ARCHAEOLOGICAL TESTING AT 310R281 AND 310R4d ON THE MASON FARMS AND FINLEY GOLF COURSE PROPERTY, THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

by

Thomas O. Maher

H. Trawick Ward, Ph.D. Principal Investigator

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Management Summary

In May and June 1996 personnel of the Research Laboratories of Anthropology, UNC - Chapel Hill, were engaged to ascertain the subsurface integrity of two sites in the Finley Golf Course and Mason Farms area. Sites OR4d and OR281 were previously identified as having a high potential for intact prehistoric features. Shovel tests and soil cores did not reveal any features at these sites. Most of site OR4d, however, remains in (and under) the golf course and was not tested for subsurface features. Because site OR4d may still retain important information on the late prehistoric occupation of the North Carolina Piedmont, we recommend that a professional archaeologist be present when earth disturbing activities are conducted at this site. No additional archaeological testing is necessary at site OR281.

Introduction

In May 1996, the Research Laboratories of Anthropology (RLA) were approached by Rebecca Brennan-Wagner of Facilities Planning and Design of the University of North Carolina at Chapel Hill concerning prehistoric Native American sites in the Finley golf course and Mason Farms properties. The Finley golf course wishes to expand its facilities and the University wishes to construct sports fields (e.g. soccer) in the Mason Farms areas. Examination of the RLA site files and the results of a previous survey in this area (Hargrove 1992) indicated that these activities may damage archaeological sites in the project area. The Facilities Managers requested that the RLA investigate the subsurface integrity of two sites in this area scheduled for immediate development. After consultations with the Office of State Archaeology (OSA), the principle investigator (H. Trawick Ward, Ph.D.) and project director (Thomas O. Maher) submitted a proposal and budget for a Phase II level of investigation into both sites. This was approved and field work took place June 4-20, 1996.

Environment

Although the current environment is doubtless quite different from that experienced by pre-contact Native Americans, a general review is useful to understand the context of this project. Located in the southeastern portion of Orange County the sites (Figure 1) are situated in the Piedmont physiographic province. The topography of the Piedmont is typically rounded hills with numerous streams, some having wide floodplains. Both sites are adjacent to Morgan Creek and one, OR281, is located in the floodplain of that creek.

Geologically this area is on the eastern edge of the Carolina Slate Belt (Daniel 1994a) which stretches from Virginia to Georgia. Metavolcanic and metasedimentary



Figure 1. Location of 31OR281.

rock formations are found in this part of Orange County, but, to date, no large quarry sites have been identified in this area. Most of the prehistoric stone debris recovered in this project consisted of rhyolite and other metavolcanic rock. Quartz also was used by pre-contact Native Americans to make tools. Quartz cobbles are found in local stream beds and a possible quarry has been identified in eastern Orange County (McCabe et al. 1978).

Morgan Creek drains the project area. This stream, as well as Bolin Creek and New Hope Creek, are part of the Cape Fear River drainage basin and reach that river via the Haw River in Chatham County. The soils in this area belong to either the upland moderately well-drained White Store-Creedmoor soil association or the Chewacla-Congaree soil association (Dunn 1977). Chewacla loam, a poorly drained heavy soil, was observed in the swales of OR281. Site OR4d is found on Appling sandy loam and White Store loam soils. Both soils grade into a sandy clay. In the North Carolina Piedmont pre- and post-contact artifacts and features are usually located above, or intruding into, this clay strata.

In undisturbed areas, local forest plant communities would include a variety of pines and oaks, as well as maple, hickory, ash, walnut, poplar, dogwood, sweetgum, sassafras, sourwood, holly, persimmon, and black cherry (Dunn 1977). It is difficult to reconstruct the flora and fauna that existed during different periods of pre-contact occupation based on modern conditions. Recently Daniel (1994a) has composed a reconstruction of the paleoenvironment for Orange County based in part on palynological studies in the eastern U.S. He indicates that,

During the time between ca. 10,500 and 7000 BC, the area at midlatitudes (33° - 37°) across the Southeast would have been undergoing biotic adjustments as a result of postglacial climatic warming. A mixed hardwood forest would have been in place in North Carolina during this time including oak, maple, beech, basswood, elm, walnut, hemlock, and gum ...In North Carolina the mesic forest occurred somewhat later (circa 9000-8000 BC) and was less strongly developed than more southern localities, exhibiting more oak and fewer mesic trees, including hemlock and birch...

After 7500 BC, the demise of the cool mesic temperate forest north of the 33° latitude led to an oak dominated forest with a minimum of pine... [After 3000 BC] Previously dominated by the oak-hickory forests, coastal plain forests became dominate by species of southern pine. Pine also increased at the expense of oak in the Piedmont, where an oak-hickory-southern pine forest developed. (Daniel 1994a:6-7) [see also Delcourt and Delcourt 1981, 1984, 1985; Watts 1980]

Early European explorer accounts mentioned tree-less "savannas" (Lefler 1967:34, 56) that probably existed as a result of field clearing or intentional burning by the indigenous inhabitants (Gremillion 1984:11). Maize was grown in this area from at least AD 1000, as was beans and squash (Ward and Davis 1993). The remains of white-tailed deer, raccoon, beaver, black bear, opossum, turtles, fish and shellfish have been recovered from pre- and post-contact sites in Orange County and are representative of the fauna available before European contact (Ward and Davis 1993).

Currently, site OR4d is found in or under the practice range and links of the Finley Golf Course. A portion of the site between the practice range and the road and a larger area south of the road are in forest and scrub vegetation. Site OR281 is located in an abandoned farm field east of the golf course. The lack of saplings suggests that it is periodically mowed.

Archaeological Background

Recently Daniel (1994a:8-18) has summarized the prehistory of Orange County. The following synopsis is based primarily on his treatise and other recent works (Dickens, Ward, and Davis 1987; Ward and Davis 1993; Hargrove 1992).

Paleoindian Period. Few sites of the Paleoindian period (pre-9500 BC) have been identified in North Carolina. Thought to be the earliest human habitation of North America, this period is traditionally identified by the presence of a distinctive fluted

point called "Clovis". These large spear points have been found in surface or redeposited contexts in North Carolina. Daniel indicates that two of the three fluted points recovered in Orange County were made from non-local rock. One was made from chalcedony presumably from a source in the mountains, and the other from a green metasiltstone which Daniel thinks might be from an outcrop along the Yadkin River near Bladin (1994:9). Generally people at this time were foragers and hunters of large, now extinct, animals such as the Woolly Mammoth and the giant Bison.

Early Archaic Period. Only two sites with Early Archaic (ca. 9,500-6,000 BC) components have been excavated in North Carolina. Site 31CH29 was located in Chatham County and replicates what was found at the Hardaway site. The Hardaway site was adjacent to the Yadkin River and was instrumental in understanding the chronological sequence of Early Archaic occupations in the southeastern U.S. (Coe 1964). As with the previous period, the Early Archaic chronological sequence is based on changes in the hafting of stone projectile points. Details can be found elsewhere (Coe 1964, Daniel 1994a, 1994b), but in general lanceolate-shaped projectile points with serrated blades and eared bases (Hardaway-Daltons) were succeeded by points notched on their sides (Hardaway Side-Notched). These were followed by corner notched points (Palmer and Kirk Corner-Notched), and, in some parts of North Carolina, by relatively small points with deep basal concavities (Bifurcate tradition). Recently Daniel (1994b) re-examined the Hardaway assemblage and suggested other tool types characteristic of this period.

Early Archaic peoples are thought to have pursued a somewhat more varied diet then those in the previous period, although subsistence evidence is scarce for both time periods. Nomadic foraging of available plant and animal sources is assumed for this period.

Middle Archaic Period. The Middle Archaic period ranges from 6000 to 3400

BC. Phases within this period are again based on changes in projectile point shape and hafting technology. Stemmed points mark the beginning of this period. Kirk Stemmed and Kirk Serrated points were early (6000 - 5800 BC) local representatives of this point form. Stanly points with small square stems were used in this area from approximately 5800 - 5500 BC. Contracting stemmed Morrow Mountain points have been dated at between 5500 to 4000 BC in other parts of the Southeast (Daniel 1994a). Guilford points mark the end of the Middle Archaic. These points were spike shaped with little or no break in the outline between blade and stem. This Guilford phase lasted from approximately 4000 to 3400 BC (Daniel 1994a). Although Middle Archaic points have been found on the surface in the project area no buried deposits have been discovered. A foraging subsistence and seasonal movement to subsistence resources is assumed to have been common at this time.

Late Archaic Period. A large, stemmed, and broad-bladed projectile point (Savannah River points) was typical of the Late Archaic period in North Carolina. Lasting from 3000 - 500 BC, this period also was marked by the presence of full-grooved, ground-stone axes, and steatite bowls (Coe 1964). Little is known about the Late Archaic in North Carolina. Elsewhere this period was distinguished by increased sedentism, increased site size, increasing transregional exchange, and a focus on coastal and riverine resources (Steponaitis 1986). Whether people in North Carolina at this period were involved in these changes in subsistence and settlement has not been determined.

Early, Middle, and Late Woodland Periods. Traditionally the Woodland occupations are marked by the presence of ceramics and increased reliance on the growing of indigenous cultigens such as goosefoot, maygrass, stumpweed, sunflower and pepo squash. The first recognized Woodland phase in the Piedmont was Badin (ca. 500 BC - AD 500). Badin ceramics were sand-tempered, with either cord or fabric marked surface treatments. Triangular stemless points called Badin Crude Triangular points are

also associated with this phase (Ward 1983:61).

Yadkin phase (AD 500-1200) pottery was tempered with crushed quartz. In addition to cordmarked and fabric impressed surface treatments, linear or check stamping was occasionally applied (Coe 1964:55). Yadkin Large Triangular points were thinner than those of the Badin phase and had a characteristic concave base. The differences were seen as temporal by Coe (1964:47), but recently it has been suggested that the Badin points may be preforms for the finer Yadkin points (Sassaman et al. 1990:164).

In the Piedmont, the only known Late Woodland phase was Uwharrie. Ranging from approximately AD 500 to 1000 this phase is characterized by the presence of quartz-tempered pottery with large-knotted net-impressions on the exterior and often obviously scraped interiors (Coe 1952). Typically Uwharrie series pots were "large, co-noidal jar with either a straight or slightly constricted neck" (Ward and Davis 1993:398). Vessel walls averaged 6 mm in thickness. Although most vessels were net-impressed, cordwrapped, brushed, and scrapped exteriors also are found (Ward and Davis 1993:398). Recently this pottery type also has been associated with the late pre-historic Haw River phase, AD 1000-1400 (Ward and Davis 1993:408).

Late Prehistoric and Contact Periods. In the last decade the Research Laboratories of Anthropology have been engaged in research on the Late Prehistoric and Contact occupations of Native Americans in the Dan, Haw, and Eno River drainages (Dickens et al. 1987; Ward and Davis 1993). This has resulted in the creation of a series of chronological phases for these river drainages. The sequences for the Eno and Haw are pertinent to this study.

The Haw River phase (AD 1000-1400) isapplied to both drainages. As previously mentioned, a late manifestation of Uwharrie series pottery was characteristic of the first half of this phase (Ward and Davis 1993:409-409). Ceramic vessels of this series are described as consisting of "large, thick-walled, mostly undecorated conodial

jars with straight or slightly constricted necks" (Ward and Davis 1993:408). Quartz or coarse sand was used for temper, and surface treatments included net impressions, cord-marking, brushing, and plain. During the second half of this phase (AD 1200-1400), the Haw River ceramic series was most common. Although similar to the Uwharrie series in shape, Haw River vessels had more constricted necks and the upper rims were often decorated (Ward and Davis 1993:408). Surface treatments other than net-impressions were rare in this series.

Five Haw River phase sites have been excavated in the North Carolina Piedmont. These sites were small, with dispersed structures and associated pits and burials. Typical features during this phase were "fairly large, cylindrical storage pits that were refilled with soil and refuse" (Ward and Davis 1993:408). There is evidence that the inhabitants at these sites practiced agricultural food production using maize, beans, squash, and sunflower as well as other indigenous species.

The Hillsboro phase (AD 1400-1600) was present in both the Eno and Haw River drainages. Ward and Davis (1993:409-410) point out that pottery associated with this phase (Hillsboro series) has been found at sites with late Haw River phase occupations. They suggest that this co-occurrence, and the presence of palisaded villages at the beginning of the Hillsboro phase (e.g. the Wall site), indicated interaction or conflict between differing Native American groups in this area. Sites continue to be small and highly nucleated as in the previous phase.

At the Wall site 73 percent of all Hillsboro series sherds had a simple stamp surface treatment. Of the remaining pottery 14 percent were check stamped and 11 percent were plain (Ward and Davis 1993:412). The Hillsboro series pottery was tempered with either medium to fine sand or crushed feldspar. New vessel forms, such as carinated jars and cazuela bowls, were first used during this phase.

In the Eno drainage, the Jenrette (AD 1600-1680) and Fredricks (AD 1680-1710) phases follow the Hillsboro phase. European trade goods were present in both

these phases. Excavations at the overlapping Jenrette and Fredricks sites defined these phases. Ward and Davis suggested that these two sites were the villages of Shakor and Occaneechi respectively which were noted in early historical descriptions of this area (1993:414-418). European artifacts were present, but not common during the Jenrette phase. Jenrette series pottery was composed primarily of small-to-medium sized jars and bowls with plain surfaces. Simple stamped, brushed, and cob impressed surface treatments were present but rare.

The Fredricks phase "defines the archaeological remains of the Occaneechi after they moved from the Roanoke River to the Eno River" (Ward and Davis 1993:415-416). This phase was based on the complete excavation of the Fredricks site. This was a small (0.1 ha.), palisaded village with 10 to 12 structures and associated storage pits. Two cemeteries were located outside the palisade walls and a high mortality rate has been noted for this village (Hogue 1988:99). This was doubtless due to the epidemics of European diseases, such as small pox, that affected Native Americans in this area during the last half of the seventeenth century.

Although Fredricks series pottery may have been derived from the Jenrette series there were differences. Ward and Davis compare the two series:

> Unlike Jenrette series pottery which represents relatively heavy, thick-walled vessels with coarse temper, poorly stamped or smoothed exteriors, and the frequent use of simple stamping, Fredricks vessels invariably were tempered with fine sand, had very thin walls, and had exteriors that were either smoothed or check stamped. Decoration, when present consisted solely of fine, oblique incisions or linear impressions along the vessel lip and occurred only on check stamped vessels. [1993:416]

In addition to the pottery, a wide variety of European trade goods such as wine bottles, metal tools and firearms were recovered from the Fredricks site.

Although European objects were common during this phase, subsistence was much like the previous two phases. Deer were the most common animal remains found at the Fredricks site. Turtle, fish, turkey, and small mammal remains were also recovered. Only a single bone of horse and pig were recovered at Fredricks. Likewise peach pits and one watermelon seed indicated infrequent use of European plant foods.

By the early 1700s, there was no longer much evidence of Native American settlement in the Carolina Piedmont. The depopulation due to disease, slavery, and warfare forced many small tribes to coalesce into biologically and socially viable groups. This resulted in many small groups, like the Occaneechi, being absorbed into the Catawba and other larger tribes. From the mid-1700s onward, North Carolina Piedmont history is that of European and African settlement.

Field Methods

This project focused on sites that are known to exist in the Finley Golf course and Mason Farms area. The methods employed, therefore, concentrate on determining the presence and condition of subsurface archaeological features such as storage pits, refuse or midden deposits, structures, and burials. The intent was to determine whether more extensive excavations were necessary to salvage information before it is destroyed by development.

Shovel tests consist of excavating small informal pits approximately 15 inches in diameter until subsoil is contacted. In the Piedmont, a reddish-brown clay or sandy clay marks the point below which human sites are rarely found. All soil from shovel tests was screened using one-half inch hardware cloth. Soil strata and their depth below surface were recorded for each test. Shovel tests are usually used to locate sites where surface visibility is poor (e.g. pasture or forested lot). In this project they were used only to help verify the location of a portion of site OR4d.

Personnel of the Research Labs of Anthropology have developed a method for

identifying features within a known site (Ward and Davis 1993:407). Soil cores approximately one inch in diameter are removed using hand-held soil augers. A clean face is scrapped using a sharpened trowel and the exposed soil strata are examined for evidence of human disturbance. Human habitation of more than a transitory nature alters the soil. Archaeological features are often dark in color and filled with fragments of charcoal, carbonized plant and animal remains, and partially fired clay materials from pottery making and house construction (e.g. daub). Additional cores are taken until subsoil is contacted.

It is not possible to reliably identify the functional-type of feature nor its cultural or chronological affiliations using only a soil core probe . A series of core probes can inform on feature size and determine its location for later traditional excavation methods. Soil coring was, therefore, used during phase II investigations to determine the extent of intact cultural features below the surface. In this project soil core probes were taken on three different spatial intervals, 2.5 ft., 5 ft., and 15 ft. Given good soil conditions (moist but not sodden), it is possible to cover large areas with a fine grid of soil cores. This technique was successful at identifying features at the Jenrette and Fredricks sites along the Eno River at Hillsborough. Similar soil and topographic characteristics are present along Morgan Creek, and it was reasonable to expect similar results.

Results

OR281

Site 31OR281 was identified by Thomas Hargrove in his phase I survey of the Finley and Mason Farms property in 1992. Hargrove describes the site as

in a fallow field on the floodplain of Morgan Creek. Until very recent years the University leased it as farmland, and plowing has only stopped within the last two years. [1992:19]

The site was identified during a transect of screened shovel tests. A total of seven thinning flakes made from a felsic stone were recovered from five shovel tests (Hargrove 1992:19) at this site. Hargrove recommended that there be additional testing at this site before construction of the planned athletic fields.

The site (Figure 2) continues to be found in a fallow field. Field work began on June 4 and ended in the late afternoon of June 7. Surface visibility was zero, as the field was covered in waist- to chest-high vegetation. The site was relocated using maps provided by Hargrove and taping distances from obvious landmarks (e.g. road intersections). Using pull tapes and a compass, base lines at either end of the long axis of the site were established. Approximately 23.3 percent of the site area was examined taking soil cores on a 2.5 ft. by 2.5 ft grid (Figure 3).

These 1,280 cores revealed soil strata similar to what Hargrove noted in his shovel test pits. Soil cores from this site fell into two categories. On the higher ridges, the top seven inches were composed of dark yellowish brown (Munsell soil color 10YR 4/4) disturbed loam that appeared to be a plowed zone. The next 1.25 in. was a narrow strata of yellowish brown (10YR 5/6) coarse sandy loam. At approximately 8.5 inches below the surface there was a strong brown (7.5YR 4/6) clay loam that appeared more heterogeneous then the above two strata. In lower areas of the site, there was a slightly







Figure 3. Areas at OR281 cored using 2.5 ft. and 15 ft. intervals.

different sequence of soils: 0-5 in. a dark yellowish brown (10YR 4/6) loam, 5-11 in. a brown (7.5YR 4/4) sandy loam, and below 11 in. there is a dark brown (7.5YR 3/4) clay loam that becomes increasingly moist with depth.

Unexpectedly dry soil conditions slowed the testing of this site. Time limitations dictated a change in the soil coring strategy. The grid interval was increased to 15 ft. At each testing station, three cores were taken. First, one was taken on the transect line. Then additional soil cores were taken on either side (2.5 ft. interval), but perpendicular to the transect line. In this manner 408 soil cores were taken over 24,000 ft² of the site. A total of 1,685 soil cores were removed from an estimate site area of 34,360 ft². No human features or artifacts were identified from these soil cores. Although the site is well situated on relatively high ridges in the Mason Creek floodplain, there are no obvious subsurface features. In all likelihood continuous plowing has obliterated any cultural deposits that may have been present.

OR4d

Ward (1992) has summarized the archaeology done at OR4d before 1992:

Coe and his students conducted limited excavations [at OR4d] in 1949. They dug four 5-ft. squares and a small test pit. The excavations uncovered three undisturbed pit features and several postholes below the plowed soil. One of the pits was large, measuring 6.2 ft. by 5.7 ft and extended to a depth of approximately two feet. All the pits contained sherds, charcoal, and other refuse. The largest feature also contained a broken, but complete, Haw River phase (AD 1000-1400) pottery vessel [Figure 4]. This evidence clearly indicates the significance of this site and the high potential of the other areas for containing buried intact archaeological remains.

Hargrove states that the form for this site in the Office of State Archaeology had notes by Lewis Binford on the site's condition in 1956 (1992:13). Binford located the site on the north side of the Mason Farm access road on a levee that had evidence of



Figure 4. Net impressed Haw River phase jar excavated from a Native American feature at OR4d in 1949.

pot-hunter destruction.

In 1992, Hargrove completed a surface survey of exposed areas of the site and dug six shovel tests along its northern edge. Two of the shovel tests had felsic and quartz thinning flakes. Additional stone flakes and two unifacial scrappers were found on the surface around the edges of the site. In 1992, as well as in 1996, archaeologists could not test for subsurface features on the Finley Golf course. Hargrove recommended that archaeologists monitor the early phases of construction at this site.

Most of OR4d is located in or under the practice range and adjacent links (Figure 5) of the golf course. No excavations could be placed in these areas. Only the narrow wooded area between the practice range and the Mason Farm Biological Preserve access road (Figure 6), and an area south of this road could be tested using the aforementioned techniques.

Test Areas 1 - 3. Three high areas in the wooded boundary were both surface surveyed and systematically soil probed (Figure 5). Both metavolcanic and quartz thinning flakes were found on the surface of test area #1 (Table 1). One small, sandtempered Haw River series pottery sherd was found in this area. The exterior surface of this sherd was eroded, but there were faint marks that probably resulted from net impressions. This sherd was similar to the complete pot excavated from this site in 1949 (Figure 4).

Using a 5 by 5 ft. grid, 80 cores were taken in area #1; 60 in area #2, and 28 in area #3. None of these cores intersected subsurface features. Many of these cores suggest that these areas have been disturbed during the construction of the golf course, sewer line, and power lines (visible in Figure 6). Although Binford indicated that most of the site was north of the road, it is test area #4, south of the road, that was the least disturbed and most accessible part of the site.

Test Area #4. Area #4 is located on a rise north of the Morgan Creek flood-

Context	Description	Count	Weight
Surface of			
Area #1	Bifacial thinning flake, metavolcanic	1	2.2
"	Thinning flake, metavolcanic	1	6.4
"	Thinning flake, quartz	1	6.3
н	Haw River series ceramic body sherd	1	4.8
Soil core ne	ar		
SH1 #1	Bifacial thinning flake, metavolcanic	1	0.5
SH #1	Thinning flakes, metavolcanic	5	5.2
.0	Bifacial thinning flake, metavolcanic	1	0.7
SH #2	Thinning flake	1	10.0
SH #3	Thinning flake, quartz	1	1.8
	Thinning flake, metavolcanic	1	4.8
SH #5	Thinning flake, metavolcanic	1	2.1
	Crushed quartz-tempered, plain exterior		
	surface, ceramic body sherd	1	2.2
SH #7	Thinning flakes, metavolcanic	2	5.4
"	Crushed quartz and feldspar temper,		
	eroded, unidentifiable surface impressions	s 1	3.5
SH#12	Blade-like flake, metavolcanic	1	3.4
SH#15	Thinning flake, metavolcanic	1	6.4
SH #16	Bifacial thinning flake, metavolcanic	1	0.5
SH #18	Thinning flake, quartz	1	3.6
SH #19	Thinning flake, metavolcanic	1	4.1
н	Thinning flake, quartz	1	1.8
SH #22	Bifacial thinning flake, metavolcanic	1	0.2

Table 1. Artifacts Recovered from Site 31OR4d

1 - SH = Shovel test.

plain. This area has some very large, mature trees and little shrub and vine growth. This vegetation suggests that area 4 has not been disturbed recently (Figure 7). Its location and lack of obvious disturbances warranted a close examination. Figure 8 illustrates the placement of 23 shovel tests in this area. Although oriented to magnetic north, the shovel tests were placed primarily on the author's judgment rather than on an arbitrary interval. Thinning flakes from the creation of stone tool were found in a



Figure 5. Location of 31OR4d. Area 1 - 80 soil core tests. Area 2 - 60 soil core tests. Area 3 - 28 soil core tests. Area 4 - 1117 soil core tests.



Figure 6. Test areas at site OR4d. Test area 1 at left foreground; test area 3 at center background.



Figure 7. Shovel tests at area 4 of site OR4d.



Figure 8. The location of shovel tests in area 4.

number of these shovel tests. Single sherds of prehistoric pottery were recovered from shovel tests 5 and 7 (Table 1). Unfortunately, both were too small and eroded to allow a chronological assignment. These results indicate that human debris is found in low densities throughout area #4. The southwestern part of this test area had a slightly higher density of artifacts. That part of the site that falls within the Morgan Creek floodplain(southeastern quadrant) produced no artifacts.

Given the light distribution of artifacts and the evidence of intact features excavated in 1949, intensive soil probing was carried out in this area (Figure 9). Using a 5 ft by 5 ft grid, 1,117 soil cores were extracted from test area #4. These cores, and the shovel tests, revealed that the typical soil strata were: 0 -0.5 ft very dark grayish brown (10YR 3/2) sandy loam (humic zone); 0.5-0.8 ft dark yellowish brown (10YR 4/5) sandy loam, and below 0.8 ft yellowish red (5YR 4/6) sandy clay. None of the soil probe cores, however, indicated subsurface features in this area. Despite good soil conditions and a likely topographic setting, area #4 appears to consist of just a light scatter of prehistoric lithics and pottery.



Figure 9. The area tested using soil core probes on a five foot interval.

Recommendations

Between June 4 and 20th, personnel of the Research Laboratories of Anthropology conducted archaeological investigations at two known sites scheduled for destruction by Finley Golf course and Mason Farms development. Site OR281 was systematically probed using a soil core. The 1,685 cores indicated that it is highly unlikely that this site retains any subsurface archaeological features. Shovel tests from a previous examination of this site indicated that it was composed of a light scatter of debris from the creation and/or maintenance of stone tools. No further archaeological investigation of this site is warranted by the results of this investigation.

Site OR4d has a longer history of archaeological investigation. Excavations by Coe in 1949 showed that there were intact features that belonged to the pre-contact Haw River phase. Surface survey of this site by the author generated artifacts that also were from this phase. All current subsurface investigations of this site indicate that there are no obvious features in the areas with unimpeded access. That part of the site that remains in or under the Finley Golf course has not been tested in this or any previous investigations. These areas may have important Native American features. Because site OR4d may still retain important information on the late prehistoric occupation of the North Carolina piedmont, we recommend that a professional archaeologist be present when earth disturbing activities are conducted at this site.

References

Coe, J.L.

- 1952 The Cultural Sequence of the Carolina Piedmont. In *Archaeology of the Eastern United States*. edited by J.B. Griffin, pp. 301-311. University of Michigan, Ann Arbor.
- 1964 The Formative Cultures of the Carolina Piedmont. *Transactions of the American Philosophical Society*, 54. Philadelphia, PA.

Daniel, I. Randolph

- 1994a An Archaeological Survey of Portions of Orange County, North Carolina. Research Report #12 of the Research Laboratories of Anthropology, University of North Carolina at Chapel Hill.
- 1994b Hardaway Revisited: Early Archaic Settlement in the Southeast. Unpublished Ph.D. Dissertation, Department of Anthropology, University of North Carolina at Chapel Hill.

Delcourt, H.R. and P.A. Delcourt

1985 Quaternary Palynology and Vegetational History of the Southeastern United States. In *Pollen Records of Late-Quaternary North American Sediments*, edited by V.M. Bryant and R.G. Holloway, pp. 1-37. Plenum, NY.

Delcourt, P.A. and H.R. Delcourt

- 1981 Vegetation Maps for Eastern North America: 40,000 years B.P. to Present. In *Geobotany*, edited by R. Romans, pp. 123-166. Plenum, NY.
- 1984 Late Quaternary Paleoclimates and Biotic Responses in Eastern North America and the Western North Atlantic Ocean. In *Paleogeography, Palaeoclimatology, Paleoecology* 48:263-284.

Dickens, R.S. Jr., H.T. Ward and R.P.S. Davis, Jr. (editors)

1987 The Siouan Project: Seasons I and II. Monograph Series 1, Research Laboratories of Anthropology, University of North Carolina, Chapel Hill, NC.

Dunn, J.

1977 Soil Survey of Orange County, North Carolina. United States Department of Agriculture, Soil Conservation Service.

Hargrove, Thomas H.

1992 An Archaeological Survey of the Proposed Expansion of the Finley Golf Course, University of North Carolina, Orange and Durham Counties, Chapel Hill, North Carolina. A report submitted to the John R. McAdams Company by Archaeological Research Consultants, Inc., Raleigh, NC.

Hogue, S. H.

1988 A Bioarchaeological Study of Mortuary Practice and Change among the Piedmont Siouan Indians. Unpublished Ph.D. dissertation, Department of Anthropology, University of North Carolina, Chapel Hill.

Gremillion, K.J.

1984 Aboriginal Use of Plant Foods and European Contact in the North Carolina Piedmont. Unpublished Master's Thesis, Department of Anthropology, University of North Carolina, Chapel Hill, NC.

Lefler, H.T.

1967 A New Voyage to Carolina, by John Lawson. University of North Carolina Press, Chapel Hill, NC.

McCabe, J.T., T.H. Hargrove, and J.L. Cross

1978 I-40 Extension: A cultural Resource Reconnaissance Survey of the Proposed Interstate 40 Extension, Durham and Orange Counties. Report on file, Office of State Archaeology, Raleigh.

Sassaman, K.E., M.J. Brooks, G.T. Hanson, and D.G. Anderson

1990 Native American Prehistory of the Middle Savannah River Valley: A Synthesis of Archaeological Investigations of the Savannah River Site, Aiken and Barnwell Counties, South Carolina. Occasional Papers of the Savannah River Archaeological Research Program, South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Steponaitis, V.P.

1986 Prehistoric Archaeology in the Southeastern United States. Annual Review of Anthropology 15:363-404.

Ward, H.T.

- 1983 A review of Archaeology in the North Carolina Piedmont: A Study of Change. In Prehistory of North Carolina: An Archaeological Symposium, edited by M.A. Mathis and J.A. Crow, pp. 53-81. North Carolina Division of Archives and History, Department of Cultural Resources.
- 1992 A Summary Assessment of Archaeological Sites in the Vicinity of Mason Farm. Ms. on file, Research Laboratories of Anthropology, University of North Carolina, Chapel Hill, NC.

Ward, H.T. and R.P.S. Davis

1993 Indian Communities on the Carolina Piedmont A.D. 1000 to 1700. Monograph No. 2, Research Laboratories of Anthropology, University of North Carolina at Chapel Hill, NC.

Watts, W.A.

1980 The Late Quaternary Vegetation History of the Southeastern United States. Annual Review of Ecology and Systematics 11:387-409.