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# *Southern Indian Studies*

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## Probable Pee Dee Phase Burials From SoC<sup>v</sup>8, Marlboro County, South Carolina

S. Homes Hogue  
Michael Trinkley

Since the early 1950's the Research Laboratories of Anthropology at the University of North Carolina have conducted intermittent surveys in Chesterfield and Marlboro Counties, South Carolina to seek information on the villages of the historic Sara or Cheraw Indians, known to have been in South Carolina about 1716 (Lewis 1951, Wilson 1981). Site SoC<sup>v</sup>8 was originally recorded in May 1958 during one such brief survey and at that early stage of research the site was felt to represent a mixing of "Siouan elements with [those from the] Pee Dee time period" (Stanley South, notes on file, Research Laboratories of Anthropology). The site is situated in Marlboro County, about 1.5 miles from Cheraw on a sandy ridge parallel the Pee Dee River. Artifact scatter is found over about four acres with two apparent concentrations, both adjacent to the woodline (Figure 1).

To the east Husbands Creek flows northerly to join Hicks Creek, which bounds the site on the north and flows into the Pee Dee River. Although not shown on the 1957 aerial photography used by Craft (1965) or on the 1937 aerial photograph of the site area (SCS-PH6-53) a small branch of Husbands Creek today empties into the Pee Dee River south of SoC<sup>v</sup>8. This recent course may be a result of attempts to improve drainage in the field.

SoC<sup>v</sup>8 is situated on a natural levee of well drained Congaree fine sandy loam (Craft 1965). This series, found on the highest areas of the floodplain, is an alluvial soil occasionally flooded in the winter and spring. These soils have been modified very little and show little horizonation. Generally there is a surface layer of brown sandy loam overlaying a stratified yellowish-brown subsoil. To the east of this site there is a large area of Chewecula silt loam, similar to the Congaree Series except less well-drained. Along the Pee Dee River to the west is a thin band of Flint fine sandy loam with a fine clay loam surface overlaying a clay subsoil.

The elevation of the Congaree sand ridge, within the Pee Dee River floodplain, is about 100 feet MSL. Based on current information, this site would not be flooded by the ten-year floods, but would be inundated by the 50-year, 100-year, and 500-year floods (United States Department of Housing and Urban Development 1978). The 1945 flood reached a stage of 107.3 feet MSL, which exceeded the expected 100-year flood and is the highest known flood in the area (United States Department of Housing and Urban Development 1978:4). The elevation of the site and the relative-

ly low average suspended sediment concentrations of the Pee Dee River in this area (United States Department of Agriculture 1979) apparently are responsible for the relatively thin alluvium deposit on the site.

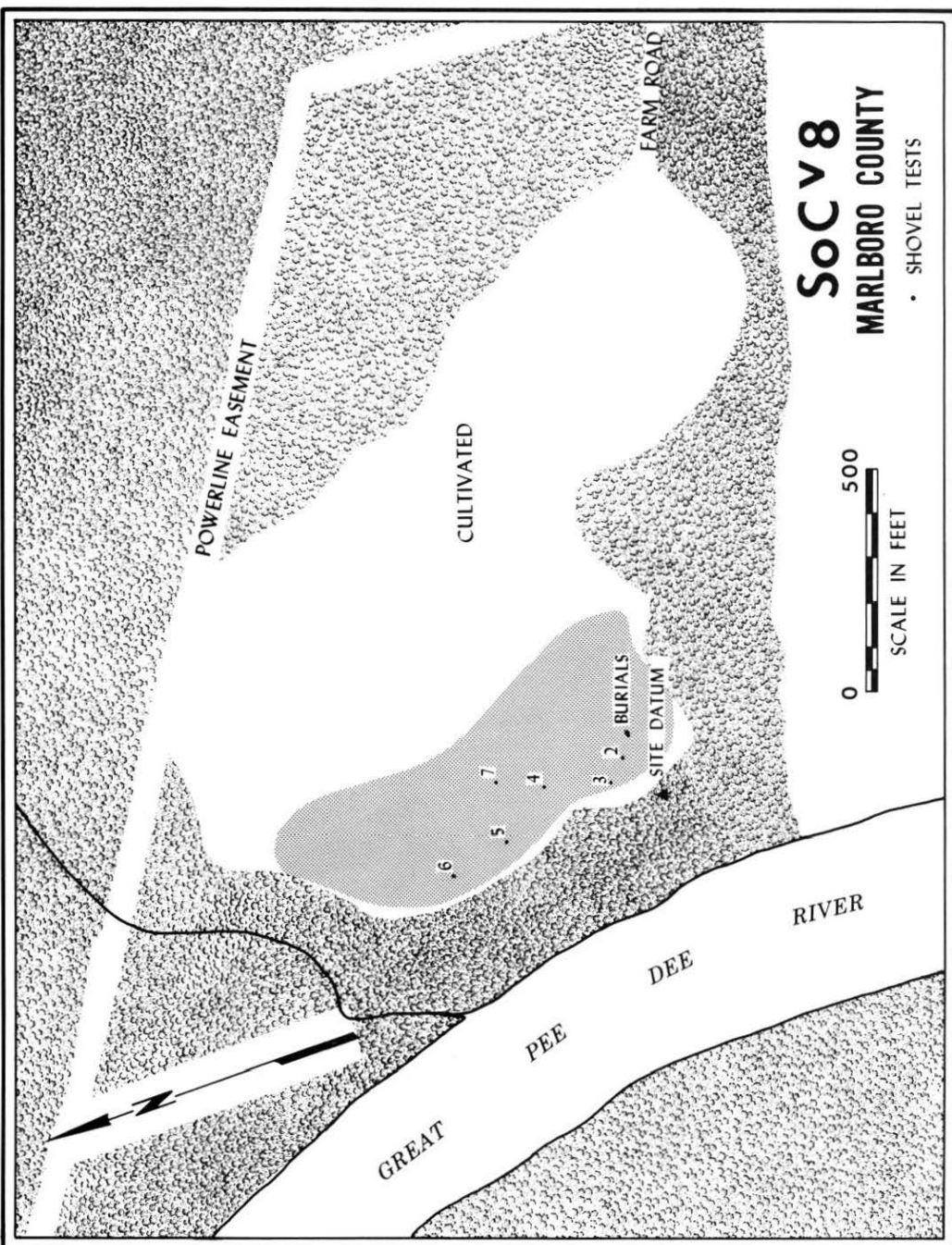
At the time of South's visit in 1958 there was a heavy crop of soybeans which prevented good surface visibility and collection conditions. Through the use of a probe and the excavation of several tests, a modest collection of pottery was obtained, including one reconstructable vessel (Figure 2). These techniques also allowed the discovery of a midden "on the main rise of the site," about 1.0 to 1.5 feet thick underlying about 0.8 foot of plowzone, which contained "sherds, bone, [and] stone" (Stanley South, notes on file, Research Laboratories of Anthropology).

On several occasions during the spring of 1981 this site was surface collected, and it was discovered that SoC<sup>v</sup>8 was to be subsoiled, probably for the first time, in late May. At the end of May 1981 the site was surface collected after the subsoil plowing and an attempt was made to relocate South's midden through shovel testing. Despite the subsoiling, only a modest amount of material was collected, although an increased density of surface material than previously found was noted. A series of seven shovel tests were excavated in the sandy rise comprising the approximate site limits (Figure 1). Each test was carried to a light tan or yellow sand which represents the C1 horizon of the Congaree Series. The first test, placed about 70 feet east of the treeline in the southern portion of the field, produced human teeth, mandible, and maxilla fragments from the tan sand zone about 0.5 foot below the plowzone. This shovel test was fortuitously placed to intersect the skull of Burial 1, discussed below.

The remaining six shovel tests revealed a mixed and complex stratigraphy at SoC<sup>v</sup>8 that will only be understood through large scale excavations. Tests 4, 6, and 7, did, however, produce a dark brown loamy sand underlying the light brown plowzone and overlaying a light tan or yellow sand. This intervening level, which varies in depth from 0.2 to 1.3 feet appears to be the "midden" reported by South, although it did not seem to contain the quantity of materials to be expected in a true midden. The distribution of this feature is also unusual, being confined to only the central portion of the field adjacent to the woodline. The greatest depth of this level was found in test 6, down slope from tests 5 and 7. Consequently, it may represent erosional redeposition from the higher elevations. In all tests the plowzone appears to be composed of primarily sterile alluvial deposits.

## BURIAL DATA

The salvage excavation of Burials 1 and 2 was undertaken because of their shallow position and the resultant exposure to agricultural damage. The burials also provided an opportunity to obtain additional data from this site for use in ongoing Pee Dee and Sara research at Chapel Hill. The





**Figure 2.** Pee Dee Complicated Stamped bowl from Soc<sup>v</sup>8, concentric circle motif.



**Figure 3.** Burial 1, exposed. Skeleton is oriented with its head to the east.

removal of the burials took place on June 5, 1981. They were horizontally located with reference to a site datum placed in the woodline. This datum was assigned an assumed elevation of 100 feet and vertical control was in reference to this datum.

Lying on its back, Burial 1 was in a semi-flexed position (Figure 3). The arms extended toward the pelvis; the right humerus and forearm paralleled the body while the left arm was bent at the elbow. The condition of the remains was very poor. A large percentage of the ribs and vertebrae had decomposed and were represented only by stain. The bones of the feet had also decomposed, but no stain could be observed to determine their position. Large portions of the right tibia and fibula were also absent. Overall, the post-cranial remains were fragmented, exhibiting signs of deterioration because of erosion.

The cranial remains consisted of a mandible and fragments of the maxilla. The skull, as mentioned earlier, had been disturbed during the first shovel test. This disturbance, combined with the poor condition of the cranium, left little cranial material to be exposed.

A ground stone celt was found positioned in the area of the innominate and hands. The bones in this area were blocked out in soil as the presence of the celt along with the poor condition of the bone made a thorough cleaning difficult. Charcoal, containing fragments of burned animal bone, was also present in this area.

Located to the north of burial 1 was a cluster of sub-adult dental remains, identified as Burial 2 (Figure 4). No other bones or stains were associated with these remains. For this reason the dental material was blocked out in soil and removed as a unit for examination at a later date.

No burial pit edge could be observed on top of the subsoil so an arbitrary pit edge was kept. It is possible that leaching of the soil had removed any evidence of a burial pit. Because of this condition it was not apparent whether one burial intruded into the other or if two individuals were represented in one burial. All burial fill was screened through one-eighth inch screen. The presence of a reddish clay lens was noted directly above the remains. Soil samples were kept from this clay fill and the charcoal fill located in the innominate area.

Because of the poor preservation and fragmented condition of the skeletal remains of Burial 1, most of the bones were removed in a soil matrix to prevent further damage. The innominate area, the cranial material, and the cluster of teeth representing Burial 2 were taken up in blocks of soil. The remains from both burials were analyzed at the Research Laboratories of Anthropology at the University of North Carolina at Chapel Hill.

In the lab the skeletal materials were cleaned and the cranial and dental remains treated with a mixture of gelva, acetone, and Duco Cement. The post cranial remains of Burial 1 were so fragmented that no preservative was applied.



Among the morphological traits diagnostic of sex is the shape of the mandible. The female chin is rounded with a point in the center while the male chin is generally more square (Bass 1973:73). The mandible in Burial 1 exhibits characteristics that more closely resemble a female than a male. Figures 5, 6, and 7 compare the SoC<sup>v</sup>8 Burial 1 mandible with three Pee Dee mandibles from Town Creek (Mg<sup>v</sup>3). Town Creek Burial 50 (mandible A) represents a male, while Town Creek Burials 119 and 95 (mandibles B and C) are both female.

Another trait is that the symphysis of the mandible is higher in males than in females (Krogman 1978:115). The mandible from SoC<sup>v</sup>8 and the three mandibles from Town Creek were measured for symphyseal height, resulting in the following: A (Mg<sup>v</sup>3) - 42 mm, B (Mg<sup>v</sup>3) - 31 mm, C (Mg<sup>v</sup>3) - 38 mm, D (SoC<sup>v</sup>8) - 31 mm. Using these data, it appears that SoC<sup>v</sup>8 is probably a female.

By using discriminant function analysis of measurements taken on the mandible, Giles (1964:129-135) devised a method for determining sex. Three measurements are used: 1) the mandibular symphysis height, 2) the mandibular ramus height, and 3) the bigonial diameter. These measurements were computed for the four mandibles, inserted into Giles' formula, and compared with the results calculated by Giles for males and females of white, black, and combined white and black populations. It was necessary, however, to estimate the ramus height of the SoC<sup>v</sup>8 mandible and this, coupled with the poor condition of the bone, may slightly alter the measurements. The results, listed in Table 1, indicated that Burial 1 is probably female.

Among other portions of the skeleton useful in determining sex is the pelvis. Observations of the auricular area of a large right innominate fragment indicate that the individual present in Burial 1 is probably female (see Ubelaker 1978:42-43).

A final study in the attempt to sex the individual involved the measurement of the circumference of the femoral mid-shaft. The measurement was then compared with the computations devised by Dibennardo and Taylor (1979:637-639) in which a measurement greater than or equal to 86 mm indicates a male and a circumference of less than or equal to 85 mm indicates a female. A large fragment of the left femoral mid-shaft was measured, resulting in a circumference of 82 mm. This lies well within the range noted for females.

The age at the time of death of Burial 1 was determined by dental development and attrition. The third molars of both the mandible and maxilla are fully erupted, a condition usually occurring at 21 years (Ubelaker 1978:113). All molars exhibit cusp wear indicating that the individual was between 26 and 35 years of age at the time of death. It is important to note that diet, environment, rates of attrition, and other factors contribute to tooth wear. As such, attrition is not considered to be a very reliable indicator of age (Ubelaker 1978:63-64).



Figure 4. Burial 2, exposed. View is overhead, with Burial 1 to the right or south.

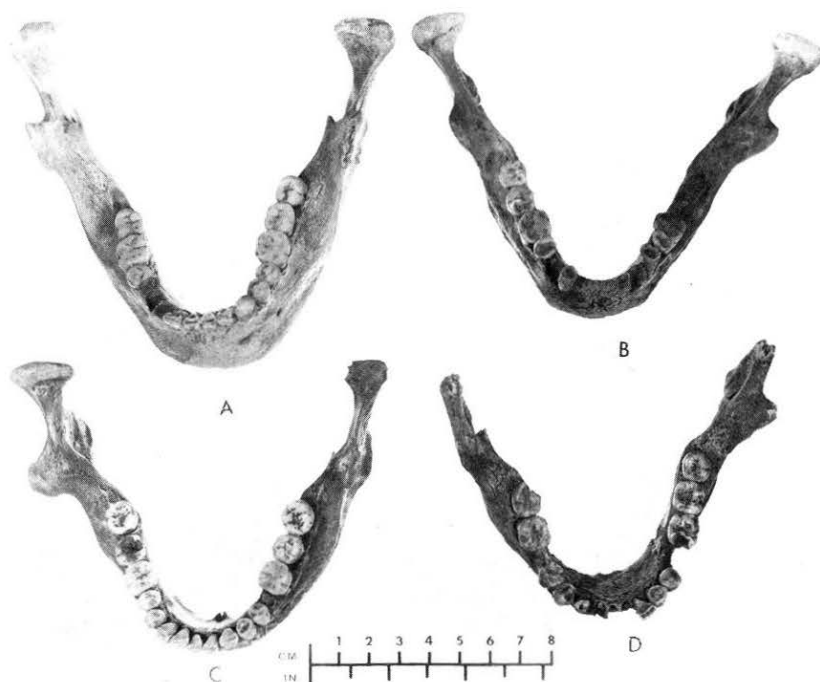
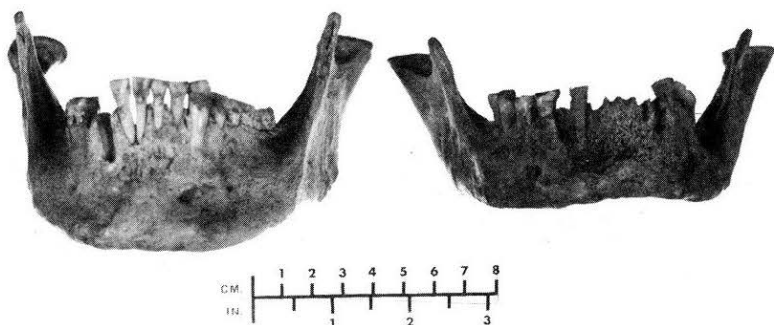
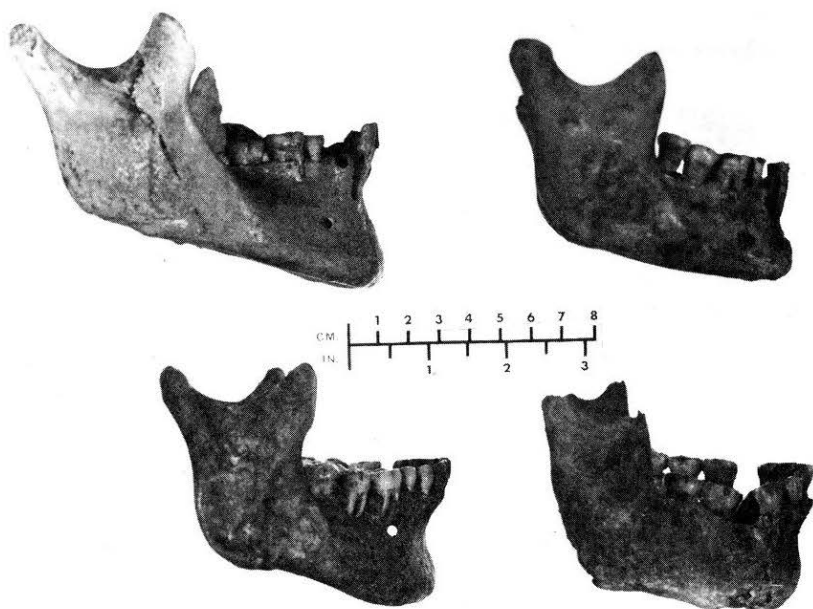


Figure 5. Top view of mandibles. A, Mg<sup>v</sup>3 Burial 50; B, Mg<sup>v</sup>3 Burial 119; C, Mg<sup>v</sup>3 Burial 95; D, SoC<sup>v</sup>8 Burial 1.



**Figure 6.** Front view of mandibles. Upper left, Mg<sup>V</sup>3 Burial 50; upper right, Mg<sup>V</sup>3 Burial 119; lower left, Mg<sup>V</sup>3 Burial 95; lower right, SoC<sup>V</sup>8 Burial 1.



**Figure 7.** Side view of mandibles. Upper left, Mg<sup>V</sup>3 Burial 50; upper right Mg<sup>V</sup>3 Burial 119; lower left, Mg<sup>V</sup>3 Burial 95; lower right, SoC<sup>V</sup>8 Burial 1.

Table 1. Discriminant function analysis of measurements taken on the mandible, all measurements in mm.

Sectioning points, means, and 0.05 probability levels for three discriminant functions using three measurements (Giles 1964:132)

	White	Black	Combined
Male 0.05 level	306.93	279.03	276.53
Male mean	302.25	278.36	274.48
SECTIONING POINT	287.43	265.74	261.83
Female mean	272.60	253.13	249.19
Female 0.05 level	256.99	240.19	236.60
Computed measurements of the symphysis height, mandibular ramus height, and bigonial diameter			
A Mg <sup>v</sup> 3, Burial 50	307.228	281.240	276.968
B Mg <sup>v</sup> 3, Burial 119	278.330	256.315	252.791
C Mg <sup>v</sup> 3, Burial 95	301.364	276.875	272.899
D SoC <sup>v</sup> 8, Burial 1	277.330	255.315	251.788



Located to the north of Burial 1 were the dental remains of a sub-adult, Burial 2. No post cranial material associated with this burial was present. The teeth were taken up in a block, as mentioned earlier, in order to be examined in the lab. There the block was screened in water to remove the soil surrounding the teeth. This process was used as the soil had become hard, making it difficult to clean around the remains without further damaging them. During this screening process additional cranial material, in poor condition, was recovered. Only the right and left petrous portions could be identified.

The dental remains included both deciduous and permanent teeth. The deciduous teeth were in very poor condition and often fragmented. Seven deciduous teeth could be identified; five of the seven were mandibular, while the remaining two were maxillary. Fragments of deciduous molars, incisors, and canines could also be recognized, but location and position could not be determined.

In examining the permanent teeth, 12 were probably maxillary and six mandibular. No caries were present on the teeth. The incisors were shovel shaped, a characteristic common to the American Indian. One interesting observation was seen in the upper left lateral incisor. The development of the cingulum and the marginal ridges was such that the tooth appears barrel shaped (Lasker and Lee 1957:404)(Figure 8).

Using the scheme of dental development devised by Ubelaker (1978:112-113) for American Indians, the age of the individual represented in Burial 2 is estimated to be four or five years. Ubelaker (1978:112) gives a plus and minus factor averaging 14 months for these ages. Therefore, the age of this individual could be anywhere from 3 to 6½ years old at the time of death.

No attempt was made to sex the individual present in Burial 2. The probability of accurately sexing a sub-adult is generally low even when the entire skeleton is present (Ubelaker 1978:41-42). Given the lack of skeletal remains, such an attempt would be futile for Burial 2.

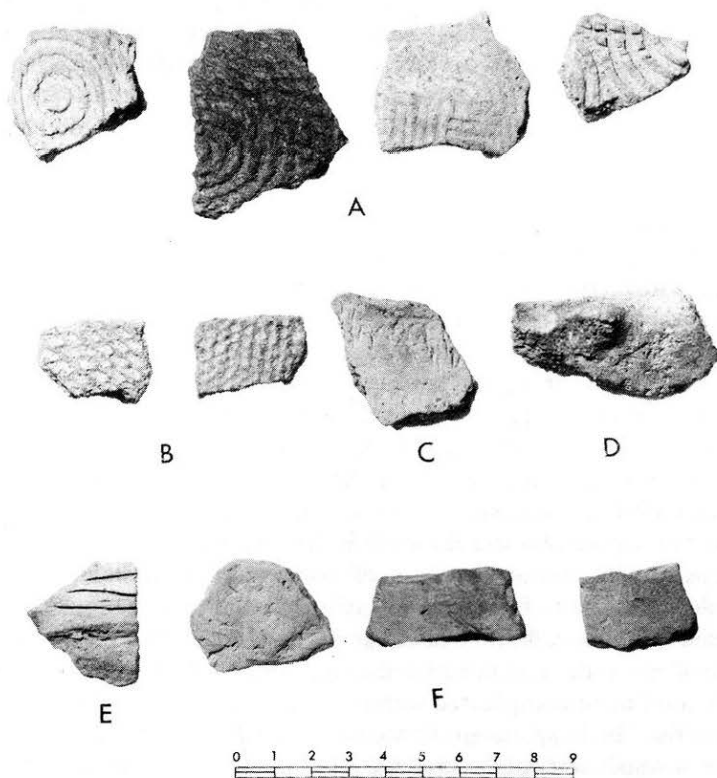
### POTTERY DATA

This analysis tabulates only the 239 sherds collected at SoC<sup>v</sup>8 during the recent investigations, although several earlier collections have been examined. All material from the various collections is similar and the pottery discussed in this article, while a small sample, appears to be representative. At this time, no material from controlled excavations or from specific site areas is available for analysis.

Three wares of pottery, based primarily on temper and paste characteristics, could be discerned in the sample. Two wares represent Late Woodland typological entities or Series, while the third, not discussed in this article, probably represents a mixture of earlier Middle Woodland pottery.



**Figure 8.** Central and lateral maxillary incisors of SoCv8 Burial 2. Note the development of the cingulum of the left lateral incisor (far left) which gives the tooth a barrel shaped appearance when compared to the remaining shovel shaped incisors.



**Figure 9.** Pottery from SoCv8. A. Pee Dee Complicated Stamp, B. Pee Dee Textile Wrapped, C. Pee Dee Plain, with corn cob impressions at the rim, D. Pee Dee Plain, carinated rim, E. Catawba Smoothed, incised rim, F. Catawba Smoothed.

The Late Woodland pottery includes the Pee Dee Series (Coe 1952, Reid 1967) which accounts for 228 sherds and the Catawba Series (Joffre Coe, personal communication) which accounts for six sherds. The Middle Woodland mixture includes five sherds.

The Pee Dee Series is characterized by a paste with quantities of medium to coarse, rounded quartz grains. A few sherds have very coarse or pebble inclusions. The temper is most noticeable on the interior of the sherds, which have a rough, grainy feel and appearance. The paste is similar to that described for the Town Creek material (Reid 1967:42) and has a sugary texture in cross section. The slight variations in the paste from Town Creek and Soc<sup>v</sup>8 may be attributed to differences in clay sources. The same mental template, however, appears to have been operative. The colors of this pottery range from very pale brown through reddish brown to very dark gray. The interiors are only slightly darker in color and firing has produced numerous fire clouds. The interior surface treatment ranges from rough to smooth, with most evidencing careless smoothing that fails to cover the larger inclusions. The exterior of the pottery was also smoothed, but only a few specimens may be classified as imperfectly polished or burnished.

Surface treatment includes check stamped (2 sherds), corn cob marked (1 sherd), simple stamped (1 sherd), textile wrapped (6 sherds), complicated stamped (111 sherds), and plain (84 sherds). Eroded surfaces were found on 23 specimens. The check stamped, corn cob marked, textile wrapped, plain, and complicated stamped motifs have been previously described by Reid (1967:3-9). The simple stamped specimen is cross stamped with what appears to be a carved paddle. The grooves vary from narrow to broad (0.7 to 1.8 mm) and have straight edges.

The fillet cross, arc-angle, herring bone, and concentric circle stamps were observed on the complicated stamped sherds. Most, however, were over stamped or faint and could not be adequately classified. The stamps show a wide range from distinct to sloppy and several sherds indicated smoothing after application of the stamp. The lands average 1.5 to 3.0 mm, the grooves average 2.0 to 3.0 mm in width and about 1.0 mm in depth. Only one sherd shows any evidence of wood grain in the stamp.

No decoration was found on any of the complicated stamped sherds examined from this collection, although previous collections show a low incidence of rim nodes and punctations. One example of a pellet was recovered. A total of 14 complicated stamped and 18 plain rims were found in the collection. Eight specimens fit the Group C type of Reid (1967:42) with straight or nearly vertical rim profiles. Two specimens exhibit a slight eversion and fit Reid's (1967:42) Group B rim form. One specimen of a carinated bowl rim was found (Group D). This sherd also had a shaped pellet on the shoulder. Lips are generally flattened, although a few rounded specimens were found.

A temporal assessment of this collection is difficult because of its small size. Reid (1967:56-59) notes that there is a decline in complicated stamped material from the pre-mound humus to the mound debris at Town Creek. As complicated stamping declines, there is a rise in the popularity of the plain finish. In the late Town Creek mound debris complicated stamped pottery accounts for 62.84% of the collection, while plain pottery accounts for 25.36%. At SoC<sup>v</sup>8, 56% of the collection is complicated stamped and 38% is plain. The concentric circle motif is found early, while the filfot stamp and textile wrapped motifs increase through time. Although decoration is more prevalent in the late time periods, with rosettes and rim fillets particularly common in the mound debris layer at Town Creek, the SoC<sup>v</sup>8 collection is very small and may not accurately reflect the incidence of rim decorations.

Coe (Joffre Coe, personal communication) agrees with the assessment that the collection represents late or "post classic" Pee Dee, primarily based on the motifs encountered. Consequently, a date around A.D. 1550-1600 may be reasonable for SoC<sup>v</sup>8. In conjunction with the pottery, there is the ground stone celt recovered from Burial 1. This celt is typical of those associated with the Pee Dee Phase and, based on size, is prehistoric (Joffre Coe, personal communication). No trade goods have been found at the site, further supporting a late sixteenth century date.

The minority ware at the site consists of only six sherds. This material has been tentatively called the Catawba Series, based on work and surface collections from a variety of Catawba sites in both North and South Carolina. The pottery is also similar to the Hillsboro Series of North Carolina (Coe 1952: 311, Gardner 1980:74-76). Characteristic of the Series is a fine clay paste with few or no inclusions. Sherds have a fine texture and may glisten from small quartz grains or mica. They have a hardness of 3.0 to 3.5 and colors which range from gray-brown to light brown. They are well fired, although fire clouding is present. The sherds are occasionally a uniform color throughout, but a darker core, suggestive of incomplete oxidation, is common. The interior and exterior surfaces are smoothed, with some classified as imperfectly polished. All but one of the sherds from SoC<sup>v</sup>8 were plain, although some cord marked, simple stamped, and complicated stamped sherds are found at sites in York County, South Carolina. One specimen of parallel rim incising was recovered from SoC<sup>v</sup>8. The pottery has a body thickness varying from 6 to 8 mm. The one rim recovered is slightly excurvate with a flattened lip.

This pottery, on at present circumstantial grounds, is believed to be the product of early eighteenth century Siouan groups from North Carolina, probably the Sara or Cheraw Indians. The small quantity recovered from SoC<sup>v</sup>8 suggests the presence of a small hamlet, but not the large concentration of population expected by a review of the historic documents (Jack H. Wilson, Jr., personal communication).



## SUMMARY

These descriptive data provide additional documentation of the widespread Pee Dee culture in the South Carolina coastal plain during the fifteenth and sixteenth centuries A.D. The recent studies at SoC<sup>v</sup>8 suggest that the site is a small Pee Dee Phase village dating to the last half of the sixteenth century, prior to European contact. Recovered from the site is a quantity of Pee Dee pottery, identical to the material from Town Creek discussed by Coe (1952) and Reid (1967). Also salvaged during the summer of 1981 were two burials, tentatively associated with the Pee Dee occupation. This association is based primarily on the pottery in the grave fill, the Pee Dee ground stone celt, and the flexed position of Burial 1, rather than on any morphological attributes of the skeletal material, which was poorly preserved. Burial 1, a female about 26 to 35 years old at death, was accompanied by a ground stone celt. Burial 2, a sub-adult ranging in age from three to six and one-half years, was found immediately north of Burial 1, although it is not possible to speculate on their association.

After the end of the Pee Dee occupation, SoC<sup>v</sup>8, like Town Creek (see Coe 1952), was apparently abandoned only to be reoccupied by a Siouan population, probably the Sara from North Carolina. The existing evidence, however, indicates a very light Sara occupation, not at an intensity to suggest the Sara Village indicated by ethnohistoric documents.

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## Archaeological Testing at 9Ri(DOT)3: A Late Archaic Camp Site in the Central Savannah River Valley<sup>1</sup>

William R. Bowen

In the Spring of 1979 an intensive archaeological survey for Georgia Department of Transportation Project RR-0001(001), the Augusta Railroad Relocation Demonstration Project in Richmond County, Georgia (Bowen 1979; Bowen and Crawford 1979), was conducted, utilizing a Phase I (intensive surface inspection) and Phase II (subsurface testing) survey approach. During the intensive surface inspection phase, a site was located just south of Augusta on the Savannah River floodplain in a large field and situated on a slight rise on the outside edge of an ancient meander scar through which Beaver Dam Ditch/Creek has been channeled (Figures 1 and 2). This meander scar is the first of a series of three which parallel the Savannah River flowing approximately one-half mile to the east. This site was given the Agency designation 9Ri(DOT)3 and named the Thompson Farm site due to its location on the farm of Charles and Harold Thompson of Augusta.

Too much effort has been expended elsewhere to attempt a synthesis of environmental data for this report (cf. Bowen 1979, Elliott and Doyon 1981, and Hillestad 1977). Generally, the site is located in the Sand Hills physiographic province just south of the Fall Line and the specific area in which the site is located appears to fall within Wharton's (1978:40-58) "Alluvial River and Swamp System" of the Coastal Plain. Suffice it to say the area is abundant with floral and faunal resources which would have been readily available at various times of the year and the site's location adjacent to an active channel or oxbow provided a locus from which the entire surrounding riverine environment could have been exploited.

At the time of survey, heavy rains and the resulting ground wetness had prevented cultivation, and the field was fallow, being moderately to excessively covered in Johnson grass and other grasses and weeds. This overgrowth prevented any rigorous, systematic surface collection, but a careful pedestrian examination revealed cultural debris over an approximate five acre tract of land following the contour of the meander scar. This material was thinly scattered except for a dense artifact concentration in the southwest corner of the site. Materials recovered from this collection indicate

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<sup>1</sup>Because the proposed limits of construction have, since this testing, been moved well clear of 9Ri(DOT)3 (and the site will, therefore, receive no impacts as a result of the construction project), it will receive no further investigation at this time as part of the mitigation phase of the overall archaeological project. For this reason the testing results are presented here so that what data have been gathered can be disseminated to the archaeological community.



Figure 1. Aerial photograph showing the locating of 9Ri(DOT)3 on the Savannah River floodplain south of Augusta. Note location of meander scars and distance to present channel.

Late Archaic, Woodland, and historic components. Surface artifacts include chert and quartz debitage, Savannah River-type points of chert, quartz, and the metavolcanic rock phyllite, chert and quartz cruciform drill fragments, worked pieces of steatite ("net-sinker"- "boiling stone" fragments), worked shale (including a gorget fragment), and other stone tools (Figure 3). Also in the surface collection are numerous pottery sherds. These are predominantly representative of sand-tempered wares and include plain, check stamping, simple stamping, cording marking, and complicated stamping (Figure 4). Fired clay, blue glass, and alkaline glazed stoneware were recovered, also. The variety and denseness of materials not

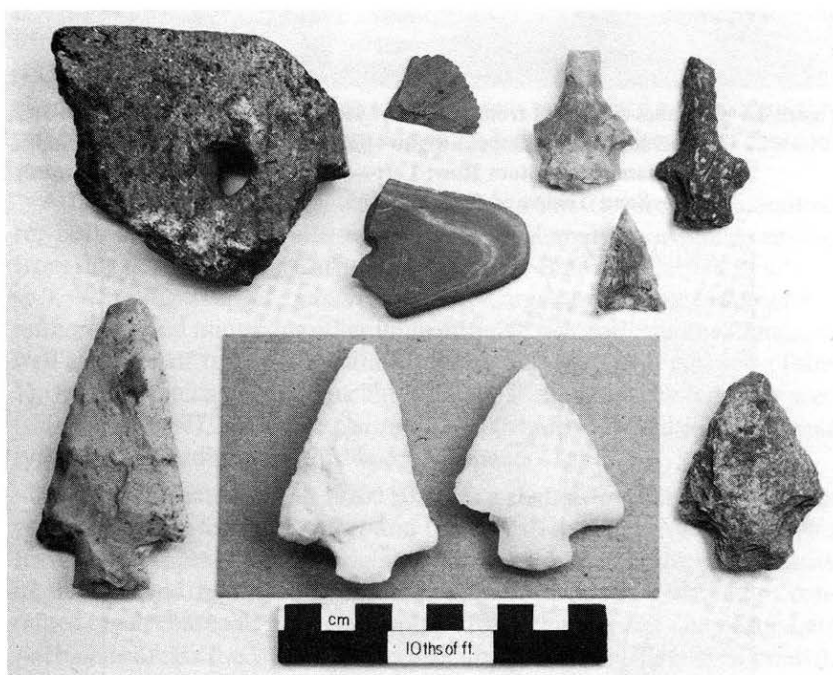




Figure 2. Site 9Ri(DOT)3 looking north from datum. Meander scar is in trees to the left. Note silo in right background.

only promised the possibility of chronological and functional studies, but the site location (i.e., on a floodplain and old natural levee) and darkness of the soil compared to the surrounding area, indicated the potential for intact buried strata. With such in mind, testing was undertaken.

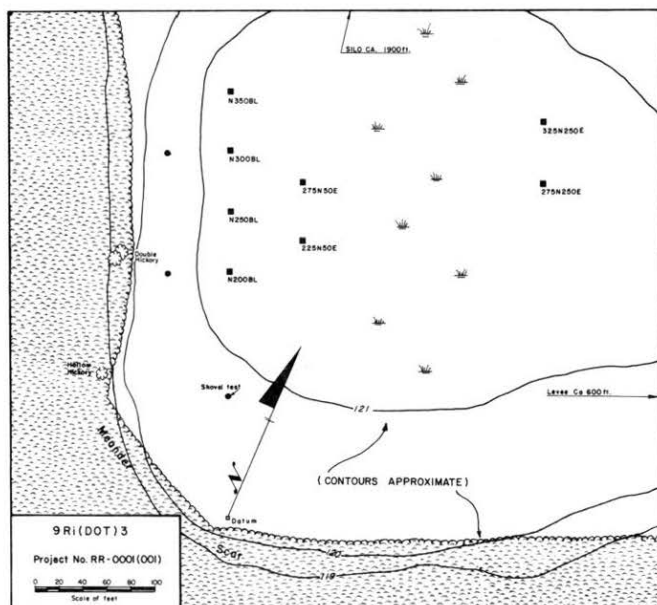
The purpose of this testing program was to identify basic site integrity, general structure, boundaries, and cultural affiliation(s). To accomplish this testing a datum was established in the southwest corner of the field and tied to one man-made (silo) and two natural (hickory trees) features. From this datum a base line (BL) was run, at an orientation of 23°30' west of north, through the center of the area where the surface materials were most heavily concentrated, and eight five-by-five foot square test units and three shovel tests were staked along and at offsets from the base line (Figure 5). Excavation of these units by natural levels revealed four basic strata: 1) a light brown sandy plow zone ranging from 0.4 foot to 0.8 foot in depth and averaging 0.52 foot; 2) an extremely cohesive dark brown sil-



**Figure 3.** Stone artifacts recovered from surface of 9Ri(DOT)3. Top Row: Left—perforated steatite; Center—worked shale (notched piece and gorget fragment); Right—Cruciform drills (left is chert and right is phyllite) and medium triangular indented base chert projectile point. Bottom Row: Savannah River-like projectile point/knives (left is chert, center are quartz, right is phyllite).



**Figure 4.** Ceramics recovered from surface of 9Ri(DOT)3. Top Row: Left—Sand Tempered Check Stamped; Right—Sand Tempered Rectilinear Complicated Stamped. Bottom Row: Left—Sand Tempered Simple Stamped; Right—Sand Tempered Cord Marked.



**Figure 5.** Horizontal plan of test excavations at 9Ri(DOT)3.

ty clay midden, ranging in thickness from 1.4 feet to 2.0 feet and averaging 1.6 feet; 3) a medium brown clay/silt leached zone ranging in thickness from 0.3 foot to 0.7 foot and averaging 0.47 foot; and 4) a yellow silty clay subsoil. The midden zone remained homogenous throughout in color and texture and contained various amounts of lithics, animal bone, charcoal and fired clay. Although sand tempered pottery was recovered from the extreme top portions of the midden, this zone appears to be almost purely Late Archaic. The midden was revealed in only the first three base line squares (N200 BL, N250 BL, and N300 BL) and the three shovel tests (N100 BL, N200 W50, and N300 W50), outlining a total midden area of approximately 100 feet east/west by 250 feet north/south, or about one-half acre.

Four features were encountered during the excavation of these three base line units and although all four apparently originated within the midden, they were definable only at the midden base. Feature 1, located in unit N250 BL, was an oval-shaped, flat bottomed hearth 2.0 feet long by 1.55 feet wide having a fired clay rim, sides and bottom. The depth of this feature was 0.5 foot. A lens of charcoal ran horizontally through the fill (Figures 6 and 7). Fragments of fired clay and calcined bone located slightly above the feature in the midden may represent an upward extension of this pit. No diagnostic artifacts were recovered but calcined bone and charcoal were noted within the fill.

A ten percent flotation sample taken from this feature was submitted for both ethnobotanical and zooarchaeological analyses. Animal remains from this sample include Catfish (Siluriforms), Bullhead Catfish (*Ictalurus* sp.), White Catfish (cf. *Ictalurus catus*), Largemouth Bass (*Micropterus salmoides*), and numerous other unidentifiable fish and mammal bones, as well as traces of turtle, Rodentia (rodents), and Serpentes (snakes) (Table 1). Ethnobotanical remains include hickory shell, acorn, *Polygonum* seed (smartweed type), a possible *Carpinus* seed (ironwood), and a Celastraceae type seed, in addition to hardwood fragments (Table 2).

Feature 2, located in unit N200 BL, was a shallow oval-shaped basin approximately 3.5 feet by 3.0 feet and 0.5 foot deep (Figures 8 and 9). This feature also appears to have originated in the midden, but the homogeneity of midden and feature fill made recognition difficult. The feature contained much charcoal, fired clay, bone, lithic debitage, and diagnostic Late Archaic artifacts (i.e., a cruciform drill and Savannah River-type points).

Ethnobotanical and zooarchaeological analyses on a 10% flotation sample from this feature yielded a single specimen of Bullhead Catfish (*Ictalurus* sp.) in addition to a number of unidentifiable fish, turtle, and mammal remains (Table 1). Plant remains include hickory shell, acorn and pine wood fragments (Table 2).



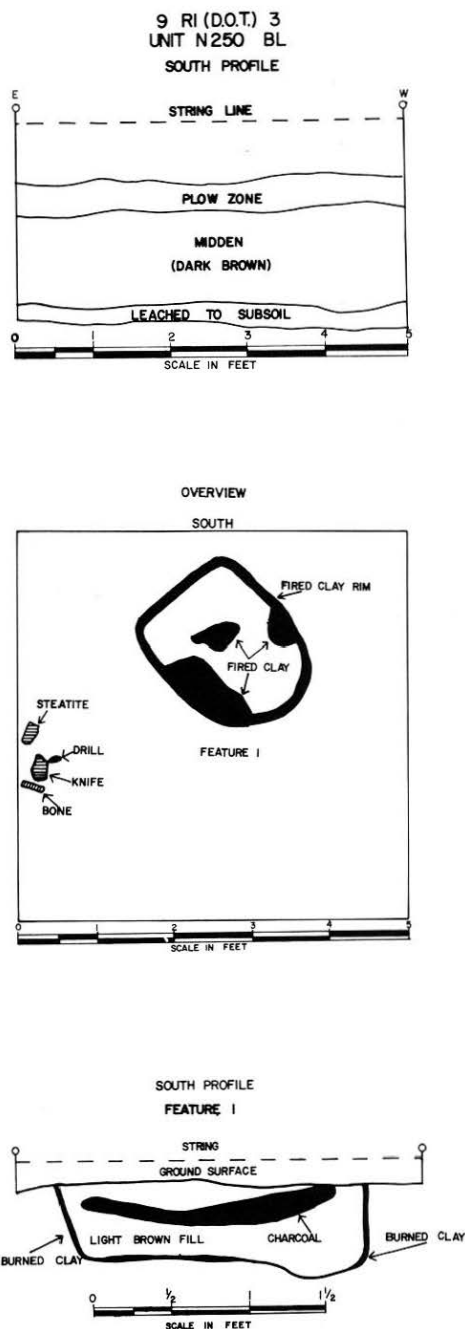


Figure 6. Overview and profile of Unit N250 BL and Feature 1, 9Ri(DOT)3.

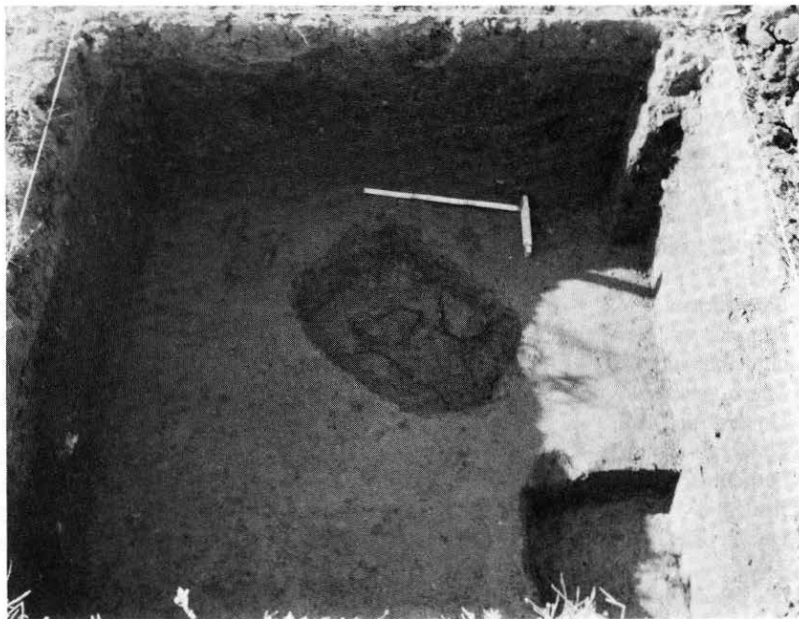


Figure 7. Unit N250 BL and Feature 1 looking south, 9Ri(DOT)3.

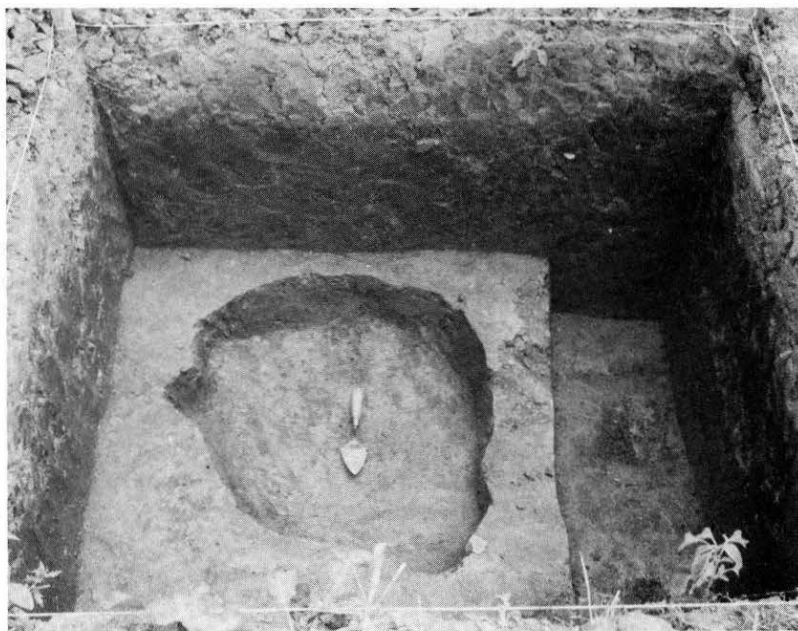


Figure 8. Unit N200 BL and Feature 2 looking south, 9Ri(DOT)3.

**TABLE 1**  
**9Ri(DOT)3**  
**Distribution of Bone by Unit**  
**(After Ruff 1981)**

Unit	Bone Fragments	MNI*	Weight
<b>N 250 BL Feature 1</b>			
Siluriformes	1	—	0.05g
<i>Ictalurus</i> sp.	7	—	0.07g
cf. <i>Ictalurus catus</i>	2	1	0.02g
<i>Micropterus salmoides</i>	1	1	0.01g
Unidentified fish	120	—	0.53g
Unidentified turtle	2	1	0.02g
Serpentes	1	1	0.04g
Rodentia	1	1	0.03g
Unidentified mammal	50	—	1.66g
<b>N 250 BL Midden</b>			
<i>Odocoileus virginianus</i>	1	1	0.70g
<b>N 200 BL Feature 2</b>			
<i>Ictalurus</i> sp.	1	1	0.01g
Unidentified fish	57	—	0.20g
Unidentified turtle	4	1	0.05g
Unidentified mammal	36	—	0.41g
<b>N 300 BL Disturbed Zone</b>			
Emydidae	1	1	0.06g
Unidentified bird	1	1	1.11g
<i>Castor canadensis</i>	1	1	1.10g

\*Minimum Number of Individuals represented in the sample.

**TABLE 2**  
**9Ri(DOT)3**  
**Ethnobotanical Analysis Results**

Feature Number	Unit	Material	Weight or Number
1	N 250 BL	Hickory Shell	2.35 grams
		Acorn	0.1g
		Seed: <i>Polygonum</i> (Smartweed Type)	1
		Seed: Possible <i>Carpinus</i> (ironwood)	1
		Seed: Celastraceae (?)	1
		Wood: Diffuse-porous hardwood & other	1.2g
2	N 200 BL	Hickory Shell	0.9g
		Acorn	<0.05g (2 frags.)
		Wood: Pine and other	2.9g

Feature 3, located in Unit N300 BL, was also a shallow oval shaped basin. The feature was approximately 2.2 feet wide by 2.5 feet long and only a little over 0.2 foot deep (Figure 10). No artifacts were recovered from the clay fill, but this was apparently only the basal portion of the pit. Feature 4 was also located in unit N300 BL, but its position in the north-west corner of the unit prevented determination of dimensions (Figure 10). Like Feature 3, no diagnostic artifacts were recovered.

In addition to the zooarchaeological determinations mentioned above, a Whitetail Deer (*Odocoileus virginianus*) antler tine, bearing cutmarks and polish, was recovered from the midden of Unit N250 BL, and single examples of Emydidae (Pond, Marsh, and Box Turtle), unidentified bird, and Beaver (*Castor canadensis*) were recovered from the disturbed plow zone/midden zone of Unit N300 BL (Table 1). Taken together with those discussed above these data suggest several conclusions concerning seasonality and environment. While stating that several aquatic environments were exploited in obtaining fish, Ruff (1981) believes that references to seasonality would be purely speculative based on the small and fragmentary zoological sample from the site. With regard to specific habitats the White Catfish (*Ictalurus catus*) typically inhabits streams, particularly those with a somewhat sluggish current, while the Largemouth Bass (*Micropterus salmoides*) prefers rather shallow and weedy backwaters. Additionally, the Beaver (*Castor canadensis*) is typically a riverine mammal. Unfortunately, there are no precise indicators marking the subsistence pattern as exploiting primarily an oxbow lake or an active channel environment. What can be said though is that fish remains were heavily represented in the sample and the overall faunal list is one representative of an aquatic environment. The sample was too small to make any statement concerning preferred species.

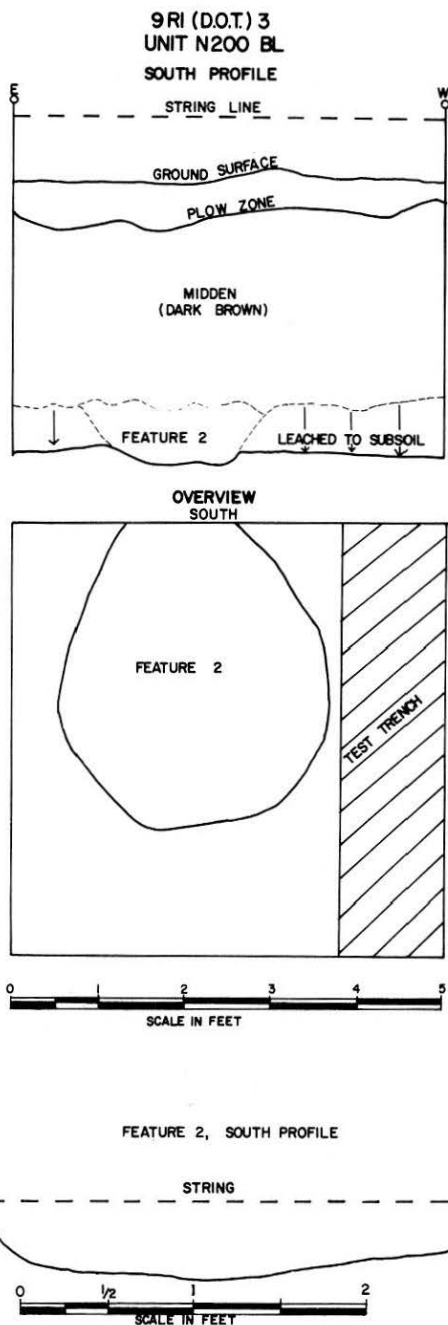


Figure 9. Overview and profile of Unit N200 BL and Feature 2, 9Ri(DOT)3.

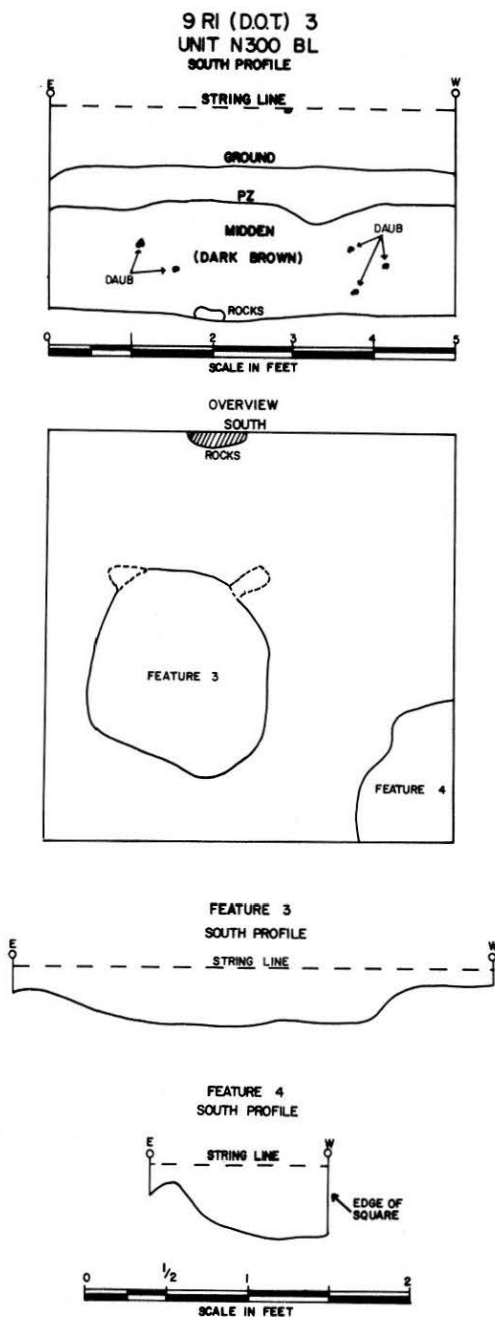


Figure 10. Overview and profile of Unit N300 BL and Features 3 and 4, 9Ri(DOT)3.



Ethnobotanically, Sheldon (1981) states that the plant remains recovered from the features are similar to Archaic Period remains in other southeastern river valley environments and suggest either the importance of nut resources in the diet or differential preservation of nut shell. The recovered seeds are characteristic of a moist woodland environment and in this respect most likely indicate environmental stability, i.e., the environmental situation during the Late Archaic Period in the southeastern United States was similar to that of today.

The plant remains give the best evidence for seasonality at 9Ri(DOT)3. Hickory and Oak are fall bearing species and the fruit from these trees would be available in October and November, while the seeds of *Polygonum*, *Carpinus*, and Celastraceae become available ordinarily in the late summer or early fall, i.e., August and September (cf. Radford, Ahles, and Bell 1964: 370, 406-414, and 684). This indicates that the site was being occupied at least during the late summer through fall when these resources would have been available.

Although the information gathered at 9Ri(DOT)3 represents only a small sample of the overall site data, it lends itself to some general interpretation. Based on the diagnostic materials recovered from the site surface and midden and the thickness of the midden, this location appears to have been occupied over several cultural phases and time periods with the most intensive occupation occurring during the Late Archaic Savannah River Phase. The presence of subsurface features and the overall thickness and horizontal extent of the midden suggest a fairly extensive and at least a semi-sedentary occupation. Food remains indicate a seasonal occupation during the late summer (July-September) and fall (October-December).

Although only a small sample, the animal and plant remains recovered from the various features and midden indicate a rather vast exploitation of the riverine environment. Rather than conforming to the outdated theories that all Late Archaic peoples lived primarily on shellfish, 9Ri(DOT)3 provides strong evidence indicating to the contrary, indicating an exploitation of a wide variety of fauna, including birds, reptiles, fish, and mammals, and a more seasonally selective flora. In fact, no shellfish remains were recovered from the tests. There can be little doubt that the inhabitants of 9Ri(DOT)3 practiced a diverse and multi-faceted subsistence economy.

The presence of a sizable midden, subsurface features, fired clay and daub, all apparently belonging to the pre-pottery Late Archaic Savannah River Culture, makes this a potentially very important site. This site will not be mitigated as a part of the intensive excavation plan of the Augusta Railroad Relocation Demonstration Project, since line refinements have shifted the proposed alignment from the 9Ri(DOT)3 area. However, from the test excavation which revealed intact subsurface strata and features and the preservation of plant and animal remains, it would be reasonable

to predict that intensive excavations could yield inter- and intra-site settlement patterns, subsistence procurement and dietary information as well as a series of absolute dates for a cultural period in the Central Savannah River Area for which information exists almost totally in the form of test excavations and outdated reports. This information in conjunction with investigations recently carried out on other Late Archaic sites (both pre-pottery and pottery bearing) in the same general area (cf. Elliott and Doyon 1981), would be invaluable in interpreting the overall Late Archaic occupational sequence and cultural history of the Central Savannah River Area and give insight into the cultural processes leading from a seasonal hunting/gathering riverine economy to a more sedentary horticultural subsistence.

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