment in Level 3 and point fragment in level 4. Of particular interest, a small biface (made on a cobble blank) was found in level 3 (20-30 cmbs). In addition, a small undiagnostic, weakly side-notched, projectile point was found in level 4 (30-40 cmbs). Although the former may represent an unfinished projectile point or knife, the later projectile point may be a Halifax Side-Notched variant (Coe 1964; South 2005). This classification is supported by the presence of Halifax points recovered in test unit 2 (discussed below). Artifact frequencies by level in unit 1, produce a normal artifact distribution with a peak in level 4 (n = 75), and with nearly equal numbers in level 3 (n = 46) and level 5 (n = 44).

Test unit 2 produced higher amounts of debitage (n = 404) along with cobble fragments (n = 6), a single flaked cobble, point fragment, uniface fragment and a large tabular stone fragment. In addition, diagnostic projectile points (n = 3) were recovered, including two Halifax Side-Notched points and one Morrow Mountain Stemmed point. All three diagnostic projectile points were piece-plotted along with one cobble fragment and the metavolcanic tabular stone fragment. Other cobble or tool fragments were bagged by level, although somewhat more precise depths were obtained on two cobble fragments. All cobble, cobble fragments and tabular fragment were found in levels 3, 4, 5 and 7.

Interestingly, refits were made between three cobble fragments, two of which were found only one centimeter apart vertically (i.e., 43 and 44 cmbs), while the third refit piece was found in level 7 (60-70 cmbs). Peak artifact density for test unit 2 was found in level 3 (n = 117) and level 4 (n = 131). Associated diagnostic Late Archaic and Middle Archaic points for levels 3 and 4 respectively along with tabular and cobble fragments at the base of level 4 and top of level 5 also indicate the potential for a buried occupation surfaces at those depths.

Ignoring the historic materials for the moment, temporally diagnostic artifacts suggest Middle and Late Archaic occupations at the site. An essentially unimodal vertical artifact distribution with peak artifact densities at about 30-40 cmbs could reflect shallow artifact burial with some bioturbation. Associated diagnostic Late Archaic and Middle Archaic points for levels 3 and 4 respectively along with tabular and cobble fragments at the base of level 4 and top of level 5 also indicate the potential for a buried occupation surface at that depth. The cobble refits in level 5 and 7 noted above would be consistent with that interpretation.

However, interpreting site formation at Taft Ridge is more problematic than any of the other tested sites. While aeolian burial may have partially contributed to site burial, artifact distributions may also be explained as a result of biomantle formation within a long-term stable landform (Johnson 1990; Leigh 1998). Sedimentologically, for example, Taft Ridge is

anomalous as compared to the other Tar River sites in that it has an unusually high percentage of fines (ca. 11-17 percent). Dune sediments typically contain less than 10 percent silt and clay (e.g., Daniels and Hammer 1992). While possibly pedogenic in origin, a high percentage of fines at Taft Ridge may imply significant landform age. A recent (i.e., Holocene) aeolian origin for surficial sediments at Taft Ridge would seem to be ruled out given the large percent fines. Furthermore, the soil profile at Taft Ridge appears highly oxidized (strong reddish brown) and has extremely well developed and thick "clayey" lamellae below one meter below surface. Such oxidization would also suggest soils of greater than Holocene age. Such a conclusion is also consistent with two luminescence (OSL) age-estimates several thousand years earlier than the presumed Middle to Late Archaic components represented by the associated diagnostic points (see Moore and Daniel, this volume).

In short, non-depositional or limited depositional burial processes are possible at Taft Ridge given the shallow nature of the archaeology, OSL dates significantly older than diagnostic artifacts, oxidized soil profiles with high amounts of fines and at least one case of artifact refitting demonstrating artifact displacement. This landform may be of late Pleistocene origin with limited reworking or deposition of sediments occurring during the Holocene. Further work at Taft Ridge is necessary to better understand site formation.

#### CONCLUSIONS

Some 25 years ago David Phelps proposed a cultural-historical sequence of Coastal Plain prehistory. Phelps emphasized this sequence was a working model "since most cultural frameworks of this nature, once they are described...tend to perpetuate themselves without the necessary testing that hypothetical constructs require for validity" (1983:15). Unfortunately, this point has largely been ignored, as researchers in the state continue to uncritically use this framework to guide their research. While correct in broad outline, our research suggests that the existing cultural-historical sequence can be refined to more accurately reflect Coastal Plain prehistory. A tentative revision is offered here (Figure 3-4).

The Paleoindian period remains the least understood of all the major prehistoric time periods in the region, if not the state. In large part this is due to the paucity of the Paleoindian archaeological record. Yet, North Carolina is no different than other Southeastern states in this regard and documenting the statewide distribution of fluted points remains our primary source of data regarding the Paleoindian period. Based solely on typological grounds, a three phase cultural-historical sequence can be proposed for the Paleoindian period of the Coastal Plain. Three phases are proposed for the Piedmont/Coastal Plain region: Clovis, Redstone, and Dalton. Although the latter point type was not included in the collections survey discussed here, Hardaway-Dalton points are present in the Coastal Plain in apparently as rare frequencies as other fluted points (Cooke 2000; Daniel 1998). As elsewhere in the Southeast, Dalton points are inferred to represent the transitional late Pleistocene—early Holocene point type in the Southeast (Ellis et al. 1998). Of course, this sequence remains untested against stratified or chronometrically dated Paleoindian assemblages. Finally, the Pasquotank site, is an important reminder that significant assemblages remain to be found in unstratified contexts and are not associated with stone sources (cf. Gardner 1983).

Turning to the Archaic period, we are on more firmer ground with respect to our proposed revisions to Coastal Plain culture-history. In particular, research to date suggests that "paleo-braidplain" sites hold particular promise for containing stratified (i.e., relatively discrete)

Period	Sub- Period	Phase/Complex	Context
Woodland	Late Middle Early	(see Phelps 1983) (see Phelps 1983) (see Phelps 1983)	
Archaic	Late	Savannah River Stemmed/ Thelma Stemmed?	Barber Creek
	Middle	Halifax Side-Notched? Guilford Stemmed Morrow Mountain Stemmed/ Stanly Stemmed? Kirk Stemmed	Barber Creek/ Taft Ridge Barber Creek/ Squire's Ridge Barber Creek/ Taft Ridge Surface Barber Creek/ Squire's Ridge
	Early	St. Albans Palmer/Kirk Corner-Notched Hardaway Side-Notched?	Barber Creek/ Barber Creek/ Squire's Ridge/ Owen's Ridge Surface
Paleoindian	Late Middle Early	Hardaway-Dalton Redstone Clovis	Surface Surface Surface

Figure 3-4. Revised Paleoindian and Archaic culture-history of the North Carolina Coastal Plain (adapted from Phelps 1983:Figure 1.2).

archaeological occupations (Figure 3-5). Upland Terrace sites, on the other hand, appear to contain less stratified (i.e., more temporally mixed) archaeological deposits.

Early Archaic revisions includes the addition of (Hardaway) Side-Notched and Bifurcate phases/complexes that bracket the (Kirk) Corner-Notched phase originally proposed for the Early Archaic. The phases/complexes of the Middle Archaic subperiod remain virtually unchanged with the possible exception of the addition of Kirk Stemmed points at the early end of the subperiod. Finally, the Late Archaic in the Coastal Plain is represented by Savannah River and small stemmed Thelma-like points. Although outside the purview of this paper, the presence of Early Woodland components at Barber Creek and other sites along the Tar River is significant. Data exists within those components to further refine our understanding of Deep Creek phase ceramic and lithic typologies. Although not detailed here, refinements in chronometrically dating this proposed sequence will be an important outcome of this research. Towards that end, we believe that OSL will play an increasingly larger role as a dating method in the Coastal Plain (see Moore and Daniel, this volume).

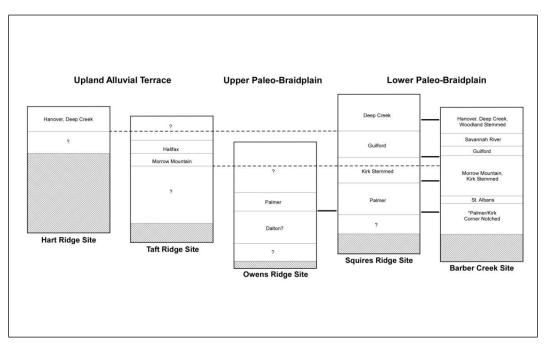


Figure 3-5. Schematic profiles of Tar River sites (after Moore 2009).

In sum, much work remains to be done, but it is clear that archaeological data are present in the Coastal Plain to address issues bearing on Paleoindian and Archaic period culture-history. Increased efforts need to be devoted to primary data collecting, particularly with respect to issues relating to chronology and typology. Whatever the outcome of that research, one implication of the current work is clear: the archaeology of the coastal plain needs to be regarded on its own terms. Acknowledgments. Greenville Utilities Commission have hosted the Barber Creek field school since 2000. In particular, Thomas Hardison (Chief Operator, Waste Water Treatment Plant) facilitated our efforts in every way. Historic Preservation Fund Grants administered by the North Carolina Division of Archives and History in 2001 and 2003 have been used to obtain radiocarbon dates, conduct preliminary geoarchaeological work, and support student research on Barber Creek. More recently, East Carolina University provided support for the dissertation research of Christopher Moore, a Ph.D. student in the Coastal Resources Management Program, conducting the archaeological survey of the Tar River. Finally, virtually all of the fluted point data used here is in private collections. We are extremely grateful for the many individuals who shared those collections with us.

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