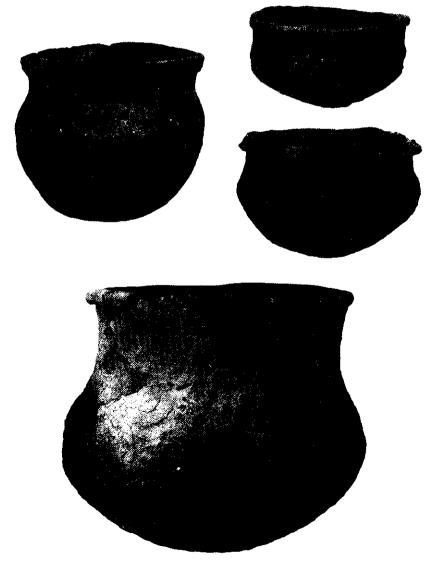
THE ARCHAEOLOGY OF NATIVE NORTH CAROLINA PAPERS IN HONOR OF H. TRAWICK WARD

edited by Jane M. Eastman, Christopher B. Rodning, and Edmond A. Boudreaux III



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PUBLICATION 7

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Foreword by Vincas P. Steponaitis

One of the great pleasures of my coming to the University of North Carolina (UNC) at Chapel Hill in 1988 was the opportunity to work with Trawick Ward in the Research Laboratories of Archaeology (RLA). Although I had never met Trawick prior to my interview for this job, I certainly knew of his writings and his reputation as a fine excavator. Over the thirteen years that we spent together in the RLA, I came to appreciate even more fully his talents. This collection of essays on North Carolina archaeology, presented to Trawick on the occa-sion of his retirement from the university, gives me a chance to reflect on his many contributions to the archaeology of our state and region.

Trawick made his mark as a scholar very early in his career, with a paper entitled "Correlation of Mississippian Sites and Soil Types," which he wrote as an undergraduate. Published in Southeastern Archaeological Conference Bulletin 3 (1965), this paper was widely cited and years later was reprinted in The Late Prehistoric Southeast: A Source Book (Garland, 1986), a compendium of Southeastern archaeology's greatest hits. Elsewhere in these pages, Bennie Keel recounts the many projects on which Trawick subsequently worked, and his inimitable account requires no further elaboration. I need only note that Trawick's most recent book, Time Before History (UNC Press, 1999), which he co-wrote with Steve Davis in the years just before his retirement, will surely stand for many years as an indispensable synthesis of North Carolina archaeology. Much of this synthesis rests on field work in which Trawick himself played an important role.

Trawick also made lasting contributions as a teacher. Although not officially in a "teaching job," he influenced many generations of students at UNC-Chapel Hill through participation in RLA seminars, supervision of field projects and field schools, service on thesis and dissertation committees, and just plain one-on-one tutoring. His guidance is visible even today in many of these students' writings, which cover many aspects of Southeastern archaeology, and in their field work, which always strives to attain the high standards that

Trawick set.

I've had the privilege of working with many fine colleagues over the years, and Trawick ranks among the finest. As director of the RLA, I often sought his advice and was always rewarded with straight talk and common sense. Time and again his unwavering candor kept me out of trouble, something for which I will always be grateful. Over the years, I and many others have come to value his friendship. We've also come to rely on his skill in cooking pigs: Trawick's barbeque, done in classic North Carolina style, has been known to attract archaeologists and other afficionados from hundreds of miles away.

There is no better evidence of Trawick's lasting influence on Southeastern archaeology than this booka festschrift organized by his present and former students. What a fitting tribute to Trawick as a scholar, a teacher, and a friend!

BACKDIRT, BONDO,® DUCT TAPE,® AND NINTENDO® ARCHAEOLOGY: AN APPRAISAL OF THE CAREER OF HENRY TRAWICK WARD ¹

Bennie C. Keel

An introduction, satirical in tone, to the archaeological career of Henry Trawick Ward.

I am especially grateful to have been asked to provide an appraisal of the career of Henry Trawick Ward. If my style seems strange to you, remember we have just finished a very gentle presidential election campaign where all of the candidates were polite and truthful, stuck to the issues, and did not engage in character attacks. It was my good fortune to retain the services of a political speechwriter to assist me in preparing these remarks.

Trawick was, as we say down South, a member of the country gentry. He was raised by a loving family on a plantation just outside the metropolis of Iron City, Georgia and spent his youth dawdling away the hours reading poetry and philosophy. He began his study of human biology at the nearby redneck Riviera—Panama City—where he developed his reputation as a connoisseur of fine malt beverages. After high school graduation he matriculated at the Georgia Institute of Technology with the aim of becoming an engineer. But that came to naught since, as he says, "I had to take math."

At Georgia State University, otherwise known as the Harvard of Peachtree Street, he would come under the guidance of Jean Black Yarnell and Lewis Larson, whom he credits as major influences in his career, I am told. He would begin his archaeological vocation in 1964 with Larson at the Etowah site where, to paraphrase Howard Carter, they found 'things, wonderful things.'

I met Tra in 1972 when he showed up as a graduate student at the University of North Carolina-Chapel Hill. He was not the typical graduate student, fresh from completing his bachelor's degree. No, he arrived with MA in hand from the University of Missouri where he (Figure 1) had studied with Ray Wood and Roland Pangborn. He had gained valuable field experience from 1966 to 1969 in the Stockton Reservoir of southeastern Missouri working on rock mounds and two alleged Woodland sites (Pangborn et al. 1971). By his own admission "there wasn't a damn thing there." Well, he did find a finely chipped ceremonial blade. He excitedly presented this find to Wood and Wilfred

Logan, who were duly unimpressed with the rather commonplace Karnak Unstemmed blade. Tra would later recognize the similarity of this type to the ubiquitous North Carolina Guilford Lanceolate projectile point type.

His genteel deportment and soft voice were polished by his age-grade mates: Carl Falk, Cal Calabrese, Marvin Kay, Bennett Graham, Bob Thorne, and Walter Klippel—a more modest and soft spoken group could not be imagined. Anyway, his experiences in the bootheel of Missouri were quite contrary to those of that earlier summer with Larson at Etowah, where he claims to have found paint palettes and ceremonial pots everywhere.

At Missouri Tra wrote a thesis on material that A. R. Kelly had dug up decades earlier in the Kansas City area. He concluded, in his "Mississippian Influence in the Kansas City Area" (Ward 1969), that contrary to prevailing opinion this late prehistoric occupation did not result from direct migration of Cahokia Old Village people, but rather from the evolution of a local Plains group adopting "high falootin" pottery traits.

I suspect his training under the gentle hands of Ray Wood and Lewis Larson developed much of his professional demeanor.

Between his stint at Missouri and his arrival at Chapel Hill, he served on the faculty of the US Army Psychological Operations School as a Special Forces anthropology instructor. His approach to life took an even more mellow and gentle turn after two years spent training the Army's elite population reduction force.

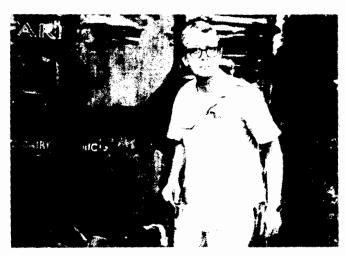


Figure 1. Trawick arrives from Missouri (courtesy of Research Laboratories of Archaeology, University of North Carolina).

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SOUTHEASTERN ARCHAEOLOGICAL CONFERENCE BILOXI, MISSISSIPPI 2002 At any rate the first assignment Joffre Coe gave him when he reached North Carolina was a small project at Guilford Courthouse National Military Park (Coe and Ward 1974; Ward 1973; Ward and Coe 1976). As some of you may know, Coe had a very cautious attitude toward historical archaeology at this time. He considered, I suppose, that Tra could do little harm to the real archaeological record. I had left the University at the end of June 1973, before he had the opportunity to trifle with "real" Carolina archaeology. Tra began full-time employment later that year in my old job at the Research Laboratories of Anthropology. Consequently, I have no personal knowledge of his activities after that time and have had to rely on the statements of his loyal colleagues and students in preparing this critique.

In the summers of 1973 and 1974, he carried on the excavations at the Warren Wilson site that had been underway since 1965. You may recall that the Warren Wilson site had been thoroughly reported by that time by Dickens (1970) and Keel (1972). Work here involved, for the most part, removing and sifting plow zone and recording features and a post mold or two-a very challenging and complex operation, to be sure. That furnished him with much of the data for his dissertation (Ward 1980), supplemented by data from Upper Saratown and heavy statistical manipulations. He concluded, after 325 pages, that material recovered from the plow zone is related to the archaeological assemblage present in the rest of the site. He tells us, as a true archaeologist, that the "evidence ... underlines the need for more extensive excavations," and, he further explains, once "sufficient quantities and varieties of sites have been studied and the structural components compared, hopefully predictive patterns of disturbed context data can be isolated...." (Ward 1980:350).



Figure 2. Exhibiting professional demeanor at Guilford Court House, 1972 (courtesy of Research Laboratories of Archaeology, University of North Carolina).

During the summers of 1975 and 1976 he and a small crew sifted hundreds of cubic yards of pothunter back dirt at the Hardaway site (Coe 1964). Their effort led to the collection of thousands of specimens from totally disturbed context and the realization that looters had completely destroyed the site since the last scientific work there in 1959. I had reached the same conclusion, based on my mapping and back filling of disturbed areas at the site, and reported it to Coe in 1962. Tra also spent several weeks at the close of each field season from the mid-1970s into the early 1980s closing down the Laboratories' investigations at Upper Saratown. I presume this involved excavating a few insignificant pits that the summer crew had left unopened because of time pressure or simply because they did not want to do the work. These efforts also called for back filling the excavations.

As we have seen, Tra spent most of his first ten years at the Laboratories digging plow zone, sifting back dirt, and back filling. I am told that this was done conscientiously and efficiently. This most certainly prepared him for what was in store during the next decade and a half—the Siouan Project—where he would develop uses for Bondo[®] and Duct Tape[®] that were unintended by the manufacturers.

Rather than constructing neat plywood boxes to encase features to be taken back to the laboratory in one piece, Tra developed a procedure that consisted of wrapping a cardboard collar made from any old box lying around and securing it with duct tape. This in turn was covered with newspaper and a shell of auto body repair filler. The result of this was simply a mess. Instead of having expertly constructed wooden boxes that could be stored neatly on laboratory shelves for careful study at some point in the future, this procedure produced an array of unsightly, irregularly shaped, light tan-colored cocoons.

You should note that the fieldwork component of the Siouan Project was basically the same as the experience he had at Warren Wilson: remove and sift the plow zone, then record and excavate pits and post holes visible at the top of the subsoil. The results of this work have been reported in a series of monographs (Dickens et al. 1986, 1987; Ward and Davis 1993). Tra and his cronies transformed the elegant culture history developed by Joffre Coe (1952), who relied on six foci and less than two dozen pottery and projectile point types to explain the last 3000 years of Native American occupation, into a complex scheme that now takes at least a long weekend to master. Their obfuscation has, indeed, dulled Occam's Razor.

Fittingly, and true to form, he and his partner, the eminent R. P. Steven Davis, Jr., have taken it on themselves to rewrite the Old North State's archaeology. They applied to the entire state the very model that had added such abundant complexity to the archaeology of

the few square miles of the Carolina piedmont inhabited by the eastern Siouans. Are we to thank them for the 312-page Time Before History (Ward and Davis 1999) and the hundreds of innocent trees they consumed with this task? By comparison, a notable scholar was able to do a convincing job for most of the state in eleven pages of rather large print (Coe 1952:301-311). In a world concerned with degradation of the environment, where educated people should be our leaders in conservation, not only do we deserve better ... we should demand it. We are much better off when Tra and his cohorts stick to "Nintendo archaeology," disseminating works like Occaneechi Town (Davis et al. 1998) and Archaeology and the Ancient History of North Carolina: 10,000 BC-AD 1540 (Ward and Rodning 1999) on compact disks or over the World Wide Web.

His "high tech" expertise is clearly apparent in the following testimony from Mrs. Ward:

We were in the living room watching television one evening, Trawick was sitting in his rocking chair when the telephone rang. He reached for the telephone and tried to answer it, but after several tries with several different buttons he was unable to make the phone stop ringing. Finally the answering machine came on because Tra was talking into the TV remote control rather than the cordless telephone.

Tra's record of publication and papers presented at professional meetings makes it abundantly clear that he lacks discipline and focus. If you recall, he started his career digging in Georgia, but abruptly switched to Missouri, then to North Carolina, then to Virginia and back again to North Carolina. Even in North Carolina he could not stay focused. First he worked on the Piedmont at Guilford Courthouse, then jumped to the mountains, back to the Piedmont, eventually to the Coastal Plain, and finally onto the Appalachian Summit. Given this record it is not surprising that he has been unable to specialize and gain expertise in one area. If you examine his published record you will learn that he has written articles on soil science (Ward 1965; Ward and Trinkley 1978), physical anthropology (Coe et al. 1982), demography (Ward and Davis 1991), commerce (Ward and Davis 1989), and the culinary arts (Ward 1993).

At this time it is appropriate that we examine another aspect of his archaeological career—his relationship with colleagues and students. Those who have had the opportunity to work with Tra know him to be a gentle soul. Harsh words are not to be found in his vocabulary. Blunt, biting, or sarcastic phrases are absent from his rhetoric. Well-considered polite words issued in a soothing low voice characterize his manner of speech. He is respectful of others' feelings and reveres the ideas and concepts of his peers, no matter how far fetched. He has naught but good to say of all the folks he meets. He has the ability to remain calm and objective when the world around him goes awry. At times, as one

observer expressed it, Tra "was the only sane person in an insane world."

His care and concern for students are best expressed in his own words. I quote from one of his mail messages:

Don't thank me for your good fortune; you graduate students enjoy your country club lifestyle in spite of me. If I had my way, you'd all be locked in the processing lab washing potsherds until the first sign of spring. Then I'd send you to the boonies to dig until the first hard freeze—all for minimum wage. What research you'd get done would be on your own time, late at night, and I'd require everything to be turned in typed—on an old Underwood typewriter.

His concern is even better shown by the following account given to me by one of his recent students.

The present structure of the doctoral written comps, which are open book, at UNC is to write 4-5 essays over a period of 8 hours; 4 hours one day and 4 the next. The candidate has to defend those answers, the dissertation proposal, and deal with other concerns of committee members at the oral exams, which usually take two hours at the most, a couple of weeks later. I mentioned one day to Trawick that I was going to write my exam essays on a Saturday and Sunday. He responded by e-mail with the following:

"What is this [expletive]!? Exams on the weekend! What has happened to the solemn ritual and traditional decorum that used to surround Ph.D. examinations?"

"You will show up at 7:30 on Monday morning with a blank note pad and a real ink pen; Brenda will escort you to the janitor's closet on the second floor where you will be locked up until 2:00 PM. A chamber pot will be put in the room for your convenience."

convenience."

"This schedule will be repeated until you complete your exams on Friday. During this period,

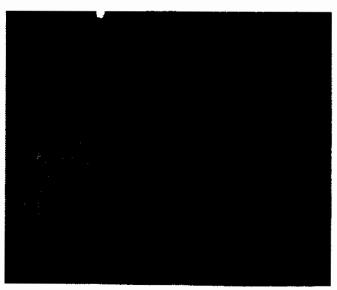


Figure 3. H. Trawick Ward and Bennie C. Keel, SEAC 2000.

you are not allowed to speak to anyone, drink any beer, have real or imagined sex, or go see a movie. Your committee will perform a bed check each evening at 8:00 PM."

"After you finish your exams Friday, you can babble about how hard the questions were and how unprepared you were. Still, you'll think you passed. However, your committee will know better. Certainly this is nothing compared to a Nuer circumcision as it was in my time."

Signed

This sensitivity and politeness carries over to his international contacts. An example is a conversation he had on the telephone with a caller on his last visit to his daughter in Germany. I quote this conversation in its entirety:

Ring, ring. Tra: Hello.

Caller: Wer ist dieses? Tra: I don't speak English.

Caller: Wiht, das sind ich sprechend?

Tra: I don't speak English.

Caller: Mag ich mit Rachel sprechen?

Tra: I don't speak English.

Click.

I make no pretense of having an unbiased view of my colleague or claim it to be fair or even reasonable. I put my own spin on the truth of the preceding remarks. I hope you have been able to sort the pearls from the swine or, as it were, pull the pig from the poke.

The record is clear; H. Trawick Ward is a productive scholar whose positive impact on archaeology has influenced and will continue to influence how archaeology is done in the Southeast, and the greater United States, through his writings, his students, and his colleagues. Among my greatest treasures is to have him as a close professional colleague and, even of more value, as a friend. But the greatest among these possessions is to have eaten his barbecue.

Space constraints, unfortunately, have not allowed me to describe his adventures on his Harley, but I would be remiss if I did not tell you there is a sizable body of tales that should be collected.

Notes

1 This contribution is intended to be satirical in tone and in no way represents the true feelings of the author. A CD of the original presentation is available from the author until the supply is exhausted.

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STRATIFIED EARLY-MIDDLE HOLOCENE REMAINS IN THE NORTH CAROLINA COASTAL PLAIN

I. Randolph Daniel, Jr.

Recent excavations along Barber Creek near Greenville, North Carolina have identified a multicomponent stratified site (31PT259) that is unique in the North Carolina Coastal Plain. Woodland (Deep Creek and Mount Pleasant phases) and Archaic (Kirk phase) components have been isolated in one meter of sandy soils. A radiocarbon date of $1630 \pm 60 BP$ (Beta-150187) is associated with the Woodland occupation, while a date of 8940 ± 70 BP (Beta-150188) is associated with the Archaic occupation. Another possible artifact-bearing level is present beneath the Archaic component and presumably predates it, although the cultural identity of this lowermost artifact level is unknown. A long-term research project at Barber Creek will address substantive issues of the region's archaeology that have remained problematic due to poor archaeological context. Further excavation and analysis should contribute to our understanding of early and middle Holocene chronology, typology, and geoarchaeology.

By 1980 Trawick Ward had completed the better part of five summers excavating at the Hardaway site (Daniel 1998:14-17; Ward and Davis 1999:38-42). At that time, Trawick was one of a handful of Southeastern archaeologists with considerable experience working on stratified sites with early and middle Holocene remains. One might think that such expertise would have been the basis for a career in Paleoindian or Archaic studies. But, for reasons perhaps known only to Trawick, he eschewed such studies and turned his attention to Woodland and Contact period archaeology. Accordingly, in the early 1980s, Trawick and his colleagues at the Research Laboratories of Anthropology at the University of North Carolina conceived the Siouan project, which preoccupied the remainder of Trawick's career. Given that turn of events, one might reflect that early prehistory's loss was late prehistory's gain.

In any case, with the exception of the Haw River project (Claggett and Cable 1982), the early 1980s saw the last major field work in the state on a stratified site with significant early and middle Holocene remains. With that thought in mind, I began East Carolina University's 2000 field school at Barber Creek in hopes of locating stratified archaeological deposits in the North Carolina Coastal Plain. This article presents an

overview of that field work and a preliminary assessment of the archaeological potential at Barber Creek, where well-stratified and radiocarbon-dated early and middle Holocene archaeological deposits have been excavated.

Background

Barber Creek is a tributary of the Tar River, which is located in the northern Coastal Plain of North Carolina just east of Greenville (Figure 1). The Barber Creek site (31PT259) was recorded over twenty years ago during a cultural resource survey preliminary to proposed construction of a waste treatment plant in Greenville (Phelps 1977, 1981a). Limited testing at that time revealed the stratified presence of a ceramic-period occupation, represented by Woodland series pottery, underlain by lithic remains (Phelps 1977). No temporally diagnostic points were found in the lower levels, but the recovery of two unidentifiable point fragments, flaking debris, and one unifacial scraper suggested an Archaic component. The latter artifact, an end scraper, is particularly interesting both in form and raw material. Its small size and drop-like morphology is distinctive of those well-made unifacial tools usually associated with early Holocene assemblages. Further-

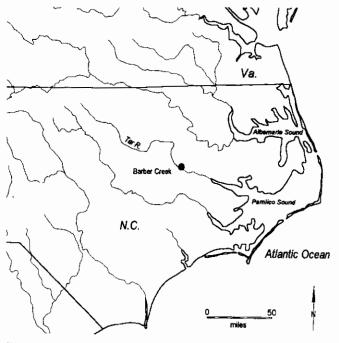


Figure 1. Location of the Barber Creek site (31PT259).

more, it appears to be made of chert. The source of this stone is unknown, but it probably originates outside the North Carolina Coastal Plain, perhaps in the Allendale quarries located along the Savannah River in the Coastal Plain of South Carolina (Goodyear and Charles 1981). Increasing the potential importance of Barber Creek was the presence of preserved organic materials in the excavations. While most frequently recovered from the upper levels, wood charcoal, burned nutshell, and calcined bone fragments were also found in the lower levels.

Based on these results, Phelps (1981a, 1983) considered the Barber Creek site significant for several reasons. Barber Creek was the only stratified site with Archaic remains known in the region. The site contained organic remains that could possibly be used to date individual components. And Phelps thought it likely that cultural features were preserved at the site. Despite the archaeological potential at Barber Creek, no further field work was performed there for nearly twenty years.

The 2000 Field School

The Barber Creek site, which is owned by Greenville Utilities Company, is situated 1.5 m above the floodplain on an apparent relict sand dune that parallels Barber Creek for over 100 m near its confluence with the Tar River. The site is heavily wooded and, with the exception of a modern canal cut through the site's eastern edge, has experienced no recent disturbance (Figure 2).

The goals of the summer 2000 field work were fairly straightforward. Site boundaries needed to be determined. Phelps (1977) thought the site's limits corresponded to those of the dune, but this remained conjecture. Site integrity and stratigraphy also needed to be evaluated, particularly regarding the possible presence of intact early Holocene remains. Conventional archaeological methods were used to address both of these goals. Site limits were established by extensive shovel testing, while trench excavation was used to assess site stratigraphy and integrity. Because analysis is ongoing, this article provides a preliminary description of results.

Field Work

Mapping and extensive shovel testing of the sand ridge were our first tasks at Barber Creek. The site is situated on a northwest-southeast trending, asymmetrical landform that slopes gently to the northwest and more so to the southeast, where the highest part of the dune is located. Likewise, the northern slope of the dune is somewhat steeper than the southern slope, which abuts the floodplain of Barber Creek.

Ninety-nine shovel tests were dug at approximate 10-m intervals across the sand ridge. Shovel tests 60 cm in diameter were excavated in 25-cm levels to a depth of 1 m, and fill was dry-screened through nested ¼-in. and ¼-in. hardware mesh. Artifacts were recovered from almost every shovel test, generally less than 50 per test. Ceramic types include Deep Creek (Phelps 1981b), Mt. Pleasant (Phelps 1983:32), and Hanover (South 1976) pottery. A very few steatite sherds were recovered. Flaking debris, primarily quartz, was also common. With the exception of one point fragment, no formal stone tools were identified in the shovel tests. Organic remains were abundant, particularly in the ½-in. screen, and included fragments of mussel shell, nutshell, animal bone, and charcoal.

While distributional analysis of the artifacts remains incomplete, two conclusions can be drawn with regard to the shovel testing. First, the site extends almost continuously along the length of the dune. The few shovel tests dug in the pasture at the northern base of the dune suggest little, if any, stratigraphic integrity away from the dune (although the floodplain to the south was not shovel tested). Assuming that site boundaries correspond to the limits of the sand dune, then the maximum east-west extent of the site is no more than 30 m in either direction beyond the utility company property lines. In any case, the vast majority of the site has apparently been shovel tested. Second, excellent cultural stratigraphy exists along the length of the dune. Even though shovel tests were excavated in rather thick 25-cm levels, the basic stratigraphic pattern emerged across the landform. Ceramic artifacts were present in the upper two levels of each shovel test, while stone artifacts with no pottery were present in the lower two

Based upon the shovel testing results, a decision was made in the field to conduct more formal excavations in the south-central portion of the site, a location of



Figure 2. Barber Creek site (wooded area), facing south.

apparently higher artifact density. Consequently, ten 2-m squares were hand excavated forming two parallel trenches perpendicular to the length of the site. Each square was subdivided into four 1x1-m units. The principal excavation technique used at Barber Creek was flat-shovel skimming coupled with hand trowelling within 10-cm arbitrary levels. As with the shovel tests, all fill was screened through nested ¼-in. and ½-in. hardware mesh. Particular effort was made to uncover diagnostic artifacts *in situ* in the presumed Archaic levels of each unit.

Stratigraphy

The site's archaeological stratigraphy can be summarized as follows. Three soil zones were identified that are most likely pedogenic manifestations of a relatively homogeneous sand deposit. Zone 1, from ground surface to roughly 25 cm below, is a very dark grayish-brown loamy sand capped with undecayed humus. Woodland period artifacts are sporadically found throughout Zone 1.

Zone 2, from 25 cm to between 80 and 90 cm below surface, is a dark yellowish-brown fine sand that grades into yellowish-brown very fine sand. Woodland and Archaic period artifacts occur in stratigraphic order within the upper and lower portions of Zone 2, respectively. The darker color of the upper portion of Zone 2 may be an organic stain derived from a Woodland midden. Woodland artifacts are particularly concentrated between 25 and 30 cm below surface, at the interface of Zones 1 and 2. The likelihood that this artifact concentration represents a former occupation surface is reinforced by the recovery of a grinding stone at that level. Given its large size, this artifact is unlikely to have migrated significantly in the sandy soil. While Woodland artifacts are present throughout the upper part of Zone 2 to a depth of about 50 cm, their frequency drops off significantly below about 40 cm. Virtually no sherds were recovered below a depth of 50 cm.

An Early Archaic occupation horizon apparently is associated with the lower portion of Zone 2, between 60 and 70 cm below surface. The assemblage from this part of Zone 2 includes a heavily resharpened point tentatively assigned to the Kirk Corner-Notched complex (Coe 1964). This point's exhausted condition makes it difficult to classify typologically; although the 8940 ± 70 BP (Beta-150187) radiocarbon assay obtained from the level immediately below the point is consistent with Kirk phase dates elsewhere in the Southeast (e.g., Chapman 1976). In addition, a small chert blade, rhyolite end scraper fragment, hammerstones, and flaking debris were also recovered at that level in various excavation units. Below 70 cm cultural material is again sparse and confined to a few stone flakes (apart from a possible pre-Kirk phase occupation at 1 m, as discussed below).

Zone 3, at a depth of about 80 cm, consists of yellowish-brown fine to medium sand that continues below 1 m, where most excavation units were terminated. Zone 3 is primarily distinguished from Zone 2 by the presence of numerous dark brown lamellae, which begin between 90 and 100 cm in depth, that are rather thin and occur at roughly 5-cm intervals. This soil zone continues much deeper, as indicated by the presence of lamellae to a depth of 1.4 m in a portion of one excavation unit. While only a few square meters of lamellae-containing sediments have been excavated, these were culturally sterile.

In sum, while much still remains to be learned regarding site geology, the archaeological work accomplished thus far establishes the stratigraphic integrity of Barber Creek. Phelps (1977, 1981a) originally suggested that the sandy ridge was deposited as a natural levee when Barber Creek was a former channel of the Tar River. Present understanding of Coastal Plain geological processes, however, suggests that eolian rather than alluvial processes may have formed the sand feature (Stan Riggs, personal communication 2000). Moreover, present evidence with regard to ridge size, shape, and soil composition suggests that the Barber Creek ridge probably is an example of the inactive sand dunes found intermittently along Coastal Plain rivers in Georgia and the Carolinas (Markewich and Markewich 1994). These inland sand dunes typically lie adjacent to streams, range from 1 to 7 m high, and are less than 1 km long. Predominantly composed of highly permeable medium and fine quartz sand, most sand dunes lack significant soil development. Although their formation is not fully understood, an eolian origin has been ascribed to most Southeastern dunes; specifically, that these features formed via wind transport of large sand deposits from exposed flood plains, terraces, and Carolina bays resulting in the accumulation of sand on nearby vegetated terraces or valley sides. The most recent dune-forming episodes occurred 15,000 to 3,000 radiocarbon years ago. Furthermore, their presence suggests that local drought conditions prevailed in the Southeast for extended periods of time and were accompanied by recurring unidirectional winds. If so, this scenario has obvious implications for prehistoric settlement along the Tar River. Additional studies of sedimentology and pedology to address site formation are critical to understanding the mechanisms involved in depositing the sandy sediments that were conducive to archaeological preservation along Barber Creek.

Discussion

Some preliminary statements about the two components can be made in light of our current understanding of the Woodland and Archaic periods on the North Carolina coast. While both Early and Middle Woodland

pottery types appear in the assemblage, the ceramics are dominated by a coarse sand-tempered pottery with cord marked surface treatment. In the northern Coastal Plain of North Carolina this pottery is referred to as Deep Creek, the Early Woodland type for the region (Figure 3d-e). The Deep Creek phase derives from the tributary of the Tar River where the ceramic complex was first recognized at the Parker site, just upriver from Barber Creek (Phelps 1981b, 1983). The Early Woodland period on the coast is thought to date 1000-300 BC, but only one radiocarbon date has been obtained for Early Woodland on the northern coast and it is problematic (see Ward and Davis 1999:201). Phelps (1983:27-31) has distinguished three temporal divisions within the Deep Creek phase based on trends in surface treatment frequencies. Deep Creek I, the earliest division, is characterized by a majority of cord marked wares. Higher frequencies of simple stamping and net and fabric impressed surface finishes characterize Deep Creek II. The popularity of simple stamping declined during Deep Creek III. Based upon this sequence, preliminary observations suggest a portion of the ceramic component at Barber Creek dates to the beginning of the Early Woodland period.

At least one and possibly two Middle Woodland pottery types are present in the assemblage (Figure 3a-c). Middle Woodland on the coast is believed to date to 300 BC-AD 800 (Phelps 1983). The earliest Middle Woodland pottery includes clay- or grog-tempered and fabric impressed Hanover wares (South 1976). Although usually considered a southern Coastal Plain pottery, Hanover wares are not uncommon in the northern region (Herbert and Mathis 1996:163). In fact, Phelps (1977:13) identified a "clay tempered, fabric impressed" type from his excavations at Barber Creek that undoubtedly represents Hanover ceramics. The presence of a second Middle Woodland pottery at Barber Creek is less certain, but probably includes some examples of the Mt. Pleasant series (Phelps 1983:33). The uncertainty of the occurrence of Mt. Pleasant pottery at Barber Creek is due to its similarity to the Deep Creek series in both temper and surface treatments. Indeed, Deep Creek is considered the direct antecedent of the Mt. Pleasant ceramic tradition (Herbert and Mathis 1996:146; Phelps 1983:33). With respect to the Barber Creek assemblage, some sherds exhibit sand tempering with varying amounts of grit and surface treatments (e.g., fabric marking or cord marking) consistent with Mt. Pleasant pottery.

Data from Barber Creek clearly have the potential to address Woodland period typological and chronological issues. Furthermore, the preservation of features at the site suggests that questions regarding site function might also be addressed. At least one feature, a shallow, roughly oval-shaped pit (89x82 cm), was identified in the Woodland occupation level.

Excavation revealed a 15-cm deep, basin-shaped pit containing black fine-to-medium sand mottled with dark brown fine sand and charcoal flecks. Cultural material recovered from the fill includes one dozen small, unidentified sand-tempered sherds, small chunks of charcoal, and calcined bone fragments. Wood charcoal from this feature yielded an uncalibrated radio-carbon age of 1630 ± 60 BP (Beta-150187), associating this feature with the site's Middle Woodland component.

While the significance of the Woodland component at Barber Creek should not be overlooked, the presence of an Early Archaic occupation at the site is particularly exciting. As noted above, the cultural identity of the component is primarily based on the recovery of a single point, at 65 to 70 cm below surface, tentatively typed as Kirk Corner-Notched (Figure 4a). The point was made from an unidentified metavolcanic stone and exhibits a heavily resharpened blade. Among other presumably Early Archaic tools identified in the assemblage is the proximal portion of an end scraper recovered at 63 cm below surface (Figure 4e). This tool exhibits a lateral snap where the bit would have been located, a distinctive breakage pattern associated with these once-hafted tools. The rhyolite from which this specimen was made resembles that known from the Uwharrie Mountains in the Piedmont (Daniel 1998; Daniel and Butler 1996). Chert is another nonlocal stone represented in the assemblage by a 4-cm long blade (Figure 4b). The source of this stone is as yet unidentified, but resembles Allendale chert (Goodyear and Charles 1984). Other stone tools identified in the field include a partially flaked quartz pebble and a hammerstone, both found between 60 and 70 cm below surface.

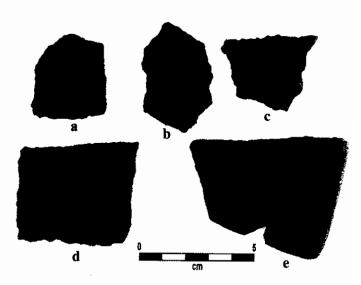


Figure 3. Woodland Period ceramics: (a-c) Hanover Fabric Impressed; (d-e) Deep Creek Cordmarked.

An uncalibrated radiocarbon date of 8940 ± 70 BP (Beta-150187) was obtained from wood charcoal and fragments of carbonized hickory nutshell collected from Level 8 (70-80 cm below surface) of one 1x1-m unit. This date, which was obtained from the level immediately below the concentration of apparent Early Archaic tools, is concordant with Kirk phase assays obtained elsewhere in the Southeast (Chapman 1976), corresponding to the terminal portion of the Kirk horizon (9500-8900 BP). To my knowledge, this is the oldest archaeological radiocarbon date in the state (see e.g., Eastman 1994a, 1994b).

Several aspects of this lithic assemblage are noteworthy. While the number of diagnostic artifacts recovered from this component may seem low, only a fraction of the site has been examined. Shovel test data indicate that Archaic remains are scattered across virtually the entire dune. The diversity of nonlocal stone types is remarkable given the low number of recovered specimens. Although we can only speculate on the mechanism(s) by which these raw materials arrived at Barber Creek, they appear to have been deposited there because of retooling activities. Furthermore, given the predominance of quartz in the debitage, this retooling utilized mainly local stone. Finally, although not as abundant as in the upper levels, organic remains are present in the lower levels, which makes additional radiocarbon dating a real possibility. In sum, as with the Woodland component, continued excavations in the lower levels at Barber Creek should shed considerable light on questions concerning Early Archaic chronology and typology on the Coastal Plain.

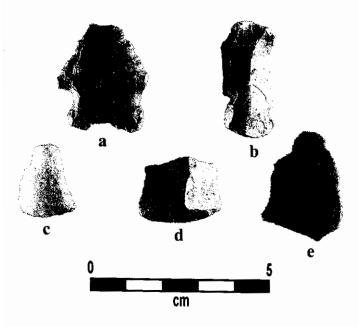


Figure 4. Archaic Period lithic artifacts: (a) Kirk Corner-Notched point; (b) microblade; (c-e) end scrapers.

As mentioned above, a possible pre-Kirk occupation was also identified during the excavations. Two end scrapers were recovered at 98 cm below surface—at least 20 cm below the presumed Early Archaic level—from the same 1x1-m unit. One is a very well made quartz specimen; the second is the bit portion of an end scraper (Figure 4c-d). Morphologically, these tools are identical to triangular or drop-shaped end scrapers commonly found in late Pleistocene/early Holocene assemblages (e.g., Coe 1964:73-76; Daniel 1998:66-72; Goodyear 1974:43-47). While these artifacts may be associated with the Early Archaic occupation at the site, given the depth of these two specimens it is tempting to speculate that these tools are associated with an earlier Dalton or fluted-point occupation.

These end scrapers were recovered just above the uppermost lamellae in that excavation unit. The presence of these tools, underlying Kirk phase occupations and just overlying apparently culturally sterile lamellaebearing sands, invites comparisons to recent studies concerning the geoarchaeological recognition of the Pleistocene/Holocene boundary in the Southeast (Goodyear 1998). If eolian activity was the primary agent responsible for preserving the archaeological deposits at Barber Creek, this process might have been similar to site formation at Cactus Hill, a stratified multicomponent site situated in a sand dune overlooking the Nottoway River in the interior Coastal Plain of Virginia, where occupations from the historic period back to Clovis are located within the upper 1 m of windblown sand (McAvoy and McAvoy 1996). Paleoindian materials are found in zones of heavy lamella formation in the lower part of the Cactus Hill sand dune that is pedogenic in origin. Such a pattern might be reflected at Barber Creek in the lower deposits of Zone 2 and the lamellae sands of Zone 3. Whatever the process of sedimentation, the potential to find in situ Paleoindian remains at Barber Creek seems great.

Conclusion

Recent excavations at the Barber Creek site have identified stratified archaeological remains that are, as yet, unique to the North Carolina Coastal Plain. Woodland and Archaic components—both associated with radiocarbon dates—have been isolated in a 1-m thick deposit of sandy soils. Particularly noteworthy is the prospect for finding *in situ* Paleoindian remains. Based upon this first field season, a long-term research project is being formulated at Barber Creek to address substantive issues of the region's archaeology that have remained problematic due to poor archaeological context. In particular, further efforts at radiocarbon dating the site's geoarchaeological sequence remain a priority. Continued excavation and analysis at Barber Creek

should contribute significantly to our understanding of early and middle Holocene chronology, typology, and geoarchaeology.

Notes

Acknowledgments. Numerous organizations and people aided the work at Barber Creek. Foremost among them is the Greenville Utilities Commission and its employees, who were gracious and supportive hosts for our field school. In particular, Thomas Hardison (Chief Operator, Waste Water Treatment Plant) facilitated our efforts in every way. The Greenville Utilities Commission is to be congratulated and recognized for its continued stewardship of the Barber Creek site. I am also grateful to David Phelps for sharing his insights regarding his early work at the site. David visited us in the field and provided his opinion regarding some of the ceramics. Likewise, I acknowledge the consultation on site formation by members of the Geology Department at East Carolina University. The Geology Department also generously provided the radiocarbon dates reported here. I greatly appreciate the interest shown by Stephen Culver and Stanley Riggs in the geoarchaeological potential of Barber Creek. Stephen Culver kindly pointed out the Markewich and Markewich (1994) reference that I cite here. Finally, I thank the East Carolina University field school students: Michele Beitman, Courtney Daniels, Melissa Dye, Matt Jorgenson, Joan Joyner, Rose Kiefer, Anna Moss, Jan Newton, Robert Penny, Terri Russ, Stefanie Spradling, Lane Stevenson, and George Yorns. Andy Hill also volunteered his labor.

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THE NATURE OF PUBLIC ARCHAEOLOGY AT TOWN CREEK INDIAN MOUND

Linda F. Carnes-McNaughton

The concept of "public archaeology" can, in my opinion, be best understood and best practiced by first dissecting it into three components: public relations, public education, and public funding. The public archaeology program at Town Creek Indian Mound, a state-owned prehistoric site located in Montgomery County, North Carolina, provides a testing ground in which to examine these components. As an important part of this discussion, Trawick Ward's numerous contributions to the Town Creek site during the 1990s and his advocacy of public archaeology are acknowledged.

Town Creek Indian Mound is the oldest state-owned historic site in North Carolina (Coe 1995:31-38; Ward and Davis 1999:123) (Figure 1). Following an initial land donation of 1.1 acres to the state by owner Lloyd Frutchey in 1937, Joffre Coe, with the Research Laboratories of Anthropology at the University of North Carolina (UNC) at Chapel Hill, began systematic excavations on the site. Coe directed numerous field

archaeologists and graduate students as excavations continued for 50 years, apart from a hiatus during and after World War II (1942-1949). Excavations centered on the mound remnant, the surrounding village area, and five separate arcs of stockade postholes. By 1951 excavation of the mound was complete and the platform earthwork rebuilt. Based on archaeological evidence, a surrounding stockade was also reconstructed during the years 1949 to 1951. The state subsequently purchased additional acreage in 1955 to protect the site further and to develop its public program. In 1956 and 1957, archaeologist and site manager Stanley South directed reconstruction of the Major Temple atop the platform mound. Before he left in 1958, South plastered and decorated the interior walls of the square-shaped major temple with four red-and-white animal effigies-bear, beaver, deer, and wolf-representative of clan ancestors (South 1995:282-300; Swanton 1946:617). Also based on archaeological evidence, a large game pole was erected in the plaza ground and topped with a bear skull (Coe 1995:96).

Between 1957 and 1961 the Minor Temple, another square structure that overlooked the riverbank, was rebuilt. Its walls were constructed of vertical posts set into the ground; vines and saplings were woven be-

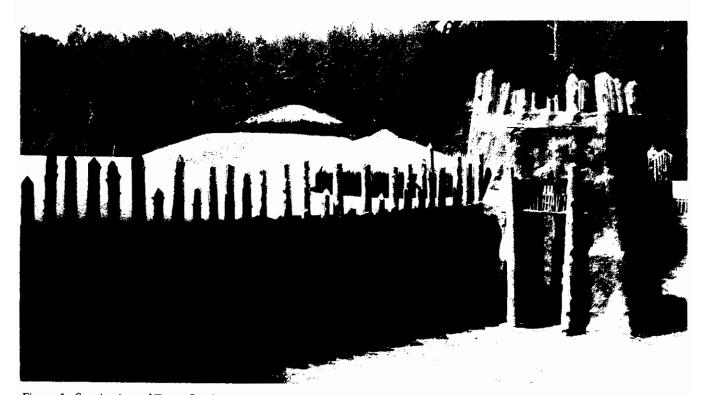


Figure 1. Scenic view of Town Creek Indian Mound historic site with reconstructed stockade, mound, and structures.

tween the upright posts and covered with a thick clay daub. A pyramidal roof was sheathed in bundles of thatch made from broom straw, a local sedge. The interior, sparsely furnished with log benches and a central hearth, was recreated based on archaeological evidence. The Burial Hut, a round-shaped mortuary structure, was rebuilt under the guidance of archaeologist Bennie Keel, then site manager (Coe 1995:36). This structure encompassed more than a dozen grave pits and ceramic burial urns. Human skeletal remains were left exposed within the plastered walls and beneath the thatched roof as an archaeological "exhibit." The visiting public was allowed to walk inside the building and around the open pits to get a close look at the exposed remains. Maintenance and preservation of the delicate remains were constant problems for the site staff and the archaeologists. Park records reveal that numerous toxic chemicals were used to keep mold in check and to prevent the skeletal materials from crumbling in situ. Damage to the exhibit was not limited to disturbances caused by people and microorganisms; rodents, insects, and snakes also played a part in the destruction. Still, the exhibit attracted the curious and was allowed to remain open in this condition for another two decades.

In 1963 construction began on a new Visitor Center,

complete with interior cases of artifacts from the excavations and preliminary interpretations of the Native American Pee Dee culture. The 1970s brought the first renovations to the Visitor Center, including refurbished exhibits and an auditorium addition. The site became a regular field trip destination for large school groups from the surrounding counties. Visitation by the general public averaged more that 30,000 annually. By 1974, rising political and cultural opposition to the public display of human remains was finally heard, and the Burial Hut exhibit was closed to the public. Removal of the skeletal materials, however, did not occur immediately following the exhibit's close. Not until 1981 was the last human skeletal material removed from the Burial Hut (according to field records on file at the Historic Sites Branch, Office of State Archaeology, Raleigh).

During the following year, two significant changes occurred at the state-owned site. The old exhibits in the Visitor Center received a major facelift under the artistic talent of Linda Eure (Eure 1983). Guided by Joffre Coe's early site interpretation, exhibit panels received new dates and cultural period descriptions, and an alcove featured Coe's photographic mosaic technique of site documentation, which was an innovative approach to site mapping for its time. The second exhibit change



Figure 2. View of previous mannequin scene in Burial Hut.

At any rate the first assignment Joffre Coe gave him when he reached North Carolina was a small project at Guilford Courthouse National Military Park (Coe and Ward 1974; Ward 1973; Ward and Coe 1976). As some of you may know, Coe had a very cautious attitude toward historical archaeology at this time. He considered, I suppose, that Tra could do little harm to the real archaeological record. I had left the University at the end of June 1973, before he had the opportunity to trifle with "real" Carolina archaeology. Tra began full-time employment later that year in my old job at the Research Laboratories of Anthropology. Consequently, I have no personal knowledge of his activities after that time and have had to rely on the statements of his loyal colleagues and students in preparing this critique.

In the summers of 1973 and 1974, he carried on the excavations at the Warren Wilson site that had been underway since 1965. You may recall that the Warren Wilson site had been thoroughly reported by that time by Dickens (1970) and Keel (1972). Work here involved, for the most part, removing and sifting plow zone and recording features and a post mold or two-a very challenging and complex operation, to be sure. That furnished him with much of the data for his dissertation (Ward 1980), supplemented by data from Upper Saratown and heavy statistical manipulations. He concluded, after 325 pages, that material recovered from the plow zone is related to the archaeological assemblage present in the rest of the site. He tells us, as a true archaeologist, that the "evidence ... underlines the need for more extensive excavations," and, he further explains, once "sufficient quantities and varieties of sites have been studied and the structural components compared, hopefully predictive patterns of disturbed context data can be isolated...." (Ward 1980:350).



Figure 2. Exhibiting professional demeanor at Guilford Court House, 1972 (courtesy of Research Laboratories of Archaeology, University of North Carolina).

During the summers of 1975 and 1976 he and a small crew sifted hundreds of cubic yards of pothunter back dirt at the Hardaway site (Coe 1964). Their effort led to the collection of thousands of specimens from totally disturbed context and the realization that looters had completely destroyed the site since the last scientific work there in 1959. I had reached the same conclusion, based on my mapping and back filling of disturbed areas at the site, and reported it to Coe in 1962. Tra also spent several weeks at the close of each field season from the mid-1970s into the early 1980s closing down the Laboratories' investigations at Upper Saratown. I presume this involved excavating a few insignificant pits that the summer crew had left unopened because of time pressure or simply because they did not want to do the work. These efforts also called for back filling the excavations.

As we have seen, Tra spent most of his first ten years at the Laboratories digging plow zone, sifting back dirt, and back filling. I am told that this was done conscientiously and efficiently. This most certainly prepared him for what was in store during the next decade and a half—the Siouan Project—where he would develop uses for Bondo[®] and Duct Tape[®] that were unintended by the manufacturers.

Rather than constructing neat plywood boxes to encase features to be taken back to the laboratory in one piece, Tra developed a procedure that consisted of wrapping a cardboard collar made from any old box lying around and securing it with duct tape. This in turn was covered with newspaper and a shell of auto body repair filler. The result of this was simply a mess. Instead of having expertly constructed wooden boxes that could be stored neatly on laboratory shelves for careful study at some point in the future, this procedure produced an array of unsightly, irregularly shaped, light tan-colored cocoons.

You should note that the fieldwork component of the Siouan Project was basically the same as the experience he had at Warren Wilson: remove and sift the plow zone, then record and excavate pits and post holes visible at the top of the subsoil. The results of this work have been reported in a series of monographs (Dickens et al. 1986, 1987; Ward and Davis 1993). Tra and his cronies transformed the elegant culture history developed by Joffre Coe (1952), who relied on six foci and less than two dozen pottery and projectile point types to explain the last 3000 years of Native American occupation, into a complex scheme that now takes at least a long weekend to master. Their obfuscation has, indeed, dulled Occam's Razor.

Fittingly, and true to form, he and his partner, the eminent R. P. Steven Davis, Jr., have taken it on themselves to rewrite the Old North State's archaeology. They applied to the entire state the very model that had added such abundant complexity to the archaeology of

the few square miles of the Carolina piedmont inhabited by the eastern Siouans. Are we to thank them for the 312-page Time Before History (Ward and Davis 1999) and the hundreds of innocent trees they consumed with this task? By comparison, a notable scholar was able to do a convincing job for most of the state in eleven pages of rather large print (Coe 1952:301-311). In a world concerned with degradation of the environment, where educated people should be our leaders in conservation, not only do we deserve better ... we should demand it. We are much better off when Tra and his cohorts stick to "Nintendo archaeology," disseminating works like Occaneechi Town (Davis et al. 1998) and Archaeology and the Ancient History of North Carolina: 10,000 BC-AD 1540 (Ward and Rodning 1999) on compact disks or over the World Wide Web.

His "high tech" expertise is clearly apparent in the following testimony from Mrs. Ward:

We were in the living room watching television one evening, Trawick was sitting in his rocking chair when the telephone rang. He reached for the telephone and tried to answer it, but after several tries with several different buttons he was unable to make the phone stop ringing. Finally the answering machine came on because Tra was talking into the TV remote control rather than the cordless telephone.

Tra's record of publication and papers presented at professional meetings makes it abundantly clear that he lacks discipline and focus. If you recall, he started his career digging in Georgia, but abruptly switched to Missouri, then to North Carolina, then to Virginia and back again to North Carolina. Even in North Carolina he could not stay focused. First he worked on the Piedmont at Guilford Courthouse, then jumped to the mountains, back to the Piedmont, eventually to the Coastal Plain, and finally onto the Appalachian Summit. Given this record it is not surprising that he has been unable to specialize and gain expertise in one area. If you examine his published record you will learn that he has written articles on soil science (Ward 1965; Ward and Trinkley 1978), physical anthropology (Coe et al. 1982), demography (Ward and Davis 1991), commerce (Ward and Davis 1989), and the culinary arts (Ward 1993).

At this time it is appropriate that we examine another aspect of his archaeological career—his relationship with colleagues and students. Those who have had the opportunity to work with Tra know him to be a gentle soul. Harsh words are not to be found in his vocabulary. Blunt, biting, or sarcastic phrases are absent from his rhetoric. Well-considered polite words issued in a soothing low voice characterize his manner of speech. He is respectful of others' feelings and reveres the ideas and concepts of his peers, no matter how far fetched. He has naught but good to say of all the folks he meets. He has the ability to remain calm and objective when the world around him goes awry. At times, as one

observer expressed it, Tra "was the only sane person in an insane world."

His care and concern for students are best expressed in his own words. I quote from one of his mail messages:

Don't thank me for your good fortune; you graduate students enjoy your country club lifestyle in spite of me. If I had my way, you'd all be locked in the processing lab washing potsherds until the first sign of spring. Then I'd send you to the boonies to dig until the first hard freeze—all for minimum wage. What research you'd get done would be on your own time, late at night, and I'd require everything to be turned in typed—on an old Underwood typewriter.

His concern is even better shown by the following account given to me by one of his recent students.

The present structure of the doctoral written comps, which are open book, at UNC is to write 4-5 essays over a period of 8 hours; 4 hours one day and 4 the next. The candidate has to defend those answers, the dissertation proposal, and deal with other concerns of committee members at the oral exams, which usually take two hours at the most, a couple of weeks later. I mentioned one day to Trawick that I was going to write my exam essays on a Saturday and Sunday. He responded by e-mail with the following:

"What is this [expletive]!? Exams on the weekend! What has happened to the solemn ritual and traditional decorum that used to surround Ph.D. examinations?"

"You will show up at 7:20 and 5..."

"You will show up at 7:30 on Monday morning with a blank note pad and a real ink pen; Brenda will escort you to the janitor's closet on the second floor where you will be locked up until 2:00 PM. A chamber pot will be put in the room for your convenience."

convenience."

"This schedule will be repeated until you complete your exams on Friday. During this period,

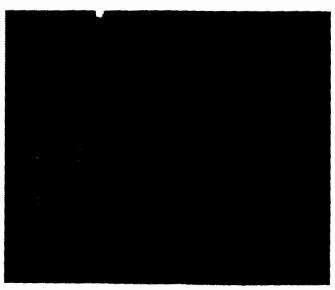


Figure 3. H. Trawick Ward and Bennie C. Keel, SEAC 2000.

you are not allowed to speak to anyone, drink any beer, have real or imagined sex, or go see a movie. Your committee will perform a bed check each

evening at 8:00 PM."

'After you finish your exams Friday, you can babble about how hard the questions were and how unprepared you were. Still, you'll think you passed. However, your committee will know better. Certainly this is nothing compared to a Nuer circumcision as it was in my time." Signed

This sensitivity and politeness carries over to his international contacts. An example is a conversation he had on the telephone with a caller on his last visit to his daughter in Germany. I quote this conversation in its entirety:

Ring, ring. Tra. Hello. Caller: Wer ist dieses? Tra: I don't speak English. Caller: Wiht, das sind ich sprechend? Tra: I don't speak English. Caller: Mag ich mit Rachel sprechen? Tra: I don't speak English.

I make no pretense of having an unbiased view of my colleague or claim it to be fair or even reasonable. I put my own spin on the truth of the preceding remarks. I hope you have been able to sort the pearls from the swine or, as it were, pull the pig from the poke.

The record is clear; H. Trawick Ward is a productive scholar whose positive impact on archaeology has influenced and will continue to influence how archaeology is done in the Southeast, and the greater United States, through his writings, his students, and his colleagues. Among my greatest treasures is to have him as a close professional colleague and, even of more value, as a friend. But the greatest among these possessions is to have eaten his barbecue.

Space constraints, unfortunately, have not allowed me to describe his adventures on his Harley, but I would be remiss if I did not tell you there is a sizable body of tales that should be collected.

Notes

1 This contribution is intended to be satirical in tone and in no way represents the true feelings of the author. A CD of the original presentation is available from the author until the supply is exhausted.

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STRATIFIED EARLY-MIDDLE HOLOCENE REMAINS IN THE NORTH CAROLINA COASTAL PLAIN

I. Randolph Daniel, Jr.

Recent excavations along Barber Creek near Greenville, North Carolina have identified a multicomponent stratified site (31PT259) that is unique in the North Carolina Coastal Plain. Woodland (Deep Creek and Mount Pleasant phases) and Archaic (Kirk phase) components have been isolated in one meter of sandy soils. A radiocarbon date of 1630 ± 60 BP (Beta-150187) is associated with the Woodland occupation, while a date of 8940 ± 70 BP (Beta-150188) is associated with the Archaic occupation. Another possible artifact-bearing level is present beneath the Archaic component and presumably predates it, although the cultural identity of this lowermost artifact level is unknown. A long-term research project at Barber Creek will address substantive issues of the region's archaeology that have remained problematic due to poor archaeological context. Further excavation and analysis should contribute to our understanding of early and middle Holocene chronology, typology, and geoarchaeology.

By 1980 Trawick Ward had completed the better part of five summers excavating at the Hardaway site (Daniel 1998:14-17; Ward and Davis 1999:38-42). At that time, Trawick was one of a handful of Southeastern archaeologists with considerable experience working on stratified sites with early and middle Holocene remains. One might think that such expertise would have been the basis for a career in Paleoindian or Archaic studies. But, for reasons perhaps known only to Trawick, he eschewed such studies and turned his attention to Woodland and Contact period archaeology. Accordingly, in the early 1980s, Trawick and his colleagues at the Research Laboratories of Anthropology at the University of North Carolina conceived the Siouan project, which preoccupied the remainder of Trawick's career. Given that turn of events, one might reflect that early prehistory's loss was late prehistory's gain.

In any case, with the exception of the Haw River project (Claggett and Cable 1982), the early 1980s saw the last major field work in the state on a stratified site with significant early and middle Holocene remains. With that thought in mind, I began East Carolina University's 2000 field school at Barber Creek in hopes of locating stratified archaeological deposits in the North Carolina Coastal Plain. This article presents an

overview of that field work and a preliminary assessment of the archaeological potential at Barber Creek, where well-stratified and radiocarbon-dated early and middle Holocene archaeological deposits have been excavated.

Background

Barber Creek is a tributary of the Tar River, which is located in the northern Coastal Plain of North Carolina just east of Greenville (Figure 1). The Barber Creek site (31PT259) was recorded over twenty years ago during a cultural resource survey preliminary to proposed construction of a waste treatment plant in Greenville (Phelps 1977, 1981a). Limited testing at that time revealed the stratified presence of a ceramic-period occupation, represented by Woodland series pottery, underlain by lithic remains (Phelps 1977). No temporally diagnostic points were found in the lower levels, but the recovery of two unidentifiable point fragments, flaking debris, and one unifacial scraper suggested an Archaic component. The latter artifact, an end scraper, is particularly interesting both in form and raw material. Its small size and drop-like morphology is distinctive of those well-made unifacial tools usually associated with early Holocene assemblages. Further-

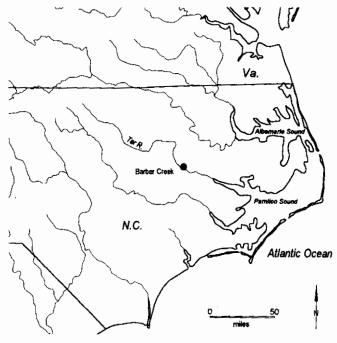


Figure 1. Location of the Barber Creek site (31PT259).

more, it appears to be made of chert. The source of this stone is unknown, but it probably originates outside the North Carolina Coastal Plain, perhaps in the Allendale quarries located along the Savannah River in the Coastal Plain of South Carolina (Goodyear and Charles 1981). Increasing the potential importance of Barber Creek was the presence of preserved organic materials in the excavations. While most frequently recovered from the upper levels, wood charcoal, burned nutshell, and calcined bone fragments were also found in the lower levels.

Based on these results, Phelps (1981a, 1983) considered the Barber Creek site significant for several reasons. Barber Creek was the only stratified site with Archaic remains known in the region. The site contained organic remains that could possibly be used to date individual components. And Phelps thought it likely that cultural features were preserved at the site. Despite the archaeological potential at Barber Creek, no further field work was performed there for nearly twenty years.

The 2000 Field School

The Barber Creek site, which is owned by Greenville Utilities Company, is situated 1.5 m above the floodplain on an apparent relict sand dune that parallels Barber Creek for over 100 m near its confluence with the Tar River. The site is heavily wooded and, with the exception of a modern canal cut through the site's eastern edge, has experienced no recent disturbance (Figure 2).

The goals of the summer 2000 field work were fairly straightforward. Site boundaries needed to be determined. Phelps (1977) thought the site's limits corresponded to those of the dune, but this remained conjecture. Site integrity and stratigraphy also needed to be evaluated, particularly regarding the possible presence of intact early Holocene remains. Conventional archaeological methods were used to address both of these goals. Site limits were established by extensive shovel testing, while trench excavation was used to assess site stratigraphy and integrity. Because analysis is ongoing, this article provides a preliminary description of results.

Field Work

Mapping and extensive shovel testing of the sand ridge were our first tasks at Barber Creek. The site is situated on a northwest-southeast trending, asymmetrical landform that slopes gently to the northwest and more so to the southeast, where the highest part of the dune is located. Likewise, the northern slope of the dune is somewhat steeper than the southern slope, which abuts the floodplain of Barber Creek.

Ninety-nine shovel tests were dug at approximate 10-m intervals across the sand ridge. Shovel tests 60 cm in diameter were excavated in 25-cm levels to a depth of 1 m, and fill was dry-screened through nested ¼-in. and ½-in. hardware mesh. Artifacts were recovered from almost every shovel test, generally less than 50 per test. Ceramic types include Deep Creek (Phelps 1981b), Mt. Pleasant (Phelps 1983:32), and Hanover (South 1976) pottery. A very few steatite sherds were recovered. Flaking debris, primarily quartz, was also common. With the exception of one point fragment, no formal stone tools were identified in the shovel tests. Organic remains were abundant, particularly in the ½-in. screen, and included fragments of mussel shell, nutshell, animal bone, and charcoal.

While distributional analysis of the artifacts remains incomplete, two conclusions can be drawn with regard to the shovel testing. First, the site extends almost continuously along the length of the dune. The few shovel tests dug in the pasture at the northern base of the dune suggest little, if any, stratigraphic integrity away from the dune (although the floodplain to the south was not shovel tested). Assuming that site boundaries correspond to the limits of the sand dune, then the maximum east-west extent of the site is no more than 30 m in either direction beyond the utility company property lines. In any case, the vast majority of the site has apparently been shovel tested. Second, excellent cultural stratigraphy exists along the length of the dune. Even though shovel tests were excavated in rather thick 25-cm levels, the basic stratigraphic pattern emerged across the landform. Ceramic artifacts were present in the upper two levels of each shovel test, while stone artifacts with no pottery were present in the lower two

Based upon the shovel testing results, a decision was made in the field to conduct more formal excavations in the south-central portion of the site, a location of

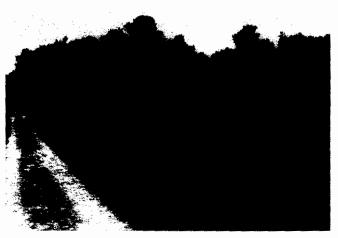


Figure 2. Barber Creek site (wooded area), facing south.

apparently higher artifact density. Consequently, ten 2-m squares were hand excavated forming two parallel trenches perpendicular to the length of the site. Each square was subdivided into four 1x1-m units. The principal excavation technique used at Barber Creek was flat-shovel skimming coupled with hand trowelling within 10-cm arbitrary levels. As with the shovel tests, all fill was screened through nested ¼-in. and ½-in. hardware mesh. Particular effort was made to uncover diagnostic artifacts *in situ* in the presumed Archaic levels of each unit.

Stratigraphy

The site's archaeological stratigraphy can be summarized as follows. Three soil zones were identified that are most likely pedogenic manifestations of a relatively homogeneous sand deposit. Zone 1, from ground surface to roughly 25 cm below, is a very dark grayish-brown loamy sand capped with undecayed humus. Woodland period artifacts are sporadically found throughout Zone 1.

Zone 2, from 25 cm to between 80 and 90 cm below surface, is a dark yellowish-brown fine sand that grades into yellowish-brown very fine sand. Woodland and Archaic period artifacts occur in stratigraphic order within the upper and lower portions of Zone 2, respectively. The darker color of the upper portion of Zone 2 may be an organic stain derived from a Woodland midden. Woodland artifacts are particularly concentrated between 25 and 30 cm below surface, at the interface of Zones 1 and 2. The likelihood that this artifact concentration represents a former occupation surface is reinforced by the recovery of a grinding stone at that level. Given its large size, this artifact is unlikely to have migrated significantly in the sandy soil. While Woodland artifacts are present throughout the upper part of Zone 2 to a depth of about 50 cm, their frequency drops off significantly below about 40 cm. Virtually no sherds were recovered below a depth of 50 cm.

An Early Archaic occupation horizon apparently is associated with the lower portion of Zone 2, between 60 and 70 cm below surface. The assemblage from this part of Zone 2 includes a heavily resharpened point tentatively assigned to the Kirk Corner-Notched complex (Coe 1964). This point's exhausted condition makes it difficult to classify typologically; although the 8940 ± 70 BP (Beta-150187) radiocarbon assay obtained from the level immediately below the point is consistent with Kirk phase dates elsewhere in the Southeast (e.g., Chapman 1976). In addition, a small chert blade, rhyolite end scraper fragment, hammerstones, and flaking debris were also recovered at that level in various excavation units. Below 70 cm cultural material is again sparse and confined to a few stone flakes (apart from a possible pre-Kirk phase occupation at 1 m, as discussed below).

Zone 3, at a depth of about 80 cm, consists of yellowish-brown fine to medium sand that continues below 1 m, where most excavation units were terminated. Zone 3 is primarily distinguished from Zone 2 by the presence of numerous dark brown lamellae, which begin between 90 and 100 cm in depth, that are rather thin and occur at roughly 5-cm intervals. This soil zone continues much deeper, as indicated by the presence of lamellae to a depth of 1.4 m in a portion of one excavation unit. While only a few square meters of lamellae-containing sediments have been excavated, these were culturally sterile.

In sum, while much still remains to be learned regarding site geology, the archaeological work accomplished thus far establishes the stratigraphic integrity of Barber Creek. Phelps (1977, 1981a) originally suggested that the sandy ridge was deposited as a natural levee when Barber Creek was a former channel of the Tar River. Present understanding of Coastal Plain geological processes, however, suggests that eolian rather than alluvial processes may have formed the sand feature (Stan Riggs, personal communication 2000). Moreover, present evidence with regard to ridge size, shape, and soil composition suggests that the Barber Creek ridge probably is an example of the inactive sand dunes found intermittently along Coastal Plain rivers in Georgia and the Carolinas (Markewich and Markewich 1994). These inland sand dunes typically lie adjacent to streams, range from 1 to 7 m high, and are less than 1 km long. Predominantly composed of highly permeable medium and fine quartz sand, most sand dunes lack significant soil development. Although their formation is not fully understood, an eolian origin has been ascribed to most Southeastern dunes; specifically, that these features formed via wind transport of large sand deposits from exposed flood plains, terraces, and Carolina bays resulting in the accumulation of sand on nearby vegetated terraces or valley sides. The most recent dune-forming episodes occurred 15,000 to 3,000 radiocarbon years ago. Furthermore, their presence suggests that local drought conditions prevailed in the Southeast for extended periods of time and were accompanied by recurring unidirectional winds. If so, this scenario has obvious implications for prehistoric settlement along the Tar River. Additional studies of sedimentology and pedology to address site formation are critical to understanding the mechanisms involved in depositing the sandy sediments that were conducive to archaeological preservation along Barber Creek.

Discussion

Some preliminary statements about the two components can be made in light of our current understanding of the Woodland and Archaic periods on the North Carolina coast. While both Early and Middle Woodland

pottery types appear in the assemblage, the ceramics are dominated by a coarse sand-tempered pottery with cord marked surface treatment. In the northern Coastal Plain of North Carolina this pottery is referred to as Deep Creek, the Early Woodland type for the region (Figure 3d-e). The Deep Creek phase derives from the tributary of the Tar River where the ceramic complex was first recognized at the Parker site, just upriver from Barber Creek (Phelps 1981b, 1983). The Early Woodland period on the coast is thought to date 1000-300 BC, but only one radiocarbon date has been obtained for Early Woodland on the northern coast and it is problematic (see Ward and Davis 1999:201). Phelps (1983:27-31) has distinguished three temporal divisions within the Deep Creek phase based on trends in surface treatment frequencies. Deep Creek I, the earliest division, is characterized by a majority of cord marked wares. Higher frequencies of simple stamping and net and fabric impressed surface finishes characterize Deep Creek II. The popularity of simple stamping declined during Deep Creek III. Based upon this sequence, preliminary observations suggest a portion of the ceramic component at Barber Creek dates to the beginning of the Early Woodland period.

At least one and possibly two Middle Woodland pottery types are present in the assemblage (Figure 3a-c). Middle Woodland on the coast is believed to date to 300 BC-AD 800 (Phelps 1983). The earliest Middle Woodland pottery includes clay- or grog-tempered and fabric impressed Hanover wares (South 1976). Although usually considered a southern Coastal Plain pottery, Hanover wares are not uncommon in the northern region (Herbert and Mathis 1996:163). In fact, Phelps (1977:13) identified a "clay tempered, fabric impressed" type from his excavations at Barber Creek that undoubtedly represents Hanover ceramics. The presence of a second Middle Woodland pottery at Barber Creek is less certain, but probably includes some examples of the Mt. Pleasant series (Phelps 1983:33). The uncertainty of the occurrence of Mt. Pleasant pottery at Barber Creek is due to its similarity to the Deep Creek series in both temper and surface treatments. Indeed, Deep Creek is considered the direct antecedent of the Mt. Pleasant ceramic tradition (Herbert and Mathis 1996:146; Phelps 1983:33). With respect to the Barber Creek assemblage, some sherds exhibit sand tempering with varying amounts of grit and surface treatments (e.g., fabric marking or cord marking) consistent with Mt. Pleasant pottery.

Data from Barber Creek clearly have the potential to address Woodland period typological and chronological issues. Furthermore, the preservation of features at the site suggests that questions regarding site function might also be addressed. At least one feature, a shallow, roughly oval-shaped pit (89x82 cm), was identified in the Woodland occupation level.

Excavation revealed a 15-cm deep, basin-shaped pit containing black fine-to-medium sand mottled with dark brown fine sand and charcoal flecks. Cultural material recovered from the fill includes one dozen small, unidentified sand-tempered sherds, small chunks of charcoal, and calcined bone fragments. Wood charcoal from this feature yielded an uncalibrated radiocarbon age of 1630 ± 60 BP (Beta-150187), associating this feature with the site's Middle Woodland component.

While the significance of the Woodland component at Barber Creek should not be overlooked, the presence of an Early Archaic occupation at the site is particularly exciting. As noted above, the cultural identity of the component is primarily based on the recovery of a single point, at 65 to 70 cm below surface, tentatively typed as Kirk Corner-Notched (Figure 4a). The point was made from an unidentified metavolcanic stone and exhibits a heavily resharpened blade. Among other presumably Early Archaic tools identified in the assemblage is the proximal portion of an end scraper recovered at 63 cm below surface (Figure 4e). This tool exhibits a lateral snap where the bit would have been located, a distinctive breakage pattern associated with these once-hafted tools. The rhyolite from which this specimen was made resembles that known from the Uwharrie Mountains in the Piedmont (Daniel 1998; Daniel and Butler 1996). Chert is another nonlocal stone represented in the assemblage by a 4-cm long blade (Figure 4b). The source of this stone is as yet unidentified, but resembles Allendale chert (Goodyear and Charles 1984). Other stone tools identified in the field include a partially flaked quartz pebble and a hammerstone, both found between 60 and 70 cm below surface.

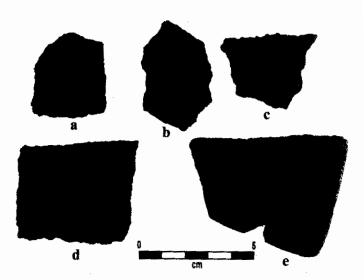


Figure 3. Woodland Period ceramics: (a-c) Hanover Fabric Impressed; (d-e) Deep Creek Cordmarked.

An uncalibrated radiocarbon date of 8940 ± 70 BP (Beta-150187) was obtained from wood charcoal and fragments of carbonized hickory nutshell collected from Level 8 (70-80 cm below surface) of one 1x1-m unit. This date, which was obtained from the level immediately below the concentration of apparent Early Archaic tools, is concordant with Kirk phase assays obtained elsewhere in the Southeast (Chapman 1976), corresponding to the terminal portion of the Kirk horizon (9500-8900 BP). To my knowledge, this is the oldest archaeological radiocarbon date in the state (see e.g., Eastman 1994a, 1994b).

Several aspects of this lithic assemblage are noteworthy. While the number of diagnostic artifacts recovered from this component may seem low, only a fraction of the site has been examined. Shovel test data indicate that Archaic remains are scattered across virtually the entire dune. The diversity of nonlocal stone types is remarkable given the low number of recovered specimens. Although we can only speculate on the mechanism(s) by which these raw materials arrived at Barber Creek, they appear to have been deposited there because of retooling activities. Furthermore, given the predominance of quartz in the debitage, this retooling utilized mainly local stone. Finally, although not as abundant as in the upper levels, organic remains are present in the lower levels, which makes additional radiocarbon dating a real possibility. In sum, as with the Woodland component, continued excavations in the lower levels at Barber Creek should shed considerable light on questions concerning Early Archaic chronology and typology on the Coastal Plain.

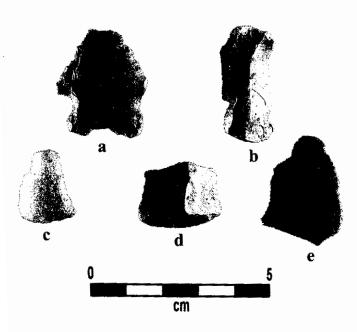


Figure 4. Archaic Period lithic artifacts: (a) Kirk Corner-Notched point; (b) microblade; (c-e) end scrapers.

As mentioned above, a possible pre-Kirk occupation was also identified during the excavations. Two end scrapers were recovered at 98 cm below surface—at least 20 cm below the presumed Early Archaic level—from the same 1x1-m unit. One is a very well made quartz specimen; the second is the bit portion of an end scraper (Figure 4c-d). Morphologically, these tools are identical to triangular or drop-shaped end scrapers commonly found in late Pleistocene/early Holocene assemblages (e.g., Coe 1964:73-76; Daniel 1998:66-72; Goodyear 1974:43-47). While these artifacts may be associated with the Early Archaic occupation at the site, given the depth of these two specimens it is tempting to speculate that these tools are associated with an earlier Dalton or fluted-point occupation.

These end scrapers were recovered just above the uppermost lamellae in that excavation unit. The presence of these tools, underlying Kirk phase occupations and just overlying apparently culturally sterile lamellaebearing sands, invites comparisons to recent studies concerning the geoarchaeological recognition of the Pleistocene/Holocene boundary in the Southeast (Goodyear 1998). If eolian activity was the primary agent responsible for preserving the archaeological deposits at Barber Creek, this process might have been similar to site formation at Cactus Hill, a stratified multicomponent site situated in a sand dune overlooking the Nottoway River in the interior Coastal Plain of Virginia, where occupations from the historic period back to Clovis are located within the upper 1 m of windblown sand (McAvoy and McAvoy 1996). Paleoindian materials are found in zones of heavy lamella formation in the lower part of the Cactus Hill sand dune that is pedogenic in origin. Such a pattern might be reflected at Barber Creek in the lower deposits of Zone 2 and the lamellae sands of Zone 3. Whatever the process of sedimentation, the potential to find in situ Paleoindian remains at Barber Creek seems great.

Conclusion

Recent excavations at the Barber Creek site have identified stratified archaeological remains that are, as yet, unique to the North Carolina Coastal Plain. Woodland and Archaic components—both associated with radiocarbon dates—have been isolated in a 1-m thick deposit of sandy soils. Particularly noteworthy is the prospect for finding *in situ* Paleoindian remains. Based upon this first field season, a long-term research project is being formulated at Barber Creek to address substantive issues of the region's archaeology that have remained problematic due to poor archaeological context. In particular, further efforts at radiocarbon dating the site's geoarchaeological sequence remain a priority. Continued excavation and analysis at Barber Creek

should contribute significantly to our understanding of early and middle Holocene chronology, typology, and geoarchaeology.

Notes

Acknowledgments. Numerous organizations and people aided the work at Barber Creek. Foremost among them is the Greenville Utilities Commission and its employees, who were gracious and supportive hosts for our field school. In particular, Thomas Hardison (Chief Operator, Waste Water Treatment Plant) facilitated our efforts in every way. The Greenville Utilities Commission is to be congratulated and recognized for its continued stewardship of the Barber Creek site. I am also grateful to David Phelps for sharing his insights regarding his early work at the site. David visited us in the field and provided his opinion regarding some of the ceramics. Likewise, I acknowledge the consultation on site formation by members of the Geology Department at East Carolina University. The Geology Department also generously provided the radiocarbon dates reported here. I greatly appreciate the interest shown by Stephen Culver and Stanley Riggs in the geoarchaeological potential of Barber Creek. Stephen Culver kindly pointed out the Markewich and Markewich (1994) reference that I cite here. Finally, I thank the East Carolina University field school students: Michele Beitman, Courtney Daniels, Melissa Dye, Matt Jorgenson, Joan Joyner, Rose Kiefer, Anna Moss, Jan Newton, Robert Penny, Terri Russ, Stefanie Spradling, Lane Stevenson, and George Yorns. Andy Hill also volunteered his labor.

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THE NATURE OF PUBLIC ARCHAEOLOGY AT TOWN CREEK INDIAN MOUND

Linda F. Carnes-McNaughton

The concept of "public archaeology" can, in my opinion, be best understood and best practiced by first dissecting it into three components: public relations, public education, and public funding. The public archaeology program at Town Creek Indian Mound, a state-owned prehistoric site located in Montgomery County, North Carolina, provides a testing ground in which to examine these components. As an important part of this discussion, Trawick Ward's numerous contributions to the Town Creek site during the 1990s and his advocacy of public archaeology are acknowledged.

Town Creek Indian Mound is the oldest state-owned historic site in North Carolina (Coe 1995:31-38; Ward and Davis 1999:123) (Figure 1). Following an initial land donation of 1.1 acres to the state by owner Lloyd Frutchey in 1937, Joffre Coe, with the Research Laboratories of Anthropology at the University of North Carolina (UNC) at Chapel Hill, began systematic excavations on the site. Coe directed numerous field

archaeologists and graduate students as excavations continued for 50 years, apart from a hiatus during and after World War II (1942-1949). Excavations centered on the mound remnant, the surrounding village area, and five separate arcs of stockade postholes. By 1951 excavation of the mound was complete and the platform earthwork rebuilt. Based on archaeological evidence, a surrounding stockade was also reconstructed during the years 1949 to 1951. The state subsequently purchased additional acreage in 1955 to protect the site further and to develop its public program. In 1956 and 1957, archaeologist and site manager Stanley South directed reconstruction of the Major Temple atop the platform mound. Before he left in 1958, South plastered and decorated the interior walls of the square-shaped major temple with four red-and-white animal effigies-bear, beaver, deer, and wolf--representative of clan ancestors (South 1995:282-300; Swanton 1946:617). Also based on archaeological evidence, a large game pole was erected in the plaza ground and topped with a bear skull (Coe 1995:96).

Between 1957 and 1961 the Minor Temple, another square structure that overlooked the riverbank, was rebuilt. Its walls were constructed of vertical posts set into the ground; vines and saplings were woven be-



Figure 1. Scenic view of Town Creek Indian Mound historic site with reconstructed stockade, mound, and structures.

tween the upright posts and covered with a thick clay daub. A pyramidal roof was sheathed in bundles of thatch made from broom straw, a local sedge. The interior, sparsely furnished with log benches and a central hearth, was recreated based on archaeological evidence. The Burial Hut, a round-shaped mortuary structure, was rebuilt under the guidance of archaeologist Bennie Keel, then site manager (Coe 1995:36). This structure encompassed more than a dozen grave pits and ceramic burial urns. Human skeletal remains were left exposed within the plastered walls and beneath the thatched roof as an archaeological "exhibit." The visiting public was allowed to walk inside the building and around the open pits to get a close look at the exposed remains. Maintenance and preservation of the delicate remains were constant problems for the site staff and the archaeologists. Park records reveal that numerous toxic chemicals were used to keep mold in check and to prevent the skeletal materials from crumbling in situ. Damage to the exhibit was not limited to disturbances caused by people and microorganisms; rodents, insects, and snakes also played a part in the destruction. Still, the exhibit attracted the curious and was allowed to remain open in this condition for another two decades.

In 1963 construction began on a new Visitor Center,

complete with interior cases of artifacts from the excavations and preliminary interpretations of the Native American Pee Dee culture. The 1970s brought the first renovations to the Visitor Center, including refurbished exhibits and an auditorium addition. The site became a regular field trip destination for large school groups from the surrounding counties. Visitation by the general public averaged more that 30,000 annually. By 1974, rising political and cultural opposition to the public display of human remains was finally heard, and the Burial Hut exhibit was closed to the public. Removal of the skeletal materials, however, did not occur immediately following the exhibit's close. Not until 1981 was the last human skeletal material removed from the Burial Hut (according to field records on file at the Historic Sites Branch, Office of State Archaeology, Raleigh).

During the following year, two significant changes occurred at the state-owned site. The old exhibits in the Visitor Center received a major facelift under the artistic talent of Linda Eure (Eure 1983). Guided by Joffre Coe's early site interpretation, exhibit panels received new dates and cultural period descriptions, and an alcove featured Coe's photographic mosaic technique of site documentation, which was an innovative approach to site mapping for its time. The second exhibit change



Figure 2. View of previous mannequin scene in Burial Hut.

occurred in the Burial Hut, where a new scene depicting a human interment was designed and installed by Jack Wilson, a UNC graduate and then archaeologist with the Historic Sites Section. In this exhibit, five mannequins represented a shaman and family membersmother, aunt, uncle, and a small child—as participants of a burial ritual within a matrilineal clan kinship system (Figure 2). Costumes for the mannequins consisted of burlap loincloths, modified leather motorcycle pants, strips of hide, face paint, and some shell-beaded ornaments. A few open burial pits were filled in and a central hearth was recreated (again, to mimic archaeological evidence). Visitors viewed the grim tableau through a large plate glass window shielded from sunlight by a separate exterior screen wall. Two interior floor lamps lit the scene. Condensation on the viewing window was a constant problem, but visitors were no longer allowed inside the building. The interior stage was still dark and moldy, yet evocative.

As the site celebrated its fiftieth anniversary under state protection in 1987 (Smith), Dr. Coe worked under contract with the North Carolina Department of Cultural Resources to complete his book on the history of excavations at Town Creek. With interest in heritage tourism increasing nationally and awareness of cultural diversity growing in our state, local Indian powwows

became annual events at the site (Figure 3). Indeed, Native American communities throughout the Southeast embraced the site as a symbolic cultural and ceremonial center during a period of rejuvenated pan-Indianism that spread throughout the country during the 1970s and 1980s. As the numbers of visitors and their demands increased, site managers were encouraged to offer new and innovative programs and workshops. To create a suitable location on-site in which to display and demonstrate and hold workshops on Native American "primitive skills," and not "contaminate" the archaeological integrity of the site in the process, a Learning Center was built in 1989 some distance from the reconstructed portions of the mound complex. The Learning Center featured demonstrations in open-firepit cooking, brain tanning of hides, stone tool production, dugout canoe creation, coiled pottery making, and finger weaving with grasses. Located in front of the Visitor Center and away from the archaeological ruins (and reconstructed village), the Learning Center hosted thousands of site visitors and promoted a greater appreciation for prehistoric craft specialization.

The beginning of the 1990s heralded a renewed interest in site interpretation bolstered by more modern media avenues with which to reach and educate the



Figure 3. Scene of recent Pow Wow at Town Creek Indian Mound.

general public. Progress was well underway, when vandalism took a drastic toll on the outdoor exhibits. Although the thatched and wooden structures had been visited by thousands during the past four decades, not the first incident of fire had ever threatened the site. That changed on July 30, 1993, when a group of young smokers set the grassy roof of the Burial Hut on fire with one flick-of-the-Bic, and then fled (Figure 4). The local fire department quickly responded and, in their effort to control the roof fire, they doused the hut with thousands of gallons of water. Once inside the dark building, one fireman became entangled in his hose, crashed into the mannequins and fell screaming into an open pit. The reconstructed building was damaged and the burial scene destroyed.

To the archaeologist and the site manager, the fire proved a mixed blessing ... a chance to rethink the burial hut interior and plan a different type of exhibit, one that would be more accurate, culturally sensitive, and interactive for the visitor. Over the next five years the building was repaired with money from the State Department of Insurance and a new exhibit was designed and funded with a development grant from the Department of Cultural Resources. Because the building would eventually allow the public inside (once again) and because the days of "grandfathered" exceptions to state regulations had ended, a structural engineer was contracted to help reconstruct the building and create a new exhibit. The new exhibit design featured a tangent corridor through the circular building that would allow the visitor to become a part of the interior experience. Before reconstruction could begin, however, the floor was cleaned, mapped, and photographed by the state archaeologist; then each pit was numbered, lined and backfilled to equalize the interior and exterior ground surfaces. Relying on the archaeological plan of the original burial hut (Coe 1995:55), a stone hearth was refitted in its central position, and a replica ceramic urn was partially buried near the hearth. Six large support posts were replaced with treated cedar beams and anchored into the original post holes. Head plate beams were then restored and all modern fastening hardware was masked by multiple wraps of large hempy rope that was later stained. The conical roof was replaced using pole purlins, and a layer of sheet tin was fastened to the framework. This protective metal was then camouflaged with cane (on the interior) and bundled thatch (on the exterior). Management decided to eliminate a central smoke hole from the apex of the roof even though research indicated such a feature would likely have been a part of this type of structure (Coe 1995:268). This was necessary in order to protect the new exhibit from rain.

On the interior, a team of consultants worked to create a new burial scene. Dr. Trawick Ward, as a specialist in the prehistoric cultures of the Piedmont, became a vital part of this team (Ward and Davis 1999). He reviewed several versions of the audio script prepared by a professional writer and edited the text written for four exhibit panels. These panels described four specific topics: the type of prehistoric building construction recreated by the structure; the nature of archaeological preservation and artifacts found in this building; the various types of burial customs practiced by the Pee Dee people, as exhibited by the archaeological evidence; and their belief in an afterlife and how this was expressed in the burial of their dead. Dr. Ward's contributions extended to the costuming of the mannequins and artifact reproductions included in the scene. More importantly, his understanding of the relationships within a matrilineal clan system guided the script and information panels. Ward pointed out that a pre-pubescent child (as had previously appeared in the scene) is unlikely to have been allowed to participate in such a ceremony; that only full members of a particular clan would be present. So the child was replaced with the figure of a teenage girl, who's full clan membership would have come with pubescence.

Other consultants included a dedicated group of local Native Americans who created the costumes and reproduced the ornaments and tools. They also provided voices and music for the audio portion of the exhibit. Upon conclusion, they also provided a spiritual blessing for the exhibit and all who entered the building. These individuals, from differing tribal affiliations, joined together to help create this burial scene and provided their own personal touches. In the end it gave them a sense of contribution to a part of their heritage and this ancient culture that could now be shared among all those who visited the site.

While the new exhibit once again featured a burial scene (Figure 5), it differed in many ways from the scene set up in 1982. Four of the damaged mannequins



Figure 4. Burned remains of Burial Hut.

(the adult figures) were professionally restored, then re-costumed by our Native American consultants. Clothing for the mannequins was somewhat conjectural, but based on early ethnographic drawings (such as those by John White) and written descriptions by such chroniclers as John Lawson (1967). Reproductions of the shell gorgets, necklaces, ear spools, and drinking cups were based on archaeological specimens recovered from the site. A potter was hired to reproduce the complicatedstamped earthenware burial urn and lid (Pugh 1991). Other drinking vessels positioned near the hearth, to simulate black drink containers, were made by site staff. Reproduction stone hoes were placed near the excavated pit holding the burial urn that was only partially buried (as evidenced in the archaeological record; see Coe 1995:274-277). A large deerskin was stretched over a pole frame to represent the trapping of this particular clan, the Deer Clan. It also served to mask the electrical panel (which controlled lighting and sound equipment) situated on the wall opposite the view window. The choice to make this Burial Hut that of the Deer Clan was a suggestion made by the site manager, and seconded by Dr. Ward. References from early ethnographers of the Southeastern Indians describe groups who identified themselves with various fauna of the region, such as the deer, the beaver, the bear, and the wolf (Hudson 1976; Swanton 1946). The symbolic colors red and white were also used to differentiate between the clans. So our choice to create this burial hut scene and align it to the Red Deer Clan was totally fictitious, but suitable nonetheless. For that reason, images of red deer were also painted on the interior walls of the burial hut, and featured in the monologue of the shaman's voice. Four of the five figures were given voices to tell the story of the infant interment and what the child's loss meant to the clan. In terms of the mannequins' appearance, the shaman was the most decorated, with a full deer hide (including antlers) draped over his head and shoulders. His eyes were also emphasized with the sign of the "weeping eye," a traditional symbol of the South Appalachian Mississippian culture (Ferguson 1971). Each "speaker" in the scene offers an explanation and laments the loss of a clan child, told in first-person. Drum, cane flute, chanting, and "outside" noises (e.g. birds, frogs, crickets, river water, and wind) on the audio tape add a sense of realism to the scene.

The new Burial Hut exhibit took almost five years to complete (such is the nature of state government projects), and it finally had its debut in February 1998. But prior to this, in 1995, Dr. Coe completed his historiography of the Town Creek excavations titled Town Creek Indian Mound: A Native American Legacy. Soon more

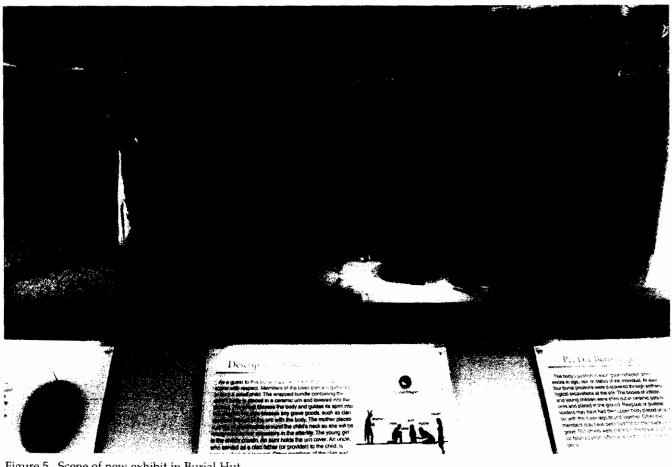


Figure 5. Scene of new exhibit in Burial Hut.

changes occurred at the site's Visitor Center, where text changes revised dates and added explanation. New site brochures were written for this purpose and made available to the public in 1997. Along the Chronology Wall, text and dates were also revised in 1998 to demythologize the history of the site and the origins of the Pee Dee people (Anderson 1994; Ward and Davis 1999:123-137). Two large black-and-white photographs of in situ burials in one case were changed and representative color artwork of the same two burials was put in place. In 1999 a new web page was designed and produced for Town Creek as part of the State Historic Sites' cyber-link, including recent biocultural information about the Pee Dee population (from Elizabeth Driscoll's research; see this volume). Again, Dr. Ward was asked to review these additions and assisted with some content of the new web page, designed by Mark Moore with the North Carolina Department of Cultural Resources.

At last, with renovations at the Visitor Center completed (in 1997), new site brochures and web page availability, revised exhibit texts, and a redesigned Burial Hut display, interpretation of the site's history was brought into the 1990s. Yet, one significant exception screamed for attention ... the orientation video. Funded by a another grant from the North Carolina Department of Cultural Resources, site staff and archaeologist organized a special group of consultants to guide the process of creating a new audiovisual program to be shown in the site's auditorium. Focus groups composed of prominent Southeastern archaeologists, local educators, and Native Americans were surveyed to find out their expectations of such a project. Using the results of this research, a new script was written, a graphic production specialist hired, and Native American models were located to complete the project. Once again, the voices, music, songs, and costumes were provided by Native American consultants. Dr. Ward's revisions and edits provided valuable insight to the script (all five versions!). This latest project took almost two years to complete and is now installed at the site. Not unexpectedly, it features the most politically correct, culturally sensitive, and archaeologically accurate interpretation of the site's history we have offered to date. Contributions from other researchers will undoubtedly be incorporated into another program in the not-too-distant future as we strive to learn more about "The Mystery of Town Creek" (the title of the new orientation video).

Notes

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MORTUARY PATTERNING AND SOCIAL ORGANIZATION AT TOWN CREEK MOUND AND VILLAGE

Elizabeth Monahan Driscoll

This article presents new findings of the mortuary and social patterns at Town Creek, a South Appalachian Mississippian single-platform mound and village site in the Piedmont of North Carolina. Specific artifact distributions and the spatial arrangements of burials are combined with age and sex information in an analysis of social and political organization at the site. Distributions of shell beads and gorgets, copper objects, clay and stone pipes, mica, and rattles are particularly informative about social relationships. This analysis reveals two areas of elite burial: along the river, and across the plaza in the single-platform mound. Patterned differences exist between males and females that are attributable to gender, social organization, and political power relationships.

Trawick Ward was a major inspiration for this analysis, which is based in part on my dissertation research. Trawick often drew my attention to the site map at Town Creek, emphasizing the large number of features and midden deposits, and commented that it likely would have taken more than a small group of religious specialists to create these features, a point also noted in Ward and Davis' recent volume on North Carolina archaeology (Ward and Davis 1999:133-134). Once the interpretation of Town Creek as a largely empty ceremonial center was reexamined, I was able to develop and test other possible explanations of the site's layout and mortuary patterns. I present initial interpretations of site occupation and examine patterns in the locations of burials and selected artifacts included in graves to develop a model of site design and social and political organization.

Mortuary archaeologists use the funerary context to analyze aspects of past social systems. Their methods are based on the "assumption that an individual's treatment following death bears some predictable relationship to the individual's state in life and to the organization of the society to which the individual belonged" (O'Shea 1984:3). Processual archaeologists saw burials as passive reflections of social organization, accurately recording the individual's social persona and identity (Binford 1971; Saxe 1970). Post-processual theoreticians have advocated a more contextual inter-

pretation of mortuary remains. Recognizing that any ritual is highly charged politically, socially, and emotionally, archaeologists have sought new ways to interpret mortuary features.

Hodder (1982) has argued that, as a ritual event, the entire funeral rite is the appropriate frame of reference for generalizations about social organization, not merely the physical disposal of the dead. Use of the dead by the living can obscure the social organization or complexity of a society, as reflected by mortuary practices. After all, what happens to the dead is what the survivors do with the body. Survivors may reinforce their own position by demonstrating their relationship to the dead (Huntington and Metcalf 1991). Or it may be in the survivors' interests to downplay the wealth or position of the dead (Shanks and Tilley 1982). Ritual is an idealized expression of power relations and in these expressions the dead are subject to manipulation by the living (Parker Pearson 1982, 1999).

The focus of recent mortuary archaeological studies has shifted from the direct interpretation of the deceased individual to an "archaeological study of the funerary practices that the living perform for the dead" (Parker Pearson 1999:3). Parker Pearson (1999:3) argues that mortuary archaeology "is not so much about the dead themselves as the living who buried them." He states, "funerary practices serve to create an idealized representation—a 're-presenting' of the individual by others rather than the man himself" (Parker Pearson 1999:4). Burials are useful features from which to reconstruct ritual because an interment represents deliberate action on the part of those creating the feature later encountered by archaeologists.

Recent critiques of mortuary archaeology are important to keep in mind because they open the door to fresh perspectives and richer interpretation as our focus shifts from quantifiable differences between burials to a more contextual understanding of funerals as part of the ritual production and reproduction of a society. Understanding burials as a part of the social landscape offers new insights, and allows for the meaningful incorporation of other information, such as gender roles and ideology. In this article, I relate the spatial dimensions of mortuary ritual at Town Creek, a single-platform, South Appalachian Mississippian mound and village site on the Piedmont of North Carolina to the social and political organization in this ancient town.

Town Creek Community Plan

The Town Creek site (31MG2 and 31MG3) is located in the southern Piedmont of North Carolina, on a rise above the floodplain just north of where Town Creek enters Little River and 15 miles upstream from the confluence of the Little and the Pee Dee rivers. Excavation at Town Creek began in 1937 as a WPA project directed by Joffre Coe, and continued until 1987 with only a brief respite during World War II. Most of the mound and surrounding area has been excavated, exposing a total of over 96,000 ft.² of subsoil at the base of the plow zone (Coe 1995). The only radiocarbon dates obtained for the site are associated with the mound and a pre-mound midden. The site was occupied between AD 1200 and 1400 (Eastman 1994; Oliver 1993).

Early investigations at Town Creek involved excavating the plow zone from 10x10-ft. units, then photographing and mapping features. In about half of the units, features were excavated and a final photograph taken (Coe 1995). This excavation technique successfully allowed the creation of a photographic mosaic of the entire site. However, excavating one unit at a time did not enable field identification of structures. The map of the site based on unit plans drawn in the field shows such a high density of features and postholes that structures are often impossible to identify by eye. Therefore, many of the structures referred to in this article are inferred from the location and arrangement of human burials. For this study, I focus only on the context of human burials and the basic layout of the site, such as the location of the mound, associated structures, and the palisades, as shown in my schematic map of the site (Figure 1).

The intrasite chronology at Town Creek is still being studied, but a village predates the mound, judging from the fact that mound construction wholly or partially covered some structures. I initially thought that the ring of structures with sub-floor burials (see numbered circles in Figure 1) represents the earliest village at the site. Recent ceramic analysis by Boudreaux (2001), however, suggests that the plaza or central open area was maintained throughout the occupation of the site, and that structures on the western and eastern edges of the plaza are among the earliest. It now seems that the ring of structures containing burials may have been built over a period of time. In what Boudreaux (2001) refers to as the premound developmental stage, a subrectangular earth-embanked lodge, probably a public building, was built on the western edge of the plaza with a wall-trench doorway facing east towards Little River. Across the plaza another rectangular structure, also possibly earth-embanked, was constructed with its wall-trench entrance facing west towards the plaza and the other earthlodge.

Many of the structures around the plaza may have been contemporaneous with an initial stage of mound building, according to the distribution of rim modes in the burials contained within these structures (Boudreaux 2001). The platform mound was constructed in three stages over the site of the collapsed earthembanked lodge. A single platform mound about 10 ft. high with a rectangular townhouse (Town House I) on top covered the collapsed earthlodge on the western edge of the plaza (Coe 1995). The wall-trench entrance of the townhouse faced south. After this townhouse burned, an additional 2 ft. of earth was added to the mound and a second townhouse was constructed, again with a southward facing wall-trench entrance. Town House II was buried under a third layer of earth, and it is possible that a third structure was constructed atop the summit. But the surface of the mound was

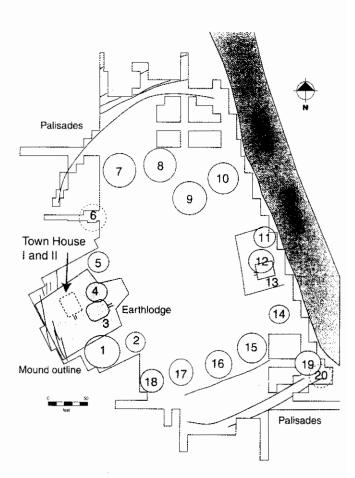


Figure 1. Schematized site plan for Town Creek (31MG2 and 31MG3). Numbers are assigned to known and probable clusters of burials. Light gray-colored structures indicate clusters where probable burials were mapped but not excavated.

eroded and disturbed, and no sign of another structure was discerned during excavation.

The entrance to the earth-embanked lodge faces the river, as does the ramp of the later mound. It seems odd, then, that entrances to the two townhouses atop the mound should face south, and not east towards the river. The size and placement of the structures located atop the mound leaves open the possibility that there were actually paired structures on the mound, with a trenched connecting passage, as at the Toqua and King sites (Hally and Kelly 1998; Polhemus 1987, 1990). This could mean that the main entrance of the Town Houses faced east towards the plaza. A large section of the middle of the mound was disturbed and largely destroyed by amateur archaeologists prior to Coe's careful excavation of the mound. Additionally, a section of the mound was left intact for future research (Coe 1995).

Examination of the features excavated on the mound reveals a line of postholes perpendicular to what Coe (1995: Figure 4.23) interpreted as the open end of the entryway of Town House I (Figure 2). Additionally, there are burials outside both Town House I and II that may have been in the floors of other structures. The only direct evidence of another structure on the mound is the line of postholes outside the entrance of Town House I. These postholes may not represent a full structure, but

0 0 0 0 co oo Hearth 00 00 00 4 00 Rectangular structure 00 Entry 00000000 Extra line of postholes

Figure 2. Town House I plan, with the rectangular structure outlined; the single line of postholes outside the wall-trench entrance possibly indicates the presence of a second structure (after Coe 1995: Figure 4.23).

rather a porch or arbor outside the identified structure, as seen at Toqua (Lewis and Kneberg 1946; Polhemus 1987). I am presently unable to distinguish between these two possibilities, although the presence of the burials outside the known structures is consistent with the supposition that another structure was present.

The site was palisaded, with at least two palisades predating construction of the mound. A minimum of five palisades can be discerned from the site map, but the chronology of their construction is unclear. At some point another internal palisade or screen was added along the river, enclosing the rectangular structure with a trenched entrance that faced the mound/earthlodge area across the plaza.

In the village, human burials are clustered in distinct areas (Figure 3). Coe (1995) identified a total of 563 probable burial pits, of which 226 were excavated. In all, the remains of 246 individuals are represented. Many of the burials in the larger clusters were disturbed, sometimes more than once, as more burials were placed in house floors. Coe referred to the spatial clusters of burials as "Mortuaries" and assigned letters to several of these clusters (Coe 1995). However, some of the clusters had not been excavated or identified at the time he began referring to the lettered clusters, and in the interest of clarity, I have numbered the clusters of burials, beginning with those that predate the building

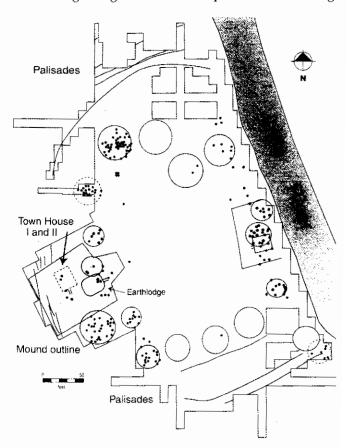


Figure 3. Locations of known burials at Town Creek, with inferred round structures.

of the mound (see Figure 1). Clusters of presumed burial pits are shown in light gray in Figures 1 and 3. In two of these, Clusters 9 and 16, very shallow burials were excavated, while the rest were mapped but not excavated. Clusters range in content from three to 47 individuals.

Many of the largest clusters of burials are arranged in patterns that appear to correspond to the outlines of circular structures, as illustrated by Figure 4, which is based on a reconstruction by Roy Dickens (Dickens n.d.) of Cluster 16 from the photographic mosaic. This structure was rebuilt two or three times in the same location. The density of postholes around several of the other large clusters suggests that, as at the King site, large groups of burials are associated with houses rebuilt multiple times (Hally and Kelly 1998).

Structures with burials form a ring, with houses containing burials encircling an open area in the center of the site. Boudreaux's (2001) analysis of the distribution of ceramic rim modes in the mound and in the fill of burials suggests that many of these structures were in use while the mound was in place. Given that several of the structures appear to have been rebuilt, and the fact that many of the burials in the large clusters overlap or are disturbed by other burials, the circular arrangement of houses may predate construction of the mound, as further suggested by their relationship to pre-mound palisades. If the multiple palisades represent an expanding village, then all but two of the

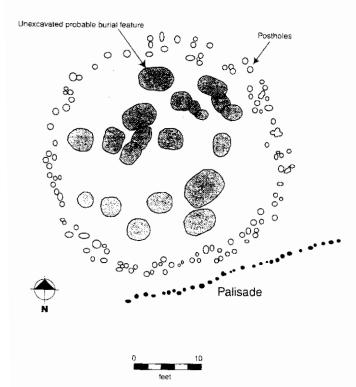


Figure 4. Cluster 16, with postholes indicating multiple rebuilding of the structure in the same location.

clusters of burials (19 and 20) may have been created early in the formation of the village. Clusters 19 and 20 lay outside this ring of houses (see Figure 1). The placement of all the other structures containing burials close to the plaza suggests that these were established early in the occupation of the site.

At this point, it is not possible to establish when the internal palisade or screen was built. This screen, located across the plaza from the mound, and the spatial association of rectangular structures provide important clues for interpretation of political organization at the site. Boudreaux (2001) tentatively suggests that the rectangular structure near the river was paired with the earthlodge, but that the screen may have been constructed late in the sequence of building at Town Creek, perhaps while the mound was in place. Mortuary evidence will be viewed within this context of structures at the site.

Not all burials can be associated with structures. I have numbered 20 clusters, including two that were probably not associated with structures (Clusters 3 and 13; I refer to all burials unassociated with structures as Cluster 0). One is located just outside the earthlodge, and the other is adjacent to the rectangular structure across the plaza along the river. Both clusters contain individuals with unique artifacts. These similarities in mortuary pattern support Boudreaux's suggestion that the structures were paired and in use at the same time.

To elucidate the relationships among burial clusters I examined several aspects of the mortuary practices in detail, including the distribution of selected artifact inclusions, the spatial dimensions of clusters, and age and sex patterns. Three site areas are discussed in detail: the mound and earthlodge area, the area across from the mound (including Clusters 11, 12, and 13), and Cluster 7 north of the plaza. I focus on these areas because the mound and screened area are likely elite areas, given their restricted access and prominent placement. Cluster 7 is also included because it contains 47 individuals, more than any other cluster at the site. The structure associated with this cluster appears to have been rebuilt several times, and many burials were disturbed by the placement of later graves. This cluster is unusual in size, but not prominently placed in the mound or screened areas.

Artifacts

Twenty-four percent of the individuals at Town Creek were interred with at least one non-perishable grave good. The age and sex of individuals in burials and the spatial distribution of five types of associated artifacts is particularly helpful in interpreting the meaning of the arrangement of these burial clusters and the individuals within them. The artifacts considered here are: copper

objects, mica sheets, rattles, marine shell, and pipes of stone and clay. These items were selected because they tend to be rare grave goods that may have symbolized prestige and, for the copper and marine shell, access to non-local materials. My hypothesis for the spatial analysis of these artifacts is that non-local, "prestige-goods" were restricted in distribution, and probably confined to the mound and nearby structures.

Table 1 presents information, including age, sex, and location data, about the burials with some of these

Table 1. Age, sex, and location data for selected artifacts. Marine shell artifacts have not been included due to the large number of burials (n=41) that contained shell.

Burial	Burial Age		Cluster		Artifact	type	
		Sex	Cruster	Copper	Mica	Rattle	Pipe
2-038	MA	F?	5	—			
2-047	OA	?	5	✓			
2-059	Α	M?	Town House I		✓	✓	
2-060	Α	?	Town House I		✓	✓	
3-005	YA	F	11			✓	
3-020	Α	M	12		✓	✓	✓
3-023	YΑ	F?	12		✓		
3-036	I	?	13	✓		✓	
3-037	Α	\mathbf{F}	13	1			
3-050	MA	M	14	✓			
3-057	Α	M	20	✓			✓
3-058	J	?	20	√			
3-092	OA	M	7	✓			
3-135	MA	M	18				1
3-138	J	?	6				<u> </u>

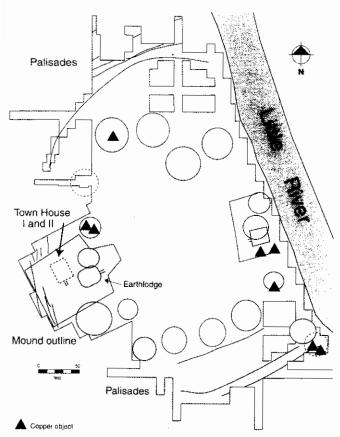


Figure 5. Locations of burials containing copper artifacts.

artifacts. Age categories used in this table include old adults (OA), individuals over 45 years old at death; mature adults (MA) aged 35-45 at death; adults (A) aged 25-35 at death; young adults (YA) aged 18-25 at death; juveniles (J) aged 5 to 12 years; and infants (I) aged between 9 and 18 months at death.

Copper

Copper artifacts are not as restricted in distribution as I had anticipated (Figure 5). Eight individuals had copper objects: two females, three males, one adult of unknown sex, and two subadults. The three males had unique copper items: an axe, a gorget, and a pendant. Both females had copper-covered wooden earspools, as did an infant (3-036) interred beside one of these females (3-037) within the internal palisade. The juvenile was interred with a copper bead. These burials are not restricted to the mound area or the rectangular structure along the river, but also appear in Clusters 7, 14, and 20.

Mica and Rattles

Mica and rattles are far more restricted in distribution, appearing only in mound burials in the first Town House and in the screened area across from

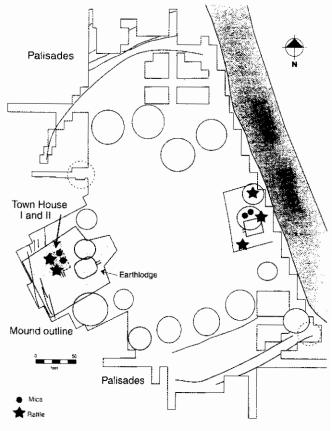


Figure 6. Locations of burials containing mica sheets (stars) and wooden rattles (circles). Two individuals are represented in Townhouse I, each with mica and rattles.

the mound (Figure 6). Three individuals had both rattles and mica, including two of the three burials with Town House I. Of the individuals with mica and rattles, two are male and one is an adult of unknown sex. All of the individuals with mica or rattles are adult, with the exception of the infant, mentioned above, who had two copper-covered wooden earspools.

Marine Shell

Shell grave goods are nearly ubiquitous at the site (Figure 7). Almost 70 percent of the individuals interred with grave goods had conch shell columella beads. Forty-six percent of individuals with grave goods had only shell artifacts. Cluster 7 is unusual for the number of individuals with shell (n=16), ten of whom (63%) had only shell beads. Other marine shell artifacts include cut shell gorgets, segment beads, ear pins, and a hairpin.

Clay and Stone Pipes

Clay and stone pipes, while common at the site, were not common in grave contexts (Figure 8). In fact, they were present in only four burials. Three are adult males; the fourth is a juvenile. While pipes do not appear only in the mound or across from it, they do seem to be

associated with higher status individuals. One of the three males with pipes also had mica and a rattle interred with him. The other two had unique items with them, a carved steatite amulet or ornament of a human face, possibly the "Long-nosed God" (Brain and Philips 1996; Coe 1995; Griffin 1967; Williams and Goggin 1956), with one and a copper pendant and a copper bead with the other.

Spatial Organization of Burial Clusters

The information just outlined can be assembled to form an "architectural grammar" of the site (Lewis and Stout 1998, Lewis et al. 1998). As Lewis et al. (1998:4) note, "just as language is imposed order on selected sounds, the grammar of human constructions and appropriations is ordered by design intents, functional limits, and contexts." To address the question of the relationship between the three areas described above, it is important to know how the areas are alike and different. At first glance, it appears that the mortuary patterns in the mound, screened area, and Cluster 7 are similar. All have unusual artifacts and a high number of artifact types (NAT) per cluster (Table 3), compared with other clusters. (Cluster 0, individuals not associated with any structures, and Cluster 1, a large pre-

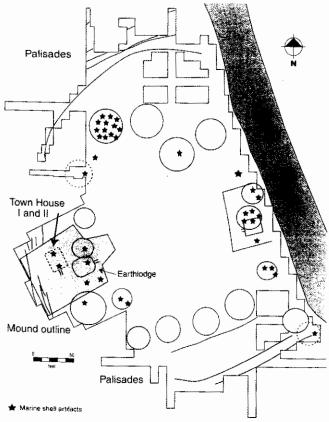


Figure 7. Locations of burials containing marine shell artifacts (symbols shifted to avoid overlapping).

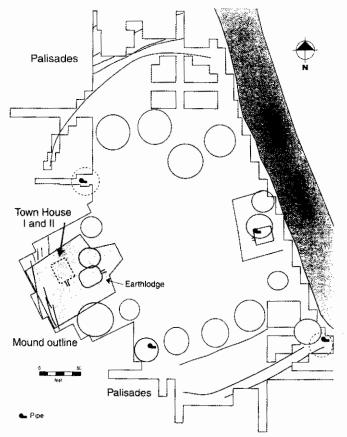


Figure 8. Locations of burials containing stone and clay pipes.

mound cluster, are included for comparative purposes.) The average number of individuals with artifacts is also high for these areas. However, when the number of artifact types is standardized for the number of individuals in each cluster, Cluster 7 no longer appears as significant (Figure 9).

Although the burials in Cluster 7 contain many artifacts, and many individuals were buried with artifacts, this cluster is not as unusual as it first appears. Much of the variation within this cluster may relate to the length of time Cluster 7 served as a burial locus. The simplest explanation is that this cluster represents the structure most often rebuilt. Perhaps it was the residence of a particularly successful family who maintained the structure and continued to place burials within it. Alternatively, the primary function of this structure could have changed over time from residence to mortuary. Boudreaux's (2001) intrasite chronology based on the distribution of rim modes suggests that Town Creek may have served primarily as an elite residence and mortuary facility towards the end of the site's occupation.

Both mound and screened areas are physically set apart—the mound is elevated and the area along the river was, at some point in the site's occupation, walled off from public view and therefore with potentially limited access. As Lewis et al. (1998:3) state, "all societies assign meaning to spaces that denote, connote, or secure

Table 2. Individuals buried in the mound and in the screened area along the Little River, by age and sex. The screened (inner palisade) area includes Clusters 11, 12, and 13.

	Mo		
	Town House I	Town House II	Inner Palisade area
Male	1	0	5
Female	1	2	10
Subadult	0	0	12
Unknown sex adult	1	0	6
Totals	3	2	33

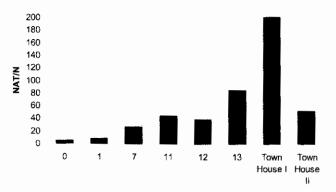


Figure 9. Number of Artifact Types (NAT) divided by the number of individuals in selected clusters. Cluster 0 includes all burials not located within structures.

privacy; that segment activities." These areas are distinctive in two other respects. Rectangular structures were present only in these areas (including the premound earthlodge), while all identified structures in other areas of the site were round. Mica and rattles were interred only with individuals in these two areas.

Just five burials have been excavated from the mound, three with the first townhouse, and two with the second (Table 3). Because much of the mound was disturbed or destroyed by early amateur efforts, and because a portion was left unexcavated by Coe, it is possible that more burials were located in the mound. Of the excavated burials, three are female, one is male, and the other is an adult of unknown sex, and all five are relatively young; none are over 45. This corresponds to a general pattern at Town Creek, where the number and type of artifacts interred with individuals decreases with increasing adult age (Figure 10) after a peak at 30-35 years. This pattern contrasts with the age-at-death distribution of both males and females (Figure 11). If status and power increased with age, this was not demonstrated by including grave goods in the burials of older individuals. It seems unlikely that status would decrease with age, so another explanation must be sought, as discussed below.

The second townhouse contained two individuals, both adult female bundle burials, fully skeletonized and disarticulated prior to interment in the mound. At

Table 3. Artifact inclusions by cluster for selected areas. Clusters 0 and 1 are included for comparative purposes. Cluster 1 is a large premound cluster. Clusters 11, 12, and 13 are located within a screened area along the riverbank. Town Houses I and II are on the mound.

Cluster	n	Number of burials with artifacts	% of burials with artifacts	Number of artifact types (NAT)	NAT/n
0	32	2	6.3	1	3.1
1	29	2	6.9	2	6.9
7	47	17	36.2	12	25.5
11	21	7	33.3	9	42.9
12	8	2	25	3	37.5
13	6	2	40	5	83.3
Town House I	3	2	66.7	6	200
Town House II.	2	11	50	1	50

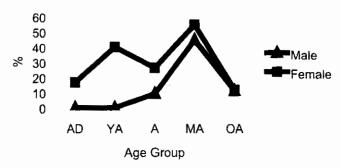


Figure 10. Percentages of males and females in each age group with artifacts.

least one appears to have been interred in the burned debris of the second townhouse. It seems likely that these remains were curated until the appropriate time to inter them, perhaps at the time the site was abandoned, or at least at abandonment of the mound. Neither contained mica nor rattles, which are found only with individuals associated with the first townhouse.

The more diverse set of burials in the area across from the mound, along the river, included males, females, and children (see Table 2). The women interred along the river are also fairly young, none older than about 40, with six under the age of 30. The men for whom age can be estimated are slightly older, with an average age of 35-40. Looking at just the burials located within the screened area (Clusters 11, 12 and 13), there are twelve subadults, six males, ten females, and six adults of unknown sex. The children have only shell beads, except the burial with copper-covered wooden earspools and a rattle (3-036, see Table 1). One of the males had only shell beads, while the other had mica, rattles, a raccoon skull, four projectile points, and shell beads. Four of the ten females had artifacts, all of which were "prestige goods" or items of limited distribution (e.g. stone ear discs, copper-covered wooden earspools, rattles, mica, and shell beads). In this area, as in the mound, there are more women than men, and the artifacts with the women are indicative of higher status and more political or social power, or both. However, the number of burials is too small to warrant firm conclusions about gender and power without corroboration from other analyses.

Discussion

The placement of burials at the site allows certain interpretations of the social and political organization at Town Creek. Situating a burial in the floor of a structure creates a material and cognitive link between the interred individual, the location, and those who inter him or her there. As Rodning (2001:100) notes, "symbolic meanings become embedded in the spaces and places where men, women, and children live their lives." In Mississippian societies, burials were often placed in the floors of domestic structures. If the early structures at Town Creek became linked in the minds of the inhabitants with the founding families or corporate groups, then burials within those structures could have reinforced the positions of those families within the community. Continued use of these structures would have been vital to maintaining that linkage, and reified the important position of the founding lineage(s). This may explain the large number of burials within the floor of the Cluster 7 structure. It is likely that the burials repre-



Figure 11. Percentages of males and females in each age group.

sent members of the same household or lineage that had spread out beyond an original dwelling to other nearby houses. The members of this lineage continued to place their deceased in the original house, emphasizing their connection to their progenitors. Hally and Kelly (1998: 60) suggest that, at the King site, certain structures "were destroyed and rebuilt most often as a result of the death of a significant household member, perhaps the genealogically senior member and household head," but they were not able to identify those persons. They further suggest that in-place rebuilding of structures represents the "physical expression of an ideological emphasis on household identity and continuity through time," and "households would have had a strong interest in their own identity, perpetuation, and existence through time" (Hally and Kelly 1998:61).

Based on the pattern of decreasing numbers of artifacts with increasing age among adults, the relatively young age of the individuals in the mound, and individuals with grave goods along the river, it appears that only individuals who died while they were actively practicing and maintaining their public roles were entitled to be interred in the mound and buried with prestige goods. In other words, only those who died while "in office" were accorded elaborate burial in restricted areas of the site. It is likely that leaders who died fairly young created more of a social upheaval that needed to be mitigated through elaborate or special mortuary treatment. Burial of a leader in a public building or area served at least a dual function of reinforcing and recreating the power structure when the new leader participated in the funeral. As Parker Pearson (1999:32) asserts, "funerals are political events at which the status of the deceased as well as that of the mourners is actively negotiated and reevaluated." When the transition from Leader A to Leader B was accomplished without the death of Leader A, the later death of (former) Leader A would not be as problematic, and may not have required as complex or intricate a burial ritual.

If leadership positions were held for life, as many archaeologists believe, then the above explanation is inadequate. There may be mound burials that remain

unexcavated or were destroyed by earlier efforts, and these may have contained the expected elaborate offerings with older individuals. However, the fact that all excavated burials from the mound are fairly young and have few grave goods still begs explanation. If leaders held power until death, then either most died young, or the older individuals are interred elsewhere. The possibility that heirs were established prior to the death of a leader, whether power was actually transferred or not, must be considered, and seems to me to best fit the available data. Perhaps elaborate burials in mounds take place in chiefdoms where the next leader was the subject of more strife and social upheaval. At Town Creek, these transitions may have been less stressful for older leaders, perhaps because the leadership pool was socially limited.

Leadership roles probably were open to men and women, as at other Mississippian communities. Following Knight's (1990) reasoning, I expect that the people at Town Creek organized themselves into exogamous clans, with ranked lineages, possibly matrilineages. Knight examined ethnohistoric documents relating to social organization among Southeastern chiefdoms, and concluded that while they were probably organized along clan lines, an arguably egalitarian system, the lineages within clans were often hierarchically arranged. Noble status was determined by degree of kinship to the chief. Leadership was often hereditary, but it is likely that on the death of a chief, particularly a paramount chief, rival claimants from within the family could arise and vie for the leadership position. In other words, the office was only open to people of the right birth, but several people may have been eligible. Factors such as age, the strength of an individual's following, and alliances would be important at such times of transition. As Knight (1990:18) notes, "societies at this level of integration are afflicted by chronic political instability" and as such, the people "are not yet prepared to submit to governance by a disconnected, despotic, and selfabsorbed nobility." Individual agency and charisma probably played a large role in the determination of a leader.

If older leaders at Town Creek were able to manipulate the political system to ease transitions to their chosen heirs, this might result in the pattern of burial in the mound at Town Creek. Older leaders may have been buried in the screened area across from the mound, or elsewhere, instead of in the mound as part of the recognition of the lack of conflict over succession. In such a situation, it might be especially important for members of the leading lineages to reinforce and maintain their status and link to the leadership. This pattern may have been important in reinforcing all elements of the social order. Cluster 7, which was reused more than any other burial cluster, may represent this effort on the part of non-nobility as well.

Conclusions

The areas along the river and on the mound itself represent segregated areas where the elite were interred in a manner that reinforced their position in society. Elaborate male and female burials along the river suggest that more than one avenue or portrayal of prestige existed. It appears that both men and women held important positions. Certain roles seem to have been restricted to men, as evidenced by the male burials containing ritual apparatus such as pipes, rattles, an animal skull, and the only representation of a human at the site, the face "amulet" or decoration. Perhaps the ritual sphere was divided into male and female roles, with women controlling domestic ritual (including burials), while males directed public rituals for renewal and other cosmological events.

It is difficult to say how the screened area functioned in the political development of hierarchy at the site. The greatest obstacle to interpretation of this point is my uncertainty that the mound and screened area were in use at the same time. If the rectangular structure inside the screened area is paired with the earthlodge, as Boudreaux suggests, then some of the burials in this area should be separated and analyzed apart from the rest. Attempts at fluoride dating have been unsuccessful in seriating burials at Town Creek, and only two burials at the site contained ceramic vessels, making ceramic seriation difficult. If both areas were in use at the same time, then perhaps the screened area along the river represented the living area of an elite clan, and the leaders drawn from this group were interred in the mound—a combination of both achieved and ascribed status for leaders.

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SETTLEMENT STRUCTURE AND OCCUPATIONAL HISTORY AT THE FREDRICKS-JENRETTE SITE COMPLEX, ORANGE COUNTY, NORTH CAROLINA

R. P. Stephen Davis, Jr.

The Fredricks-Jenrette site complex, one of the largest hand-excavated sites in North Carolina, was investigated by the University of North Carolina archaeological field school over eleven summers between 1983 and 1998. This article provides a brief history of the Fredricks-Jenrette investigations, highlighting Trawick Ward's contributions to the project, and examines settlement structure and occupational history as revealed by artifacts and feature data. Specifically, spatial arrangements of pits, burials, houses, palisades, and plow zone artifacts are used to identify cultural activities at the site during the Late Woodland and Contact periods, emphasizing the early Late Woodland settlement by Haw River phase peoples and the village occupations of the Occaneechi and (possibly) Shakori tribes in the late seventeenth and early eighteenth centuries.

In 1983 archaeologists at the University of North Carolina (UNC) at Chapel Hill began a long-term program of research into the nature and consequences of contact between Europeans and native peoples in north-central North Carolina. Building upon a decade of excavations at a late seventeenth-century Sara village along the Dan River, the newly created Siouan Project sought to provide formal structure to investigations of contact-period sites in the North Carolina Piedmont and to amass the resources necessary to conduct meaningful regional study.

Although the early phase of the project took shape under the guidance of Roy Dickens, then director of the Research Laboratories of Anthropology (RLA) at UNC, Trawick Ward was the project's mastermind and early driving force. Trawick's tenure as a graduate student and staff archaeologist at UNC had fully coincided with the Upper Saratown excavations begun in 1972, and his dissertation was based in part on an analysis of Saratown site structure as reflected by plow zone artifact distributions (Ward 1980); however, he never directed the work there. Instead, he annually helped excavate features and close the excavation at the end of each field season, once his own investigations at the Warren Wilson site, at Hardaway, at the McDowell site, or elsewhere were completed. With his intellectual appetite whetted by his yearly experiences at Upper Saratown, as well as his knowledge of earlier investigations by Joffre Coe and other UNC archaeologists at sites such as Keyauwee, Lower Saratown, and Wall (Coe 1952a), Trawick developed a keen interest in the unique archaeological problems of the contact period. Therefore, it is no surprise that when Roy Dickens arrived back in Chapel Hill following Coe's retirement, Trawick was a strong and vocal advocate for sustained research into the historic Siouan tribes of central North Carolina.

Trawick also strongly influenced the decision of where to begin the Siouan Project. Given that the RLA already had amassed a very large body of archaeological data, mostly unanalyzed, from Upper Saratown, Trawick argued for renewed research at a site along the Eno River near Hillsborough that was first investigated near the end of the Depression but never reported. Called the Wall site, but more commonly known as Occaneechi Village, this site was long thought to be the location of a settlement visited by the English explorer John Lawson in 1701 (Lefler 1967).

This shift in regional focus from the Dan River to the Eno River had several advantages. First, it would provide a basis for comparing two Siouan tribes whose contact experiences with the English were historically documented and distinctly different. The Sara geographically were somewhat removed from the corridor of direct trade that developed during the closing years of the seventeenth century, while the Occaneechi were significant early participants in the trade while living in the Roanoke valley and remained well positioned to benefit from it into the early eighteenth century (Davis 2002; Davis and Ward 1998) (Figure 1).

Second, the Wall site had long been regarded as a firmly established, documented, contact-period site and, as such, had served as a sort of benchmark in regional chronologies (Coe 1952b). Hillsboro Simple Stamped and Plain potsherds were generally viewed as indicators of a historic-period component when found on other archaeological sites. The perplexing problem with Wall was that no European trade goods had been found there. Given the wealth of trade artifacts found at Upper Saratown, presumably earlier and more removed from the trade than the Occaneechi settlement, the chronological position of the Wall site clearly needed to be reassessed (Eastman 1999; Wilson 1983).

Finally, the Wall site was only a short distance from Chapel Hill and its proximity would permit the Siouan Project to get off the ground without extensive outside support. This was also helpful since 1983 was the first time that UNC offered its own archaeological field school and students could live on campus. And, it didn't hurt that the site was only a few miles from Trawick's house!

The Hillsborough Excavations

Fieldwork at Wall began rather disappointingly. Working without benefit of earlier field notes (which mysteriously appeared later that summer), we quickly discovered that a significant portion of the site already had been excavated. Moreover, it soon became apparent that the Wall site probably was not occupied during the Contact period, as had long been assumed (Dickens et al. 1987:6). With these revelations, we began looking elsewhere for evidence of Occaneechi Town.

During the previous spring, Trawick and I had picked up a few potsherds and a kaolin pipe stem from a small garden plot located just 400 ft. west of the Wall site (Figure 2). While I took several field school students and tested the Mitchum site west of Chapel Hill, Trawick and a few other students shovel tested the garden plot. As they were about to abandon their efforts, Trawick's last shovel test hit the top of a pit filled with dark black soil, charcoal, and food refuse. In the final weeks of the field season, eight 10-ft. squares were dug at this location, revealing the tops of four rectangular burial pits and part of an adjacent palisade line. All of the graves contained trade artifacts consistent with Occaneechi Town's known existence in the area during the early 1700s (Carnes 1987).

Over the next three summers, the newly discovered Fredricks site was completely excavated. These investi-

gations exposed almost 16,000 sq ft. of the site and revealed a small, quarter-acre, palisaded settlement comprising no more than a dozen houses. These houses ranged from circular to sub-rectangular in configuration, were no more than 20 ft. in diameter, and formed a circle surrounding an open area. In the middle of the village was a small structure with a deep interior fire pit that has been interpreted as a communal sweat lodge. Cylindrical storage pits had been dug into house floors or just outside house walls, and the rich refuse deposits within them appeared to reflect ritual behavior, perhaps associated with renewal ceremonies (Davis et al. 1998; Dickens et al. 1987; Ward and Davis 1988). Immediately northeast of the village, flanking the palisade, was a cemetery with 13 graves. Two other cemeteries containing 12 additional Occaneechi graves would be found later (Driscoll et al. 2001). Given the village's size, the small number of houses, and a general lack of evidence for rebuilding, the Occaneechi probably lived here for no more than a decade and their village population consisted of 60 to 75 individuals (Davis and Ward 1991; Ward and Davis 1988:120). The number of graves associated with this small village suggests further that its inhabitants probably suffered from Europeanintroduced diseases during this time (Ward and Davis

In 1989, following two summers of site investigations in the adjacent Haw and Dan river valleys, we returned

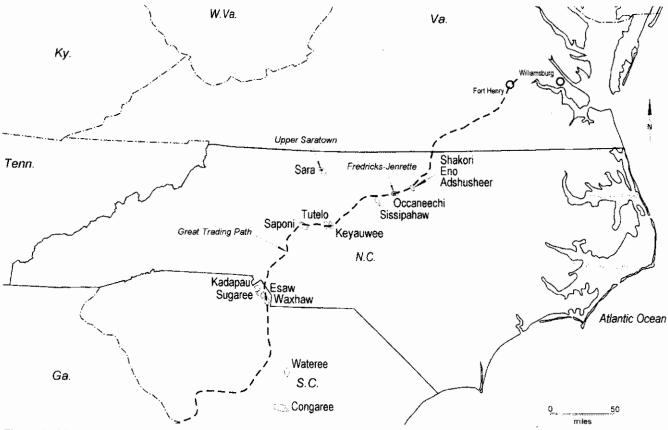


Figure 1. The location of Piedmont Siouan tribes at 1700.

to the Fredricks site, unsatisfied with the apparent small size of the Occaneechi community there and hoping to identify additional dwellings scattered outside the palisaded settlement. Our approach was to use closeinterval auger testing—a technique that had proved very successful in locating archaeological features at other Piedmont sites-to explore the unexcavated area around Fredricks (Davis and Ward 1987). Almost immediately, we began to encounter features; however, they were not distributed in scattered fashion outside the palisade as we had expected. Instead, they were densely concentrated in an arc just northwest of the Fredricks excavation. Quite unexpectedly, our search for Occaneechi households had revealed a previously unknown, slightly earlier palisaded village that we subsequently named the Jenrette site (Ward and Davis 1993:9-10, 319-384).

Over seven field seasons between 1989 and 1998, areas within the Jenrette palisade and between the Fredricks and Jenrette villages (covering approximately 30,000 sq ft.) were excavated (Figures 3 and 4). Although numerous excavated features within the Jenrette palisade contained European trade artifacts, differences in both artifact quantity and type indicate that this village dates slightly earlier than Fredricks. The larger area encompassed by the Jenrette palisade (about half an acre) suggests that its population also may have been somewhat larger, although the overall density of artifacts both within features and in the overlying plowed soil do not fully support this assumption. While the Fredricks site represents only one-third of the overall excavation in terms of area, it accounts for almost two thirds of the 380,000 artifacts that were recovered. In contrast to Fredricks, only three houses have been positively identified at the Jenrette site. Given posthole and feature distributions, additional houses likely stood along the northeastern side of the village, but there is little evidence to suggest that similar dwellings were constructed along the southwestern side. Interestingly,

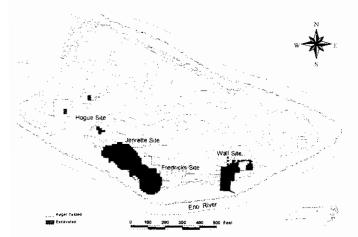


Figure 2. The Hillsborough archaeological district showing areas that have been auger tested and excavated.

it was along the southern edge of the village, just inside the palisade, where a cemetery with eight Occaneechi graves was found.

The cultural affiliation of the Fredricks site can be asserted with reasonable confidence; however, the identity of the people who resided at Jenrette is less certain. Archaeologically, we can say that the Jenrette folk were likely descendants of the Hillsboro phase, a local, late prehistoric culture represented by the nearby Wall site, and their material culture also is very similar to that of the historic Sissipahaw who lived about 20 miles to the

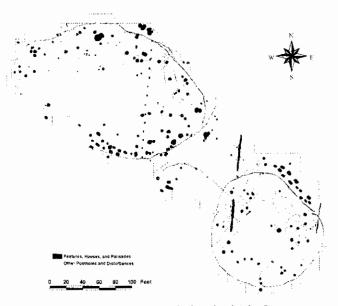


Figure 3. Excavation plan of the Fredricks-Jenrette site complex, showing all features, postholes, and other disturbances.

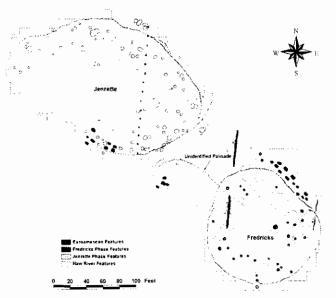


Figure 4. Excavation plan of the Fredricks-Jenrette site complex, showing features, houses, and palisades that can be assigned to cultural phase. A palisade of uncertain cultural affiliation also is shown.

southwest along the Haw River (see Dickens et al. 1987). It is possible that Jenrette's inhabitants were the Shakori, a Siouan tribe visited by John Lederer in 1670 who were closely allied during the late seventeenth century with the Eno, Adshusheer, and Sissipahaw (Cumming 1958). When John Lawson visited Occaneechi Town in 1701, the Shakori were living with the Eno and Adshusheer about a dozen miles to the east.

Early Occupations

Given the large scale of the Fredricks and Jenrette site excavations, consisting of 454 hand-dug, 10-ft. squares, or just more than an acre, it is not surprising that both earlier and later occupations also have been documented here. In fact, almost all Archaic and Early-to-Middle Woodland phases recognized in the region are represented by projectile points found in the plowed soil, and a Paleoindian lanceolate point also has been found. These artifacts, along with small numbers of patinated flakes, flake tools, Late Archaic soapstone bowl fragments, and Yadkin Fabric Impressed potsherds, attest to sporadic and seasonal encampments along the banks of the Eno over several millennia. However, no features were found that could be attributed to these earlier activities.

Plow Zone Artifact Patterns

Much has been written about the spatial structures of the Fredricks and Jenrette sites based on posthole, feature, and house patterns. On the other hand, comparatively little distributional analysis has been done on the artifacts recovered from the plow zone (Davis and Ward 1987, 1991; Driscoll et al. 2001; Petherick 1987; Ward and Davis 1988, 1993; but see Boudreaux this volume). In 1987 Trawick and I examined the correspondence, or lack of such, between feature distributions and plow zone artifact distributions at Fredricks and argued that, because of plowing patterns, plow zone artifacts were a poor indicator of feature placement (Davis and Ward 1987). While I still believe this to be true, there are several reasons why a second look at plow zone artifacts is important to understanding the occupational sequence here.

There is good evidence that the Jenrette village was still occupied when the first Occaneechi settled here sometime before 1701. This includes: (1) the alignment of the two palisades relative to the Eno River; (2) the placement of Occaneechi graves along the interior side of the Jenrette palisade; (3) the presence of small numbers of Fredricks Check Stamped sherds in several Jenrette features; and (4) the occurrence of large Jenrette Simple Stamped vessel sections in a few Fredricks

features. It is also important to note that at least one dwelling at Fredricks predates the palisade, indicating a period (however brief) of Occaneechi occupation before the settlement we recognize as Occaneechi Town was established. By examining the plow zone distribution of certain ceramic types associated with each village, we may identify areas of activity not reflected by feature distributions. This is important because it may help shed new light on the cultural dynamics that accompanied the coalescence of several Siouan tribes at particular locations throughout the Piedmont at the close of the seventeenth century (Davis 2002; Simpkins 1992).

Secondly, another palisaded enclosure was discovered while excavating the area between the Jenrette and Fredricks palisades. This enclosure is overlapped by the Fredricks palisade, but was not detected until 1989. Although a third Occaneechi cemetery comprising four graves lies within the palisade, the post stains are faint and appear to predate both the Fredricks and Jenrette villages. In the absence of other features or identifiable houses within this enclosure, it was hoped that artifacts in the overlying plow zone might provide a clue as to its cultural association.

Finally, the first occupation to leave behind more than scattered artifacts occurred during the early Haw River phase, at about AD 1000. In 1989 Haw River phase features, burials, and a possible house were uncovered at the Hogue site, situated just northwest of the Jenrette excavation. Haw River features also were encountered while excavating the Fredricks and Jenrette villages. By comparing the distribution of these features with the plow zone distribution of Haw River phase pottery, we hope to gain a better understanding of the nature of this early settlement and determine if more than a single occupation is represented.

Methodology

Because pottery has proved to be one of the most useful classes of artifacts for distinguishing between the Haw River, Jenrette, and Fredricks occupations, the present distributional analysis focuses on plow zone potsherds. Pottery was one of the more abundant and ubiquitous classes of artifacts found at the Fredricks and Jenrette sites. Over 112,000 potsherds were recovered from the plow zone and more than 15,000 sherds came from features. Potsherds greater than 2 cm in diameter were classified according to size, temper, exterior surface treatment, interior surface treatment, portion of vessel represented, and rim type. Potsherds less than 2 cm in diameter were classified as indeterminate for each attribute.

Once the potsherds had been classified, features containing sufficiently large numbers of sherds were compared. Three feature groups were identified that correspond to the three occupational phases. Although

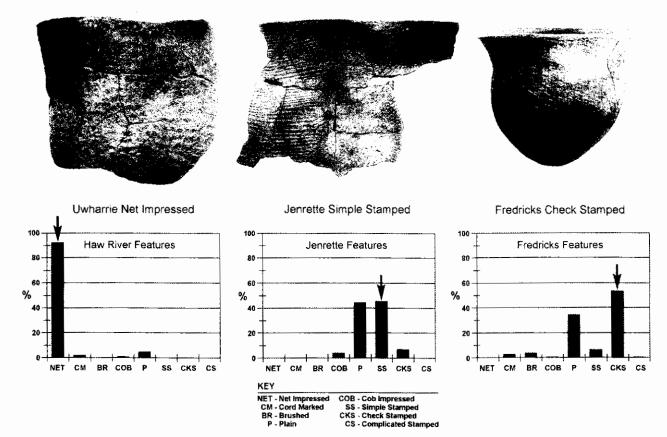


Figure 5. Bar charts showing the relative frequency of pottery surface treatments from Haw River, Jenrette, and Fredricks phase features. Treatments diagnostic of each phase are indicated by an arrow and illustrated above.

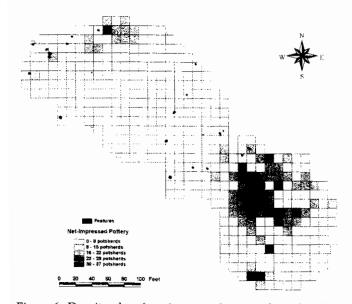


Figure 6. Density plot of net-impressed pottery from the plow zone, superimposed on an excavation plan of Haw River phase features.

both temper and exterior surface treatment attributes were found useful for distinguishing the three phases, only exterior surface treatment is considered here.

Twenty-five features are attributed to the Haw River phase. They contained high percentages of net-impressed

and lesser, but significant, percentages of cord-marked and brushed potsherds. Haw River features contained no European trade artifacts. Ninety features have been assigned to the Jenrette phase, and these contained high percentages of simple-stamped and plain sherds and lesser amounts of cob-impressed and check-stamped pottery. Most Jenrette features also contained small quantities of glass seed beads or no trade artifacts at all. The 58 Fredricks phase features contained large percentages of check-stamped and plain sherds, and a few contained lesser but significant quantities of simple-stamped pottery. These features usually contained a variety of glass and metal trade artifacts. Features assigned to both the Jenrette and Fredricks phases also contained some netimpressed, cord-marked, and brushed potsherds, but most of these do not appear to be associated with these phases.

Based on this pattern of associated pottery, each phase can be characterized by a single, predominant surface treatment: net-impressed pottery for the Haw River phase; simple-stamped pottery for the Jenrette phase; and check-stamped pottery for the Fredricks phase (Figure 5). How do the plow zone distributions of potsherds with these surface treatments compare with the spatial patterns of features, houses, and palisades for each phase?

Haw River Phase

The distribution of net-impressed sherds clearly indicates two distinct concentrations: one centered near the northwest edge of the later Fredricks village and another near the northwestern edge of the Jenrette village (Figure 6). This second concentration appears to represent the southeastern limit of an early Haw River settlement, known as the Hogue site, that was partly excavated in 1989 (Ward and Davis 1993:385-405). Haw River phase features are present in each of these two areas, although the spatial correspondence between plow zone pottery and features is not particularly tight. Still, the evidence strongly supports the presence of two discrete Haw River settlements rather than a single, large settlement. The amount of time separating the two settlements is not known, and neither settlement appears to be associated with the unidentified palisaded en-

Jenrette Phase

Despite the large number of features—mostly storage pits and cooking basins—within the Jenrette palisade, the overlying plowed soil contained comparatively few potsherds (Figure 7). Consequently, the distribution of simple-stamped sherds within this village appears spotty. Still, the distribution of simple-stamped pottery here is associated with the presumed domestic areas of the Jenrette village and supports the notion that no houses stood along the southwestern edge of the village closest to the river.

The large concentration of simple-stamped pottery within the western half of the Fredricks village area is less easily explained, since Jenrette phase features do

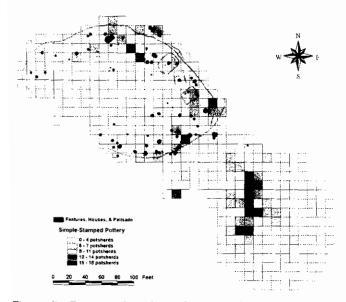


Figure 7. Density plot of simple-stamped pottery from the plow zone, superimposed on an excavation plan of Jenrette phase features, houses, and palisade.

not occur here. Feature 41, one of only two Fredricks phase pits that contained large pieces of Jenrette Simple Stamped jars (Feature 18 is the other), is located within this area of concentration; however, its presence alone does not appear to be a sufficient explanation. This pottery concentration is quite possibly associated with the unidentified palisaded enclosure located immediately to the west. If so, this enclosure dates to the early Jenrette phase or preceding Hillsboro phase. At the nearby Wall site, a dense deposit of simple-stamped pottery was found in a thin midden at the northern edge of the Hillsboro phase village (Petherick 1987:34-36). A similar pattern of refuse disposal may be reflected by this pottery concentration. Further characterization of these simple-stamped sherds by temper, rim treatment, and stamp attributes may help determine if such an explanation is plausible.

Fredricks Phase

Unlike the plow zone distribution of pottery associated with the Jenrette village, the Fredricks phase pottery is spatially correlated with the palisaded village (Figure 8). In fact, the density of Fredricks Check Stamped sherds in the plow zone drops significantly beyond the palisade. This spatial pattern suggests that sherds in the plow zone came from the tops of pits within the village and from a village midden that has long since been plowed away. The occurrence of relatively large numbers of check-stamped sherds just beyond the palisade at the southern end of the large cemetery (Cemetery 1) and near one of the village's three entryways may indicate an area of dumped refuse.

Although burials in each of the other two Occaneechi cemeteries (Cemeteries 2 and 3) contained Fredricks

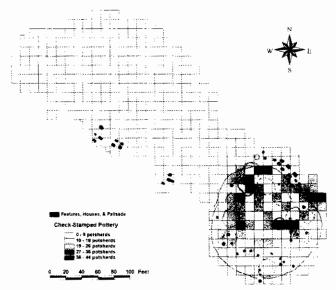


Figure 8. Density plot of check-stamped pottery from the plow zone, superimposed on an excavation plan of Fredricks phase features, houses, and palisade.

Check Stamped pots, few check-stamped sherds were found in the overlying plowed soil. Likewise, there are no areas within the Jenrette village excavation where Fredricks Check Stamped sherds occur in sufficient amounts to suggest the presence of scattered Occaneechi households. The occurrence of small to moderate numbers of such sherds in more than a dozen Jenrette features, however, supports the interpretation that the Jenrette village was still occupied when the first Occaneechi moved into the area.

Conclusions

When Siouan Project investigations began in Hillsborough in 1983, no one had any idea that they would, off and on, span the rest of Trawick's career at the University of North Carolina. In fact, early in that first field season we sometimes wondered aloud if anything archaeological was left in Hillsborough to study. Seventeen years later, we know better. While much of our research has focused on architectural remains, archaeological features, and their contents, it is perhaps fitting that, even as Trawick prepares for retirement, we are still grappling with the spatial patterns of plow zone artifacts that he sought to explain 20 years ago with his doctoral research.

Our understanding of Siouan life and culture process on the North Carolina Piedmont has increased substantially during the intervening years, particularly with regard to the Occaneechi and their interaction through trade with the English. However, the relationship of the Occaneechi to their native neighbors is not well understood, and we know even less about the small, shortlived, coalescent communities that emerged on the North Carolina Piedmont frontier during the closing years of the Contact period. The extensive archaeological excavation of the Fredricks-Jenrette site complex offers a rare opportunity to study the dynamics of such a community. This chapter represents just the beginning of that study.

Notes

Acknowledgments. I thank the many graduate and undergraduate students at the University of North Carolina at Chapel Hill who excavated the Fredricks-Jenrette site complex. Without their hard work over many years recovering artifact samples and settlement data, this study would not have been possible. Pottery from features at the Fredricks site and pottery from features excavated in 1989 and 1990 at the Jenrette site were analyzed by the author. All remaining pottery was analyzed by Lela Urquhart, Tony Boudreaux, and the author. Excavation plans and artifact density maps were generated with ArcView 3.2.

Collections. All artifacts, field records, and analysis records from the Fredricks-Jenrette site complex are curated at the Research Laboratories of Archaeology, University of North Carolina at Chapel Hill.

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THE FREDRICKS SITE: SOCIAL DIVERSITY WITHIN A LATE CONTACT PERIOD SIOUAN COMMUNITY IN NORTH CAROLINA

Edmond A. Boudreaux III

This article considers social diversity within the Siouan community represented by the late Contact period Fredricks site. Ethnohistoric accounts and mortuary data are used to establish some material correlates for different statuses within Siouan society. These expectations are then used in the examination of data from plow zone and storage pit contexts. This process reveals activity areas and household-level patterns that may be the product of activities associated with Siouan social distinctions based on gender and leadership roles.

The Fredricks site is the remains of a late Contact period (AD 1680-1710) Siouan village located in the Piedmont of central North Carolina (Figure 1), probably the community known as Occaneechi Town, whose namesake occupants were powerful middlemen in the region's colonial deerskin trade (Davis and Ward 1998; Dickens et al. 1987b:1-2; Merrell 1987:20, 1989:40; Ward and Davis 1999:242-247). The research presented here examines the site structure of Fredricks—the spatial distribution of its artifacts and features (sensu Binford 1983:144)—to explore the spatial layout and social fabric of the Occaneechi Town community. Comparing Fredricks as an entity to other whole-site assemblages has already yielded significant contributions (Gremillion 1987:277; Holm 1987:258; Tippitt and Daniel 1987:217). I explore some of the archaeological variability that exists within the Fredricks site itself, variability that, in turn, is related to the social, political, and ethnic diversity within late seventeenth- and early eighteenthcentury Siouan society. Finally, I briefly compare Occaneechi Town to what is known about other Piedmont Siouan communities as a step toward exploring the evolution of Siouan society during the Contact period.

The Fredricks site provides an excellent opportunity to focus on intra-community variability. The Fredricks assemblage represents the material remains of an entire contemporaneous community, or at least that portion of the site enclosed by a stockade, which was completely excavated during the mid-1980s. The site's Fredricks phase occupation (AD 1680-1710) was so brief, in archaeological terms, that the features of this component can be considered contemporaneous (Ward and Davis 1999:242). Furthermore, the site's large

amount of data is easily accessible (Davis et al. 1998). And lastly, a great deal is known about the site's relationship to contemporaneous and earlier Siouan villages (Davis et al. 1998; Dickens et al. 1987a; Ward and Davis 1993).

The late Contact period component at Fredricks consists of at least ten structures and a number of garbage-filled storage pits distributed in a more or less ring-shaped arrangement within a stockade (Figure 2) (Ward and Davis 1988: Figure 33, 1998:205). Structure 1 stands out for its aberrant location within this ring and because of its small size (Table 1), the latter perhaps indicating a non-domestic function. The association of Structure 1 with a large fire pit and concentrations of daub has led to its interpretation as a sweat lodge (Petherick 1987:68). Three contemporaneous cemeteries were located outside of the palisade (Driscoll et al. 2001:130; Ward and Davis 1999:242), as was Structure 4, another non-domestic building, judging from its size and location (Boudreaux 2000:31).



Figure 1. Archaeological features at the Fredricks site (image courtesy of the Research Laboratories of Archaeology, University of North Carolina, Chapel Hill).

Social Diversity and Archaeological Variability

Several cultural factors probably contributed to the variability of the archaeological record at Fredricks. Although late Contact period Siouan society can be fairly characterized as egalitarian (Ward and Davis 1999:78-79), ethnohistory and archaeology provide us with a number of dimensions by which people—within Siouan society, in particular, and within Southeastern Indian societies, in general-may have been differentiated. English travelers among the Siouans often noted the existence of distinct political roles, such as war captain, councilor, and community leader (Cumming 1958:25; Lefler 1967:204, 210). Additionally, age and gender were fundamental distinctions in all Southeastern communities (Cumming 1958:27; Eastman 1999: 194-202; Hudson 1976:260; Lefler 1967:27, 43, 177, 188, 193, 211-212, 219). In life, gender distinctions were expressed through the division of labor, spatial separation of daily activities, and differences in clothing and adornment (Hudson 1976:260-269; Perdue 1998:3-4; Swanton 1946:709-711), distinctions also maintained in death. Mortuary analyses of Siouan sites demonstrate an association of particular artifact types exclusively or repeatedly with a specific gender (Driscoll et al. 2001: 143-146; Eastman 1999:194-197). In addition to such individual-level distinctions, group-level differentiation in the form of ethnicity was very important during the Contact period. Remnants of once discrete groups coalesced into multi-ethnic communities as a response to population losses associated with epidemics (Merrell

1989:23). Archaeological evidence for this phenomenon may exist at Fredricks in the form of differences in artifacts and mortuary ritual within cemeteries (Driscoll et al. 2001:149-150; Ward 1987:109).

Table 1. Structure size and associated storage pits.

Structure	Area (ft²)ª	Associated Features
1	115.9	9
2	288.7	none
3	233.24	10, 11
4	23.16	28, 29
5	257.49	23, 33
7	280.37	none
8	156.15	12, 13
9	210.97	17, 18, 19, 20
10	233.72	41
11	254.48	56
12	197.8	51, 59, 61

Figure 2. Fredricks phase features and structures considered for this chapter.

Table 2. Artifact counts and densities (count/volume) by feature for selected Fredricks phase pits > 1 ft.³. Pit features 24, 25, 31, 39, 42, 44, 45, 46, 47, 48, 49, 53, 57, and 58 are not included since they could not be confidently associated with structures (see endnote 2).

			Counts			Densities	
Feature	Volume (ft³)	Pottery	European Goods	Faunal Remains	Pottery	European Goods	Faunal Remains
9	68.15	29	2	1	0.43	0.03	0.01
10	18.54	18	6	204	0.97	0.32	11.00
11	10.80	5	0	15	0.46	0.00	1.39
12	15.23	20	2	99	1.31	0.13	6.50
13	10.08	40	12	283	3.97	1.19	28.08
17	13.61	54	4	952	3.97	0.29	69.95
18	9.80	166	2	1	16.94	0.20	0.10
19	16.85	119	8	840	7.06	0.47	49.85
20	12.60	56	1	589	4.44	0.08	46.75
23	6.27	I	0	8	0.16	0.00	1.28
28	30.72	76	3	546	2.47	0.10	17.77
29	28.56	170	1	722	5.95	0.04	25.28
33	13.26	17	1	51	1.28	0.08	3.85
41	21.28	269	10	1588	12.64	0.47	74.62
51	11.52	52	5	517	4.51	0.43	44.88
56	25.87	144	5	888	5.57	0.19	34.33
59	15.30	81	11	569	5.29	0.72	37.19
61	24.86	16	4	110	0.64	0.16	4.42

I sought variability in the archaeological record at Fredricks by examining distributions of artifacts in the plow zone, and by comparing assemblages among pits and among structures. The plow zone at Fredricks was excavated in 10x10-ft. units with all soil screened through 1/2-in. hardware cloth (Davis and Ward 1987:1). To correct for localized differences in plow zone thickness at the site (see Davis and Ward 1987), artifact frequencies per unit were standardized by dividing artifact counts by soil volume, producing a measure of artifact density (artifacts/ft.3). A Kriging algorithm (Keckler 1994:5-14) was then used to produce contour maps1 of these densities with data points defined as the center of each excavation unit. A schematic site plan showing stockade, structures, and pits (Figure 2) was overlaid on this contour map so that the relationships between site features and the distributions of plow zone artifacts could be assessed. To make comparisons among structures, individual pits were associated with structures based on proximity² (see Table 1) (Flannery 1976:5; Hayden and Cannon 1983:147; Schiffer 1987:42, 60). To facilitate comparisons among pits that ranged widely in size,3 artifact counts were standardized by pit volume (artifact count/ft.3) (Table 2). Artifact densities were then determined for each structure by totaling the densities from associated pits4 (Table 3).

At the individual level, I thought that patterns in the distributions of gender-associated artifacts (Driscoll et al. 2001:143-146; Eastman 1999:194-197) might indicate performance of activities by different gender groups. At the structure and site level, I thought that distinctions in leadership roles and ethnicity might be recognizable. Since leaders of Siouan communities were expected to host all visitors (Lefler 1967:34), I assumed that leaders' houses were larger and had more storage facilities than other houses (Lightfoot and Feinman 1982:67-68). This relationship between leaders and outsiders also might be manifested archaeologically through the association of relatively more non-local goods with the leaders' house. Additionally, I expected their ceramic and faunal assemblages to indicate a higher level of consumption than other structures, since leaders among small-scale societies in general are often expected to provide goods and foodstuffs (Cobb 1993:51-52; Sahlins 1972:94; Wilk 1983:112). Differences in practice as expressed through ritual and daily activities have been recognized as archaeologically discernible expressions of ethnicity (Emberling 1997:325; Lightfoot et al. 1998:201). Thus, differences among structures in terms of architecture, the arrangement of features, or refuse discard might signify the presence of households from different ethnic groups, especially because Siouan ethnohistory and mortuary contexts at Fredricks indicate that different groups may have been living in Occaneechi Town (Driscoll et al. 2001:149-150; Merrell 1989:23; Ward 1987: 109; Ward and Davis 1988:119).

Discussion and Interpretation

Distributions of artifacts and features at the Fredricks site indicate that parts of the site were used in different ways. This discussion considers the use of space at Fredricks in terms of three concentric zones: a central plaza, a domestic zone, and an outer activity zone (Eastman 1999:221-228; Petherick 1987:74-77; Davis and Ward 1987: Figure 3).

Plaza

The plaza is the space circumscribed by the circular arrangement of structures and pits at the Fredricks site. This arrangement seems to have corresponded to the

Table 3. Artifact densities (count/ft.³) and storage volume (ft.³) by structure (compiled from Davis et al. 1998).

Structure	Pottery	European Goods	Faunal Remains	Total Storage
1	0.43	2.76	0.01	0
3	1.43	6.73	12.39	29.34
5	1.44	8.46	5.12	19.53
8	5.28	13.24	34.58	10.08
9	32.41	34.65	166.65	52.86
10	12.64	6.53	74.62	21.28
11	5.57	3.63	34.33	25.87
12	10.45	40.53	86.49	51.68

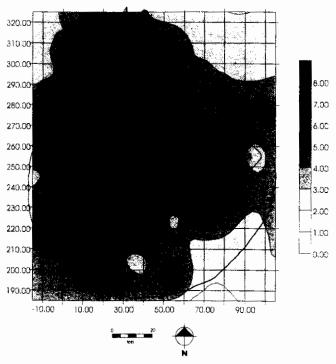


Figure 3. Pottery density (count/ft.3) in the plow zone.

performance of activities at the site, because the plow zone distribution of several artifact classes shows ringshaped concentrations, generally on the edge of the plaza and adjacent to structures, surrounding an area of relatively fewer artifacts. This pattern is clearest in the distribution of pottery (Figure 3), but is discernable in the distribution of other artifact classes as well (Boudreaux 2000:28). The pottery concentrations may represent trash deposits; Ward (1980:177) found that plow zone concentrations of pottery are good indicators of secondary refuse disposal. If this refuse was deposited close to the activities that produced it, then the spaces in front of dwellings-the periphery of the plaza-could have been places for cooking and eating, activities that may have occurred outdoors or under more ephemeral structures. The possibility of the latter is supported by ethnohistoric references to open-air structures in Siouan villages (Cumming 1958:27; Lefler 1967:182). Additionally, a number of postholes along the periphery of the plaza form tantalizingly rectangular patterns, any number of which could represent open-air shelters (see Figure 1).

Regarding the center of the plaza, ethnoarchaeology has demonstrated the importance of maintaining clear areas used for multiple activities so that refuse from one activity does not hinder the performance of others (Hayden and Cannon 1983:149; Killion 1990:210; Schiffer 1987:59). The doughnut-shaped distribution of artifacts that characterizes the plaza could have resulted from its regular cleaning and the redeposition of refuse on its periphery, where it joined refuse generated during the performance of activities adjacent to structures. What-

ever the case may have been, the range of artifacts found at the edge of the plaza and the fact that its interior was kept clear indicates that the plaza was a multipleactivity area.

Structure 1 is located within the plaza, physically at the center of the community. This structure is associated with plow zone concentrations of projectile points (Figure 4) and fragments of native pipes (Figure 5), artifact classes consistently associated with males through ethnohistorical research and in mortuary contexts (Driscoll et al. 2001:146; Eastman 1999:194-197; Hudson 1976:267; Lefler 1967:40). Thus, Structure 1 can be characterized as a locus for male activities.⁵ Additionally, the presence of native pipes marks this as a ritual context. Ward and Davis have suggested that pipe smoking prehistorically was a ritual action and only during the Contact period did it become "a leisure activity enjoyed by almost everyone" (Ward and Davis 1993:368). They hypothesized that the Contact period persistence of traditional pipe forms alongside kaolin pipes may mean that nonsecular smoking continued to be an important part of purification and curing rituals. The concentration of native pipe fragments in the vicinity of a structure thought to have been a sweat lodge supports this hypothesis.

Domestic Zone

The domestic zone consists of the ring of structures and pits surrounding the plaza, presumably features that represent the activities of individual households. My earlier analysis of pit artifact densities failed to

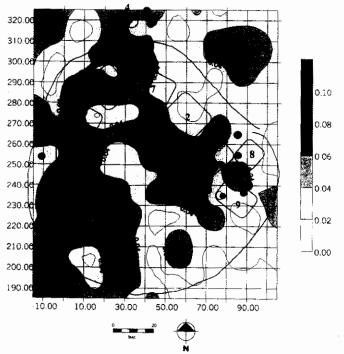


Figure 4. Projectile point density (count/ft.3) in the plow zone.

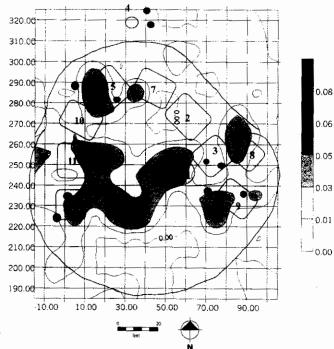
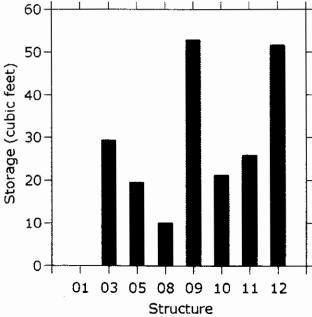


Figure 5. Native pipe density (count/ft.3) in the plow zone.

reveal any differences in pits associated with different structures, a result consistent with the idea that the same kinds of activities were performed within each household at Fredricks (Boudreaux 2000:29). At the household level, Structures 2 and 7 are the largest at the site and they are the only structures not associated with any pits (see Table 1), which could indicate that they were functionally distinct from other structures in the domestic zone. Alternatively, the unique qualities of Structures 2 and 7 could be the manifestation of social differences. They may be dwellings occupied by a different ethnic group within the community, a group with a preference for larger houses and with storage strategies alternative to sub-surface pits, a possibility supported by observations that some Siouan groups stored corn in aboveground cribs (Cumming 1958:27; Lefler 1967:23). Unfortunately, in the absence of pits associated with these structures there is also a dearth of artifacts, which limits our ability to explore differences between these and other structures.

Based on pit contents, Structure 9 consistently stands out from other domestic structures. Structure 9 was



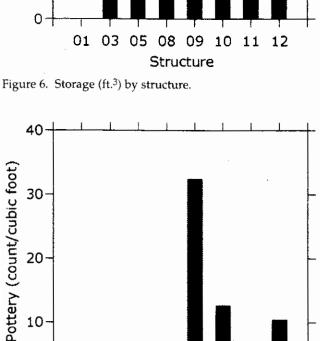


Figure 7. Pottery density (count/ft.3) by structure.

05

80

Structure

09 10

11

12

03

01

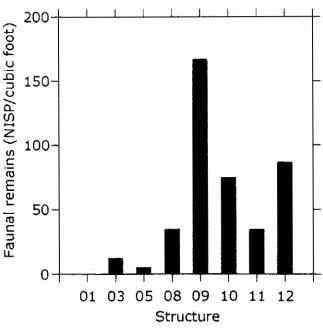


Figure 8. Faunal remains density (count/ft.3) by structure.

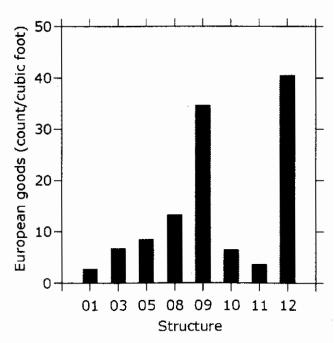


Figure 9. European goods density (count/ft.3) by structure.

associated with the greatest volume of storage (Figure 6), as well as approximately three times the density of pottery⁶ (Figure 7) and twice the density of faunal remains7 (Figure 8) of any other structure at Fredricks. Structure 9 was also associated with the second-greatest density of European goods8 (Figure 9). If these patterns reflect consumption and access to non-local goods, then Structure 9 may be the house of the overall community leader. Siouan leaders were expected to entertain visitors (i.e., their residences would be associated with high densities of pottery and food remains), a responsibility that would have brought them into frequent contact with sources of non-local goods (i.e., their structures would be associated with high densities of European goods). Recovery of two chunkey stones from a pit within Structure 9 (Davis et al. 1998) provides an additional link between it and town leadership, since there is ethnohistorical and archaeological evidence that chunkey stones were "owned" by communities rather than individuals (DeBoer 1993:88; Williams 1930:431).

Structure 12, located directly across the plaza from Structure 9, is also noteworthy for its highest density of European goods, one of the greatest densities of pottery, the second-greatest density of faunal remains, and the second-largest amount of total storage at the site. Considering only interior pits, Structures 9 and 12 are associated with some of the highest densities of trade goods (Figure 10), as well as great densities of pottery (Figure 11) and faunal remains (Figure 12).

The similarity of these two archaeological households, which stand in contrast to all of the others, is interesting in light of what we know about the political organization of many Southeastern Indian groups. Native American societies in the Eastern Woodlands were organized as moieties consisting of two contrasting divisions with clans and local lineages aligned on one side or the other (Hudson 1976:237; Knight 1990:6). These divisions seem to have been reflected in dual positions of community leadership. Many Southeastern

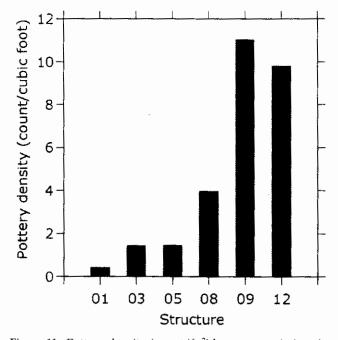


Figure 11. Pottery density (count/ft.3) by structure in interior pits only.

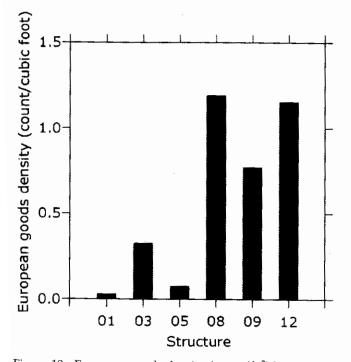


Figure 10. European goods density (count/ft.3) by structure in interior pits only.

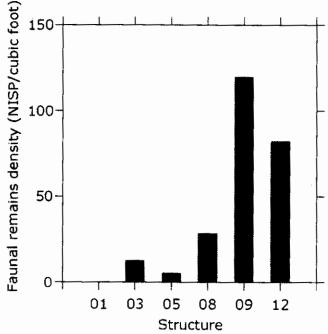


Figure 12. Faunal remains density (count/ft.3) by structure in interior pits only.

Indian villages, including an Occaneechi settlement occupied prior to Fredricks (Cumming 1958:25), had two chiefs (Hudson 1976:234). If evidence for greater amounts of storage, consumption, and access to foreign goods can be taken as indicators of leadership, then Structures 9 and 12 may represent the households of socio-political leaders from the two divisions that comprised Siouan society. Additional insight into the nature of Siouan leadership may be gained through the fact that while Structures 9 and 12 are conspicuous in several ways, they cannot be distinguished on the basis of size. This emphasis on consumables (i.e., pottery and faunal remains) rather than ostentatious display (i.e., architecturally distinctive houses) suggests that the social distance between leaders and other village residents was not great (Wilk 1983:112-113), an inference that fits well with our ethnohistorical knowledge of Siouan political organization (Cumming 1958:27; Lefler 1967: 204).

Activity Zone

The activity zone consists of the spaces beside and behind structures, between them and the stockade. The relative scarcity of pottery in this zone indicates that it was not used as a dump, in contrast to the pattern observed at other stockaded village sites in the region (Ward 1985:87). If we can attribute the general absence of debris to regular maintenance of this area at Fredricks, then this was an activity area (Hayden and Cannon 1983:149; Killion 1990:210; Schiffer 1987:59). This zone has the largest storage pits (see Table 2)

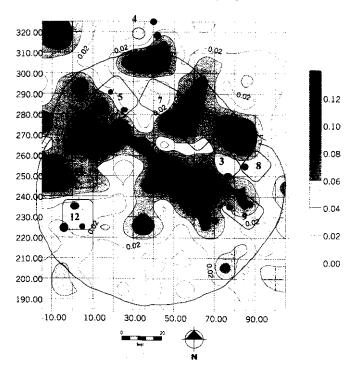


Figure 13. Uniface densities (count/ft.3) in the plow zone.

(Boudreaux 2000:16), as well as concentrations of unifacial tools (Figure 13) and projectile points, artifacts that may indicate primary refuse when found in isolation (Ward 1985:92). Further evidence for the interpretation of this space as an activity area is the presence of several smudge pits in this zone in the northwest part of the site (Davis et al. 1998; Ward 1988: Table 1). Due to the effects of plowing and erosion elsewhere, the northwest part of the site may be the only place where such features were preserved rather than the only place they occurred, so more smudge pits may have been located in this zone at one time. The presence of concentrations of unifacial tools, smudge pits, and the largest storage pits in the activity zone suggests that this area was used for hide processing (Binford 1967; Tippitt and Daniel 1987: Table 9.5) and for domestic activities, such as the retrieval of foodstuffs. If so, the activity zone may have been a predominantly female area, since tasks associated with cooking and hide processing were largely women's responsibilities among Southeastern groups during the eighteenth century (Eastman 1996:8; Hudson 1976:266). While concentrations of projectile points in the activity zone might suggest the activities of men as well, it is

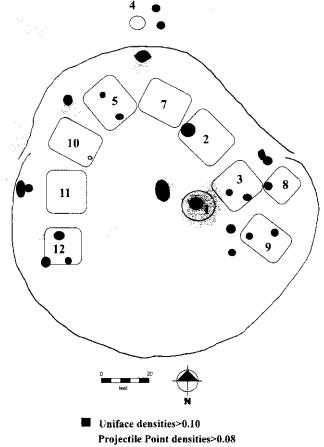


Figure 14. Greatest projectile point and uniface densities (count/ft.³) in the plow zone.

interesting that the densest concentrations of unifacial tools and projectile points have largely complementary distributions within this zone and across the site as a whole (Figure 14). This pattern is intriguing in light of the gender segregation of activities that was so important to Southeastern Indians (Hudson 1976:260-269; Perdue 1998:3-4; Swanton 1946:709-711).

Conclusion

On a methodological note, this research has recognized significant variability within the archaeological record of the Fredricks site, demonstrating that an egalitarian social organization cannot be equated with homogeneity in the archaeological record. Recognition of past social diversity even at the gross levels of analysis used in this study-artifact classes, 10x10-ft. excavation units, and whole pits-indicates the potential that the Fredricks assemblage holds for more refined research. While I have focused on variability within a single site, another fruitful line of inquiry will be to compare site structure among Piedmont sites occupied at different times during the late prehistoric and Contact periods. Consideration of daily practice and use of space within Piedmont communities occupied at different times might provide valuable insights into the processes of continuity and change within late prehistoric and Contact period Siouan societies.

I conclude with a few such comparisons based on what we know archaeologically and ethnohistorically about other Contact period villages. The most conspicuous point of change is the location of the sweat lodge at the center of the Fredricks community, a characteristic not recognized at other Siouan sites. Such a placement could be due to Occaneechi cultural preference or perhaps to the more practical reason of locating it within the protection of the stockade. Alternatively, placement of the sweat lodge at the center of the village may reflect the increasing importance of purity and pollution issues (Hudson 1976:173-174, 345) in a community whose well-being was ever more dependent on interaction with external forces. Additionally, the central placement of a facility associated with the activities of males could attest to the importance during this time of warriors and hunters as brokers with the outside world.

Regarding continuity, previous studies have demonstrated strong coherence in Siouan material culture and subsistence from late prehistory through the late Contact period (Gremillion 1987:277; Holm 1987:258; Tippitt and Daniel 1987:217). When the community patterns presented here are compared to earlier sites in the region, consistency in site structure is also apparent. Fredricks parallels earlier Siouan villages in its concentric activity and domestic zones organized around a

plaza (Eastman 1999:225-239; Ward and Davis 1999:78-79). This article presents evidence that Occaneechi Town exhibited a traditional social organization in the form of dual organization, a lack of ostentatious distinctions between households, and gendered activity areas. This continuity between prehistoric and Contact period Siouan material culture, community patterns, and social organization is astonishing when one considers that Fredricks was occupied during a time when Siouans were coping with population losses and displacements, heightened levels of hostility, and a heavy involvement in the colonial economy. Considered in this broader context, the patterns presented in this study demonstrate not only the diversity that existed within Siouan society, but attest to its resilience as well.

Notes

Acknowledgments. While I have not known Trawick for very long, I have come to respect him as a person and a scholar during my time at the University of North Carolina. Personally, I have certainly been influenced and entertained by the ways he relates to people, by his stories of the good and bad old days, and by his true talent as a cook. Professionally, one needs only look at the topics focused on in this chapter (e.g., storage pits, the plow zone distribution of artifacts, Siouan archaeology, and the social life of native North Carolinians) to see clear examples of Trawick's scholarly influence on me.

This chapter has benefited from many fine suggestions by Brian Billman, Steve Davis, Mintcy Maxham, Chris Rodning, Vin Steponaitis, Trawick Ward, and Greg Wilson. Additional thanks must go to Vin because many of the ideas presented here are the direct result of discussions with him. Also, if it had not been for Mintcy's unfailing kindness and friendship, I never would have had the time to put pen to paper.

- ¹ The plow zone density maps used in this paper are based upon pottery (n=55,195), uniface (n=459), and projectile point (n=549) counts compiled from Davis et al. (1998). The native pipes (n=215) were reanalyzed for this chapter, so they do not reflect the counts presented there. All of these data are presented by provenience in Boudreaux (2000: Appendix 1).
- ² The only exceptions to this process appeared in the southern part of the site (south of Structures 9 and 12) where storage pits could not be related to architectural remains with confidence. The decision to treat this part of the site differently has been supported by a recent reanalysis of plow zone pottery that shows relatively fewer Fredricks phase sherds here than in other parts of the site (Davis, this volume), a possible indication that there were no structures in the southern part of the site during this time.
- 3 Only pits with a volume greater than $1.0~{\rm ft^3}$ are considered in this chapter.
- ⁴ The counts upon which the pit densities are based were compiled by Davis et al. (1998).
- 5 See Lambert (2001) for biological evidence that may link males to sweat lodges.
- ⁶ This category consists of Fredricks Plain and Fredricks Check

Stamped, types associated with the early eighteenth-century occupation of the site (Davis 1998:95). Data were compiled from Davis et al. (1998). See Davis (1998) for classification and descriptions.

⁷ This category is based on the results of a correspondence analysis (Baxter 1994:100-101; Robertson 1999:148), which helped reduce the faunal remains to three categories: ritual taxa, intrusive taxa, and food taxa. The faunal remains discussed here refer to the food taxa category, which comprises all birds, fish, and reptiles, as well as deer, rabbit, squirrel, skunk, opossum, and raccoon. Densities presented in this paper are based on counts (NISP) compiled from Davis et al. (1998). See Holm (1998a, 1998b, and 1998c) for classification and descriptions.

8 This category consists of identified European goods, which means that artifacts such as metal scraps and glass fragments were excluded. Data were compiled from Davis et al. (1998). See Carnes-McNaughton (1998) for classification and descrip-

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MORTUARY ANALYSIS AND GENDER: THE RESPONSE OF SIOUAN PEOPLES TO EUROPEAN CONTACT

Jane M. Eastman

The distribution of mortuary items from ten village sites in northwestern North Carolina and southern Virginia provides evidence for gender roles and relations in Siouan communities. Patterns from sites occupied during the fifteenth and sixteenth centuries are compared to those from seventeenth-century sites in an effort to discern changes in gender representation during the Contact period. This analysis indicates that mortuary practice played a role in the response of Siouan communities to the opportunities and challenges of life as participants in the Virginia-based deerskin trade.

Siouan Communities in the Piedmont

Seventeenth-century Native American village sites in the interior of the Mid-Atlantic region offer an opportunity to study interaction between two culture groups with vastly different ideas about appropriate gender roles and kinship structures. European observations of Indian societies in the Piedmont of North Carolina and Virginia indicate that native groups recognized descent through females (matrilineal descent) (Lederer 1672:5; Lefler 1967:57, 205; Swanton 1946:654). Archaeological and ethnohistoric evidence both point to a basically egalitar-

ian way of life (see Boudreaux, this volume; Eastman 1999:235-236; Ward and Davis 1999:4-5, 98-119, 255). The archaeological remains of Piedmont Siouan communities provide several lines of evidence for the organization of daily life, including the remains of houses, overall community plans, regional settlement systems, and mortuary data. The settlement data lack any clear indication of a distinct hierarchy of late prehistoric or Contact period settlement types in the region. Additionally there is no evidence for distinct socioeconomic divisions in the internal organization of communities, nor were there any major differences between the construction or size of individual houses within any of the village components at Upper Saratown (31SK1a).

This evidence does not deny the existence of inequality in Sara communities, but instead indicates an absence of overt hierarchical differences between segments of the community. Heterarchical or complementary relations rather than hierarchical ones likely governed daily interactions. This is not to say that all community members had equal control over their own time and activities, or that individuals, at all points in their lives, had equal access to opportunities for enhancing their own social position or that of their kinship group. Inequalities probably existed between sodalities such as age groups, gender groups, households, or larger kinship groups like lineages.

In contrast, the English, who settled the Virginia Tidewater at the beginning of the seventeenth century

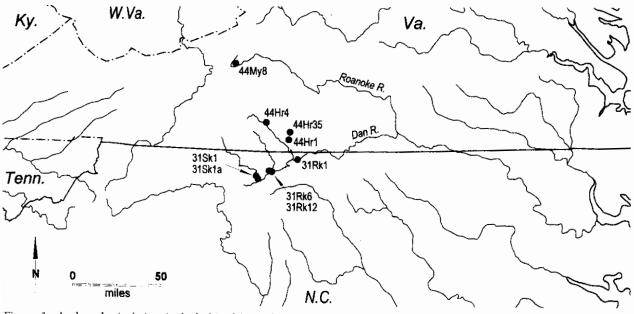


Figure 1. Archaeological sites included in this study.

and who later established trade relations with Siouanspeaking groups in the Piedmont, lived in a class-based, male-dominated society. When regular trade relations were established between Siouan peoples and Englishmen, and especially after trade began to be conducted in Piedmont villages, traditional Siouan methods of social intercourse must have been adapted to accommodate these foreigners and their trade.

This study documents gender-based patterns in mortuary items from Piedmont villages occupied before and after establishment of the Virginia deerskin trade. One goal is to determine if this cultural contact resulted in noticeable changes in Siouan social structure, especially those traditions concerning gender roles and relations. Another goal is to explore the manner in which Piedmont Siouans dealt with the new economic opportunities and social challenges of the Contact period. Participation in the deerskin trade posed unforeseen challenges, including the spread of European diseases like measles and smallpox and increased intertribal violence, especially at the hands of Iroquois raiding parties who regularly harassed Siouan villagers during the seventeenth century (Wright 1966:398).

The upper Dan and Roanoke river drainages are located in the Piedmont of northwestern North Carolina and southern Virginia. In this area, several village sites occupied between the fifteenth and eighteenth centuries have been extensively excavated by amateur and professional archaeologists (Figure 1). Seventeenth-and eighteenth-century documents suggest that the Siouan-speaking Sara and Tutelo tribes occupied the upper Dan and Roanoke drainages at the time of contact (Davis 1999:99). The archaeological record within the Dan River drainage indicates cultural continuity between the late prehistoric peoples in the region (Dan River phase) and the seventeenth-century Sara.

Several recent studies (Davis 1999; Davis and Ward 1991; Eastman 1999; Ward and Davis 1991, 1993) have documented many aspects of change in the lives of the Dan River peoples and the Sara between the fifteenth and eighteenth centuries, including their material culture, settlement patterns, community organization, and regional trade relations. In the present analysis attention focuses on issues of gender roles and relations as they are represented by non-perishable mortuary items. These objects probably represent items of clothing and adornment worn on the body at the time of burial and other objects interred with the deceased.

Gender as Represented in Mortuary Analysis

Analyses of mortuary practices and skeletal remains are important sources of information archaeologists use to interpret past social structure (Beck 1995; Binford 1971; Braun 1979; Brown 1971; Carr 1995; Chapman and Randsborg 1981; Goldstein 1979; Hatch 1975, 1976; Hatch

and Willey 1974; O'Shea 1984; Peebles and Kus 1977; Saxe 1970; Tainter 1977, 1978). Differences emphasized in mortuary ritual do not necessarily directly reflect lived social divisions, but may instead be idealized expressions of lived relationships (Hodder 1982; McGuire 1988; Pearson 1982). However, as mentioned above, there is no evidence to indicate distinct hierarchical divisions between and within Piedmont Siouan communities. In societies that are basically egalitarian in their organization, inequalities actually experienced in daily life are likely to be represented accurately in mortuary programs. For example, it is unlikely that a stable privileged subgroup in Piedmont Siouan communities used mortuary practice as ideology to mask or mark social differences experienced in everyday life. Rather, mourners probably responded in a more straightforward manner to deaths of community members.

My principal goals are to elucidate the ways gender and age were employed as organizing principles in mortuary practice and, thereby, to shed light on the way these principles organized social interactions from the late prehistoric through the Contact period. Over the last decades, many studies have documented post-contact changes in gender roles and relations that resulted from participation in the North American fur trade (Albers 1987; Gonzalez 1982; Hatley 1989; Klein 1983; Leacock 1978; Levy and Claassen 1992; Mason 1963; Ward and Davis 1999:229-260; Williams and Bendremer 1997). Sources of change in gender configurations in the study area during the Contact period include: (1) epidemic disease and rapid population decline; (2) increased intertribal hostilities and raiding (as documented historically); (3) disruption caused by participation in the Virginia-based deerskin trade; and (4) incorporation of European-made items into ritual and daily activities.

Mortuary Analysis

The burial populations used in this study have been divided on the basis of age and sex into eight categories that I think represent important gender groups within Siouan communities. Subadults have been divided into two age groups: children (0-5 years) and adolescents (6-15 years). Individuals older than 15 years have been classified, when possible, as male or female, and further divided by age at death into young adults (16-25 years), mature adults (26-34 years), or older adults (35 years and over).

Cross-cultural ethnographic research and ethnohistoric accounts of the Southeast provide insight into potential gender differences between children, adolescents, and adults of different ages, as follows:

Childhood (0-5 years). It is anticipated that mothers in the study area were primarily responsible for the

care of both boy and girl children during the first years of their development (Hudson 1976:323). Cross-culturally, childhood is often considered a time when gender differences are absent or ambiguous (Lesick 1997; Schildkrout 1978) and, therefore, gender may not have played a profound role in determining the activities and experiences of very young children in Siouan communities. As children developed and began to learn subsistence skills, gender differences presumably took on greater significance.

Adolescence (6 to 15 years).¹ Adolescence is the portion of the life cycle when gender roles and subsistence skills are learned. This is also the time of life when young people began to make economic contributions to their households (Cain 1977:212; Claassen 1992:5; Derevenski 1997:887; Swanton 1946:714-715). Most individuals at the older end of this age group (12 to 15 years of age) would have reached sexual maturity and would have been able to take on adult roles and responsibilities.

The three age categories that subdivide adult females and males are intended to represent both potential differences in the productive and reproductive capacities of adults as they age, and different stages in the growth and development of households and families. As such, the six resulting categories should be consistent with major gender divisions within Siouan communities. Some social expectations associated with these groups are described below.

Young Adulthood (16 to 25 years). The first years of adulthood incorporate the early childbearing years for women and those in which their child-rearing responsibilities may have been greatest. Early adulthood for males in native tribal societies probably would have been marked by efforts to achieve social recognition for individual skills like hunting, trade, warfare, or diplomacy.

Mature Adults (26 and 34 years). Mature adults in Siouan communities likely would have been at the height of their productive and reproductive lives. Personal skills would have been perfected by this point in the life cycle and households were also reaching maturity. By the time adults were in their

Table 1. Chronological framework for the study area.

Chronological Period	Date Range	Sites Included in Mortuary Analysis
Late Contact	AD 1670 - 1710	Upper Saratown (31SK1A)
Middle Contact	AD 1650 - 1670	Upper Saratown (31SK1A), Lower Saratown (31RK1), Philpott (44HR4)
Early Contact	AD 1607 - 1650	Hairston (31SK1), Madison (31RK6)
Protohistoric	AD 1500 - 1607	Hairston (31SK1), Sharp (31RK12)
Late Prehistoric	AD 1000 – 1500	Upper Saratown (31SK1A), Leatherwood Creek (44HR1), Philpott (44HR4), Stockton (44HR35), Shannon (44MY8)

mid-twenties, older children would have begun contributing significantly to subsistence.

Older Adults (over 35 years). Older adulthood incorporates the period within the life cycle when reproductive and productive capacities begin to decline and some capacities may cease altogether. During the later stage of life new avenues for exerting influence would have to be pursued as physical capacities declined. Advanced age itself may have brought older adults respect, veneration, and decision-making power within Siouan communities (Lefler 1967:43). Cross-cultural comparisons suggest that gender differences may assume less importance in structuring the lives and activities of older adults and gender differences may become especially ambiguous for women after they have reached menopause (Lesick 1997).

Results of Analysis

Mortuary data from seven late prehistoric and protohistoric village sites and five Contact period village sites are included in this study (Table 1). Many of these sites are multicomponent; burials from such sites were dated individually based on associated artifacts, pit fill, and superposition. The sample available from all sites totals 255 burials, of which 150 are associated with late prehistoric or protohistoric sites and 105 with Contact period sites. Determinations of sex and estimates of age at death were made by Hogue (1988) for the Shannon site (44MY8) and Lambert (Davis et al. 1996) for all other sites in this study.

I first summarize mortuary evidence for gender roles and relations in late prehistoric and protohistoric communities in the study area (Eastman 2001). This archaeological evidence from the centuries prior to colonization is then compared to mortuary patterns from seventeenth-century sites. Gender differences between pre-contact and post-contact Siouan communities are explored by examining the distribution of grave goods associated with children, adolescents, and adult males and females of different ages.

Table 2. Distribution of prehistoric/protohistoric burials with sex-specific items.

	Number of		Burials with Sex-Specifi Mortuary Items		
Gender Group	Burials	n	%		
Children	24	13	54		
Adolescents	9	6	67		
Females					
Young Adults	10	8	80		
Mature Adults	3	1	33		
Older Adults	8	2	25		
Males					
Young Adults	1	1	-		
Mature Adults	1	0	-		
Older Adults	17	13	76		
Totals	73	44	60		

Prior to Contact

Roughly half (n=73) of the 150 burials from prehistoric and protohistoric assemblages included non-perishable associated artifacts. Although mortuary items were more often interred with subadults, all gender groups in the sample received roughly comparable recognition in mortuary ritual through offerings of grave goods (Table 2).

Just over half (56%) of the burials with mortuary items included grave goods found exclusively in burials of females or males, but not both. Mortuary items found only with males include teeth and claws of mountain lion, bear, wolf, and elk; projectile points; clay smoking pipes; bone fishhooks and caches of bone in various stages of fishhook production; and materials like ochre and crystals. These male-associated items probably relate to men's habitual activities like hunting, warfare, and fishing, and perhaps with ritual activity.

Mortuary items found only with females include pottery vessels; bone beads made from rabbit innominates and turkey wingtips (first phalanges of the second digit); gorgets, pendants, and disc beads made from the outer whorl of whelk shells; and hairpins and earpins made from whelk columellae and bone. The use of pottery vessels as mortuary items may refer to women's pottery making or cooking, and possibly to salt production (Brown 1980). Bone beads interred exclusively with females are made from turkey and rabbit bones, which may indicate that Siouan women hunted or trapped small mammals and turkeys. These bone beads may have served as charms, trophies, or amulets in a fashion comparable to that of the teeth and claws of large mammals interred with males. Mortuary items made from marine shell, especially gorgets and pendants, probably related to women's role in reproduction. Shell served, and still serves, as a symbolic link to the creation and continuity of life for many native groups in eastern North America (Hamell 1983). This association between shell gorgets and pendants and reproduction is further supported by the placement of these objects only with young adult females of prime child-bearing age and with some young children and infants (girls?).

Not all of the females and males (7 females and 14 males) in the sample were interred with these sex-specific mortuary items. None of the items, therefore, functioned in a general way in burial practices to distinguish males from females, and none marked gender to the exclusion of other vertical or horizontal statuses, like descent group membership.

When one considers the distribution of these sexspecific mortuary objects among subadults, they are found to be mutually exclusive even when interred with children and adolescents. That is, when any of these items were interred with a child or adolescent, only female-specific or male-specific items are present, not both. There is, however, one exception to this rule—an infant burial at the Shannon site (44MY8, Burial 99) interred with disc shell beads and bear canines—a contradiction to the pattern that may indicate a special status for this child.

Thus the distribution of mortuary items indicates that, within the study area, two alternative statuses were recognized and marked in consistent ways for all age groups. Given that opposed sets of mortuary objects have sex-specific distributions among adults, the status that is being highlighted appears to reflect gender differences. Despite the expectation that gender may not have been as important a status for subadults as it was for sexually mature individuals, mourners in Siouan communities appear to have recognized gender as an important status of their deceased children and adolescents.

Because gender is a culturally defined status, it has the potential to change throughout one's life course and, as a social status, it may take on different levels of significance during different stages of life. The distribution of mortuary items interred with adult males and females of different ages provides evidence for the changeable nature of gender among prehistoric Siouans in the study area. Older women were less often buried with items made from marine shell than were young women. The percentage of burials with shell artifacts declines from 80 percent for young females to 50 percent for older females (Table 3). In addition, older women were less often buried with sex-specific items than were young women. Of the eight females over 35 years at death in this sample, only two were buried with female-related mortuary goods. Older women were more likely to be interred with stone or bone tools (four were interred with ground celts, chipped hoes, or bone awls), types of tools also interred with older males.

This suggests that the qualities selected for representation in burial changed throughout a woman's life. During the prime child-bearing years of early adulthood, a woman's status as reproducer was commonly

Table 3. Distribution of prehistoric/protohistoric burials with marine shell.

C. 1. C	Number	Burials with Marine Shell Mortuary Items	
Gender Group	of Burials	n	%%
Children	24	22	92
Adolescents	9	6	67
Females			
Young Adults	10	8	80
Mature Adults	3	2	67
Older Adults	8	4	50
Males			
Young Adults	1	1	-
Mature Adults	1	1	-
Older Adults	17	13	76
Totals	73	57	78

marked in mortuary practices by shell items and other female-related grave goods; following menopause, work-related items more often marked a woman's status and achievements as a producer. This may indicate that older women were not limited to tasks and activities traditionally performed by women and their status ceased to be associated with reproduction.

As was the case with females, older males were less likely to be buried with shell beads than young males (both of the young males had shell beads, while only 3 of 17 older males did). The death of young males, like that of young females, may have led to more concern about community reproduction and/or personal longevity than was the case when males over 35 years died.

However, in contrast to the pattern among females, sex-specific grave goods were more often interred with older males than almost any other segment of the burial population (three-quarters of males over 35 years were buried with sex-specific mortuary items; see Table 2). This contrasts with the evidence among women for a decline in the use of sex-specific offerings throughout their lifetimes (only 25% of older women were interred with sex-specific items). This may indicate that the basis for achieving status throughout a lifetime remained more consistent for men than for women. Male identification with activities habitually performed by men may not have diminished as they aged. This is suggested by the presence of incisors and claws of large mammals and projectile points in the burials of older males as well as those of younger ones. These mortuary items may represent men's continued identification with warfare and hunting—or rituals associated with these activities—even if they no longer participated as warriors or hunters in their later years.

Thus, during the fifteenth and sixteenth centuries Siouan groups in the study area commonly marked gender identities during mortuary practices by burying members of different gender groups with certain kinds of objects. Overall, 64 percent of burials with grave goods contained sex-specific mortuary items. Gender differences were recognized consistently for children and adolescents, so there is no evidence of ambiguity in gender representation among individuals not yet sexually mature. Gender representation differed among adults. While the likelihood that women would be interred with sex-specific grave goods declined as they aged, the opposite was true for men. Males over the age of 35 years at death were more likely to be buried with sex-specific items than almost any other gender group, indicating that the process of aging differed for men and women and that women experienced more change throughout their life cycle than men. A second strong pattern among these pre-contact burials is the less frequent burial of shell beads and other types of decorative items with older adults than with people

who died before age 35. A third is the frequent interment of stone and bone tools with older people. Age and sex were intricately linked in determining gender identities and roles among prehistoric Siouans. I suggest that reproduction and the continuity of life were prominent concerns for these social groups when they lost a member under 35 years of age, while other concerns, such as loss of productive skill and knowledge, were paramount when elders died.

With these ideas in mind, I examine patterns in the mortuary practices of the Sara Indians, probable seventeenth-century descendents of the prehistoric Dan River peoples.

The Contact Period

Mortuary data on 105 burials from five seventeenth-century sites in the Dan River drainage are presented in Table 4. This information is organized by gender group and chronological period. Several significant changes in the distribution of mortuary goods occurred through time. First, during the Early Contact period, objects like beads and pendants were more often fashioned from copper or copper alloy than from marine shell, the traditional medium for such objects in the centuries before contact with European colonists. During the Early Contact period only two individuals were interred with shell beads—just 24 columella beads. No *Marginella* sp. or *Olivella* sp. beads are present, nor are disc or tubular varieties from whelk.

It is tempting to suggest that the dramatic increase of copper or copper alloy items in the Dan River drainage during the first half of the seventeenth century was linked to the distribution of European copper from the Jamestown colony (Straube and Luccketti 1996). Much of that imported copper was intended for trade with Chesapeake native communities. Preliminary analysis of two copper artifacts by proton induced X-ray emission spectroscopy (PIXE) from features at the Hairston site (31SK1) indicates higher lead content than expected for artifacts of native copper (Larry Toburen, personal communication 1999). This result is consistent with a European origin for the metal. Metallurgical analysis of additional Contact-era artifacts from Dan River sites is needed to adequately evaluate the importance of European copper in Piedmont sites dating to the seventeenth century. In the interim, however, it seems likely that the documented manufacture of copper trade items at Jamestown is related to the marked increase of copper items in the Carolina interior during the first half of that century, and to the presence of European-derived copper artifacts in the interior of Virginia and North Carolina.

Mortuary practices continued to change during the Middle Contact period. A significantly higher proportion of burials interred during this period has

Table 4. Mortuary items in Contact period burials from sites in the Dan River drainage.

Site	Period*	Burial	Associated Artifacts
Children (l	ourials witho	ut associated	d artifacts [n=9], total number of burials [n=32]):
31SK1	EC	Bu. 2(G)	8 rolled copper beads, 1 glass bead
31RK6	EC	Bu. 93	copper tinkling cones, 2 rolled copper beads, 53 glass beads
31SK1		Bu. 8	5 columella beads, 7 glass beads, 4 long copper tube beads
31SK1		Bu. 15	2 columella segment beads, 17 disk beads, 1 turtle carapace cup, 34 bird long
5 10111	1 1110	Du , 15	bone beads, 27 brass tinkling cones, bark
31SK1	A MC	Bu. 35	1,468 glass beads
31SK1		Bu. 40	26 glass beads
31SK1		Bu. 43	2,062 glass beads, 13 brass hairpipes, 4 copper rolled beads, 1 copper disk gorget, 1 flushloop bell, 1 unidentified metal object
31SK1	A MC	Bu. 76	82 glass beads
31SK1/		Bu. 78	2 glass beads, 21 diamond-shaped pendants, bark and cane matting
31SK1/		Bu. 80	
			1 ceramic dipper, 1 discoidal/hammerstone, 1 battered cobble, 1 glass bead
31SK1/		Bu. 99	1 glass bead
31SK1		Bu. 102	1 glass bead
31SK1/		Bu. 107	8,998 glass beads, 9 flushloop bells, cane matting
31SK1		Bu. 5	1 ceramic vessel, 1 brass disk gorget, 20 rolled copper beads, 46 glass beads
31SK1	A LC	Bu. 23	1,323 glass beads, 2 flushloop bells
315K1	A LC	Bu. 53	85 columella segment beads, 20,419 glass beads, 23 flushloop bells, 1 wire fastener (tin?), bark and cane matting
31SK1	A LC	Bu. 54	8,080 glass beads, 1 brass disk gorget, 1 brass spoon, 3 flushloop bells, 7 Saturbells, cane matting
31SK1	A LC	Bu. 55	10,814 glass beads
31SK1		Bu. 57	24,256 glass beads, 16 flushloop bells, 2 triangular brass pendants, bark and
			cane matting
31SK1	A LC	Bu. 63	1,902 glass beads
31 SK 1A	A LC	Bu. 71	1,173 glass beads
31SK1		Bu. 85	3,260 glass beads, 5 copper fragments, 5 iron fragments, bark and cane matter
31SK1A		Bu. 103	5,218 glass beads, 1 brass animal effigy
doloccomi	o (buniala sui	thaut anasais	3,
			ated artifacts [n=6], total number of burials [n=22]):
31RK1 44HR4		Bu. 1 Bu. A	7 rolled copper beads, 5 columella beads 1 circular copper gorget, 1 copper tinkling cone, 4 rolled copper beads, 24 gla
441104	FC	D D**	beads
44HR4		Bu. B**	1 clay pipe, 180 glass beads, 14 rolled copper beads
31RK6	EC	Bu. 112	1600+ glass beads
31SK1		Bu. 9	215 glass beads
31SK1 <i>A</i>	A MC	Bu. 44	1 clay pipe, 1 pottery vessel, 1 projectile point, 1 chipped stone drill, 1 columpin?, rolled copper beads
31SK1A	A MC	Bu. 45b	1 clay pipe, 1 projectile point, ochre
31SK1 <i>A</i>	A MC	Bu. 47	5,040 glass beads
31SK1A	MC MC	Bu. 48	581 glass beads, 1 lead shot
31SK1.A	MC	Bu. 61	6 glass beads, 3 sheet brass or copper fragments
31SK1A		Bu. 84	1 claw effigy copper pendant, 251 glass beads, cane matting
31SK1A		Bu. 98	9 glass beads
31SK1A		Bu. 52	4,258 glass beads, 1 copper ring
31SK1A		Bu. 59	1,135 glass beads
315K1A			
315K1A		Bu. 64 Bu. 69	8,158 glass beads, 3 flushloop belis, 1 triangular pendant 1 columella segment bead, 7,328 glass beads, 13 flushloop bells
ung Adul	t Females /h	uriale withou	at associated artifacts [n=1], total number of burials (n=10]):
31SK1	EC EC		19 columella beads, 17 glass beads
31SK1A	MC	Bu. 5(G)	19 columella beads, 17 glass beads
		Bu. 50	15,919 glass beads
31SK1A	MC	Bu. 65	18,917 glass beads
31SK1A	MC	Bu. 91	1 Citico style "rattlesnake" gorget, 1 glass bead, 7 rolled copper beads
31SK1A	MC	Bu. 95	1 columella segment bead, 1 columella barrel bead, 531 glass beads
31SK1A 31SK1A	MC LC	Bu. 109 Bu. 1	9 columella segment beads, 2 columella barrel beads, 55,854 glass beads 142 columella segment beads, 2 columella barrel beads, 9 disk beads, 24 purpl wampum, 157 white wampum, 43,804 glass beads, 136 brass flushloop bells, 5 Saturn bell, 1 brass disk gorget, 15 triangular brass pendants, 2 copper tinklin cones, 339 rolled copper beads, 1 mouth harp, 2 pairs of scissors, 1 tin-plated
2167/14	1.0	D 80	copper spoon, 2 elk astragali, bark and cane matting
31SK1A 31SK1A	LC LC	Bu. 22 Bu. 58	

Table 4. Mortuary items in Contact period burials from sites in the Dan River drainage (continued).

<u>Site</u>	Period*	Burial	Associated Artifacts
Mature Adult	Females (b	urials with	out associated artifacts [n=1], total number of burials [n=6]):
31SK1A	MC	Bu. 19	1,197 glass beads, 17 rolled copper beads, bark and cane matting
31SK1A	MC	Bu. 66	30 glass beads
31SK1A	MC	Bu. 77	16 glass beads, 1 rolled copper beads
31SK1A	MC	Bu. 87	1 clay pipe
31SK1A	LC	Bu. 17	5 columella segment beads, 4 disk beads, 22,658 glass beads, 28 brass rings, 1
JIJKIA	be	Du. 17	brass wire coil, 1 copper disk gorget, 2 bone handled knives, 1 hoe blade, 1 wrought iron nail
Older Adult F	emales (bu	rials withou	at associated artifacts [n=0], total number of burials [n=3]):
31SK1A	MC `	Bu. 18	2 columelia segment beads, 2 glass beads
31SK1A	LC	Bu. 51	1 columella segment bead, 1 unidentified worked bone, 386 glass beads, 1 bra
			ring, 1 cast brass button, 15 flushloop bells
315K1A	LC	Bu. 56	9,002 glass beads
oung Adult	Males (buri	als without	associated artifacts [n=1], total number of burials [n=6]):
31RK6	EC	Bu. 90	15 copper tube beads or hairpipes, 32 glass beads
31SK1A	LC	Bu. 2	2 columella segment beads, 11 glass beads
315K1A	LC	Bu. 68	3,406 glass beads
31SK1A	LC	Bu. 108	1 clay pipe
			•••
			t associated artifacts [n=0], total number of burials [n=4]):
31RK6	EC	Bu. 65	1 rectangular copper breastplate, 41 rolled copper beads, 300 glass beads
31SK1A	MC	Bu. 24	97 glass beads
31SK1A	MC	Bu. 104	1 clay pipe, ochre
31SK1A	LC	Bu. 62	2,168 glass beads
Older Adult N	Males (buria	ls without	associated artifacts [n=0], total number of burials [n=4]):
31SK1A	LC	Bu. 73	1 clay pipe, 424 glass beads
31SK1A	LC	Bu. 74	111 glass beads
31SK1A	LC	Bu. 75	1,155 glass beads
31SK1A	LC	Bu. 100	1 columella segment bead, 22,121 glass beads
/auma Adult	2 Car (buria	ما المالية والمالية	annesistado effecto (a. 11 carl combo effects (a. 141)
			associated artifacts [n=1], total number of burials [n=14]):
31SK1A	MC	Bu. 27	5 glass beads
31SK1A	MC	Bu. 29	2 clay pipes
31SK1A	MC	Bu. 38	17,513 glass beads
31SK1A	MC	Bu. 41	13,963 glass beads, 3 rolled copper or brass beads
31SK1A	MC	Bu. 42	1 clay pipe, 22,794 glass beads
31SK1A	MC	Bu. 45a	1 projectile point, ochre
31SK1A	MC	Bu. 49	1 clay pipe, 9 rolled copper beads
31SK1A	MC	Bu. 81	231 glass beads
31SK1A	LC	Bu. 10	1,861 glass beads
31SK1A	LC	Bu. 28	7 glass beads, 2 rolled copper beads, 1 unidentified iron object
31SK1A	LC	Bu. 36	1,252 glass beads, 22 rolled copper beads, 1 unidentified iron object
31SK1A	LC	Bu. 39	328 glass beads, 1 rolled copper bead
31SK1A	LC	Bu. 106	191 glass beads, 11 rolled brass beads
Astura Aduli	2 Say (hu-	ale without	·
31SK1A	MC	als without Bu. 6	associated artifacts [n=1], total number of burials [n=3]): 5,521 glass beads
31SK1A	MC	Bu. 13	5,529 glass beads
714 A414 2.C	av (h:-1-	unith and	and a Carl March 1 1 1 1 1 1 1 1
ла машт. С	ex (ourials)	without ass	ociated artifacts [n=0], total number of burials [n=1]):

^{*} EC = Early Contact Period, MC = Middle Contact Period, LC = Late Contact Period
** 44HR4, Bu. B may be a multiple burial. Burials B-1 and B-2 are subadults and Burial B-3 is a young adult of indeterminate sex. The clay pipe is probably associated with Burial B-3.

associated grave goods (91%) than do those from the centuries before contact (51%) (X^2 =26.35, df = 1, X^2 _{0.01}=6.63) or those from the first half of the seventeenth century (43%) (X^2 =18.71, df = 1, X^2 _{0.01}=6.63). Furthermore, two-thirds of the mortuary items from Middle Contact period burials are European in origin, with 80 percent of the burials including European-derived objects. Glass trade beads are the most common type of object in Middle Contact period burials and two-thirds of these burials contain glass beads. Thus the practice of burying people with non-perishable items, especially glass beads presumably worn by the deceased, became more common by the Middle Contact period.

The Late Contact period is also characterized by a high percentage of burials with mortuary items (86%), especially items of European origin. Among the Late Contact period burials with mortuary items, only one lacked objects of European origin. Likewise, there is a significant decline in the use of native-made objects as grave offerings between the Middle and Late Contact periods, from 37 percent in the former to 14 percent in the latter (X^2 =10.39, df = 1, X^2 0.01=6.63).

These trends point to changes in the material culture of Piedmont Siouans associated with changes in native trade systems and involvement in the Virginia-based deerskin trade (Eastman 1999; Ward and Davis 1993). Two prominent temporal trends have been identified in the mortuary data: (1) an increase in the frequency of mortuary items (especially glass beads) in burials; and (2) an incorporation of more European-derived items into mortuary practices and a corresponding decline in the use of native-made objects as grave goods. These two trends can be considered from a gender-informed perspective.

Discussion

Did the traditional means of marking gender, detailed in the first half of this article, remain useful throughout the Contact period? Of the pre-Contact female-related mortuary items, only gorgets continued to be used consistently as mortuary items during the Contact period. In the sample of seventeenth-century burials, one engraved marine shell gorget and two copper alloy disk gorgets with central perforations were interred with females under the age of 35 years at death (Figure 2). Similar gorgets were also interred with children (n=3) and an adolescent at those sites, a distribution consistent with the pattern established prior to contact. Although the material changed from shell to copper alloy, the European-derived objects were fit into an existing native category and appear to have been used in the same manner as marine shell gorgets. Pottery vessels were interred with two individuals (both unsexed subadults), one of whom had a disk gorget (female-related item) and the other a clay pipe and projectile point (male-related items). It is difficult to assess that conflicting evidence, but pottery vessels clearly do not exhibit during the Contact period the same close association they had with females during the fifteenth and sixteenth centuries. Beads and the decorative items made of bone and shell that had been associated with females prior to contact are not present in Contact period burials.

Of the mortuary items associated exclusively with males prior to contact, clay smoking pipes, projectile points, and ochre continued as mortuary items during the Contact period. Their distribution, however, points to some interesting aspects of gender relations during the Contact period. Four burials included either ochre or a projectile point, and three of these also contained large, plain elbow pipes (Figure 2). Unfortunately, the sex of only one of these four individuals could be determined, that of a mature adult male. Clay smoking pipes were more common than ochre or projectile points, and were recovered from 11 Contact period burials: three interred with unsexed adolescents, two with unsexed young adults, three with males of different ages, and one with a mature adult female. This distribution results in only a weak association between clay smoking pipes and males (Φ = 0.28). Nonetheless, the distribution of pipes, points, and ochre provides some interesting insight into gender relations during the contact period. The female (Burial 87) in this group is the sole female in this sample interred with a clay smoking pipe, as well as the only female interred during the Contact period without associated glass beads. This mature adult female may represent an individual with an alternative gender identity.

When the distribution of these items is compared to that of glass beads, the most common mortuary item in

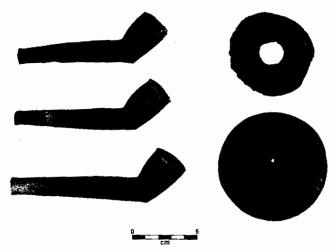


Figure 2. Mortuary items from the Contact period: large, plain elbow pipes (left) and copper-alloy gorgets with central perforations (right).

Contact period burials, a strong pattern emerges. There is a statistically significant ($\Phi = -0.729$) negative association between clay pipes, projectile points, and ochre on the one hand and glass beads on the other (Table 5). Only ten Contact period burials lack glass beads, and eight of those were interred with at least one of these more traditional male-related mortuary items. Given how common glass beads were at this time, it seems likely that the absence of bead necklaces or beaded garments in these eight burials was the result of conscious decisions and not coincidence. Five of these burials (Burials 29, 44, 45b, 49, and 104) contained distinctive large, plain elbow pipes (see Figure 2). These pipes are similar enough in form and execution to have been made by a single individual and may indicate a shared identity or status among the group of interments.

The mortuary offering associated with this group of eight individuals excluded items obtained through the Virginia-based deerskin trade and, on the contrary, consisted entirely of aboriginal items used routinely in mortuary practice since the late prehistoric period. This suggests some intriguing possibilities about these eight individuals. Most were young adults or adolescents (n=6), probably males. The other two were mature adults, one male and one female. These individuals may have held unusual statuses within their communities, (1) as members of a conservative social or political group that emphasized traditional mortuary treatment; or (2) been opposed to participation in the deerskin trade; or (3) been denied access to deerskin trade exchanges. The latter may well have been the case for adolescent and young males who had not yet achieved adequate status as hunters or traders. If the female was a berdache or held some other special status, she may have avoided interaction with Virginia traders. Regardless of the particulars, a group of mostly young individuals (probably males) were given more traditional forms of burial than most other members of their communities.

Finally, consider the distribution of mortuary items during the Late Contact period. During the last decades of the seventeenth century, differences in the evenness and richness of mortuary items become pronounced in burials of adults. No adult male burial in the Late Contact period lacked mortuary items, but none contained more than two kinds of items (Table 4). In contrast, there is a great deal of variation in the number and kinds of artifacts interred with adult females. Two of the seven female burials contained no mortuary goods, while two others, Burials 1 and 17, contained eight and ten types of mortuary items, respectively. These latter burials also included rare metal tools and implements (steel knives, scissors, a hoe; a spoon, a mouth harp, and an iron spike), copper alloy ornaments (disc gorgets, pendants, and finger rings), and tens of thousands of glass beads. An older adult female (Burial 51) was interred with five kinds of mortuary items,

including a pair of very large, multi-layered, Dutch chevron beads (Kidd and Kidd type IVnn4), which, though common on Iroquois sites in the Northeast, are rarely found on archaeological sites in the Southeast (Smith 1987:141). Columella segment beads were also interred with all three of these females, one of which, Burial 1, is the only individual at the site with wampum.

A much greater diversity and quantity of items, especially rare items, were interred with these three females than with all adult male burials in the sample combined. Perhaps these women were distinguished members of an elite kin group. They, or their kin, may have had better access to European traders than other members of the community and were able to acquire rare types of trade goods. It is likely that these women were central figures in the social fabric of their matrilineal societies, and their deaths may have been significant losses to the community at large. Certainly, these women were valued enough by surviving kin or other community members to inspire more elaborate mortuary treatment than any other burials thus far examined.

Conclusions

While certain traditional mortuary practices proved to be long-lived in spite of significant cultural disruptions, this study has demonstrated that Siouan communities were dynamic social systems, and one means through which social changes were expressed was mortuary practice. The distribution of mortuary items during the Middle and Late Contact period deviates somewhat from the patterns observed in precontact burials. Those earlier burials adhere more closely to expected life cycle changes and a genderbased division of labor. During the Contact period, differences in mortuary treatment appear to reflect political adjustments these communities made to accommodate the deerskin trade. Segments of society, especially adolescents and some young adults, appear to have avoided or been denied access to this interaction. Mortuary practices during the Late Contact period also provide evidence for the social challenges of population decline and political instability. By this time, marked unevenness was apparent in the distribution of mortuary items between males and females, and a small number of females were singled out for unusually elaborate burial. These changes in mortuary practice may reflect the increasing social value invested in females as social reproducers, during a time of significant population loss.

Thus, a comparison of mortuary data from Siouan village sites occupied during the fifteenth and sixteenth centuries to those occupied during the seventeenth

century indicates that gender roles and relations were altered as a result of the interaction between these native peoples and Virginia colonists. During the late prehistoric and protohistoric periods mortuary practices emphasized a gender-based division of labor and expressed life-cycle changes. During the Contact period, Siouan communities altered mortuary practices in response to the unprecedented challenges of the deerskin-trade economy, population loss due to introduced disease, and increased intertribal hostilities. Divisions may have developed between those who actively participated in the deerskin trade and those who did not. This analysis indicates that population decline may have reached a level that threatened the continuity of the Sara as a viable social group.

Notes

Acknowledgments. The research reported here has benefited in numerous ways from Trawick Ward's work and scholarship. First, Trawick spent the dog days of summers between 1973 and 1981 helping Jack Wilson complete each season's fieldwork at Upper Saratown, so he helped excavate much of the material I discuss here. I recall Trawick's colorful accounts of miserable weeks spent under the hot sun of Stokes County, North Carolina closing out the field season and, from my own experience in those same cornfields, I can sympathize.

In addition to his excavations at Upper Saratown, Trawick has had a great influence on how I approach studies of mortuary practice. During my formative years of training as an archaeologist, Trawick was working on understanding the mortuary evidence at the Fredricks and Jenrette sites (Ward and Davis 1993). His ability to marry a careful study of the physical evidence with creativity in seeing and exploring patterns in that evidence has inspired me to attempt the same. While Trawick is certainly not to blame for any of the shortcomings of my research, his example has been a constant source of inspiration for me and I will always be thankful for his mentorship and friendship.

I thank Dr. Larry Toburen of the Physics Department at East Carolina University for his interest in copper from archaeological contexts and for conducting a PIXE analysis of several samples from Upper Saratown and Hairston. Steve Davis, of the Research Laboratories of Archaeology, generously provided the map for this article. I also appreciate the helpful comments of Susan Baaman, Chris Rodning, Tony Boudreaux, and the reviewers who read earlier drafts.

¹ This category is admittedly a broad one. The range reflects the manner in which age ranges were estimated for some burials in the prehistoric sample (see Hogue 1988). A number of burials were estimated to be between 6 and 10 years or 11 and 15 years. In order to include as many burials as possible in this analysis, I adopted a broad age range for adolescence to include both of these estimated age ranges. Perhaps adolescence is a poor label for this grouping, as few if any 6 year olds would have reached puberty. It is intended to represent individuals who were being trained in the gender-specific skills they would need as adults, but not yet living as adults in their communities. Obviously, for individuals at either end

of this age range, this assumption may sometimes be in-

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severely impacted natural breeding habitats of the Atlantic and shortnose sturgeons. Analyzing prehistoric faunal materials from the Roanoke and other river basins in the region is one way to test this hypothesis. Identification of sturgeon remains in prehistoric contexts upriver from present-day dams could influence USFWS requirements for mitigating the impact of these man-made structures on the federally-listed shortnose and imperiled Atlantic sturgeons. For example, fishways or other means of upstream travel past the dams may ultimately be used to restore access to historic spawning habitat.

Site Descriptions

The Gaston site now lies beneath Roanoke Rapids Lake in Halifax County, North Carolina (Figure 1). Stanley South and Lewis Binford of the RLA excavated this site in 1955 as part of a brief project to survey and salvage archaeological sites threatened by creation of the Roanoke Rapids Reservoir. Due to time constraints, the plow zone was stripped with road graders in order to expose subsurface archaeological features, including houses, pits, 14 human burials, and several dog burials.

As part of his MA thesis at the University of North Carolina, Stanley South seriated the Gaston ceramics to establish site chronology. He recognized three consecutive occupations: the Vincent phase (1000 BC-AD 300), the Clements phase (AD 300-1000), and the Gaston phase (AD 1000-1600) (Coe 1964; South 1959). Many of the features with faunal remains, however, did not yield sufficient ceramic materials for seriation. Because a large portion of the Gaston site faunal assemblage could not be assigned to phase, I consider faunal distributions both by phase (when feasible) and by site.

44MC645 is located in Mecklenburg County, Virginia, and lies beneath Lake Gaston (Figure 1). Ed Dolan and

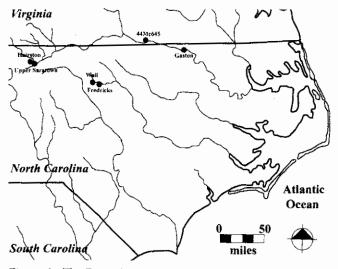


Figure 1. The Roanoke River sites and Siouan Project sites.

Bennie Keel of the RLA excavated this site in 1962 as part of a survey of Virginia Power and Light Company's proposed Gaston Reservoir. Numerous archaeological features were exposed, including structures, pits, 29 human burials, and one dog burial. Collections from this site have never been analyzed so a site chronology has not been established. A cursory examination of the ceramic materials suggests an occupation span of approximately AD 1000-1400, a tentative assessment subject to refinement once study of the material culture occurs.

Methods of Analysis

Faunal materials were identified with reference to the comparative collections at the RLA and at the University of Georgia's Natural History Museum. In addition, several species of fish were sent to Thomas Whyte at Appalachian State University for verification. Dr. Whyte verified identifications of largemouth bass (Micropterus salmoides), channel catfish (Ictalurus punctatus), sturgeon (Acipenser sp.), and walleye (Stizostedion vitreum). Analysis included the recording of provenience, taxon, element, number of specimens, side of element, completeness, portion present, weight, and modification, whether environmental or cultural (sensu Reitz and Wing 1999:147). Values for NISP (Number of Identified Specimens) and MNI (Minimum Number of Individuals) were also calculated (Grayson 1984). Given the methodological problems with MNI as a measure of abundance (Grayson 1984), however, data are reported here in terms of NISP. Both sites were dry-screened through 3/8-in. mesh, which is too large to ensure the recovery of small animal bones, including those of small mammals and fish.

Results

The Roanoke River Sites

The Gaston site assemblage consists of 13,845 vertebrate specimens, of which 0.5 percent was unidentified to class (Table 1). In terms of faunal resources, mammals account for 78.7 percent of the assemblage. Despite the predominance of mammals, the Gaston site inhabitants exploited a wide range of taxa, including wild turkey (*Meleagris gallopavo*), five kinds of turtles, and a variety of fish species. Ranking the taxa by NISP results in a mix of species from different taxonomic classes. White-tailed deer (*Odocoileus virginianus*) is dominant, followed by box turtle (*Terrapene carolina*), wild turkey, and raccoon (*Procyon lotor*). Domestic dogs are excluded from this ranking as they originate from burial contexts and thus do not represent a food resource.

Animal class distributions by time period reveal interesting changes in the exploitation of animal resources at the Gaston site. In terms of percent NISP, the Vincent phase assemblage yielded the highest percentage of fish (Figure 2). The drop in the percentage of fish for subsequent phases does not necessarily imply that fish declined in importance as a food resource after AD 300. This pattern may simply indicate a shift towards exploitation of smaller fish, although this possibility cannot be evaluated because of the lack of recovery of small animal bones due to the large screen mesh used during excavation.

There is a steady increase by phase in the percentage of reptiles, represented primarily by turtles. Birds, on the other hand, are poorly represented during the Vincent and Clements phases, but increase dramatically from 2.7 percent during the Clements phase to 15.1 percent during the Gaston phase. The percentage of mammals relative to the other classes of animals remains fairly constant through time.

The assemblage from 44MC645 consists of 47,878 specimens, less than 1 percent of which remain unidentified to class. This assemblage is also dominated by mammals, which account for 87.7 percent of the total assemblage. As at the Gaston site, inhabitants of 44MC645 exploited a wide range of non-mammalian taxa, including wild turkey and a variety of turtles and fishes. Moreover, a ranking of dominant taxa by NISP demonstrates the importance of non-mammalian species in the diet of the site's inhabitants. White-tailed deer remains dominant, followed by wild turkey, box turtle, and muskrat (*Ondatra zibethicus*).

Comparing faunal assemblages from 44MC645 and Gaston, the two sites differ little in terms of animal class distributions or recovered species (Figure 3). Moreover, the species lists for both sites are nearly identical; mammal and bird taxa are precisely the same, with similar inventories of reptiles. Although Gaston may boast fewer species of turtles, this may be a factor of smaller sample size.

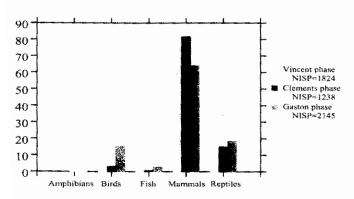


Figure 2. Bar graph illustrating changes in animal class distributions through time at the Gaston site (31HX7).

The sites yielded comparable sets of fish species, including sturgeon (*Acipenser* sp.), bowfin (*Amia calva*), gar (*Lepisosteus* sp.), suckers, basses, and catfishes. The presence of sturgeon this far inland is significant and will undoubtedly affect current environmental policy regarding dam management.

Basses identified at 44MC645 and the Gaston site include largemouth bass (Micropterus salmoides), Roa-

Table 1. Number of Identified Specimens (NISP) from 31HX7 (Gaston site) and 44MC645.

Common Name	Taxonomic Name	31HX7	44MC645
Mammals		10,907	42,016
opossum	Didelphis virginianus	24	118
rabbit	Sylvilagus sp.	11	50
woodchuck	Marmota monax		19
squirrel	Sciurus sp.	17	138
beaver white-footed mouse	Castor canadensis Peromyscus leucopus	55	57 2
muskrat	Ondatra zibethicus	27	313
domestic dog	Canis familiaris	1.229	132
gray fox	Urocyon cinereoargenteus	2	1
black bear	Ursus americanus	6	5
raccoon	Procyon lotor	121	172
white-tailed deer	Odocoileus virginianus	1,887	6,983
striped skunk	Mephitis mephitis	2	26
UID mammal		7,526	34,000
Birds		891	1,460
UID duck	Anatidae	2	6
Canada goose	Branta canadensis	1	4
turkey	Meleagris gallopavo	152 736	515
UID bird			935
Reptiles	01.1.4	1,476	3,983
snapping turtle	Chelydra serpentina	40	59
mud turtle	Kinosternon sp.	6	30 81
painted turtle pond slider	Pseudemys picta Pseudemys scripta		19
cooter	Pseudemys sp.	80	175
map turtle	Graptemys sp.	2	6
box turtle	Terrapene carolina	331	459
UID turtle	•	1,011	3,154
UID snake		6	
Amphibians		1	6
toad	Bufo sp.		3
toad/frog		1	3
Fish		502	375
sturgeon	Acipenser sp.	63	5
gar	Lepisosteus sp.	59	18
bowfin	Amia calva	10	15
sturgeon/bowfin	Complete	1	22
minnows suckers	Cyprinidae Catostomidae	3 2	23 5
sucker	Catostomus sp.	2	1
silver redhorse	Moxostoma anisurum	-	1
redhorse	Moxostoma sp.	36	18
catfish	Ictaluridae	3	7
snail bullhead	Ameturus brunneus	1	
bullhead	Ameiurus sp.		1
channel catfish	lctalurus punctatus	3	12
bass, sunfish	Centrarchidae	46	72
Roanoke bass	Ambloplites cavifrons	4	3
largemouth bass bass	Micropterus salmoides Percichthyidae	10 3	4 2
striped bass	Morone saxatilis	1	2
temperate bass	Morone sp.	5	5
walleye	Stizostedion vitreum	2	
unidentified fish		248	181
Unidentified		68	38
Total		13,845	47,878
		,5-5	

noke bass (Ambloplites cavifrons), and striped bass (Morone saxatilis). Biologists have generally believed that the pre-Columbian distribution of largemouth bass did not extend into the Roanoke River (Lee et al. 1980). Indeed, Whyte (1994) suggests that specimens of Roanoke bass have been mistakenly identified and reported as largemouth bass in the archaeological literature for the Roanoke River basin. Roanoke bass and largemouth bass are similar osteologically, but can be distinguished by a few key elements (Whyte 1994). Based on these criteria, Whyte (1999) identified both Roanoke and largemouth basses at the Buzzard Rock site in Roanoke, Virginia. I consulted with Whyte regarding specimens from 44MC645 and the Gaston site that I tentatively identified as largemouth bass. Whyte concurred that some specimens were indeed largemouth bass, but identified Roanoke bass as well. Thus, it would appear that largemouth bass, though perhaps overreported from archaeological sites along the Roanoke River, were present in the Roanoke River in prehistory.

Catfishes identified at Gaston and 44MC645 include channel catfish (Ictalurus punctatus), snail bullhead (Ameiurus brunneus), and unidentified bullheads (Ameiurus sp.). Like the largemouth bass, channel catfish has not been considered native to the Roanoke River (Lee et al. 1980). So specimens identified as channel catfish were sent for a second opinion to Whyte, who verified the presence of channel catfish in these assemblages.

The identification of walleye (Stizostedion vitreum) in the Gaston assemblage is also important for revising what we know about the pre-Columbian distribution of fish. While it is generally believed that the Roanoke River falls outside the walleye's natural range (e.g., Lee et al. 1980), the presence of two walleye dentaries at the Gaston site suggest that walleye may have been native to this river. Elizabeth Reitz assisted in the identification of the walleye specimens during my visit to the comparative collections at the University of Georgia's Natural History Museum. Thomas Whyte also inspected the walleye specimens and concurred with that identification.

Gaston and 44MC645 in Temporal Perspective

To understand these data within their historical context, I compare the zooarchaeological assemblages from Gaston and 44MC645 with sites from the Eno and Dan river drainages, including Wall and Fredricks in Orange County, and the Hairston site and Upper Saratown in Stokes County, North Carolina (see Figure 1). Wall and Hairston date to the sixteenth century, and Fredricks and Upper Saratown date to the late seventeenth century (Table 2). The zooarchaeological assemblages from these sites were analyzed and have been reported by Mary Ann Holm (1994, this volume). Holm addresses issues of continuity and change in subsis-

tence practices from prehistoric to historic times, so comparison with the Roanoke River sites adds another dimension to our understanding of changing foodways in the Virginia-North Carolina Piedmont.

The Eno and Dan River sites were also excavated by the RLA. Faunal materials were recovered by water screening through $^{1}/_{16}$ -in. mesh. Thus, recovery was much more complete from the Eno and Dan River sites than from the Roanoke River sites. Given the larger screen size used in excavations at Gaston and 44MC645, we can expect small animals to be underrepresented at these sites relative to the Siouan Project sites.

In order to make comparisons between these sites, it is necessary to consider the effects of recovery methods in more detail. To this end, I divided fish and mammal species into size classes and compared the distribution of these size classes at sites from the Roanoke River to those from the Siouan Project. Fish species were divided into three size classes—small, medium, and large based on length ranges reported in the Atlas of North American Freshwater Fishes (Lee et al. 1980). The small size class included fish up to 15 cm in length, the medium size class ranged from 15 to 30 cm, and the large size class included fish larger than 30 cm, based on average adult size. Unfortunately, I did not base the size estimates on measurements from the archaeological specimens, since taking measurements on fish remains from the Siouan Project sites was beyond the scope of the USFWS project. Although archaeological individuals undoubt-

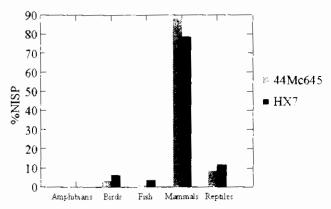


Figure 3. Bar graph comparing animal class distributions for the Gaston site (31HX7) and 44MC645.

Table 2. Study sites by drainage and time period.

Sites	Drainage	Dates	Period
Gaston (31HX7)	Roanoke River	1000 BC-AD 1600 (mostly AD 1000-1600)	Prehistoric
44MC645	Roanoke River	AD 1000-1400	Prehistoric
Wall (31OR11)	Eno River	AD 1545 ± 80	Protohistoric
Hairston (31SK1)	Dan River	AD 1450-1620	Protohistoric
Fredricks (31OR231)	Eno River	AD 1680-1710	Contact
Upper Saratown (315K1A)	Dan River	AD 1680-1690	Contact

edly varied in size relative to modern fish, length ranges reported in the *Atlas of North American Freshwater Fishes* can nevertheless permit recognition of gross size distinctions.

Percent NISP was calculated for each data set by size class. Figure 4 shows an inverse relationship between the Roanoke River sites and the Siouan Project sites. The Roanoke River sites are dominated by large fish species, with medium and small fish species underrepresented. Conversely, the Siouan Project sites yielded more small and medium-sized fish taxa, with fewer large fish species. While this result is not surprising considering the difference in recovery methods, it complicates interpretations of changing fish exploitation through time.

Mammals were divided into five size classes for the Roanoke and Siouan Project sites. Size Class 1 includes

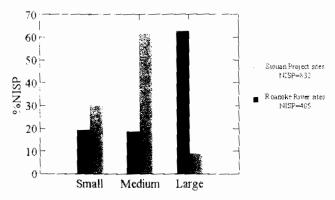


Figure 4. Bar graph comparing the recovery of fish by size class for the Roanoke River sites and Siouan Project sites.

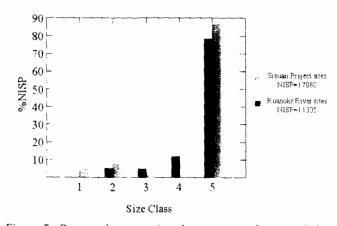


Figure 5. Bar graph comparing the recovery of mammals by size class for the Roanoke River sites and Siouan Project sites.

Table 3. Mammals grouped by size class.

Size Class 1	Size Class 2	Size Class 3	Size Class 4	Size Class 5
Chipmunk	Squirrel	Beaver	Bobcat	Deer
Mouse/Rat	Muskrat	Raccoon		Mountain lion
Vole	Skunk	Fox		Pig
Mole	Weasel	Woodchuck		Horse

the smallest mammals, such as mice and voles, and Size Class 5 includes the largest mammals, including deer and bear (Ursus americanus) (Table 3). As with the fish, percent NISP was calculated for each data set by size class (Figure 5). Initially, Size Class 4 marks the greatest divergence between the data sets, but this difference is attributable to the numerous dog burials excavated at Gaston. Upon removal of Size Class 4 from the analysis, percent NISP figures for Size Classes 2 and 5 even out a bit more (Figure 6). Differences are most apparent in percent NISP for Size Classes 1 and 3. Only two specimens from the smallest size class were even identified in the Roanoke River assemblages. In contrast, a total of 696 specimens from Size Class 1 were identified from Siouan Project sites, making up 5 percent of the Mammal NISP, a likely effect of recovery bias. Thus, mammals from Size Class 1 are excluded from further analysis. The difference in percent NISP of mammals from Size Class 3, however, does not appear to be a product of recovery bias. Even with the removal of Size Class 1, percent NISP for Size Class 3 for both data sets remains virtually the same. Given these patterns, I believe a closer examination of mammals is warranted.

Figure 7 presents percent NISP of mammals by time period for Size Class 2. Immediately apparent is an uneven distribution of mammals from this size class. While all four mammals are represented in all three time periods, there is a definite shift towards squirrel throughout the sequence. Muskrat and skunk drop off significantly after the prehistoric period, to be replaced by rabbit (*Sylvilagus* sp.) and squirrel (*Sciurus* sp.) in the protohistoric period. While it appears that squirrel became the most heavily exploited mammal in this size class by the Contact period, this pattern may be a product of recovery bias against the recovery of small squirrel elements in the Roanoke assemblages.

A diachronic comparison of the distribution of mammals from Size Class 3 also reveals some inter-

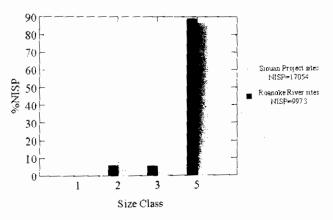


Figure 6. Bar graph comparing the recovery of mammals by size class (excluding Size Class 4) for the Roanoke River sites and Siouan Project sites.

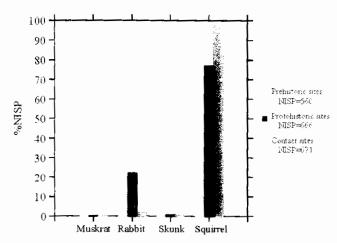


Figure 7. Bar graph illustrating changes in the distribution of mammals from Size Class 2 through time.

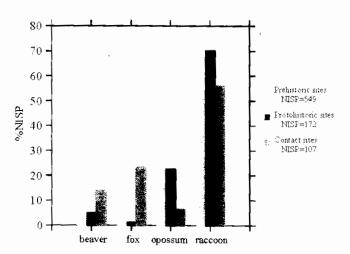


Figure 8. Bar graph illustrating changes in the distribution of mammals from Size Class 3 through time.

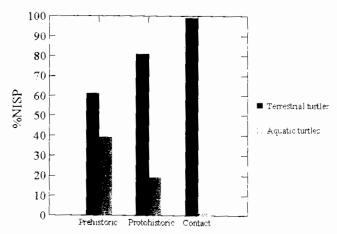


Figure 9. Bar graph illustrating changes in the distribution of terrestrial and aquatic turtles through time.

esting patterning (Figure 8). The distributions of mammals for the prehistoric and Contact periods are very similar, except that fox (*Vulpes fulva* and *Urocyon cinereoargenteus*) replaces opossum (*Didelphis virginianus*) during the Contact period. Beaver (*Castor canadensis*) falls off during the protohistoric, only to rebound during Contact times. Conversely, raccoon becomes more important during the protohistoric period, only to decline in importance during the Contact period. There was little change in terms of mammals in Size Class 5 from prehistoric to protohistoric periods (Table 4). Deer overwhelmingly dominates both assemblages. By the Contact period, the percentage of bear increases significantly, although deer remains dominant.

Changes in mammal exploitation during the prehistoric/protohistoric transition are clearly marked. The fall-off in beaver and muskrat after prehistoric times may represent a subsistence shift away from aquatic and semi-aquatic animals. Indeed, the changing relative frequencies of terrestrial and aquatic turtles through time supports this inference (Figure 9). There were significant increases in exploitation of beaver and fox during the Contact period. With the exception of beaver, however, Contact period hunters continued to focus on terrestrial species. Aquatic turtles become even less important at this time, accounting for only 1 percent of turtles identified. The terrestrial species most heavily exploited during the Contact period include fox, squirrel, deer, and bear, although beaver, an aquatic animal, was also important. As suggested by Holm (1994, this volume), this likely reflects a response to the skin and fur trade. Foxes, bear, and beaver were sources of furs that may have been preferred for trading over opossum, skunk (Mephitis sp.), and muskrat, so it makes sense that native hunters would modify their hunting strategies to exploit animals that served economic purposes other than subsistence (Holm, this volume). The focus on important fur-bearing mammals during the Contact period may have involved a shift in hunting practices away from the exploitation of aquatic habitats.

In her dissertation, Holm (1994) hypothesized that Contact period assemblages were more diverse than earlier pre-Contact assemblages. Given the decline in native populations and the resulting need for decimated groups to reaggregate into larger groups, she expected that subsistence strategies became less specialized and included a wider range of prey species

Table 4. Percent NISP of Mammals from Size Class 5.

0.12	
0.12	6.56
99.88	93.4
	0.02
	0.01
	0.01

(Holm 1994). Such changing subsistence practices would be represented archaeologically by an increase in species diversity in the Contact period. To test this hypothesis I used DIVERS, a statistical program designed to measure the richness of assemblages of different sizes (Kintigh 1984, 1989).

To minimize problems of recovery bias, only mammals from Size Classes 2, 3, and 5 were included in the analysis. Data were aggregated by time period and recorded by NISP. The resulting graph (Figure 10) demonstrates that the protohistoric sites fall well within the 90 percent confidence interval. In terms of species richness, the prehistoric sites are less diverse and the Contact sites more diverse than the protohistoric sites, bearing out Holm's expectation. Although Contact period hunters may have focused their efforts on terrestrial taxa, they were nonetheless exploiting a diverse range of species. Moreover, if this increase in diversity does reflect increased disruption of cultural practices, then this process began in the protohistoric and continued into the Contact period.

Conclusion

One of my main goals was to evaluate the relevance and suitability of zooarchaeology for addressing problems in modern wildlife management. Identification of sturgeon at both 44MC645 and the Gaston site indicates that this fish swam further upriver to spawn in prehistoric times than is possible today. These zooarchaeological data are thus consistent with the hypothesis that dam construction has disrupted its reproductive cycle.

This study also provides information regarding the prehistoric distribution of largemouth bass, channel

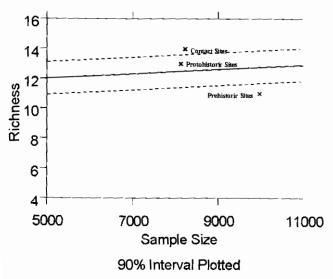


Figure 10. DIVERS results plotting richness against sample size.

catfish, and walleye, extending the native ranges of these taxa into the Roanoke River. This information may be important for future fishery management. This fruitful partnership between the RLA and the USFWS extends well beyond the reconstruction of past subsistence practices and ecological conditions to address current environmental policy.

In addition to addressing issues of modern wildlife management and environmental impact, this article has also considered archaeological questions regarding subsistence change from late prehistoric times through the Contact period in the North Carolina Piedmont. In so doing, this study builds upon previous research conducted by Trawick Ward and his students regarding continuity and change during the late prehistoric/Contact period transition in the North Carolina Piedmont through the analysis of new data. The patterns generated with these data suggest that subsistence changes that characterized the post-contact era in southeastern North America were already well underway by the protohistoric period.

Notes

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VERTEBRATE SUBSISTENCE PRACTICES ALONG THE DAN RIVER AT THE TIME OF CONTACT

Mary Ann Holm

Faunal assemblages from North Carolina Piedmont sites provide evidence that a pattern of selective, seasonally-oriented exploitation of resources existed with little change from prehistoric through historic times. Investigations of vertebrate subsistence at other sites in the Southeast have shown similar evidence of continuity from pre- to post-Contact times. These studies, however, usually view the data in dichotomous terms, comparing post-Contact assemblages with pre-Contact assemblages. Excavations at five habitation sites associated with the Siouan-speaking Sara tribe in the upper Dan River drainage of North Carolina has produced faunal assemblages from contexts dating to four periods spanning the late prehistoric through Late Contact periods. These assemblages permit a fine-grained study of vertebrate faunal utilization during the critical period when the Sara were negotiating the upheavals created by the arrival of Europeans in the Southeast. Comparisons of assemblages indicate that the faunal record provides evidence of adjustments made by native inhabitants of the Southeast to the contact experience that have previously been visible only by reference to other sources of information.

Graduate and undergraduate students at the University of North Carolina excavated the sites discussed in this article during the 1980s. These students, and many who followed in later years, benefited greatly from the guidance of Trawick Ward. The door to Trawick's office was always open, and he gave freely of his time and knowledge. For over two decades, Trawick has maintained an intense interest in the archaeology associated with the Contact period in North Carolina. I feel fortunate to have learned from him during those years. I hope that this article serves as a token of my gratitude for the support and encouragement I received from Trawick during my time with the Research Laboratories of Archaeology.

Over the past several decades, considerable research has been conducted into the effects of European contact on Native American groups in the Southeast (Braund 1993; Hudson and Tesser 1994; Merrell 1989; Smith 1987; Usner 1992; White 1983; Wood et al. 1989). Ethnohistoric and archaeological sources indicate that in many situations, nearly every aspect of native life was altered as populations attempted to adapt during the tumultuous times occasioned by the arrival of Europeans in the Americas. Increased activities associated with trade

and warfare, disease, and the introduction by Europeans of domesticates are all cited as factors that would cause changes in the subsistence practices of native southeastern populations. Subsistence, however, is one of the more conservative aspects of culture (Gremillion 1993; Reitz 1995). Analyses of faunal assemblages from sites representing a variety of contact situations indicate that traditional subsistence patterns were remarkably resilient in the face of tremendous cultural upheaval (Holm 1994; Pavao-Zuckerman 2000; Reitz 1993).

Most previous studies concerned with patterns of faunal utilization at the time of contact have viewed data in dichotomous terms, comparing post-Contact assemblages with pre-Contact assemblages. These studies provide a clear picture of stability in the subsistence systems, but may mask some subtle indications that native populations altered their routines to accommodate a rapidly changing cultural environment. Work completed over the last two decades by researchers associated with the Research Laboratories of Archaeology has produced a data set that permits a fine-grained approach to the study of vertebrate faunal utilization by inhabitants of the Dan River drainage in the northern Piedmont of North Carolina (Davis and Ward 1989; Eastman 1999; Holm 1994; Ward and Davis 1993).

Upper Dan River Contact Period Sites

When European explorers first arrived in the Piedmont of North Carolina, they encountered the Sara, a Siouan-speaking tribe occupying the upper Dan River drainage in the North Carolina and southern Virginia Piedmont. The Sara were one of the largest Siouan tribes in the region, and archaeological sites along the Dan River provide evidence for more than a dozen separate occupations from AD 1000 to 1700 (Ward and Davis 1993). This article presents results of the analysis of faunal remains from Dan River sites with occupations spanning the late prehistoric through Late Contact periods.

The faunal assemblages discussed here were recovered from five habitation sites located within a few miles of one another along the upper Dan River (Figure 1). The main occupation of site 31RK1 (known as Lower Saratown) occurred during the Early Contact period, although a number of features excavated at this site date to the late prehistoric period. The main occupation of 31RK5 (the Powerplant site) occurred during the late prehistoric, but a number of protohistoric/Early Contact period features were also excavated. Sites 31SK1a (Upper

Saratown) and 31SK6 (the William Kluttz site) both contained late prehistoric as well as Late Contact period components. A Middle Contact assemblage was also recovered from Upper Saratown. Site 31SK1 (known as Early Upper Saratown or the Hairston site) had deposits dating to the protohistoric/Early Contact period.

The Faunal Assemblages

The analysis of ceramics and trade goods from these sites has produced a refined chronology for a number of pit features from which faunal remains were recovered (Eastman 1999). This refined chronology was used to create four composite faunal assemblages by combining faunal remains from features at different sites that date to (1) the late prehistoric period, (2) the protohistoric and Early Contact periods, (3) the Middle Contact period, and (4) the Late Contact period (Table 1).

Comparison of these assemblages is facilitated by a number of factors. Vertebrate remains from each site were recovered by water screening the fill from intact pit features through a sluice box equipped with .0625-in. screen. All identification and analysis was carried out by the author (Holm 1993, 1994), and all of the assemblages were analyzed with reference to the vertebrate

faunal type collections of the Research Laboratories of Archaeology at the University of North Carolina and the Zooarchaeological Laboratory at the University of Georgia. Procedures for identification, quantification, and analysis of assemblages were standardized and followed generally accepted zooarchaeological practices. Because each of the four assemblages is composed of faunal remains from a number of different sites, comparisons of them were based primarily on estimations of biomass based on skeletal mass allometry rather than on estimations of minimum numbers of individuals (Reitz and Cordier 1983:237-252; Reitz et al. 1987:304-317; Reitz and Wing 1999:70-72, 225).

The late prehistoric assemblage is derived from 32 features from all five of the Dan River sites and consists of nearly 20,000 vertebrate specimens. During the first several centuries of the late prehistoric period, which dates from AD 1000 to 1500, settlements along the Dan River consisted of small clusters of houses along stream terraces. Dan River settlements from about AD 1350 onward take the form of larger, more organized villages consisting of 15 to 25 houses surrounding a central plaza. These village sites are generally located in the broad floodplains of the Dan River, and their appearance coincides with an intensification of maize agriculture and an increase in population. During this time, occupants of

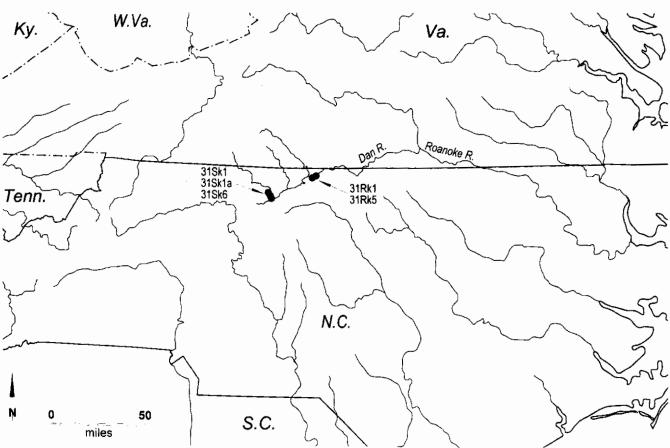


Figure 1. Archaeological sites on the Dan River.

the Dan River drainage were involved in a broad sphere of interaction that included the Piedmont and Appalachian regions of North Carolina and Virginia (Davis and Ward 1989; Eastman 1999; Simpkins 1992; Simpkins and Petherick 1985).

Faunal remains from both protohistoric and Early Contact contexts were combined to create the second faunal assemblage. The protohistoric/Early Contact assemblage derived from eight features from two different sites, and consists of approximately 12,600 vertebrate specimens. The protohistoric period began with the arrival of European explorers in North America around 1500. There is no archaeological evidence of direct European contact at any northern Piedmont sites occupied during the protohistoric period. Settlement size and social complexity apparently reached their heights in the region during this time, and the Sara reoriented their sphere of interaction to include the Lamar region of the interior Southeast, a region encompassing portions of Georgia, Alabama, Tennessee, South Carolina, North Carolina, and Florida (Hally 1994). The Early Contact period extends from 1607, with the establishment of Jamestown, to roughly 1650, when English colonists began to trade indirectly with groups in the North Carolina Piedmont. At some time during the protohistoric or Early Contact period, Native Americans in the North Carolina Piedmont were evidently exposed to lethal European diseases, and it is during the Early Contact period that European trade goods first appeared at sites in the region (Davis and Ward 1989; Eastman 1999; Simpkins 1992).

The protohistoric/Early Contact assemblage thus dates from a time when the European presence was being felt in adjacent regions, but did not have a strong impact in the upper Dan River. European trade goods appear in small numbers at this time, but there is little evidence in the Dan River assemblages for sustained cultural interaction.

By the middle of the seventeenth century, as game became depleted in the Chesapeake region, European settlers began to focus their energies on the region to their south. During the Middle Contact period, between 1650 and 1670, direct interaction between Native Americans and Euro-American traders occurred in the northwestern Piedmont of North Carolina. According to Eastman (1999:265), more than 80 percent of the graves containing grave goods from Middle Contact sites in the Dan River contain items of European manufacture. The Middle Contact faunal assemblage was derived from 30 features from two different sites, and consists of nearly 33,800 specimens.

Not until around 1670 did prosperous Virginia planters begin to send factors directly into the northern North Carolina Piedmont to trade with the Native Americans living there. In the Late Contact period, after 1670, interaction between Virginian traders and native inhabitants of the Piedmont intensified and the fur and

deerskin trade peaked in the region. Major changes in settlement and mortuary patterns have been documented for the Dan River drainage during this time, and the effects of exposure to epidemic disease are most evident. By the first decade of the 1700s, the effects of disease, warfare, and rum overwhelmed native Piedmont groups. After 1710, most remaining members of the Dan River groups seem to have moved south to join the Catawbas (Eastman 1999; Holm 1994; Ward and Davis 1993). The Late Contact faunal assemblage derives from 15 features from two sites, and consists of approximately 17,700 specimens.

Pre- and Post-Contact Vertebrate Resource Use

Previous studies of faunal and ethnobotanical assemblages from the North Carolina Piedmont indicate that a pattern of selective, seasonally-oriented exploitation of resources continued in use with little change from prehistoric through historic times (Gremillion 1989; Holm 1994). Inhabitants of the Piedmont practiced a subsistence system that mixed hunting and gathering with horticulture. They relied heavily on a few high-yield or readily available plants and animals, such as corn and deer. They also valued variety in their diet and supplemented staple foods with small mammals, turtles, birds, fish, nuts, small grains, and fleshy fruits.

A similar pattern is readily apparent in the four assemblages analyzed in this study (Tables 2-5). From the late prehistoric through Late Contact, inhabitants of the upper Dan River remained heavily dependent on mammals, which account for between 89 and 94 percent of the biomass represented by each assemblage (Table 6). Ubiquitous mammals include deer, rabbit, squirrel, beaver, and raccoon. Birds, represented primarily by turkeys and passenger pigeons, account for less than 4 percent of the biomass in each assemblage. A wide variety of turtles contribute 2-6 percent of the biomass in these assemblages. Mud turtles, musk turtles, and box turtles are present in each assemblage. Freshwater fish such as suckers, gar, white shad, catfish, and sunfish comprise 1 percent or less of the biomass in each assemblage.

Table 1. Composition of faunal assemblages.

Assemblage Designation	Dates	Sites Represented
Late Prehistoric	AD 1000-1500	Hairston, Lower Saratown, William Kluttz, Upper Saratown, Powerplant
Protohistoric/ Early Contact	AD 1500-1650	Hairston, Powerplant
Middle Contact	AD 1650-1670	Upper Saratown, Lower Saratown
Late Contact	AD 1670-1710	Upper Saratown, William Kluttz

The taxa identified in each assemblage were ranked in order of their contribution to the total biomass, and the five highest-ranking species are shown in Table 7. In each instance, deer is ranked first, contributing

between 84 and 91 percent of the biomass. Turkey and box turtle are also very important in each assemblage, and mud turtle and bear are each among the top five species in three of the four assemblages. Beaver and

Table 2. Vertebrate fauna from late prehistoric contexts.

Tayon	NISP	MNI		Weight	Biomass	
Taxon	MISI	n %		(gm)	(kg)	%
Mammal (indeterminate)	6681		_	5998.49	67.30	34.88
Sylvilagus sp., Rabbit	14	2	1.50	4.66	0.10	0.05
Sylvilagus floridanus, Eastern Cottontail	1	1	0.75	0.09	0.00	0.00
Sciurus sp., Squirrel	42	1	0.75	3.94	0.09	0.05
Sciurus carolinensis, Gray Squirrel	9	4	3.01	6.60	0.14	0.07
Sciurus niger, Fox Squirrel	8	2	1.50	2.60	0.06	0.03
Castor canadensis, Beaver	11	3	2.26	32.36	0.58	0.30
Cricetidae, Mice, Voles	2	2	1.50	0.32	0.01	0.0
Peromyscus sp., White-footed Mouse	2	1	0.75	0.10	0.00	0.0
Sigmodon hispidus, Hispid Cotton Rat	1	1	0.75	0.08	0.00	0.0
Microtus pennsylvanicus, Meadow Vole	29	2	1.50	1.14	0.03	0.0
Canidae, Dog, Wolf, Fox	6	-	1.50	21.40	0.40	0.2
Urocyon cinereoargenteus, Gray Fox	12	2	1.50	19.23	0.36	0.19
Procyon lotor, Raccoon	11	3	2.26	9.00	0.18	0.09
Mephitis mephitis, Striped Skunk	1	1	0.75	0.70	0.02	0.0
Artiodactyla	1	-	0.75	0.70	0.02	0.01
Odocoileus virginianus, White-tailed Deer	1354	22	16.54	10389.92	110.95	5 7.5 :
Bird (indeterminate)	519		16.34	162.68	2.10	
Anas platyrhynchos, Mallard	53	-	1 50			1.09
Accipiter striatus, Sharp-shinned Hawk		2	1.50	39.07	0.57	0.30
Bonasa umbellus, Ruffed Grouse	1	1	0.75	0.10	0.00	0.00
	. 1	1	0.75	1.00	0.02	0.0
Colinus virginianus, Bobwhite	2	2	1.50	0.26	0.01	0.0
Meleagris gallopavo, Turkey	77	7	5.26	229.71	2.88	1.49
Ectopistes migratorius, Passenger Pigeon	667	30	22.56	97.27	1.32	0.6
Passeriformes, Perching Birds	2	1	0.75	0.26	0.01	0.0
Rana/Bufo sp., Frog/Toad	32	-		1.30	-	
Bufo sp., Toad	4	2	1.50	0.16	-	
Scaphiopus holbrooki, Eastern Spadefoot Toad	12	4	3.01	0.89	-	
Turtle (indeterminate)	623	•	<u>.</u>	208.09	1.13	0.59
Kinosternon subrubrum, Eastern Mud Turtle	91	3	2.26	97.10	0.68	0.3
Sternotherus oderatus, Musk Turtle	11	2	1.50	4.30	0.08	0.04
Chrysemys picta, Painted Turtle	1	1	0.75	0.80	0.03	0.03
Terrapene carolina, Box Turtle	314	4	3.01	453.23	1.90	0.98
Snake (indeterminate)	69	-	-	2.26	0.05	0.03
Colubridae, Nonpoisonous Snakes	34	4	3.01	2.61	0.06	0.03
Viperidae, Poisonous Snakes	83	3	2.26	1.92	0.05	0.03
Fish (indeterminate)	519	-	-	78.74	1.01	0.52
Lepisosteus sp., Gar	16	3	2.26	1.24	0.04	0.02
Alosa sapidissima, White Shad	12	1	0.75	0.90	0.03	0.02
Catostomidae, Suckers	47	2	1.50	6.07	0.13	0.07
Catostomus commersoni, White Sucker	2	1	0.75	1.70	0.05	0.03
Moxostoma duquesnei, Black Redhorse	1	1	0.75	0.78	0.02	0.01
Ictalurus sp., Catfish	25	2	1.50	0.84	0.02	0.01
Perciformes, Basses, Sunfishes, Perches	10	1	0.75	1.30	0.03	0.02
Centrarchidae, Sunfishes	84	1	0.75	10.00	0.19	0.10
Centrarchus macropterus, Flier	22	2	1.50	3.44	0.08	0.04
Lepomis sp., Sunfish	10	2	1.50	1.24	0.04	0.02
Micropterus salmoides, Largemouth Bass	28	3	2.26	9.16	0.16	0.08
Unidentified Vertebrate	8371	-	-	1391.38	-	5.50
[otal	19928	133		19300.84	192.92	

passenger pigeon are the only taxa that appear among the top five in only one assemblage. Other than deer, none of the top five taxa contributed more than 2.3 percent of the biomass of any assemblage.

Although only a small number of animals were consistently utilized, each assemblage contains the remains of a number of other mammals, birds, reptiles, and fish. A wide variety of taxa made a contribution to the diet,

and this pattern is found consistently from prehistoric through historic times. Remains of domestic animals are completely absent from all the assemblages examined.

In her survey of vertebrate use from sixteenth- and seventeenth-century Native American sites, Reitz (1995) noted that similar findings have been reported across the Southeast. Even in situations of intense interaction between Native Americans and colonists, the Native

Table 3. Vertebrate fauna from protohistoric/Early Contact contexts.

Taxon	NISP	MNI		Weight	Biomass	
1 axon	14131	n	%	(gm)	(kg)	%
Mammal (indeterminate)	5071		-	3137.90	36.90	36.30
Didelphis virginiana, Opossum	9	1	1.59	4.04	0.09	0.09
Scalopus aquaticus, Eastern Mole	16	3	4.76	1.80	0.04	0.04
Sylvilagus sp., Rabbit	18	3	4.76	4.05	0.09	0.09
Rodent (indeterminate)	2	-	-	0.10	0.00	0.00
Sciurus sp., Squirrel	24	-	-	1.43	0.04	0.04
Sciurus carolinensis, Gray Squirrel	10	1	1.59	3.60	0.08	0.08
Sciurus niger, Fox Squirrel	8	2	3.17	1.78	0.04	0.04
Castor canadensis, Beaver	1	1	1.59	4.40	0.10	0.10
Cricetidae, Mice, Voles	15	_	-	0.57	0.02	0.02
Peromyscus sp., White-footed Mouse	6	1	1.59	0.20	0.01	0.01
Sigmodon hispidus, Hispid Cotton Rat	5	2	3.17	0.34	0.01	0.01
Microtus pennsylvanicus, Meadow Vole	10	2	3.17	0.30	0.01	0.01
Ursus americanus, Black Bear	8	1	1.59	61.00	1.06	1.04
Procyon lotor, Raccoon	8	1	1.59	14.60	0.29	0.29
Artiodactyla	4	-	1.39	2.30	0.29	0.29
Odocoileus virginianus, White-tailed Deer	619	11	17.46	4959.70		
Bird (indeterminate)			17.46		55.71	54.81
	372	-	1.50	109.61	1.47	1.45
Colinus virginianus, Bobwhite	4	1	1.59	0.50	0.01	0.01
Meleagris gallopavo, Turkey	19	2	3.17	53.00	0.76	0.75
Ectopistes migratorius, Passenger Pigeon	69	5	7.94	9.93	0.16	0.16
Rana/Bufo sp., Frog/Toad	19	-	-	0.82	-	-
Scaphiopus holbrooki, Eastern Spadefoot Toad	6	3	4.76	0.19	-	-
Turtle (indeterminate)	986	-	-	260.03	1.31	1.29
Chelydra serpentina, Snapping Turtle	1	1	1.59	2.30	0.06	0.06
Kinosternon subrubrum, Eastern Mud Turtle	62	2	3.17	169.00	0.98	0.96
Sternotherus oderatus, Musk Turtle	1	1	1.59	0.50	0.02	0.02
Pseudemys concinna, Cooter	7	1	1.59	15.40	0.20	0.20
Terrapene carolina, Box Turtle	270	3	4.76	374.70	1.68	1.65
Apalone sp., Soft-shelled Turtle	3	1	1.59	2.50	0.06	0.06
Snake (indeterminate)	25	-	-	0.62	0.02	0.02
Colubridae, Nonpoisonous Snakes	31	2	3.17	2.14	0.05	0.05
Nerodia sp., Water Snake	3	1	1.59	0.20	0.01	0.01
Viperidae, Poisonous Snakes	1	1	1.59	0.02	0.00	0.00
Fish (indeterminate)	128	-	-	7.20	0.15	0.15
Lepisosteus sp., Gar	1	1	1.59	0.10	0.00	0.00
Amia calva, Bowfin	1	1	1.59	0.30	0.01	0.01
Anguilla rostrata, Freshwater Eel	1	1	1.59	0.02	0.00	0.00
Alosa sapidissima, White Shad	6	1	1.59	0.97	0.03	0.03
Notropis coccogenis, Warpaint	1	1	1.59	0.04	0.00	0.00
Catostomidae, Suckers	19	-	1.07	3.23		
Catostomus commersoni, White Sucker	1		1.59		0.08	0.08
Ictalurus sp., Catfish		1		0.10	0.00	0.00
Lepomis sp., Sunfish	4	2	3.17	0.18	0.00	0.00
Unidentified Vertebrate	9 4 7 09	2	3.17	0.96 632.72	0.03	0.03
Total	12593	63		9845.39	101.64	

Table 4. Vertebrate fauna from Middle Contact contexts.

Taxon	NISP	N	1NI	Weight	Biomass	
		n	%	gm	kg	%
Mammal (indeterminate)	6475	-	-	7976.71	85.44	31.06
Didelphis virginiana, Opossum	10	2	1.15	15.44	0.31	0.11
Soricidae, Shrew	2	1	0.57	0.02	0.00	0.00
Sylvilagus sp., Rabbit	15	1	0.57	3.22	0.08	0.03
Sciurus sp., Squirrel	155	-		16.09	0.32	0.12
Sciurus carolinensis, Gray Squirrel	24	3	1.72	6.25	0.14	0.05
Sciurus niger, Fox Squirrel	33	2	1.15	6.68	0.15	0.05
Castor canadensis, Beaver Cricetidae, Mice, Voles	36 16	2	1.15	70.50	1.21	0.44
Peromyscus sp., White-footed Mouse	50	7	4.02	0.37 0.95	0.01 0.03	0.00 0.01
Sigmodon hispidus, Hispid Cotton Rat	8	2	1.15	0.22	0.03	0.00
Microtus pennsylvanicus, Meadow Vole	17	2	1.15	0.12	0.00	0.00
Ondatra zibethecus, Muskrat	1	1	0.57	0.35	0.01	0.00
Canidae, Wolf, Dog, Fox	3	1	0.57	3.50	0.08	0.03
Urocyon cinereoargenteus, Gray Fox	4	1	0.57	0.24	0.01	0.00
Ursus americanus, Black Bear	17	2	1.15	214.60	3.30	1.20
Procyon lotor, Raccoon	136	5	2.87	155.60	2.47	0.90
Mustela frenata, Long-tailed Weasel	1	1	0.57	1.50	0.04	0.01
Mephitis mephitis, Striped Skunk	3	1	0.57	0.70	0.02	0.01
Felis concolor, Mountain Lion	1	1	0.57	22.80	0.44	0.16
Felis rufus, Bobcat	5	2	1.15	18.50	0.36	0.13
Artiodactyla	23	-	-	41.00	0.74	0.27
Odocoileus virginianus, White-tailed Deer	2432	32	18.39	15338.82	153.89	55.94
Bird (indeterminate)	456	-	-	369.81	4.43	1.61
Anas sp., Duck	1	1	0.57	2.80	0.05	0.02
Aythya affinis, Lesser Scaup	1	1	0.57	0.80	0.02	0.01
Meleagris gallopavo, Turkey	178	12	6.90	553.49	6.4	2.33
Colaptes auratus, Flicker	4	2	1.15	1.00	0.02	0.01
Ectopistes migratorius, Passenger Pigeon	7	2	1.15	0.39	0.01	0.00
Picidae, Woodpecker	1	1	0.57	0.10	0	0.00
Passeriformes, Perching Birds Richmondensis cardinalis, Cardinal	1	-		0.00	0	0.00
Rana/Bufo sp., Frog/Toad	2 65	1	0.57	0.03	0	0.00
Bufo sp., Toad	4	-	-	2.09	-	-
Scaphiopus holbrooki, Eastern Spadefoot Toad	46	5	2.87	1.30 2.19	-	-
Bufo americanus, American Toad	7	2	1.15	0.27	-	-
Rana catesbeiana, Bullfrog	4	1	0.57	0.64	-	-
Turtle (indeterminate)	359	-	-	197.96	1.09	0.40
Chelydra serpentina, Snapping Turtle	56	1	0.57	93.90	0.66	0.24
Kinosternon subrubrum, Eastern Mud Turtle	600	14	8.05	1454.34	4.16	1.51
Sternotherus oderatus, Musk Turtle	13	2	1.15	6.98	0.12	0.04
Pseudemys concinna, Cooter	1	1	0.57	3.80	0.08	0.03
Terrapene carolina, Box Turtle	989	32	18.39	2276.65	5.62	2.04
Apalone sp., Soft-shelled Turtle	25	1	0.57	21.26	0.25	0.09
Snake (indeterminate)	312	-	-	7.41	0.12	0.04
Colubridae, Nonpoisonous Snakes	204	-	-	18.56	0.22	0.08
Nerodia sp., Water Snake	63	1	0.57	10.30	0.15	0.05
Viperidae, Poisonous Snakes	66	1	0.57	6.30	0.11	0.04
Fish (indeterminate)	208	-		35.38	0.53	0.19
Lepisosteus sp., Gar Amia calva, Bowfin	946	1	0.57	78.60	0.95	0.35
Anguilla rostrata, Freshwater Eel	15	1	0.57	0.98	0.03	0.01
Alosa sapidissima, White Shad	6	2	1.15	0.37	0.01	0.00
Catostomidae, Suckers	28 185	1	0.57	2.61	0.06	0.02
-		-	-	21.10	0.35	0.13
Catostomus commersoni, White Sucker	11	2	1.15	2.20	0.06	0.02
Moxostoma sp., Redhorse	2	1	0.57	2.50	0.07	0.03
Perciformes, Bass, Sunfish, Perch	41	6	3.45	13.96	0.24	0.09
ctalurus sp., Catfish Centrarchidae, Sunfishes	32	6	3.45	1.82	0.04	0.01
Lepomis sp., Sunfish	31			2.53	0.06	0.02
Jnidentified Vertebrate	21720	4	2.30	6.02	0.13	0.05
Anderented vertebrate	21730	-	-	5172.85	-	-
l Cotal	26214	174		24565 15	075.10	
	36214	174		34267.47	275.10	

Table 5. Vertebrate fauna from Late Contact contexts.

Taxon	NISP		MNI	Weight	Biomass	
Manual		n %				9
Mammal (indeterminate)	7023				— —— 	
Didelphis virginiana, Opossum	2	1	•	0700.02	45.23	40.8
Sylvilagus floridanus, Eastern Cottontail	1	1		= 1.0-7	0.03	0.03
Sciurus sp., Squirrel	68	-	07	0.00	0.02	0.02
Sciurus carolinensis, Gray Squirrel	12			4.22	0.10	0.09
Sciurus niger, Fox Squirrel	4	1 2		4.30	0.10	0.09
Castor canadensis, Beaver	4			1.30	0.03	0.03
Cricetidae, Mice, Voles	27	1	1.67	27.30	0.52	0.47
Peromyscus sp., White-footed Mouse		1	1.67	0.29	0.01	0.01
Sigmodon hispidus, Hispid Cotton Rat	8	1	1.67	0.15	0.00	0.00
Wilcrotus pennsylvanicus, Meadow Vole	1	1	1.67	0.10	0.00	0.00
Canidae, Wolf, Dog, Fox	2	1	1.67	0.02	0.00	0.00
Vulpes fulva, Red Fox	2	-	-	0.33	0.01	0.01
Urocyon cinereoargenteus, Gray Fox	17	1	1.67	5.50	0.12	0.11
Ursus americanus, Black Bear	6	1	1.67	2.60	0.06	0.05
Procyon lotor, Raccoon	6	2	3.33	162.30	2.57	2.32
Felis rufus, Bobcat	2	1	1.67	1.40	0.04	0.04
Artiodactyla	1	1	1.67	0.90	0.02	
Odocoileus virginianus, White-tailed Deer	87		_	146.59	2.34	0.02
Bird (indeterminate)	1024	8	13.33	4650.05	52.57	2.11
Meleagris gallopavo, Turkey	265	-	-	168.23		47.48
Ectonistes migratorius D	43	3	5.00	68.18	2.17	1.96
Ectopistes migratorius, Passenger Pigeon Picidae, Woodpecker	23	5	8.33	2.34	0.95	0.86
Torostoma sufam. Description	1	1	1.67	0.03	0.04	0.04
Toxostoma rufum, Brown Thrasher	2	1	1.67		0.00	0.00
Passeriformes, Perching Birds	12	-	1.07	0.11	0.00	0.00
Fringillidae, Sparrows	10	1	1.67	0.20	0.00	0.00
Melospiza sp., Sparrow	3	ì	1.67	0.20	0.00	0.00
Rana/Bufo sp., Frog/Toad	4		1.07	0.02	0.00	0.00
Rana sp., Frog	1	1	1 (7	0.08	-	-
Turtle (indeterminate)	592	-	1.67	0.04	-	-
Chelydra serpentina, Snapping Turtle	5		1.67	143.94	0.88	0.79
Kinosternon subrubrum, Eastern Mud Turtle	28	1	1.67	5.40	0.10	0.09
nernotnerus oderatus, Musk Turtle	3	1	1.67	13.50	0.18	0.16
nrysemys picta, Painted Turtle	12	1	1.67	0.50	0.02	0.02
errapene carolina, Box Turtle	364	1	1.67	26.00	0.28	0.25
nake (indeterminate)		1	1.67	306.75	1.47	1.33
olubridae, Nonpoisonous Snakes	54	-	-	1.76	0.05	0.05
tapne sp., Corn Snake	91	1	1.67	7.29	0.12	0.11
ampropeltis sp., Ring Snake	4	1	1.67	0.14	0.01	0.01
eroaia sp., Water Snake	2	1	1.67	0.1 <i>7</i>	0.01	0.01
iperidae, Poisonous Snakes	2	1	1.67	0.19	0.01	0.01
sh (indeterminate)	45	2	3.33	4.11	0.08	0.07
pisosteus sp., Gar	1665	-	-	18.95	0.32	0.29
mia calva, Bowfin	4	1	1.67	0.58	0.02	0.02
nguilla rostrata, Freshwater Eel	1	1	1.67	0.04	0.00	
osa sapidissima, White Shad	5	2	3.33	0.07	0.00	0.00
tostomidae, Suckers	50	2	3.33	3.71		0.00
tostomus commersoni, White Sucker	52	1	1.67	3.50	0.09	0.08
alurus sp., Catfish	1	1	1.67	0.10	0.08	0.07
ntrarchidae, Sunfishes	9	2	3.33		0.00	0.00
pomis sp., Sunfish	19	-	-	0.52	0.01	0.01
identified Vertebrate	44	2	3.33	0.92	0.03	0.03
	6022	-	0.00	1.29	0.04	0.04
tal			•	1250.85	-	-
	17735	60		10974.01	110.73	

Table 6. Biomass summary. Weights in this table equal the totals presented in Tables 2, 3, 4, and 5 minus the biomass of mammal (indeterminate), bird (indeterminate), turtle (indeterminate), and fish (indeterminate).

Taxa	Late Prehistoric		Protohistoric/ Early Contact		Middle Contact		Late Contact	
	(kg)	%	(kg)	%	(kg)	%	(kg)	%
Deer	110.95	91.44	55.71	90.16	153.89	83.86	52.57	84.68
Noncommensal Mammals	1.94	1.60	1.85	2.99	9.68	5.27	5.96	9.60
Commensal Mammals	0.04	0.03	0.09	0.14	0.05	0.03	0.01	0.02
Birds	.4.81	3.96	0.93	1.50	6.51	3.55	0.99	1.59
Turtles	2.69	2.22	3.00	4.85	10.89	5.93	2.05	3.30
Snakes	0.11	0.09	0.06	0.10	0.48	0.26	0.23	0.37
Fish	0.79	0.65	0.15	0.24	2.00	1.09	0.27	0.43
Total	121.33		61.79		183.50		62.08	

Table 7. Most abundant species.

Rank	Late Prehistoric	Protohistoric/ Early Contact	Middle Contact	Late Contact
1	deer	deer	deer	deer
2	turkey	box turtle	turkey	bear
3	box turtle	bear	box turtle	box turtle
4	passenger pigeon	mud turtle	mud turtle	turkey
5	mud turtle	turkey	bear	beaver

American pattern of animal use remained largely unchanged, and domesticated animals were not widely adopted. Continuity, rather than change, seems to be the major characteristic of the way in which Native Americans in the Southeast utilized vertebrates.

Patterns of Change

The refined chronologies developed for faunal material recovered from Dan River sites provide an opportunity to examine this pattern from yet another point of view. Previous studies have made dichotomous, before-and-after-type comparisons to investigate effects of contact on vertebrate subsistence patterns. These assemblages from the Dan River sites provide an opportunity to look at the experiences of a single group of Native Americans at a number of different times within the Contact period.

As noted above, the continuity from pre- to post-Contact times in these assemblages is striking. It is possible to detect some interesting patterns of change in the data, however. Deerskins and the hides of furbearing mammals were frequently exchanged by the Native Americans for alcohol, beads, cloth, and other trade goods. From the figures presented in Table 6, it is evident that the biomass contributed by deer dropped

sharply between the early and middle segments of the Contact period, from 90 to 84 percent. Ethnographic accounts and other archaeological evidence indicate, however, that it was during the Middle Contact period when direct interaction between the Sara and traders from Virginia was occurring on a regular basis. This drop in the representation of deer is unlikely to be the result of a sampling error, because figures for the Middle Contact and Late Contact period deer are almost identical, at 84 and 85 percent, respectively.

Another pattern is displayed by the biomass of mammals other than deer. These mammals display an increase from the late prehistoric through Contact periods. Similar trends are not evident in the biomass summaries of the non-mammalian taxa. Table 8 presents only mammalian data. Commensal mammals, such as mice and rats, are presumed to be incidental inclusions in the assemblages and to have been of no economic value to the site inhabitants. The biomass of non-commensal mammals other than deer contributes less than 2 percent of the mammalian biomass in the late prehistoric, 3 percent in the protohistoric/Early Contact, 6 percent in the Middle Contact, and 10 percent in the Late Contact period. When the lists of non-commensal mammals in each assemblage are examined (Table 9), there is clearly more diversity of mammals in assemblages from later time periods. Muskrat, weasel, moun-

Table 8. Summary of mammalian biomass. Weights in this table equal the totals presented in Tables 2, 3, 4, and 5 minus the biomass of mammal (indeterminate), bird (indeterminate), turtle (indeterminate), and fish (indeterminate).

Taxa	Late Prehistoric		Protohistoric/ Early Contact		Middle Contact		Late Contact	
	kg	%	kg	%	kg	%	kg	%
Deer	110.95	98.25	55.71	96.63	153.89	94.05	52.57	89.80
Noncommensal Mammals	1.94	1.72	1.85	3.21	9.68	5.92	5.96	10.18
Commensal Mammals	0.04	0.04	0.09	0.16	0.05	0.03	0.01	0.02
Total	112.93		57.65	·	163.62		58.54	

tain lion, and bobcat all appear only in Middle or Late Contact period assemblages. There are no non-commensal mammalian taxa in the earlier two assemblages that are not also present in the later assemblages. Although the larger size of the Middle Contact period assemblage may skew the data, the Late Contact assemblage is less than half the size of that from the Middle Contact period, yet it displays a similar pattern.

The increase in non-commensal mammals other than deer fits nicely with data from other sources concerning events in the northern Piedmont of North Carolina during the Contact period. All of these mammals, including raccoons, rabbits, squirrels, opossums, bears, beavers, and foxes, produce furs that could be traded for exotic goods. It makes sense that they should be increasingly well-represented in the assemblages, since other evidence indicates that the Sara were becoming more and more enmeshed in trade with the colonists.

Inhabitants of the Dan River sites probably increased their procurement of deer during the same time period, even if there is no evidence for this in the faunal assemblages. Explanations for the decrease in representation of deer in the later assemblages are not hard to find. Ethnohistoric accounts indicate that traders from Virginia did not turn their interest to the region south of the Chesapeake until game was depleted in the Chesapeake area. It is possible that during the early stages of contact, when trade with colonists was either indirect or very sporadic, the exploitation of deer and other mammals by the Sara did not differ significantly from their use prior to contact. Not until the 1670s did a wellestablished system develop by which native inhabitants of the Piedmont could trade deerskins and furs for European goods. By this time, it is possible that deer populations in the vicinity of the Sara villages were also depleted. John Lawson, who traveled through North Carolina early in the eighteenth century, observed that the native inhabitants of the region often went out in large groups and traveled far from their homes to procure the deer skins and furs they traded for European items (Lefler 1967). Robert Beverly (1705, quoted in Swanton 1946:318) noted that the Piedmont Indians killed large numbers of deer during communal hunts

Table 9. Presence of non-commensal mammals.

Taxa	Late Prehistoric	Protohistoric/ Early Contact	Middle Contact	Late Contact
Opossum		+	+	+
Rabbit	+	+	+	+
Squirre!	+	+	+	+
Beaver	+		+	+
Fox	+		+	+
Black Bear		+	+	+
Raccoon	+	+	+	+
Weasel			+	
Skunk	+		+	
Mountain Lion			+	
Bobcat			+	+
White-tailed Deer	+	+	+	+

and made "all this Slaughter only for the sake of the Skins, leaving the carcasses to perish in the woods." If the meat was considered valuable enough to transport over any distance, the venison would have been dried over a fire and most of the bones discarded prior to the drying process (Swanton 1946:377-378). Thus, if deer were hunted at long distances from the Dan River villages, or if deer were hunted primarily for hides rather than for meat, then most of the skeletons would have been abandoned at the kill site and seldom entered the archaeological record at villages. Remains of deer preserved at village sites would more likely represent animals slaughtered to meet the needs of village inhabitants. The decrease in deer represented in the later assemblages could thus reflect either a decrease in deer populations in the vicinity of the sites, or possibly a decrease in that portion of the population inhabiting the sites that normally hunted deer.

It might not be possible to determine why these assemblages show a decrease in deer with a corresponding increase in other fur-bearing mammals. This may be an example of what is sometimes referred to as the "schlepp effect," which makes reference to the dragging of an animal carcass home from the kill site (Perkins and Daly 1968). If the carcass is large or must be transported a long way, more of the heavy bones will be left behind than if the animal were small and easily transported as a single package. Because of this practice, the skeletons of larger animals will be less well represented at the village site than those of smaller animals. Many of the mammals accounting for the increase

in representation of fur-bearers in the later assemblages are considerably smaller than deer. Mountain lion and bear are among the fur-bearers represented in the later assemblages, however, and more information concerning body-part representation of the animals is necessary to test the validity of this hypothesis.

Conclusion

For the most part, this analysis of faunal assemblages from Dan River sites confirms the results of researchers in other areas of the Southeast. The use of vertebrate resources appears to be remarkably consistent from prehistoric through historic times. The refined chronology for the Dan River sites, however, has provided an opportunity to make comparisons of Contact-period assemblages on a finer scale than is often possible. These comparisons indicate that the faunal record may provide evidence of adjustments made by native inhabitants of the Southeast that have, until now, been visible only by reference to other sources of information.

Notes

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PISGAH PHASE VILLAGE EVOLUTION AT THE WARREN WILSON SITE

David G. Moore

This article considers the evolution of village structure at the Warren Wilson site (31BN29) by examining the relationship between seventeen domestic structures and seven palisade lines. Previous researchers have suggested that the multiple palisades reflect expansion of the village, contraction of the village, or functional-spatial distinctions within the village. Regardless of whether village size expanded or contracted over time, this small Mississippian village displayed a consistent village plan with a central public square ground surrounded by domestic structures and palisades. I suggest that small Mississippian villages were subject to some of the same planning and organizational patterns applied at much larger Mississippian towns.

Trawick Ward supervised the Warren Wilson site summer field school in 1972 and 1973, and he introduced me to the site in 1978 when I first served there as field school director. Shortly thereafter, Trawick completed his dissertation, in which he analyzed the plow zone artifact distribution at Warren Wilson (Ward 1980). In 1996 I returned to direct the field school and I continue to direct investigations at the site today. Thus, it was natural to turn to the Warren Wilson site when I was asked to take part in a symposium to mark Trawick's retirement.

The Warren Wilson site is a stratified site located on the Swannanoa River east of Asheville, North Carolina. Though the site includes Middle Archaic, Late Archaic, and Woodland period occupations, it is best known for the Mississippi period Pisgah phase palisaded village (Figure 1), believed to date from the twelfth to the fifteenth century AD. Archaeology at the Warren Wilson site began in 1966 as a part of the Cherokee Archaeological Project carried out by graduate students under the direction of Joffre Coe at the Research Laboratories of Anthropology (RLA), University of North Carolina at Chapel Hill. Between 1966 and 2000, archaeologists from the RLA and Warren Wilson College directed a total of 25 summer field schools. However, although the Pisgah village at Warren Wilson has been the subject of investigation for over 35 years (Dickens 1970, 1976; Keel 1972, 1976; Moore 1981, 1986; Runquist 1979; Simpkins 1984, 1986; Ward 1980, 1986; Wilson 1986), there has been no comprehensive synthesis of the site since publication of Cherokee Archaeology (Keel 1976) and Cherokee Prehistory (Dickens 1976) in the mid-1970s.

In thinking about how one might begin such a synthesis today, I was inspired by David Hally's (1998) recent conference presentation on the "life history" of the King site. Hally employed the concept of life history to address a variety of questions concerning the founding, structure, and evolution of large Mississippian towns in the Southeast. He demonstrated, quite convincingly, that such a life history could also contribute to an understanding of a larger regional political context as well (Hally 1998:10-12). Despite the many differences between the two sites, I believe a similar approach can help us achieve a better understanding of the Pisgah phase village at the Warren Wilson site.

The King site (9FL5) is located on the Coosa River in northwestern Georgia. The site covers 2.3 hectares and consisted of "a central plaza with public buildings, a surrounding habitation zone, and a palisade and ditch defensive barrier" (Hally 1998:1; see also Hally and Kelly 1998). To determine how the site changed through time, Hally used a number of criteria, including spatial proximity of certain winter structures to indicate noncontemporaneity; evidence of burials predating or postdating winter structure occupancy; multiple construction stages for winter structures; and shifts in size, orientation, and location of rebuilt winter structures (Hally 1998:3). Key to much of his analysis was the evidence from intact winter structure floors and their successively rebuilt hearths. Hally believes that the King site was probably occupied for less than 50 years based on the lack of spatial overlap of winter houses "and the fact that the palisade and public structures were not rebuilt" (Hally 1998:3).

The Pisgah phase village at Warren Wilson differs from the King site in several key respects. It is substantially smaller-about 1 hectare-and contains no obvious public buildings. Most importantly, there is just one partially intact structure floor and, consequently, no opportunity to examine rebuilt hearths within individual structures. Hally relied heavily on hearth rebuilding for evidence of the sequence of King site changes. Also, there is remarkably little overlap of structures at Warren Wilson, although palisade lines A, B, C, D, E, and F all intersect structures (see Figure 1). These factors greatly complicate the drawing of temporal distinctions among house structures at Warren Wilson. Interestingly, I considered the problem of temporal distinctions at Warren Wilson in my Master's thesis some years ago (Moore 1981). At that time I compared ceramics from features associated with one of the inner palisades (D) and one of the outer palisades (G) to determine whether ceramic variation between the features might reflect temporal differences in palisade construction. Unfortunately, the ceramics from both contexts were nearly identical and I was unable to discern any temporal differences between them and hence, between the construction periods of the palisades.

Warren Wilson Village Plan

Figure 1 illustrates the houses and palisades associated with the Pisgah phase village at Warren Wilson. One of the greatest strengths of this long-term project

has been the gradual accumulation of information on site structure. Site interpretations continue to change as more and more of the village is exposed. At its largest extent, the palisaded Pisgah village probably covered around 1.3 hectares. At least seven distinct palisades are present—an inner group of five and an outer pair. Each palisade consists of individual posts set at about 1-ft. intervals. In the case of one line (D), posts were set into an excavated trench. Domestic structures make up the other primary component of the site plan. To date, 17 domestic structures have been identified. Dickens originally characterized these as square to slightly rec-

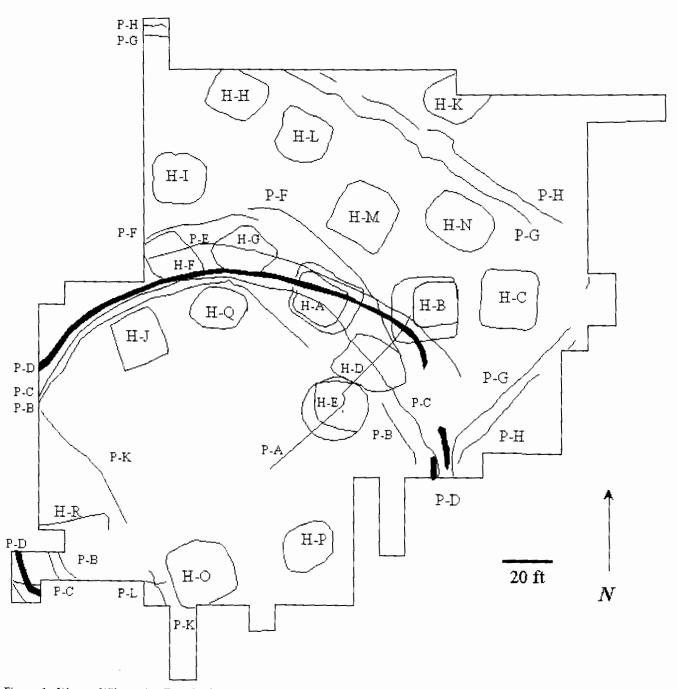


Figure 1. Warren Wilson site, Pisgah phase village schematic plan, houses (H) and palisades (P).

tangular in shape and averaging about 20 ft. across. Dickens hypothesized that the houses were arranged around a plaza area in which public buildings might be located; however, none of the houses identified so far seems to be a public building (if we may assume that a public building would be differentiated from domestic structures by its larger size or more central placement).

A complete Warren Wilson site life history will require thorough reanalysis of excavation records on palisades and house patterns. While I have not yet begun such a reanalysis, I can begin building a life history by evaluating the basic Pisgah village site plan, particularly the multiple palisade configurations.

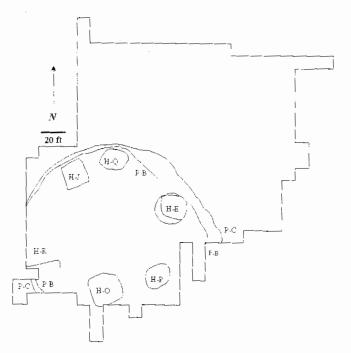


Figure 2. Warren Wilson site, Pisgah phase village, Palisades B and C.

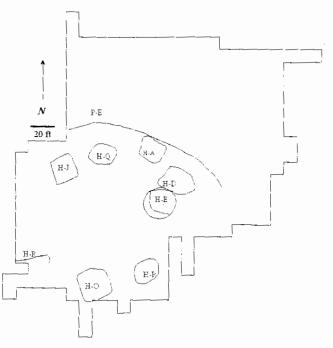


Figure 4. Warren Wilson site, Pisgah phase village, Palisade F.

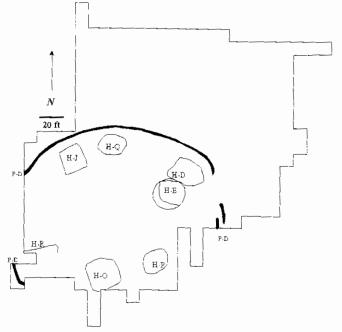


Figure 3. Warren Wilson site, Pisgah phase village, Palisade D.

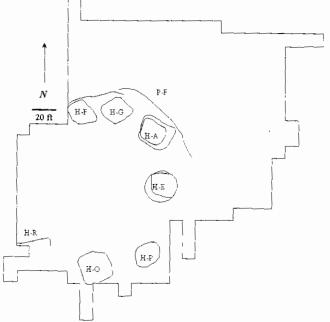


Figure 5. Warren Wilson site, Pisgah phase village, Palisade F.

Discussion

Three previous interpretations have been proposed to explain the multiple palisades at the Pisgah phase village. The first was offered by Roy Dickens, Jr., who helped initiate the Warren Wilson excavation and published the first and only comprehensive report on the Pisgah component of the site. Dickens (1976:46) initially identified portions of 12 palisade lines that he assumed represented defensive structures. (I hasten to note that Dickens had only the results of the first four years of excavation available for his interpretation.) He identified those portions as palisades A through L; lines I and J are now understood to represent continuations of lines G and H, respectively. Dickens found that he was able to establish several relative relationships between palisades and houses and ultimately argued that palisade A was earliest, followed by palisade B, C (both, Figure 2), D (Figure 3), E (Figure 4), and F (Figure 5). He was unable to link palisades K and L to the relative temporal sequence. Based on the apparently increasing size of the successive palisades, Dickens (1976:50) reasoned that construction of each palisade represented a successive enlargement of the village, and that palisades G and H (Figure 6) represented the most recent lines. Finally, Dickens argued that since houses A, B, D, E, F, and G "overlie one or more of the palisades in group A to F, it must be concluded that these houses were surrounded by one of the larger enclosures [G and H]" (Dickens 1976:50).

I suggest, however, that, with the exception of houses B and D, palisade F (Figure 5) could have enclosed all of these houses. In fact, one might argue that the eastern end of palisade F seems to veer to the south to avoid house B, suggesting that this palisade existed at the same time as house B. Finally, Dickens (1976:51) originally stated that the overall house and palisade configuration suggested that, "rather than simply expanding concentrically, the village may have shifted to some extent during its development." On further reflection, he surmised that the arrangement of the palisades represented seven successive enlargements of the village (Dickens 1978:127).

Ward (1986) offered an alternative model of the Pisgah village site structure, concerning especially the relationship between the five inner and two outer palisade lines. By this time the excavated area had been greatly enlarged over the 12 or so years since Dickens' earlier excavations, and Trawick benefited from an expanded view of the site plan.

Trawick observed a great deal of diversity in the house patterns and suggested that two different house configurations were present at the site. Houses A, B, C, and M had "straighter walls, entry trenches, sharper corners, and overall are more distinct" (Ward 1986:15), while structures F, G, H, L, and N "are more rounded,

sometimes exhibit only vague wall outlines, lack entry trenches, and overall are more ephemeral" (Ward 1986: 15). Where Dickens saw a possible temporal change in the variable house configurations, Trawick argued that both configurations seemed to be in use at the same time, including the additional palisade lines that had been documented by that time.

Trawick (Ward 1976:15) suggested that the different house styles "may indicate seasonal rather than temporal differences," and compared this difference to the paired winter and summer structures of the historic Cherokees. Given this seasonal rather than temporal explanation, he went on to offer a more static interpretation of the overall village plan. He suggested that the inner palisades served not as protective walls surrounding the village, but instead "enclosed a square ground reserved for ceremonial and sociopolitical activities" (Ward 1986:18). "Although the Cherokee square grounds do not seem to have been palisaded during the historic period, there are accounts of them being enclosed by terraces and banks" (Ward 1986:18). He also cited Haywood's description of sentinels stationed to prevent entry by the unclean or uninitiated into the Cherokee square ground (Ward 1986:18).

With the inner palisades enclosing a ceremonial space, Trawick suggested that palisade lines G and H encircled the village for protection and, in fact, were probably contemporary (Ward 1986:15). Thus, Trawick viewed the Pisgah village site plan as a relatively static configuration with palisades dividing functionally distinct parts of the village.

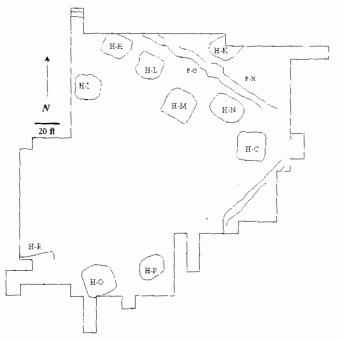


Figure 6. Warren Wilson site, Pisgah phase village, houses and Palisades G and H.

inner group does not offer much actual increase in village size. I believe, therefore, that much (palisades B, C, D, E) but not all of the inner palisade construction took place as repair or replacement rather than to accommodate increasing site size.

It is unclear whether this configuration predates, postdates, or brackets the larger village. The inner palisades could represent a later village since the temporal priority of the outer palisade line is uncertain. However, if Ward is correct in the temporal relationship of house A to palisade D, then there is support for Ashcraft's hypothesis that palisade D represents a contraction of the village. It seems that the temporal priority of house A over palisade D is critical to a possible solution to the palisade order. I suggest that the spacing of houses J, Q, F, G, A, D, and E (averaging less than 5 ft. from two and sometimes three nearest neighbors) is too close for contemporaneous buildings. Perhaps palisade F represents the earliest village and the palisade may have encircled some combination of houses F, G, A, E, O, and P. This would establish house A before palisades B, C, D, and E. The latter group of palisades (B-E) then represents a second village that included some combination of houses J, Q, D, E, O, and P (and I suggest that rebuilding sequence of palisades D and E was possibly made to incorporate house D). This scenario still leaves the temporal placement of the larger village unresolved. If palisades G and F ever enclosed house A, the larger village would have to predate the village enclosed by the palisades group B-E. If, however, house A was associated only with palisade F, the larger village could either predate or postdate the smaller villages encircled by palisade F and by palisades B-E.

Finally, though I still doubt that the inner palisade ever defined functionally separate space within a larger village, there are two points that must be addressed. The first was mentioned earlier; that is, the way in which palisade F seems to pass just beside house B, suggesting the possibility that house B existed outside the inner palisade but within the outer palisades. This situation also begs the question of house K. Is there yet another encircling palisade or is it possible that this structure was built outside the palisades, possibly as shelter for tending nearby fields or perhaps as a menstrual hut (Christopher Rodning, personal communication 2001)? In any event, the change in the curve of palisade F seems curious. The possibility of contemporary inner and outer palisades is also hinted at in the southeast corner of the site. Here, palisade G comes close to palisade D then veers abruptly south, apparently paralleling the other palisade for more than 10 ft. This seems to be an excellent argument for their contemporaneity. However, it is also possible that palisade G was built while palisade D was in use, but that it

represents a major enlargement of the site. Or, it may be that this location was always used for an overlapping palisade entryway as seen in palisades B and D.

Clearly, we are still unable to firmly fix the sequence of palisades for the Pisgah villages at Warren Wilson, but, at least for the time being, I think the multiple palisades probably reflect site evolution as opposed to divided site function. However, it should be clear that it is almost impossible to discuss a site's life history merely by examining palisades without examining the house structures with their own life cycle of construction, repair, rebuilding, replacement, and abandonment. Although such an evaluation is not yet complete, I offer several preliminary observations. Of the 17 possible domestic structures defined at this time, there is no indication that any served as more than a domestic structure. As noted earlier, although they vary considerably in size and configuration, I am uncertain as to whether some pairs might be analogous to the paired pattern of historic Cherokee winter and summer houses.

Most of the structures show evidence of repair or even rebuilding; some show evidence of interior roof supports replaced in the same location 6 or 8 times or more, suggesting a long life for these structures. Four of the 17 structures appear to have been completely or nearly completely rebuilt in the same location. Interestingly, all but two of the houses that show evidence of extensive repair or rebuilding are located within the area enclosed by one of the inner palisade lines. Given frequent house rebuilding, the number of palisade lines, and the possibility of two shifts in size as discussed above, it is likely that the site was occupied for a relatively long period of time, perhaps greater than 50 to 75 years. There may also have been an interval between either of the village size changes.

Obviously, it will be necessary to make a complete analysis of each of these houses to generate a better idea of the life span of each structure. We shall have to consider configuration and size, rebuilding, location with respect to palisades and other structures, and associated features. We also hope that radiocarbon dates may provide at least the parameters for the life span of the village. Finally, I must point out that my discussion of the Warren Wilson site plan is based on site maps that have been prepared by hand by numerous investigators over the past 30 years. As I compared these maps it became clear that subtle differences exist in the interpretations of certain house and palisade alignments. As a result, we are now at work on a comprehensive digitized site map prepared from original excavation unit drawings. All future site interpretations will draw on what is expected to be a more precise and reliable site map. Clearly, a useful life history of the Warren Wilson site will require a great deal of additional work.

Conclusion

David Hally's paper on the King site began with a series of questions about the large, densely populated Mississippian towns found throughout much of the Southeast:

How do these kinds of settlements begin and develop through time? Do they grow gradually from a handful of initial inhabitants or do they begin with a sudden influx of large numbers of people? Do inhabitants come from a single preceding community or from many? Are towns laid out according to a formal plan early in their history, or does town layout develop in an *ad hoc* manner as their population grows through time? Probably all of these processes have occurred in one case or another. But we don't know this, because archaeologists have given little attention to the life history of Mississippian towns (Hally 1998:1).

These are important questions and they certainly need to be addressed to the full range of Mississippian sites, including small sites like Warren Wilson. I believe the life history approach will allow us to ask important questions about settlement, subsistence, and other cultural systems upon which we are often left to hypothesize. As one example, a thorough life history of the Warren Wilson site may allow us to model more accurately the effect of the site within its Swannanoa Valley setting. What was the life span of this village? How many people resided there? What amounts of natural resources-wood, fertile soil, etc.-were necessary to build and sustain the village? How long could the local setting sustain this village? These are not easy questions to answer, but it seems to me that a discussion of life history is an appropriate place to begin.

A life history of the Warren Wilson site should also contribute to a better understanding of the temporal and cultural relationships between Pisgah and Qualla phase sites in western North Carolina (Ward and Davis 1999:192; Ward and Rodning 1997) and of the relationship of the Pisgah phase to contemporary phases in adjacent regions of eastern Tennessee and north Georgia. Gerald Schroedl's (1998) recent survey of the evolution of Mississippian village site plans in eastern Tennessee presents an excellent model of a regional pattern of site evolution. Such a comprehensive regional perspective is possible only as the life histories of individual sites are examined.

At this point in my investigation of the Warren Wilson site life history, I have only obvious conclusions to draw, but they are worth considering. I suggest that the multiple palisades represent an evolution of site size, whether through expansion, contraction or both. Yet, I am also convinced that Ward's concern with the square ground is important. It seems remarkable to me that through the construction of at least four, and perhaps six, single or paired defensive palisades the village maintained the same basic placement and con-

figuration. Regardless of the village size, there was always a relatively open central space. We are well aware of the importance of square grounds in Indian towns of the historic Southeast. We are also well aware of their presence and presumed importance in large Mississippian towns. At Warren Wilson, a relatively small Mississippian village, we see that the square ground is probably just as important. I also suggest that the preservation of a central square ground is evidence that small Mississippian villages evolved and grew in a planned and organized manner, just as Hally has demonstrated for the King site.

Notes

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FICTION FROM FACT AT THE TOWNSON SITE IN SOUTHWESTERN NORTH CAROLINA

H. Trawick Ward

In September 1776, General Griffith Rutherford led a force of North Carolina militiamen against the Middle and Valley towns of the Cherokees. Rutherford's army spent six days in the upper Hiwassee River valley of southwestern North Carolina burning towns, destroying crops, and killing and capturing Cherokees. The Townson site (31CE15) represents one of the towns visited by Rutherford. In 1964 UNC archaeologists excavated a burned cabin at Townson. This article reports those findings and attempts to reconstruct the events of September 1776.

This article consists of two parts. The first deals with the "facts" of the Townson site in Cherokee County, North Carolina. I review historical evidence about native settlement at Townson and the archaeological excavations conducted at the site in 1964 by the University of North Carolina's Research Laboratories of Anthropology (RLA, now the Research Laboratories of Archaeology; Ward and Davis 1999:267-271). The second part is fiction, but fiction that tries to reflect and to be true to the facts of the historical and archaeological records. With an ever-increasing need to make the archaeology we do relevant to the public who supports us, I have tried to use the Townson facts to reconstruct a fictitious ethnographic present. Keith Egloff and Deborah Woodward (1992) have used this genre very successfully in First People: The Early Indians of Virginia. Margo L. Price, Patricia M. Samford, and Vincas P. Steponaitis (2001) also have recreated numerous ethnographic scenes in Intrigue of the Past, North Carolina's First Peoples, a workbook on North Carolina archaeology written for public school teachers. Because of its Pompeii-like preservation conditions, Townson presented me an excellent opportunity to attempt what these and other recent authors have done.

Historical Background

In September 1776, General Griffith Rutherford led a force of 2,500 North Carolina militiamen against Middle and Valley towns of the Cherokee Nation (Figure 1).

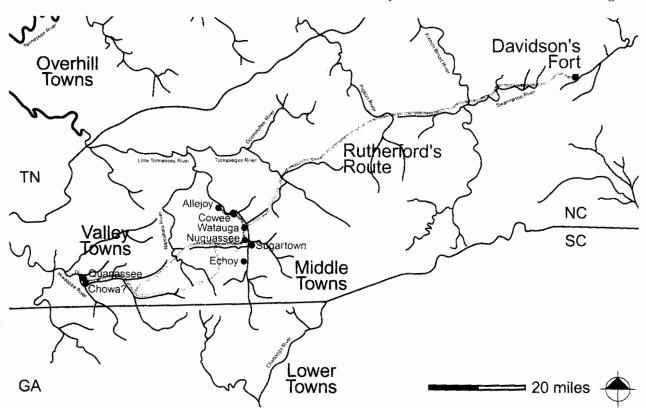


Figure 1. Reconstruction of the route of Rutherford's militia, after Dickens (1967:7).

On September 1st, Rutherford's army departed Davidson's Fort, a place known today as the town of Old Fort in McDowell County. The army marched directly to the Middle Towns on the Little Tennessee River, ignoring settlements along the Tuckasegee River. An advance party of 1,000 men reached the Little Tennessee River settlements on September 7th. The following day, General Rutherford and the remainder of the army met the advance contingent at the town of Watauga (31MA4) in Macon County. Here Rutherford expected to join forces with South Carolina troops under the command of Andrew Williamson.

The South Carolinians were late to arrive. After destroying at least two abandoned towns, Rutherford's army moved up the Little Tennessee to the town of Nequassee (31MA2), arriving there on September 14th. By this time Rutherford was becoming impatient with Williamson and his South Carolina troops; on the sixteenth he took 1,200 men and headed across the Nantahala Mountains to the Hiwassee valley. The remainder of his army was ordered to wait at Nequassee for Williamson's forces. The South Carolina contingent finally arrived on the eighteenth. Meanwhile Rutherford marched his men toward the town of Quanassee, located near the present-day town of Murphy in Cherokee County, arriving there on the nineteenth. Quanassee was located in the vicinity of the Peachtree mound (31CE1) and village site (31CE6); the mound was extensively excavated by Smithsonian Institution archaeologists in 1933-1934 (Setzler and Jennings 1941; Ward and Davis 1999:180).

For six days, after arriving at Quanassee, Rutherford's army burned and destroyed crops and towns, confiscated horses and cattle, and killed and captured as many Cherokees as possible. Most inhabitants of the towns had fled, leaving behind only the old and infirm. Many of the men and some of the women had formed a war party that lay in wait for Rutherford's army at Waya Gap, the customary place to cross the Nantahala ridge. Rutherford and his men, however, lost their way and did not cross the Nantahalas in the "usual place."

The less fortunate South Carolina militia had better maps and better guides, so they did make the crossing at the "usual place" where the Indians lay in ambush. During a fierce battle, Williamson's army was nearly defeated, losing over 40 men. One Cherokee killed in the battle was a woman painted and disguised as a warrior (Mooney 1975:39). By the time Williamson finally joined Rutherford on September 26th, the destruction of the Middle Towns had been completed, and both armies left for home the next day.

Except for Quanassee, the only town along the Hiwassee mentioned by name was Chowa, located in the vicinity of the confluence of Brasstown Creek and the Hiwassee River. A concatenated sequence of archaeological sites has been found in that area along the north

side of the Hiwassee, one of which, the Townson site (31CE15), the RLA explored in 1964. There the burned remains of a Cherokee cabin and the charred body of an old man were gruesome witness to Rutherford's visit.

Archaeological Background

In the spring of 1964, during the early days of the RLA's Cherokee Project, Bennie C. Keel stood where US Highway 64 crosses the Hiwassee River and marveled at the clarity of definition of the dark stains scattered across the large bottomland bisected by the highway bridge. One year before Ed Dolan, an RLA graduate student, had made an impressive surface collection of pottery, trade beads, animal bones, daub and other artifacts, leading Dolan (1963) to comment on the site form that "this site is worth further investigation."

Keel was following Dolan's advice and from his elevated vantage point on the bridge he evaluated the stains for future excavation. In July he returned with a small crew, and during the hot dog days of July and August, Keel and crew excavated six contiguous 10-ft. squares in the area he had picked earlier. Keel had chosen well. When completed, the excavation revealed the well-preserved remains of a burned cabin (Figure 2).

Removing the plowed soil from the excavation units uncovered an intensely burned area between two large concentrations of baked clay daub. Large fragments of burned roof beams and wall timbers were preserved primarily within the daub matrix. These layers were removed carefully to expose the construction members, which were left *in situ* until the floor of the cabin could be mapped and photographed as a unit. Broken pottery vessels, turtle shell rattles, metal tools, and other artifacts lay scattered across the floor where the violent events of 1776 had strewn them. Just outside a rectangular scatter of charred timbers lay the partially burned

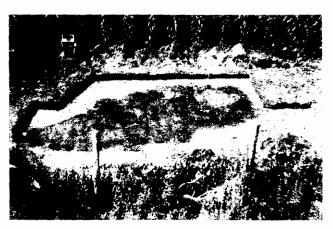


Figure 2. The burned cabin structure at Townson (see also Dickens 1967:17). This photograph shows structural remnants visible at the base of the plow zone.

skeleton of an elderly male, probably the sole occupant of the cabin when Rutherford and his men arrived.

The exact configuration of the cabin is enigmatic. Dickens (1976) and Coe and Keel (1965) described it as a "European-type cabin with horizontal rail walls" (Dickens 1976:15). According to them, the walls were constructed by attaching rails to vertical corner posts, weaving a net of wattle between the rails, and finally applying daub plaster (Dickens 1967:34). At this point, I am not sure how well the archaeological evidence fits this picture.

After reviewing the slides and excavation notes, it seems that the structure is actually two small structures or, more likely, a single structure with two compartments, each measuring roughly eight feet by ten feet. That each compartment or room was built with rails or logs is indisputable; however, most of the daub plaster was associated with the northeastern room. At this point, I view the Townson structure as resembling a dogtrot cabin, comprised of two rooms separated by an open airy space (Figure 3). The room associated with the daub concentration may have provided sleeping quarters, whereas the more open room may have provided shelter for daily activities. This last area was where most of the artifacts were concentrated. Perhaps, this room also would have been more completely plastered with daub as the cold months of winter approached.

This is not to say that the cabin style was necessarily influenced by Euro-American designs, but many of the construction techniques reflect such influence. Brett H. Riggs (personal communication 2001) believes that the Townson structure compares favorably to bipartite or tripartite Cherokee "rail cabins" excavated at Keowee

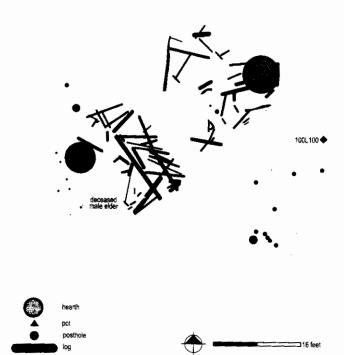


Figure 3. Map of the burned structure at Townson.

and Toxoway, Chota, Tomotly, and Hiwassee Old Town. The only problem with this comparison is that the Tennessee cabins were defined primarily by rather vague posthole patterns. Postholes were few and not associated with the main structural remains at Townson. Instead, the structure was defined by burned wall and roof rails. My feeling is that the Townson structure was created by stacking overlapping rails to create walls that were tied together at the corners. If posts were used in the construction, they were attached to the rails and not set in the ground—or they were set in the ground in very shallow postholes.

No matter the configuration of the Townson cabin, it was very different from the early eighteenth-century Cherokee structure excavated at the Tuckasegee site (Figure 4). In 1965 Coe and Keel argued that the Tuckasegee building was used as a public town house, an argument based primarily on the fact that it was circular rather than rectangular, the shape of known Cherokee domestic architecture at the time (Figure 5). The later discovery of rectangular town houses beneath Garden Creek Mound No. 1 and at the Coweeta Creek site added ambiguity to the interpretation of the Tuckasegee structure as ceremonial (Keel 1976:28-34).

Today, I am inclined to agree with Coe and Keel's (1965) initial assessment, although I have no new persuasive evidence, just a gut feeling based on the stark contrast between the Tuckasegee and Townson structures. This contrast and their close temporal proximity suggest fundamental functional differences, and there is little doubt that the Townson cabin served as a domicile. Alternatively, the Tuckasegee structure may represent a winter dwelling, similar to those found in the Overhill Towns of Tennessee. In North Carolina, however, paired summer/winter dwellings have not been found at sites such as Warren Wilson or Coweeta Creek where large village areas have been excavated.

The Artifacts

The artifacts chosen for analysis were found during the process of removing the daub, exposing the burned timbers, and cleaning the floor of the cabin. Except for potsherds and small items like glass beads, artifacts were given individual proveniences as they were uncovered. Although not formally analyzed, all artifacts from other contexts (e.g., plow zone and surface) were scrutinized for comparative purposes.

Stone Tools

Arrow points comprise the largest category of stone tools, with sixteen recovered. Except for one specimen of white quartz, all were chipped from a dark gray chert. Most of the points (n=10) are small and crudely made with a triangular outline. They average 20 mm in

length and 15 mm in width, about the size of a thumbnail. One specimen has a small irregular stem with a triangular blade. The quartz point has an asymmetrical lanceolate blade and a small tapering stem. Its thick (8 mm), bi-convex cross section gives it the appearance of a small Morrow Mountain point. It measures 41 by 15 mm. The remaining four specimens are relatively long, thin triangles, some 30 mm in length and 10 to 12 mm in width.

The most striking characteristic of these arrow points, as well as those from plow zone contexts, is their crudity. None could be described as finely made; rather they appear to have been flaked quickly with little attention to conformity (Figure 6, top two rows).

The most interesting stone artifact recovered from the cabin is a finely made combination end scraper and knife. The tool was crafted from a high quality chert blade with a dark honey-colored patina, steeply retouched on the end with a keeled profile. The lateral edges of the blade were carefully flaked to create a slightly serrated cutting edge. Secondary flaking along the end and the edges revealed fresh surfaces slightly lighter than the honey-colored patina. It measures 68 mm in length and 38 mm at its widest point, near the scraper end. This specimen would fit well in a Paleoindian tool kit and, although it is impossible to prove, I suspect that this beautiful tool was found, refurbished, and reused by the eighteenth-century inhabitants of the cabin (Figure 6, lower right).



Figure 4. The burned structure at Tuckasegee (see Keel 1976:29); note timbers radiating like wheel spokes from central hearth.



Figure 6. Artifacts from the Townson cabin floor (photograph by R. P. Stephen Davis, Jr., courtesy of the UNC Research Laboratories of Archaeology).

cm

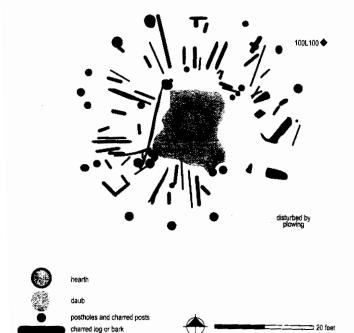


Figure 5. The burned structure at Tuckasegee.

According to Brett Riggs (personal communication 2001), stone arrow points and scrapers have not been found in other post-1750 Cherokee contexts. However, their unambiguous and undeniable association with the Townson structure provides solid evidence that at least some Cherokees maintained the art of flintknapping during the latter half of the eighteenth century.

Metal Tools

The blade end of an iron axe was recovered from the floor of the cabin. It is typical of the small trade axes widely distributed throughout the Contact period. To form these axes, a hot iron strap was folded around a mandrel to create a socket for the handle, the ends of the strap were hammered together to form the blade, and the blade was shaped and tapered to form a cutting edge. The specimen measures 11 cm (4.25 in.) in length and 6 cm (2.25 in.) at its maximum width. The break occurred at the base of the haft socket. In form and size the blade is nearly identical to those of trade axes from



Figure 7. Vessels from the Townson cabin floor (photograph by R. P. Stephen Davis, Jr., courtesy of the UNC Research Laboratories of Archaeology).

the early eighteenth-century Occaneechi village located in the central Piedmont (Carnes 1987:156). Its location on the floor of the cabin suggests that the broken axe was still being used as a light duty, hand-held cutting tool, or it could have been re-hafted with a split wooden handle that was not preserved. Either way the axe was recycled, which suggests that the availability of metal tools might have been somewhat restricted in the Cherokee Valley towns during the last decades of the eighteenth century.

Two metal pins were also found on the cabin floor. One is 7.5 cm long and slender, resembling a length of baling wire sharpened on one end. The other is 6.5 cm in length and also sharpened on one end, giving it the appearance of an 8d finishing nail. Both specimens are corroded and fragile. Neither has an eye, which suggests they functioned as pins or awls, not as needles.

Aboriginal Ceramics

Sherds from the floor of the Townson cabin are typical of those from other late Qualla phase sites, which means that mostly subtle traits distinguish them from early and middle Qualla phase ceramics. Both curvilinear and rectilinear stamps were applied as surface treatments. These designs, however, are bolder in form and more crudely executed than similar forms found on earlier Qualla pottery. Minority amounts of crude cordmarked, simple-stamped, and check-stamped pottery were also recovered from the cabin floor. Tempering materials consist of medium-to-large particles of grit or crushed stone. A small number of shell-tempered sherds were also recovered.

Four complete pottery vessels were found clustered together, just inside a cabin wall (Figure 7). The pots vary in size and surface treatment, but are similar in overall form—globular jars with broad shoulders and out-flaring rims. Some of the rims were folded, creating a rolled lip, and are unadorned. The folded rim on two vessels forms a fillet-like strip, notched much the same as middle Qualla rims. On the remaining vessels a simple clay strip was added below the lip and decorated with vertical notches.

Glass Artifacts

Over half of the 309 glass trade beads recovered from the cabin excavation are turquoise-colored seed beads. Green, white, yellow, and blue are also represented. A few cornaline d'Aleppo specimens complete the trade bead inventory. A thick fragment of dark green bottle glass had been retouched in much the same manner as the end scraper discussed above. No doubt the two tools served the same scraping and hide-working functions (Figure 6, lower left).

Ethnographic Setting

The old man sat at a table made of hickory limbs lashed tightly together with rawhide that had turned hard and brittle with the passage of time. As his elbows shifted, the table legs wobbled on the uneven dirt floor where his worldly possessions lay strewn around the edges of the cabin. He had heard the stories of the white soldiers coming, and at first had paid little attention. He was an old man and had heard these stories many times during the last days. His wisdom had told him to keep his peace. But this morning as the mist lifted to reveal the first hints of frost, he heard the guns crack again and again as their fiery message echoed off the mountain walls and crashed down the valley to his town, Chowa.

Chowa was a large place of scattered houses, each with its own cribs and sheds. This had not always been the way. He could remember his mother telling of the time when the clans lived close together in small towns that were sometimes surrounded by high fences. She had been born in such a town a day's journey east over the Nantahala, on the waters of the Tanase. During the old times, feuds among towns were common. The clans were weak and the people owed their first loyalties to their towns, which competed with one another for croplands and hunting territories. With the arrival of the Whites, they had come to see that one village was no match for the many foreigners who wanted their lands. Gradually the clans grew in strength to bring the people together to stand against the Whites. They learned quickly that their only hope for survival was as one people, not as many towns. As the feuds faded, the people spread out from the old towns and scattered their cabins along the valleys close to their fields. Though spread apart, they still came together as one in the townhouse and shared the sacred rituals of the new corn. Competition among towns was still felt, but instead of raids to steal and plunder, the men now fought their battles on the ball fields.

The wealthier people kept their cattle and horses in lots made of split rail fences and pampered them with grain and fodder. Those, like himself, with only one horse or a cow, kept them tied near their cabins where they could graze in a wide circle when their meager rations ran out. During the spring and summer, young boys often collected the cattle, each marked with the sign of its owner, and herded them into the lush coves to graze. Here they would spend many weeks, watching the animals and honing their skills as hunters and trappers. He thought back to the days when he had gone into the coves with the cattle. These were happy times when boys turned into men, and the bonds of friendship grew strong around their hearts.

Faint wisps of light gray smoke from the small fire he had made the night before now drifted in thin layers

between the ridgepoles of the cabin. The sight of the smoke took him away from the cattle and the coves and into the big townhouse where he had often sat with the elders and leaders of the clans. Sometimes visitors from far away joined their clan brothers in the townhouse and told of happenings in their towns. For most of his life, this news brought stories of the white men. For long hours they sat together before the council fire whose smoke mixed with the sacred puffs from the old pipes they carefully passed among themselves. He remembered all the smoke coming together in thick layers around the roof of the townhouse, making their minds one as they remembered the past and pondered the future. At first they talked of the traders, the goods they had to offer, and those who cheated and those who did not. As time passed, the talk turned to the wars between the white men and how their people could survive as these strangers fought over their soil.

Now he stirred uneasily on the hard cowhide seat of the old oak-framed chair. The chair, like the table, was fashioned in the white man's style. This seemed to him a natural thing since the cabin he now lived in was also a rough copy of the log cabins the white settlers built so easily and quickly as they arrived in ever-increasing numbers. When he was younger he had wondered how so many could come so quickly. At first he thought little about why they were coming. The coming itself was mystery enough to ponder. Now he knew they wanted the land.

The traders who had come before the settlers brought many things his people could use—pots that would not break, knives that would not dull, and beads of many colors like the dew on a morning cobweb. And they brought guns, whose fire and thunder soon replaced the swift silence of the bow and arrow. When he was a boy, only a few of his people had these things, and the white traders were seldom seen. But by the time he was a young man, many traders had come and many had settled in the towns of his people. Some took wives and were adopted by the clans. He had wondered how could the white men see with their pale eyes and how could they smell with their narrow nostrils.

Even stranger than the new tools the traders brought were the animals that traveled with them. Their horses could carry more weight than ten men, and they were content with their burdens, only wanting water and a little fodder at the end of the day. As the traders settled down in the towns, they brought other strange creatures with them—cows who were as strong as horses but not fit to ride, chickens who had feathers like birds but could not fly, and pigs who talked to the earth as they rooted for grubs and nuts. Soon his people desired these beasts even more than the traders' tools and trinkets. Milk and butter from the cows' udders nourished the children during lean times. The chickens laid eggs in nests that were easy to find and required little in

return for their bounty. And the flesh from the pig was sweeter than that of any of the animals hunted by his people.

As these thoughts of the past wandered through his mind, the old man's eyes glanced around the split rail logs that formed the walls of his cabin. Cracks between the rails were chinked with clay and the small window was covered with a piece of heavy duffel to keep out the cool night air of early autumn. The duffel had once been part of a blanket that covered his old corn shuck-filled pallet. But, like him, the blanket had worn thin with age and was no longer useful except in this secondhand way.

His head lowered in a nod, and he sighed as he noticed the clay pots nestled in the corner across from his table. They were gifts from his granddaughter. She had tried to make them in the old way using the guiding hands of her grandmother before she passed to the Ghost country. Tears welled in his eyes as he studied the awkward innocence of their style, crude but true to the traditions his mother had carefully followed so many years ago.

He rose from the chair and coaxed his bent legs to shuffle his body to the door of the cabin. The weathered planks of the door rested on thick leather hinges, which allowed him easy access to the fresh morning air. Now, instead of the sweet smell of fall, his nostrils narrowed to the acrid smell of smoke and gunpowder. He walked carefully around the corner of the cabin to get a view of the valley behind him. His tired eyes squinted in the light and tried to focus on the source of the noise and fury that were now clear in his ears.

Most of his people had left the village. Many of the men and some of the women without children had joined a war party to prepare an ambush for the soldiers as they crossed the Wayah Gap over the ridge of Nantahala. Others had packed horses and cattle with food and provisions. With the women and children, they had herded the animals into the deep woods to hide until this misery had passed. Even though most of the people had gone away except a few like himself, this did not keep the white soldiers from firing their muskets into the cabins as they set them ablaze with torches of pitch pine knots. As he looked around the corner of the cabin, he could now see flames leaping across the fields of newly dried corn stalks yet to be harvested. Some of the soldiers were using their metal tomahawks to hack down the peach trees whose fruit had pleased his mouth so many times.

He placed his hand against the cabin wall to steady the reeling in his head, as his heart felt what his eyes saw. His arm brushed against the fresh rabbit pelts he had stretched against the wall to dry. They were to give him new linings for his moccasins and warm his gnarled feet during the coming winter. Now he knew there would be no coming winter for him. The sadness that almost brought him to his knees was not for himself but for his people, his children, and their children. As he stumbled against the cabin wall, pulling himself back through the door, he felt a searing explosion through the center of his chest. The old man fell on the dusty floor as a bright blurred vision of orange flooded the back of his eyes. The heaves for breath grew shallow. Soon no air reached the depths of his chest and the brilliant orange faded to the black of death.

Notes

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THE REDNECK RIDER OF THE RLA

(a sensitive, Seussian kinda poem)

First, from a distance, came the roar of the bike.
Was it a dark apparition or just bad sight?
The vision flashed by me in a split second shot.
And there on the Harley, he was crouched atop.

I managed to step aside in the nick of time And shield my eyes from the dusty rime Of his sudden stop.

As the swirling bits settled and the engine grew quiet, I slowly opened my eyes to inspect the riot, Of black leather this and black leather that And a bright red bandana instead of a hat.

In a smooth move, he swung a leg over the metal horse And stood there looking, with a smirk, of course Before he spoke to us.

Across the site all trowels stopped in mid-stroke. The sifters glided to a halt as dirt clods broke. In flight from the toss of stub-nosed spades, As all faces turned to hear what the rider bade.

"Just dropped by to see what all you've found. Sure looks like hard digging in that tough ground." Glances exchanged, but no sound.

"Well kids, in my day, we mostly did Zone, PLOW ZONE, that is." There was chide in his tone. He ambled on over towards the squared-off hole And pondered the parts and then the whole.

His ruddy face reddened, and his glasses steamed In the heat of the day as the sunshine beamed Down on us all struck silent in his presence. Hanging on his every word and leathery essence.

"Guess I'll leave you to it" was his parting swipe,
"It's time for my Gatorade and maybe a bite
Of home-cooked hawg."

With black helmet donned and jacket snapped tight Over his ample belly, he was a frightful to my sight. We stood there in awe as he revved up and away, Knowing we'd survived The Redneck Rider of the RLA.

> To Tra from Linda C-M December 2, 2000

SOUTHEASTERN ARCHAEOLOGICAL CONFERENCE SPECIAL PUBLICATION 7

THE ARCHAEOLOGY OF NATIVE NORTH CAROLINA: PAPERS IN HONOR OF H. TRAWICK WARD

edited by Jane M. Eastman, Christopher B. Rodning, and Edmond A. Boudreaux III

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