VII. THE RISE AND DEMISE OF CHIEFDOMS: MISSISSIPPIAN OCCUPATIONS

INTRODUCTION

The last 500 years or so before European contact saw the emergence of complex chiefdom level societies throughout the southeast. The appearance of sedentary communities, intensive maize agriculture, platform mounds, and a ranked hierarchical society characterized this adaptation throughout the region (Griffin 1967; Smith 1978). Major settlements tended to occur on the terraces and levees of major drainages, and intensive utilization of both cultigens and wild plant and game resources was indicated (Figure 54). In the South Appalachian area the complicated stamped pottery tradition established in the Woodland continued, and variations in design motif, rim treatment, and other incidental decoration have proven to be highly sensitive chronological markers.

Large numbers of Mississippian sites were found during the investigations in the Richard B. Russell Reservoir, with only the Middle Archaic period yielding a greater number of identified components (Table 2, Figures 3, 4). Mississippian ceramics were found at 110 sites, while small triangular projectile points were found on 43 sites. Examining component distributions within the overall Mississippian assemblage, using diagnostic ceramics to provide fine grained temporal control, a clear pattern of increase can be noted over the Early and Middle Mississippian, followed by a precipitous decline in the Late Mississippian (Figure 4). The numbers of components present in the project area rose continuously for several centuries, from a low of five during the Woodstock period to 14 during the Etowah (Jarrett phase), 27 during the Savannah (Beaverdam phase), and 46 during the Early Lamar (Rembert phase) periods. After A.D. 1450 a dramatic change occurred. Only six post-Early Lamar components could be identified (all apparently small sites), indicating a massive population decline had taken place. This has been linked to larger, region-wide phenomena occurring at this time. Archaeological evidence collected from over the South Appalachian area in recent years has documented a near-total abandonment of the middle and lower course of the Savannah River Valley during the Late Mississippian, which has in turn been tied to patterns of warfare and competition between societies throughout the Georgia-South Carolina area (e.g., Hudson et al. 1985, 1987; Hally et al. 1985; Anderson et al. 1986; Anderson 1986a, 1986b, 1987a, 1987b, 1988b). This topic is discussed in greater detail at the close of this chapter, following the presentation of evidence from the reservoir.

Using the massive, well controlled excavation assemblage from the Beaverdam Creek Mound excavations as an analytical starting point, coupled with the examination of collections from the Rembert, Chauga, Tugalo, and Estatoe mound sites, and comparisons with sites from further afield in the South Appalachian area, Hally (in Rudolph and Hally 1985:261-280, 456-459; Anderson et

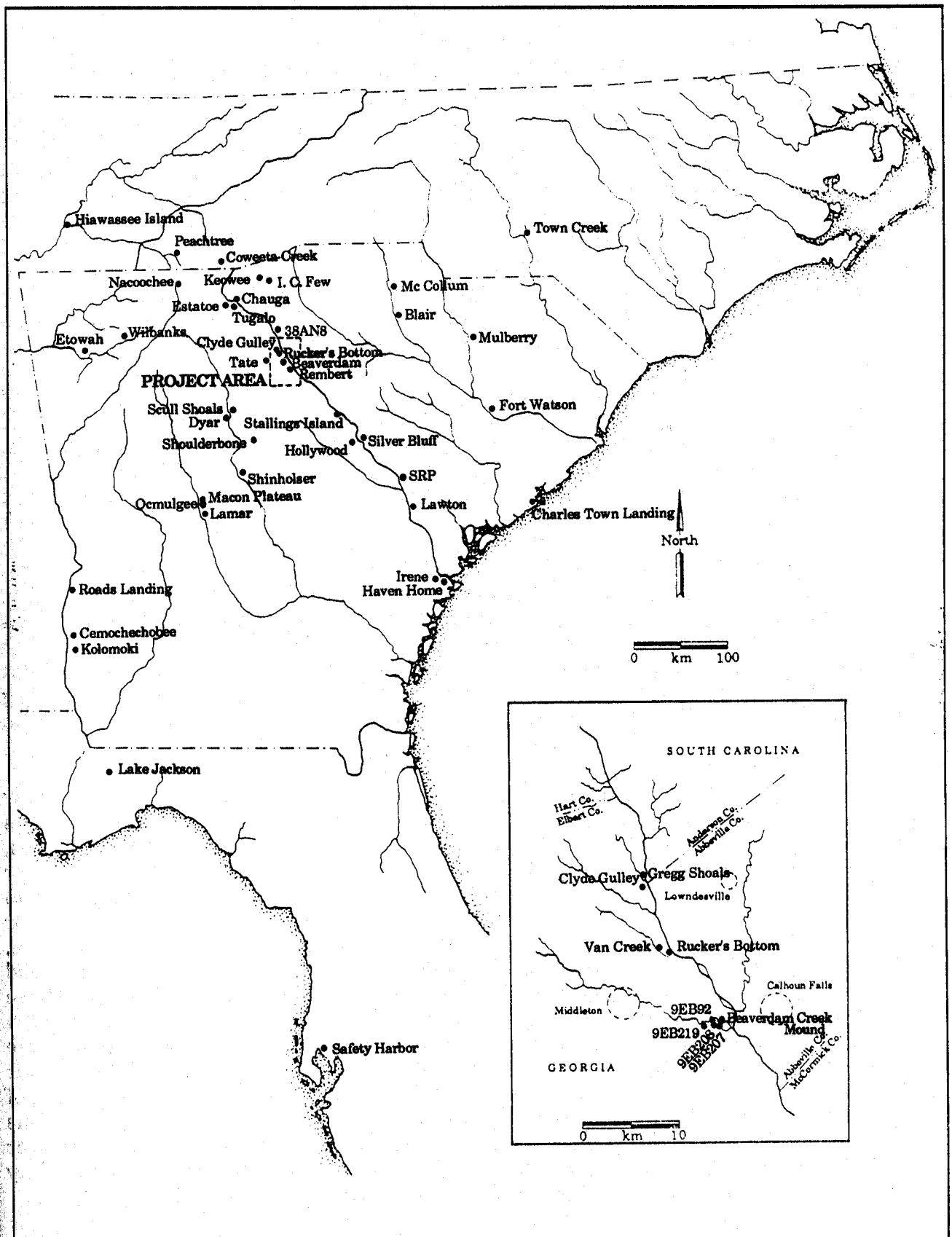
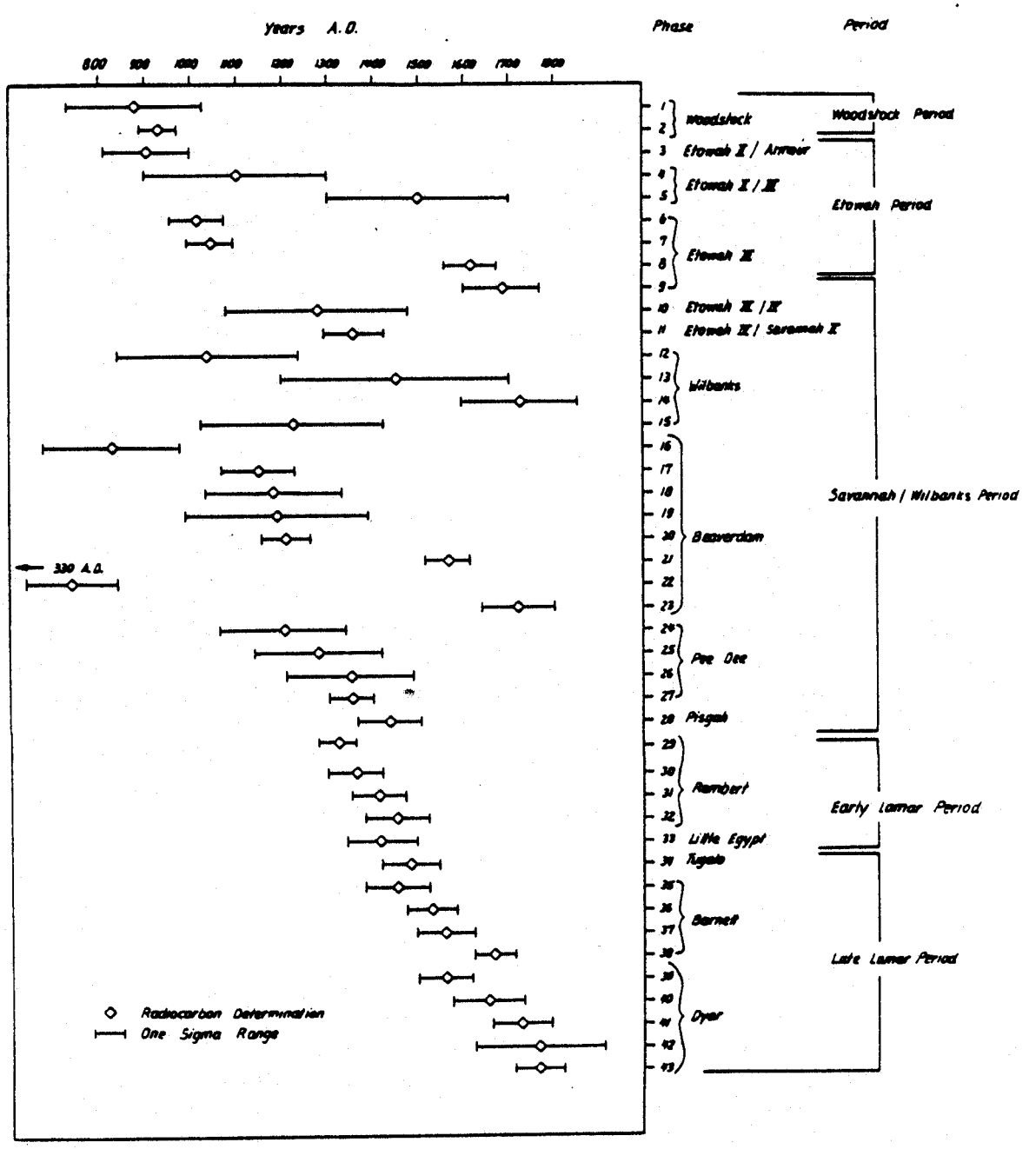


Figure 54. Mississippian Sites, Richard B. Russell Reservoir and Vicinity.

al. 1986:38-42) has developed a Mississippian cultural sequence for the Russell Reservoir area that has structured analyses and interpretations of late prehistoric assemblages in the middle Savannah River region. Documented phases include Jarrett (ca. A.D. 1100 -1200), Beaverdam (ca. A.D. 1200 - 1300), Hollywood (ca. A.D. 1250 - 1350), Rembert (ca. A.D. 1350 - 1450) and Tugalo (ca. A.D. 1450 - 1600). This cultural and chronological sequence has been supported by a lengthy series of radiocarbon dates (Figure 55; Rudolph and Hally 1985:462-470). The ceramic sequence developed by Hally is briefly recounted here, to delimit how components of these periods were identified.

Woodstock phase components in the upper Savannah River Valley are identified by the presence of Woodstock Complicated Stamped ceramics, which have been shown to be ancestral to Etowah in northwest Georgia (Sears 1958). Components of the succeeding Jarrett phase are characterized by Etowah Complicated Stamped (primarily variations on the nested diamond motif), check stamped, and a red filmed ware. Complicated stamped designs were dominated by rectilinear motifs, which accounted for the vast majority of all complicated stamped sherds. Corncob impressions around vessel necks and shoulders and collared rims forms occurred in low numbers. In the ensuing Beaverdam phase the red filmed ware disappeared and Etowah Complicated Stamped declined appreciably. Check stamping increased and Savannah Complicated Stamped appeared, with concentric circles the most common motif. The incidence of curvilinear design motifs increased markedly, while the incidence of collared rims (with notched, fine incised, or punctated designs) and corncob impressing increased slightly. During the Hollywood phase check stamping became predominant, followed by Savannah Complicated Stamped, the latter dominated by variations on the filfot cross motif. Cane punctations, riveted nodes, and rosettes appear, resembling materials from the Pee Dee phase in North Carolina (Reid 1965, 1967). Corncob impressing continues in low incidence, while collared rims disappear.

During the Rembert phase assemblages were characterized by Lamar Complicated Stamped pottery, with both curvilinear and rectilinear motifs present. Design motifs included concentric circles, figure nines, filfot crosses, line blocks, and herring bones. Check stamping nearly disappears, while Lamar Bold Incised makes its first appearance in low quantity. Incised vessels dating to this period are characterized by simple designs formed using typically two or three broad lines. Cane punctations, rosettes, and nodes continue on vessel rims, and finger pinching appears. Rims included both folded and unfolded forms, and narrow appliqued strips appear. Late prehistoric/protohistoric Tugalo phase Mississippian components were characterized by a pronounced increase in Lamar Complicated Stamped (generally similar to that observed during the Rembert phase, although with slightly wider design elements) and by Lamar Incised, which has more complex designs made from a larger number of (typically) narrower lines (see also Duncan 1985). Folded and pinched rims dominate jar assemblages, and rim fold and appliqued strip width increases over earlier periods (Rudolph 1983:90-93). Red filming again appears, as a minority ware (adapted from Hally, in Anderson et al. 1986:38-42).



Source: Rudolph & Hally 1985: 467

Figure 55. Mississippian Radiocarbon Chronology for the Georgia/South Carolina Piedmont.

EVIDENCE FOR MISSISSIPPIAN OCCUPATION IN THE RUSSELL RESERVOIR: MAJOR EXCAVATION ASSEMBLAGES

Introduction

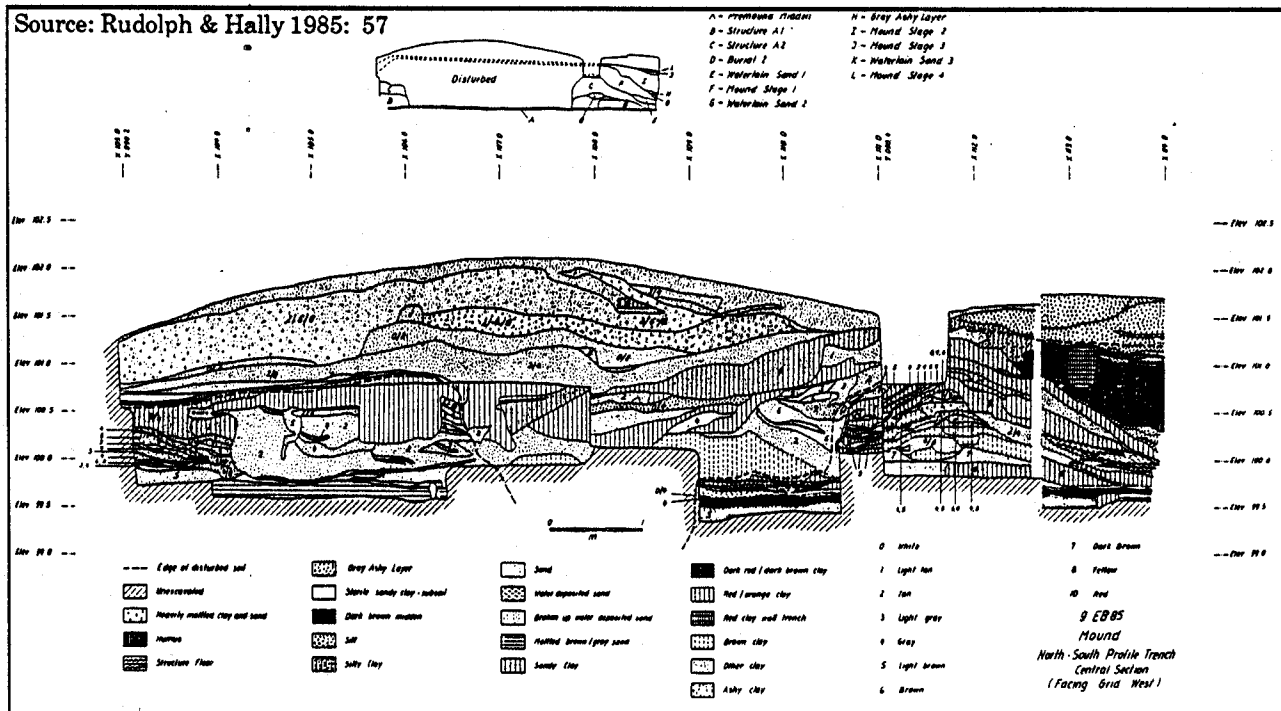
Two major Mississippian assemblages were examined in detail in the Russell Reservoir area, the Beaverdam Creek Mound site, and Rucker's Bottom, a small agricultural village located 12 m upstream. The two sites, taken together, provide insight into the structure, operation, and evolution of a small Mississippian society in the Savannah River basin. These sites, a small ceremonial center and one of its presumed subsidiary village, illustrate in microcosm the sacred and secular sides of a local Mississippian polity. The relationship between the elite and ordinary citizens can be seen in the records of these two sites, in life as well as in death. The site histories, in turn, document the emergence, peak, and decline of these settlements, shedding light, in a small way, on the evolution of chiefdom-level societies.

Beaverdam Creek Mound (9EB85)

Introduction. The Beaverdam Creek mound and village site was located on a broad floodplain overlooking Beaverdam Creek approximately 0.8 km from the confluence of the creek with the Savannah River (Figure 56). The site, which consisted of a small mound and ca. 1.5 ha village area, was occupied during the twelfth and thirteenth centuries A.D. when two superimposed earthlodges followed by four platform mound stages were erected. Extensive excavations at the site in 1980 and 1981 documented the surviving record of the mound's construction and use, while stripping at several locations in the village area exposed large numbers of features, including one structure (Rudolph and Hally 1985).

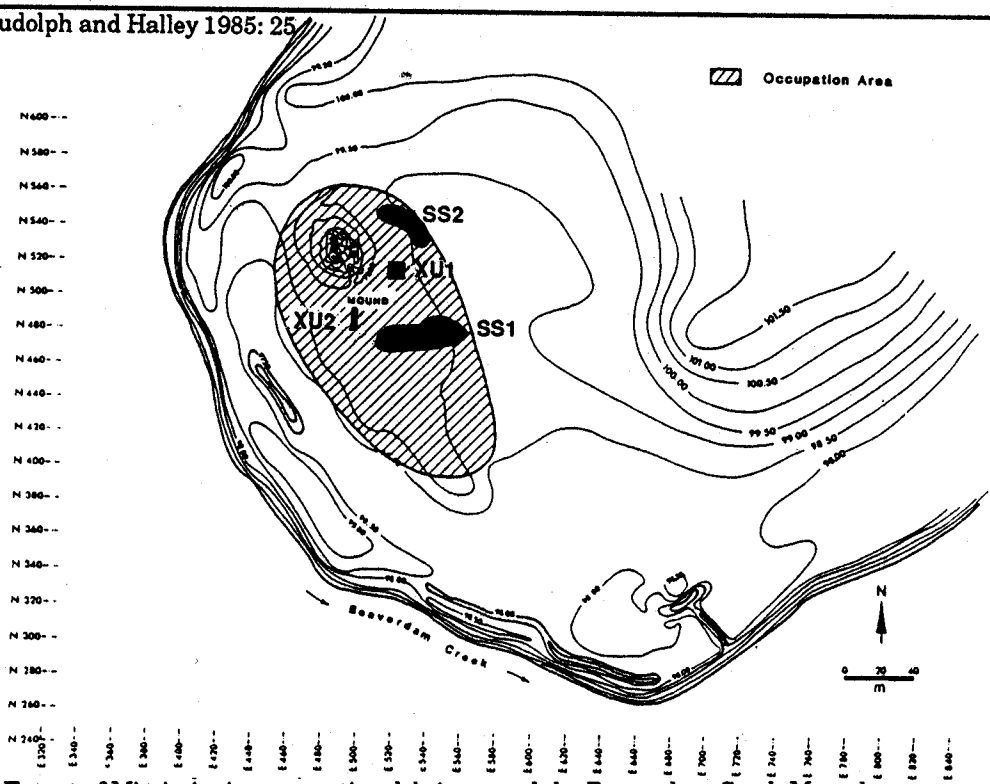
Prior to the construction of the Russell Lake, Beaverdam Creek was about 48 km long with a narrow drainage basin. The floodplain around the Beaverdam Creek site consisted of well drained Toccoa fine sandy loams, and a comparatively high incidence of floodplain soils characterized this section of the river valley (Rudolph and Hally 1986:16). Heavy flooding would have occasionally inundated the area surrounding the mound, and waterlain sands were found on the margins of several of the mound stages, as well as overlying the historic plowzone at the site. An old flood chute of Beaverdam Creek was located to the north of the site that may have held water during the period of occupation. At the time of the excavations the site area was densely overgrown, with the last cultivation occurring some time in the 1940s. Palynological investigations conducted at the site indicated a mixed pine and oak community had been present during the premound era. Both pine and non-arboreal pollen were heavily represented, indicating that the area around the site was in an early stage of succession, something possibly related to field clearing. When the platform mound stages were under construction the incidence of pine was even higher, and traces of

Source: Rudolph & Hally 1985: 57



North-South profile trench, central section, Beaverdam Creek Mound.

Source: Rudolph and Halley 1985: 25



Extent of Mississippian occupation debris around the Beaverdam Creek Mound. Most materials were found over an approximately 15,000 square meter area stretching to the southeast of the mound.

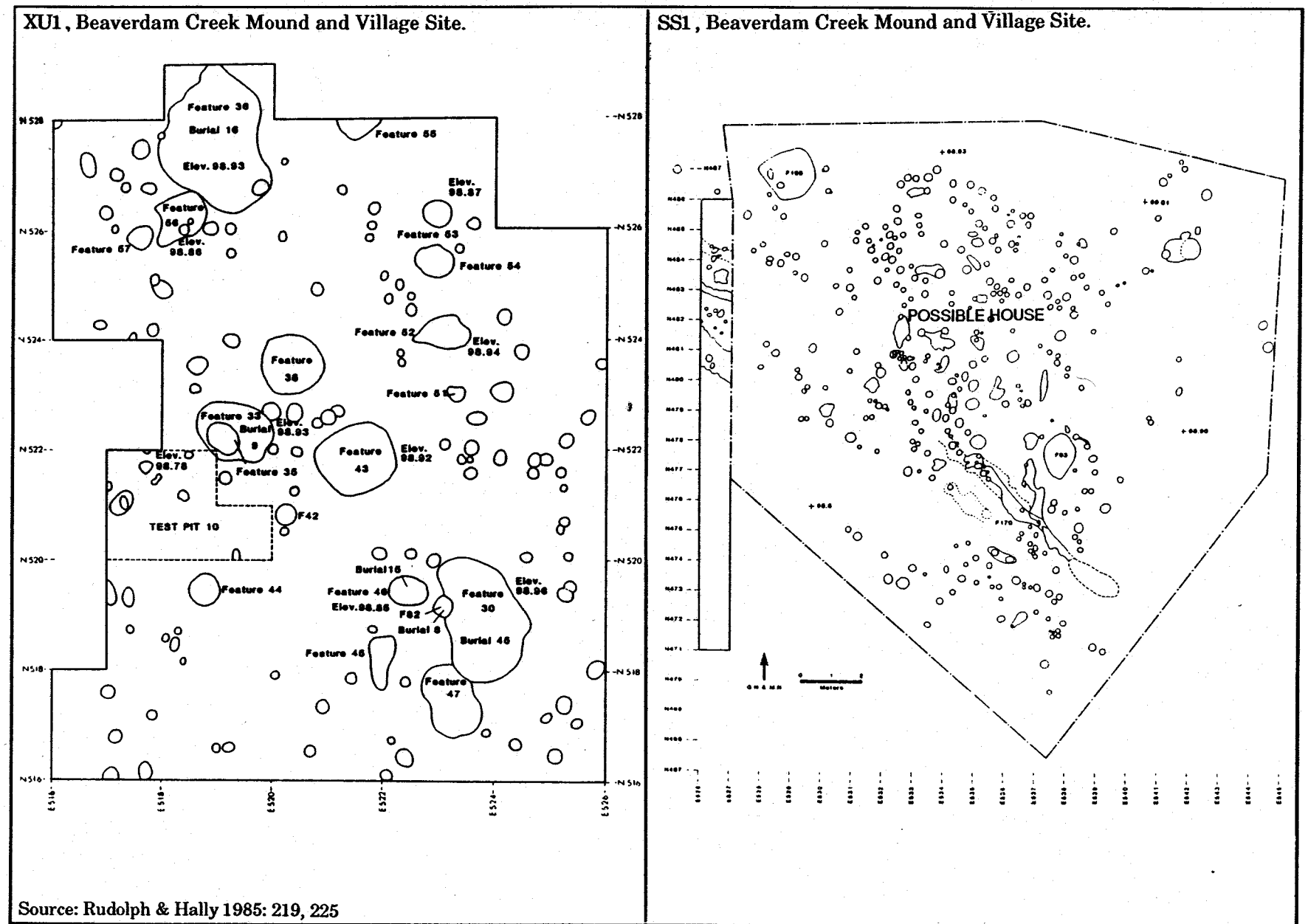
Figure 56. Mound Cross Section and Village Midden Area, Beaverdam Creek Mound and Village Site, 9EB85.

maize pollen were found, suggesting increased field clearing associated with intensive agriculture (Fish 1985:411-416; Rudolph and Hally 1985:27-28).

Field Investigations. The Beaverdam Creek site was first recorded by Hutto (1970:21-23), who noted that the site had been extensively vandalized. In 1971 Joseph Caldwell conducted an eight week field school at the site, opening twelve 10 x 10 ft squares in a trench through the mound. This work was hampered by vandalism and poor weather, and the badly disturbed deposits rendered interpretation difficult. A report of the fieldwork, prepared after Caldwell's death (Lee 1976) concluded that the site represented the largely destroyed remnant of a multistage Savannah period platform mound with elaborate burials in the fill. A copper covered celt, in fact, was found in a pothunter spoil pile. The site was revisited by Taylor and Smith (1978) who conducted shovel testing in the area around the mound, documenting a thin midden at distances of up to ca. 50 m from the mound. This was described as probable associated village debris, and the area away from the mound was thereafter called the village. In 1979 the site was revisited by archaeologists from Thunderbird Research Corporation, who opened three shovel tests, several auger holes, and a 1 x 2 m and a 1 x 1 m test unit into the village area, finding evidence for intact feature and midden deposits up to 50 m southeast of the mound (Gardner et al. 1983:276-284).

During 1980 and 1981 the site saw extensive excavation by a team of archaeologists from the University of Georgia under the direction of David J. Hally and James L. Rudolph. Mound excavations began by cleaning out Caldwell's 1971 3.0 x 27.0 m trench through the mound, and cutting back the walls to expose new profiles. Cross trenches were then hand excavated along cardinal directions to further delimit the stratigraphy. Disturbed soil from potholes was then removed by hand and with the backhoe. As the excavations proceeded, it became apparent that the mound orientation had shifted somewhat during construction. A series of diagonal trenches were opened to clarify the stratigraphic picture, and excavation proceeded by peeling back exposed construction episodes where surviving portions could be delimited. Following documentation of these stages, a backhoe was used to remove the remaining mound fill, and a large area below the mound was shovel skimmed and mapped (Figure 58).

All fill was processed using 1/4 inch mesh, with flotation samples taken from feature and midden areas. Much of the fill was removed by hand, with heavy machinery used to remove disturbed or sterile deposits, or deposits that had been thoroughly sampled. Village areas were examined using post hole tests, test pits, backhoe trenches, block excavation units, and machine stripping (Rudolph and Hally 1985:46-51). Fifty two post hole tests aligned on a 50 m grid, followed by 12 ca. 1 x 2 m test pits and 10 backhoe trenches 12 to 46 m in length were opened over the site to delimit the extent of surviving midden deposits (Figure 56). Two large blocks, XU1 and XU2, placed in areas of apparent feature concentrations were hand excavated, following removal of overburden to the top of the midden with a backhoe. XU1, to the east of the mound, measured 10 x 13 m, while XU2, to the south of the mound, measured 6 x 20 m (Figures 56, 57). A bulldozer and a motor grader were then used to remove the overlying plowzone and midden from two



Source: Rudolph & Hally 1985: 219, 225

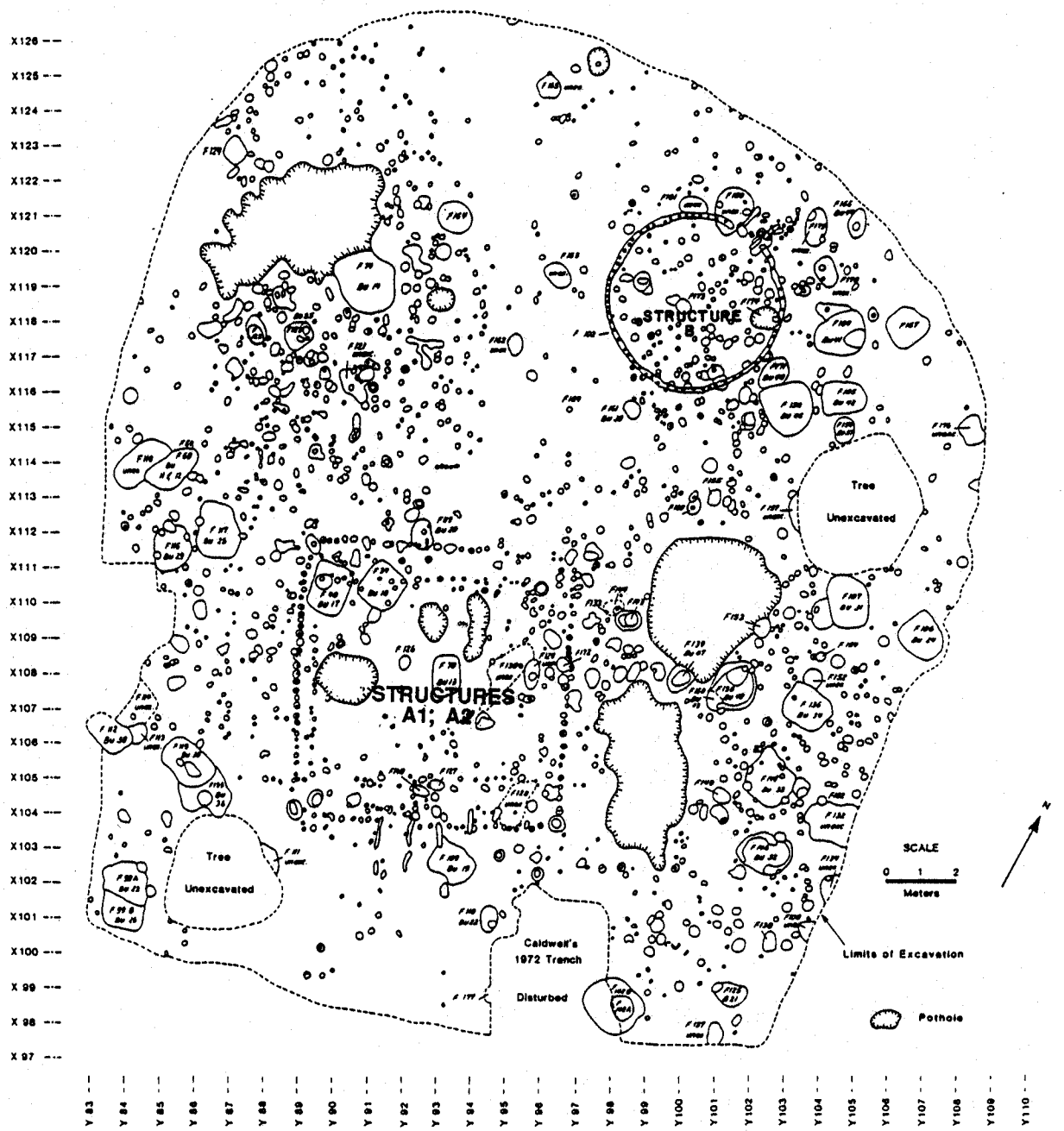
Figure 57. Village Area Excavation Blocks, Beaverdam Creek Mound and Village Site, 9EB85.

other areas. In SS1, southeast of the mound, an approximately 1380 square m area was examined, while in SS2, to the east of the mound, a 212 square meter area was examined (Figure 57).

Mound Construction Episodes. Two superimposed earthlodges and four successive mound stages were documented during the excavations at Beaverdam Creek (Rudolph and Hally 1985:69-197). The premound midden was from 15 to 20 cm thick, and was contiguous with the village midden surrounding the mound. Several burial pits, portions of three structures, and a large number of miscellaneous postmolds were found on this surface, representing occupations at the time of and immediately prior to the construction of the mound. Most of the postmolds appeared to be contemporary with the first ceremonial structures erected at the site, two superimposed earthlodges (Structures A1 and A2), and the initial stages of mound construction. Two uncorrected radiocarbon dates obtained from features in premound context were A.D. 300±100 and A.D. 1190±200 (DIC-2118; BETA-1791); while the first date was too early the second was thought to accurately date the period of initial construction (Rudolph and Hally 1985:75).

While it was not possible to prove that the initial two earthlodges were actually covered with dirt, they were surrounded by earth embankments, prompting their name (Rudolph 1984). The first structure, A1 (Figures 58, 59) was square, 7.5 m on a side (56 square meters), and had a wall trench entranceway on the south side. The structure was built of individually set posts 10 to 15 cm in diameter and spaced 10 to 30 cm apart, with appreciably larger corner posts ca. 30 to 60 cm in diameter. The northern wall was oriented 24 degrees west of magnetic north, while the entranceway faced south-soûtheast, 156 degrees east of north. The embankment itself was ca. 1.7 to 1.8 m wide, and was constructed of midden fill to a height of from 40 to 70 cm above the ground surface. It was erected flush with the wall line, after the posts had been set in place. The floor of the structure was highly disturbed, but from surviving fragments it was possible to determine that it had been elevated ca. 10 cm above the midden with a thin layer of orange sand. A moderate amount of lithic, ceramic, bone, and other refuse was found on the upper surface, suggesting occupational debris. The only feature found on the small amount of intact floor examined inside the structure was a dense concentration of fish scales and bone in the northwestern corner. The structure was not burned or abandoned, but appeared to have been quickly replaced.

Burial 2, a high status male aged 30 to 35 years, was found in fill above the Structure A1 embankment (see Figure 61). This individual was interred with approximately 7000 shell beads, a whelk columella, several *olivella* shells, two copper covered ear spools and a crescent-shaped copper head ornament, and a shell gorget and button (Rudolph and Hally 1985:83-85). The burial was placed in an oval basin shaped pit in a layer of dark brown sand forming part of the covering over Structure A1. The burial pit was covered with a yellow clay cap, and the embankment for Structure A2 was built over it. The number and extent of the associated grave goods indicate this individual occupied a very high status position in the local society, whose death may have triggered the abandonment and rebuilding of the earthlodge.



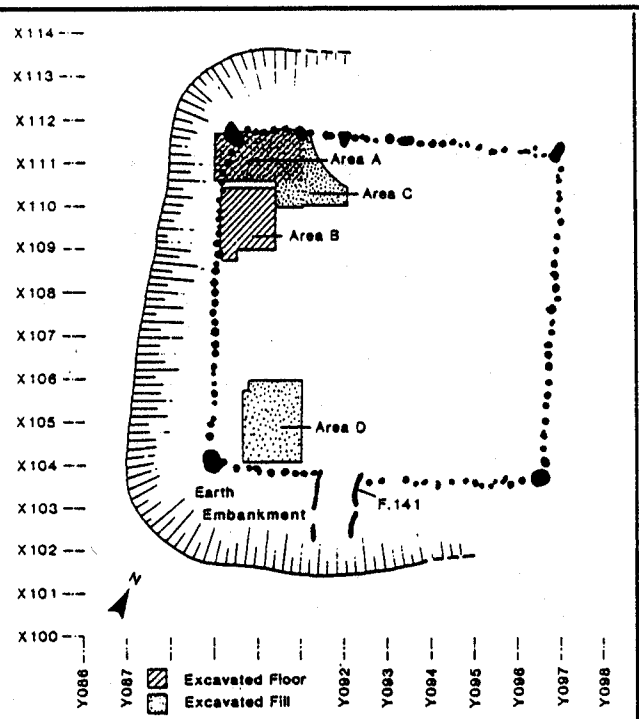
Source: Rudolph and Hally 1985: 77

Figure 58. Premound Features, Beaverdam Creek Mound and Village Site, 9EB85.

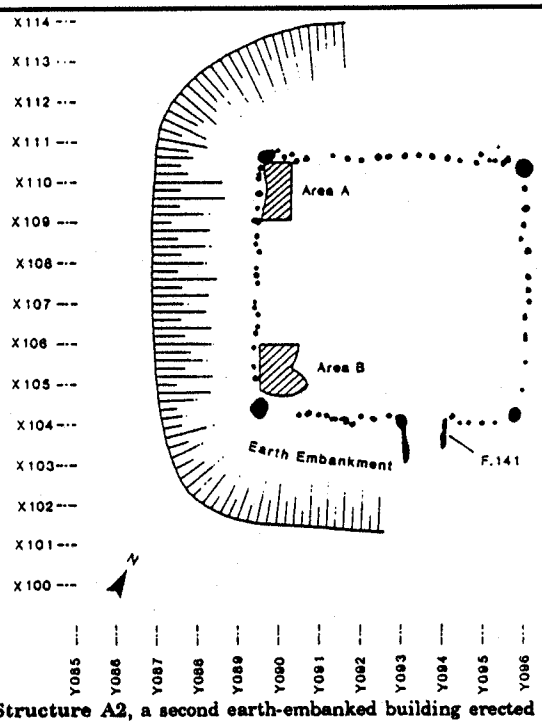
Structure A2 resembled Structure A1, although it was smaller, measuring 6.2 m on a side (38.4 square m) (Figures 58, 59). Oriented the same direction, with a wall trench entranceway to the south, the building differed primarily in having a more massive embankment, from 2.2 to 2.7 m wide, and 1.25 m high. This embankment was constructed of intentionally laid down alternating layers of brown or gray clay, and sloped gradually away from the wall line. The floor of the structure was raised above the fill over Structure A1 by a thin layer of mottled grayish brown sand up to ca. 15 cm thick. Two successive occupation surfaces were found above this layer, separated by a thin band of charcoal flecked sand, suggesting an episode of cleaning and minor restoration. The floor areas of these structures were badly disturbed, and no features other than a sherd cluster and some lumps of gray ashy clay were found on these surfaces. Structure 2 did not burn, but appeared to have been abandoned for no more than a short period of time, and was then replaced by a substructure platform mound. Waterlain sands around the northern side of the structure indicated it may have been inundated and damaged. A radiocarbon date from a cluster of charred pine cones found in these sands was dated to A.D. 1570±50, uncorrected (DIC-2117; Rudolph and Hally 1985:91), and was interpreted as too recent.

A small circular wall trench building, Structure B, was found to the north of Structures A1 and A2 (Figures 58, 59). The age of this building in relation to the other early structures in the premound area was uncertain, although it clearly predated Mound Stage 3, which covered it. The building was 5 m in diameter with a floor area of 18.8 square m, and had been built on a layer of tan-gray sand placed on top of the premound midden to level it out. The wall trench was about 30 cm wide and 54 cm deep, tapering to 10 cm wide at the base. Fifty six postmolds ca. 8 cm in diameter and spaced 15 to 20 cm apart were found in the trench fill; the posts that were sectioned were found to have been jammed into the base of the trench. A wall trench entranceway 1 m wide and 0.8 m long was found in the north side of the building. The inside of the structure had waterlain sand over the floor, suggesting it was flooded after abandonment, or that the flooding had prompted abandonment. A prepared clay hearth 45 cm in diameter and 9 cm deep with a pronounced rim 4 cm thick was found just west of the center of the structure. The floor itself was a thin layer of gray brown and reddish sand some 2 to 4 cm thick, and had a moderate amount of occupational debris on it.

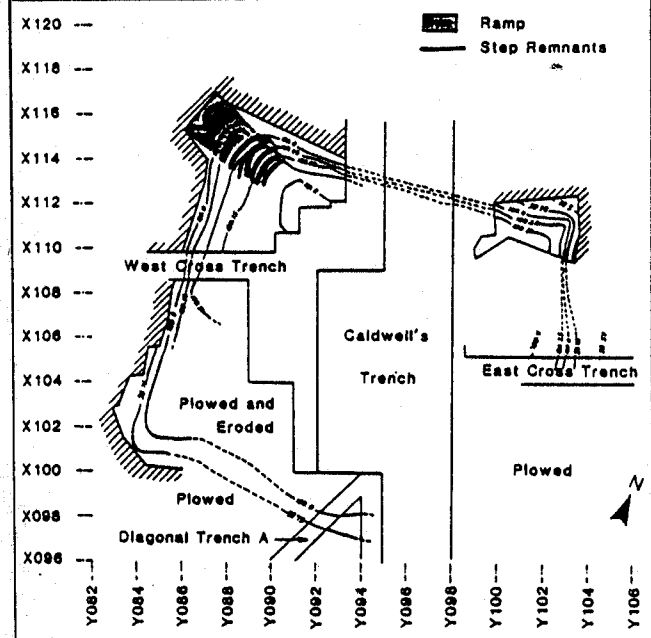
The floor of Structure B was excavated in 1 m squares, with all fill floated. No large or unusual artifacts were found on the floor, and the building may have been cleaned following abandonment. The structure did not appear to have been burned, but instead may have been dismantled prior to the construction of one of the nearby earthlodges or the early mound stages overlying it. Animal bone, carbonized plant remains, debitage from late stage manufacturing activity, triangular points and point fragments, and pottery were found on the floor. Detailed distributional analyses of all major artifactual and paleosubsistence categories were conducted, documenting a range of primarily domestic activities (Rudolph and Hally 1985:92-110). Other than three battered crystal fragments, a single small bead, and a small piece of mica, no evidence for ritual or ceremonial behavior was found. In spite of its unusual shape and location near the



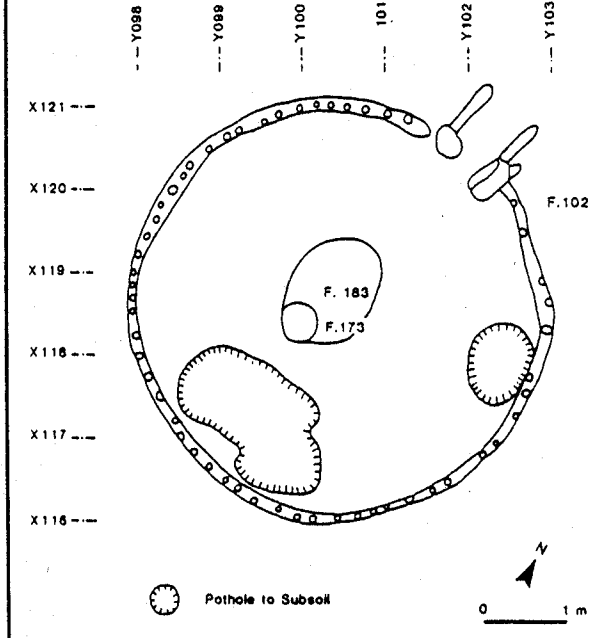
Structure A1, an earth-embanked building elevated 10 cm above the premound midden, on a layer of sand. Structure A1 was dismantled and the area inside the embankment filled prior to the construction of Structure A2.
(Source: Rudolph and Hally 1985: 80)



Structure A2, a second earth-embanked building erected immediately above and soon after the dismantling of Structure A1. Following one episode of minor restoration, the structure was replaced by a substructure mound, shortly after a major flood.
(Source: Rudolph and Hally 1985: 86)



Mound Stage 2, a substructural mound approximately 18 m on a side. Built of red clay, it was built soon after the building on the first mound stage was abandoned. A stepped ramp was located in the northwest corner.
(Source: Rudolph and Hally 1986: 124)



Structure B, a circular wall trench building located on sand-leveled ground to the north of structures A1 and A2. Built prior to mound stage 3, the occurrence of flood deposited sands around the entrance suggests contemporaneity with Structure A2. A clay-rimmed hearth was located in the center of the structure.
(Source: Rudolph and Hally 1985: 94)

Figure 59. Earthlodges A1 and A2, Structure B, and Mound Stage 2, Beaverdam Creek Mound and Village Site, 9EB85.

ceremonial structures, Structure B appears to have seen use as a domestic building.

Structure A2 was replaced with a platform mound, termed Mound Stage 1, that was raised approximately 20 cm higher than the embankment. The stage was very badly disturbed, with only traces of the northwestern corner found intact. Measuring an estimated 17 m east-west by 14 m north-south, the platform was oriented the same direction as the two earthlodges, with the northern side facing 24 degrees west of magnetic north. Fill was basketloaded sand or sandy clay. Two possible structures were found associated with this stage, a hard-packed floor-like surface, and two lines of posts found in the 1971 excavations. Charcoal obtained from the hard-packed floor yielded an uncorrected date of A.D. 1150±80 (BETA-1792; Rudolph and Hally 1985:113). A low ridge of sandy clay oriented 55 degrees west of magnetic north was found at the edge of this surface, which may represent the base of walls erected on the summit; alternatively, the ridge may be associated with the filling of Structure A2. Two adjacent lines of posts found by Caldwell at the approximate level of Mound Stage 1 were oriented 6 degrees west of magnetic north, and may also be from a structure. Little convincing evidence for structures was found surviving from this stage.

Waterlain sand with clay and ash mixed in was found around the base of Mound Stage 1 that was thought to represent burned material washed down from the summit. Whether this meant the summit structure for Mound Stage 1 was abandoned or burned prior to rebuilding is unknown. Above the waterlain sands was a gray ashy layer from ca. 1 to 28 cm thick that was rich in pottery, bone, and other debris, including a number of pine log fragments. An uncorrected radiocarbon date of A.D. 1210±55 (DIC-2119; Rudolph and Hally 1985:119) was obtained from one of the unburned pine pieces. The logs and the rest of the debris in the gray ashy layer were interpreted as debris from the mound summit, rather than steps or a facing like that found at Tugalo (Rudolph and Hally 1985:119; Anderson et al. 1986:40). Given the excellent preservation in the gray ashy layer, Mound Stage 1 was thought to have been covered fairly quickly with Stage 2 (Rudolph and Hally 1985:126).

The summit of Mound Stage 2, like Mound Stage 1, had been largely destroyed by pothunting, and no evidence for structures was found (Rudolph and Hally 1985:122-129). The mound was composed of dark red clay and rose approximately 13 cm higher than the highest point on Stage 1. Three of the corners were still intact, permitting measurements of size and orientation. The Stage 2 mound measured approximately 18 x 18 m and was oriented 13 degrees west of magnetic north, a shift in orientation of about 11 degrees from earlier stages and structures (Figure 59). A ramp 2.25 m wide with step remnants cut into the clay was built on the northwest corner of the mound. A minor addition to the mound was added in this area, possibly to provide support for the ramp. The ramp was oriented 58 degrees west of magnetic north and faced directly on Beaverdam Creek. The shift in orientation might have been to accommodate this alignment (Rudolph and Hally 1986:125). The sides of Stage 2 were steep and furrows were evident in the red clay face, suggesting intentional roughening.

More recent mound stages were progressively more heavily disturbed. Mound Stage 3 measured approximately 21 m on a side, and may have been at least 12 cm higher than Stage 2. The orientation of the mound itself could not be determined due to disturbance and spreading of the lower sides, but a fragmentary wall line from a structure on the summit was oriented 11 degrees west of north, almost exactly the same direction as Mound Stage 2. The summit structure was represented by two wall line fragments and a small patch of floor surface. The floor was a thin layer of tan clay ca. 3 cm thick and was set about 6 cm lower than the surrounding summit. The wall trenches were filled with red and yellow clay, with posts ca. 10 cm in diameter spaced 5 to 20 cm apart. A small bracing log was placed at the base of the wall trench to provide support. Some of the posts were charred, and a radiocarbon sample run on one of them yielded a date of A.D. 1720±80, uncorrected (DIC-2120; Rudolph and Hally 1985:131), which was several centuries too recent. Waterlain sands were found on the north side of the mound, suggesting sheet wash from the summit. On the southeastern side of the mound a dark midden layer was found, with lenses indicating at least two or more episodes of deposition occurred. Whether this reflected normal trash discard from the summit or debris from the destruction of a structure could not be determined.

Mound Stage 4 was very poorly preserved, and was thought to have been no more than ca. 2 cm above Mound Stage 3, and about the same overall size (Rudolph and Hally 1985:136-142). Fragments of a wall trench structure found on the summit were oriented 3 degrees west of north, presumably also the orientation of the mound. The wall trench was ca. 22 cm wide and 55 cm deep, and represented the southwestern corner of a structure. Patches of red and yellow, and gray sandy clay flooring material were found, with Savannah (Beaverdam phase) ceramics in association. A dense concentration of small boulders was found on the northwestern side of Mound Stage 4, over an approximately 90 square m area. Most of the boulders had been moved about by pothunters, but appeared to have originally been on the side of the mound. Not enough rocks were present to provide a mantle like that found at Garden Creek (Dickens 1976:79-83), nor do they seem to have been used to control erosion, cover a smaller structure, or serve as post supports (Rudolph and Hally 1985:141-142). Their purpose remains unknown, although they may have been a mantle flanking the entranceway.

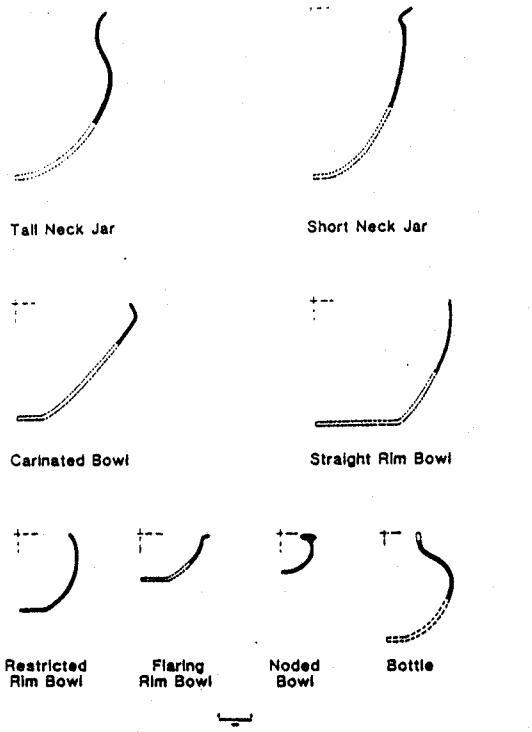
Village Area Results. The four block units opened in the village area at the Beaverdam Creek site found a large number of features, including one possible structure (Rudolph and Hally 1985:199-259). Lithic, ceramic, and subsistence related-artifacts were found throughout the midden, indicating a range of domestic activities were occurring. Although structure density was thought to be low, the site does not appear to have been a vacant ceremonial center. Much of the midden in the village area had been disturbed by historic plowing, and it is probable that many shallower features were destroyed prior to excavation.

Although a number of features were found in XU1, no obvious structures could be resolved, however several lines and arcs of posts were found indicating they may have been present (Figure 57). In a portion of XU1 the village midden was

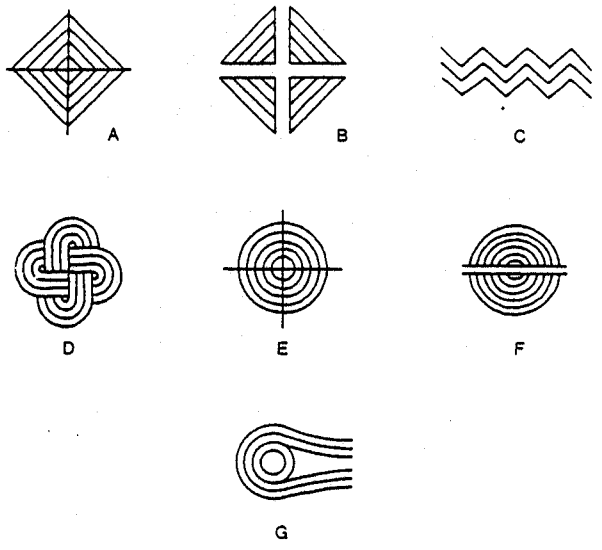
separated into two strata by a yellow clay cap. Examining the artifacts above and below this cap, a decrease in check stamped and burnished plain pottery, and an increase in plain pottery over time was noted. The decline in check stamping is expected at this general time level (see discussions in the Rucker's Bottom section below). The decline in burnished plain was somewhat unusual, however, and may indicate that the fortunes of the center itself were on the wane, if the ware was a high status indicator. No evidence for structures was found in XU2, which had a much lower feature density than the other three units. This block, opened immediately south of the mound, may have encompassed part of a plaza area. Discoidals or chunky stones were common on the site, indicating some kind of a plaza/gaming area had probably been present.

In SS1 approximately 400 features were found. Of these, 228 were sectioned and 165 or 72 percent were found to be cultural features (Figure 57). This incidence of features to non-features was comparable to that observed at Rucker's Bottom (see p. 273 below). A dense, roughly square cluster of postmolds approximately 9 m on a side was present in the northern part of the block that appeared to be a structure that had undergone one or more episodes of rebuilding. No evidence for a central hearth or a wall trench entranceway was found, although any shallow features would have been destroyed by plowing in this area. While somewhat larger than the premound Structures A1 and A2, or the residential structures at Rucker's Bottom, the size and shape were within the range for domestic structures at other sites in northern Georgia (Rudolph and Hally 1985:226). Midden in the general area was characterized by occupational debris, and the structure could have seen either domestic or ceremonial use, or both. SS2, opened near an old flood chute in the northwestern edge of the site, had a low feature density, suggesting use of this area was fairly minimal. Backhoe trenches dispersed across the floodplain found no other evidence for occupation, suggesting Mississippian settlement was restricted to the area immediately around the mound (Rudolph and Hally 1986:239).

Artifact Analyses. A detailed ceramic analysis was conducted on a sample of 25,002 sherds from the premound midden, the midden strata in XU1, and the gray ashy layer associated with Mound Stage 1 (Rudolph and Hally 1985:261-280). The Beaverdam phase assemblage consisted of five principal types: Etowah Complicated Stamped, Savannah Complicated Stamped, Savannah Check Stamped, Savannah Plain, and Savannah Burnished Plain. Corncob impressions, typically below the lip in the neck and shoulder area of jars, and collared rims were also characteristic of this phase (Rudolph and Hally 1985:263). Complicated stamping occurred primarily on tall and short neck jar forms; neck areas on these vessels were sometimes corncob impressed or smoothed. Complicated stamped motifs attributed to the Etowah ceramics, in order of their incidence in the assemblage, were the two bar cross diamond, the herringbone, and the one bar cross diamond (Figure 60; see also Figure 64, a,f). Close similarities with the Etowah III phase from northwest Georgia, and the late Etowah Stillhouse phase from the Wallace Reservoir were inferred (Caldwell n.d.; Smith 1981:182-184; Rudolph and Hally 1985:265-267).

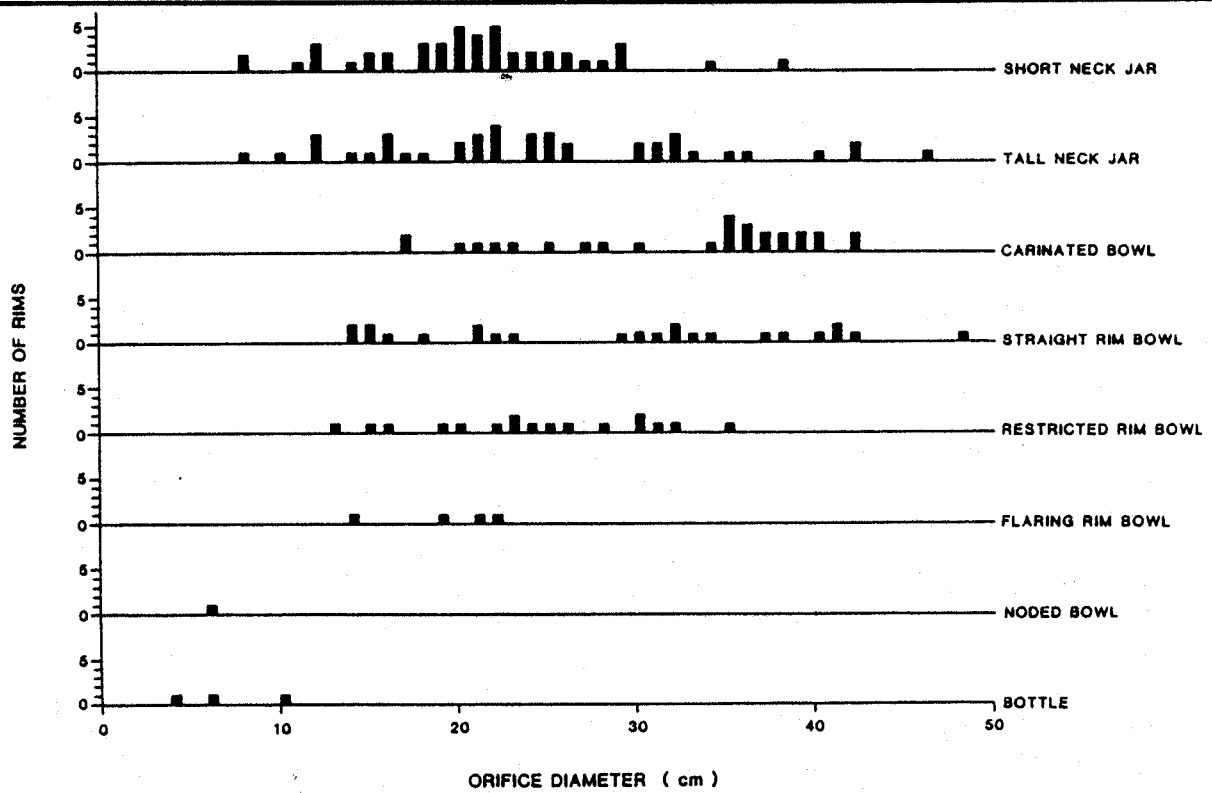


Beaverdam phase vessel forms, Beaverdam Creek Mound Site.
Source: Rudolph and Hally 1985: 370



A, one bar cross diamond; B, two bar cross diamond; C, herringbone; D, filfot cross; E, one bar cross concentric circle; F, two bar concentric circle; G, keyhole

Beaverdam phase complicated stamped design motifs, Beaverdam Creek Mound Site.
Source: Rudolph and Hally 1985: 266



Beaverdam phase vessel size variability by form, Beaverdam Creek Mound Site.
Source: Rudolph and Hally 1985: 378

Figure 60. Mississippian Vessel Characteristics Beaverdam Creek Mound and Village Site, 9EB85.

Motifs attributed to the Savannah materials, in order of incidence, were concentric circles, filfot cross, two bar concentric circle, one bar cross concentric circle, and keyholes (Figure 60; see also Figure 64:b, k-q). Close similarities with the Savannah occupations at the Irene site at the mouth of the drainage were inferred. While the filfot motif is thought to occur during the early Lamar period at Irene, it is common in late Etowah and Savannah assemblages in northwest Georgia, and the late attribution at Irene may be an oversight (Rudolph and Hally 1986:269-270). The Savannah Check Stamped pottery from Beaverdam Creek was also very similar to the material found at Irene, although the designs were typically not as well executed.

Plain finish, the most common ware at the site, occurred on short and tall neck jars, and on carinated and straight rim bowls (Figure 60). Highly smoothed burnished plain pottery was only about one-sixth as common, and was restricted to bowl and bottle forms. Corncob impressions occurred exclusively on jars, and primarily in neck areas, suggesting that corncobs were used to shape the vessel (Rudolph and Hally 1985:273). The finish appears to commonly occur only in the central and upper Savannah River. Collared rims, formed by the addition of a strip of clay below the lip, were a minority rim form at the site, although the attribute is common in Pisgah assemblages to the north (Dickens 1976:178; Moore 1981). Collar width ranged from 18 to 49 mm, with decorations including cane punctations, fine incised lines, or vertical ridges (Figure 65 y,bb; Figure 66:a-c,n,v). The low incidence of notching differentiates the Beaverdam Creek material from typical Pisgah assemblages in western North Carolina. Folded rims were present but rare in the assemblage, with those that were found either plain or notched. Folded rims were more common in the ensuing Lamar period.

Stratigraphic analyses, conducted using sherds from the premound midden, the gray ashy layer, and the stratified midden in XU1, showed a decline in the cross barred diamond motifs from the earlier premound midden to the later gray ashy layer. Barred concentric circles and herring bone motifs showed the opposite relationship, occurring more commonly in the later gray ashy layer. Filfot cross motifs occurred in about the same incidence over all three proveniences, while the herring bone pattern was restricted largely to the mound area. A replacement of nested and barred diamond motifs by concentric circles has been documented over much of the north Georgia region, reflecting a replacement of Etowah by Savannah assemblages (Hally and Rudolph 1986:51-63; Rudolph and Hally 1986:447-462). No evidence for a decline in the incidence of check stamping was observed within the mound, although this pattern was noted in the stratified midden deposits in XU1, in the village area. Check stamping declined appreciably after the Beaverdam phase in the upper Savannah River area, occurring only in low incidence in the Rembert phase assemblages at Rembert and Rucker's Bottom (see p. 287 below).

A detailed analysis of vessel form and function was conducted using all of the intact or reconstructable vessels from the site, and those rimsherds (N=198) large enough to permit accurate vessel shape determinations and orifice diameter measurement (Rudolph and Hally 1985:367-398; see also Hally 1983a, 1983b, 1984).

Eight distinct vessel forms were identified, each exhibiting a fair degree of size variability (Figure 60). The absence of size standardization has been interpreted as reflecting household rather than community or specialist patterns of manufacture and use (Rudolph and Hally 1985:384). It may alternatively or in addition indicate the use of several size categories within a given vessel form. The existence of individual, household, and multihousehold serving or cooking vessels, in this view, could produce such a pattern (Million 1980:18-5 to 18-15). Multiple size categories were, in fact, inferred for the tall neck jar, straight rim bowl, and carinated bowl forms (Rudolph and Hally 1985:382).

Sooting was commonly observed on all of the vessel forms except the flaring rim bowl, bottle, and noded bowl. Sample sizes for these latter categories were low and hence possibly unrepresentative, but they do not appear to have been appropriate forms for use over a fire. The evidence from the remaining categories, however, indicated that a range of jar and bowl forms saw use over fires. None of these appear to have been used exclusively for either cooking or storage, but instead saw use in both functions. A comparison with later Mississippian Barnett phase vessel assemblages from northwest Georgia indicated considerable continuity in vessel size and form. Basic characteristics of both the Beaverdam and Barnett phase Mississippian vessel assemblages included:

1. A large jar form for storage of liquid foods.
2. At least one jar form for heavy duty cooking.
3. A large vessel, presumably a bowl, for heating and serving liquid foods.
4. Numerical unimportance of pottery bottles and individual eating bowls (Rudolph and Hally 1985:398).

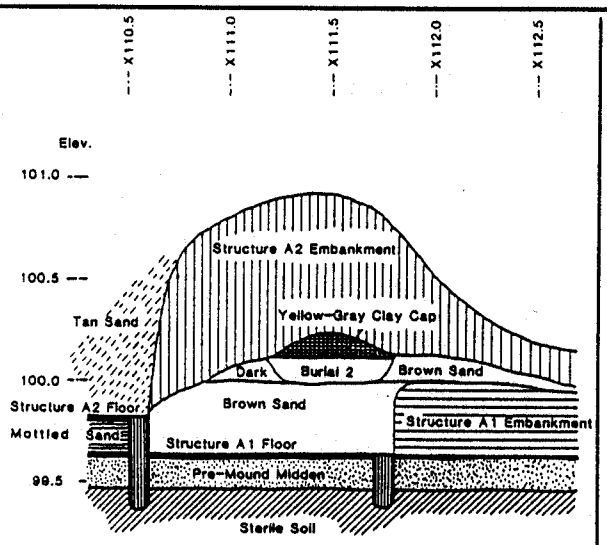
A considerable antiquity for food preparation and consumption habits, spanning much of the local Mississippian period, was inferred from these common features.

Moderate numbers of small Mississippian triangular points were found at Beaverdam Creek (N=139) and at Rucker's Bottom (N=308). While a number of varieties could be differentiated, separable primarily by basal morphology (i.e., straight, concave, convex), analyses to date with these materials have not been able to resolve temporally or behaviorally significant categories (Rudolph and Hally 1985:287-289; Anderson n.d.). Other flaked tools found in the mound assemblage included a small number of drills and perforators, other bifaces, and utilized flakes. The perforators may have been used to work shell or bone, although no evidence for bead manufacture was found. Given the large number of beads found in Burial 2, some local manufacture may be plausible (Rudolph and Hally 1985:313). The number of flaked stone tools found on the site (N=133) was fairly low, suggesting that many tools may have been made from wood or cane (Rudolph and Hally 1985:295-298). Pecked and polished discoidals, in contrast, were fairly common (N=31), suggesting chunky and related games were played in the immediate area, possibly in a plaza.

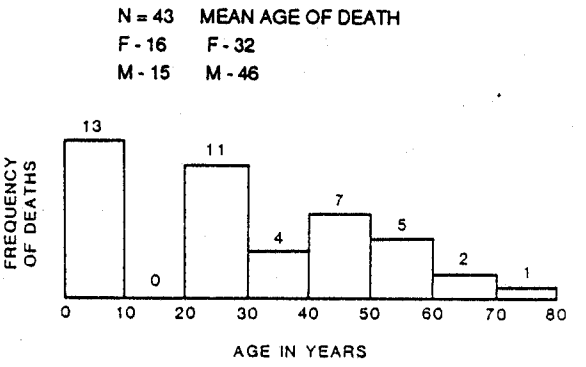
Other artifact categories found at the site, typically in low numbers, included grooved soapstone objects resembling earlier Late Archaic notched "weights" (i.e., Claflin 1931:31-32), hammerstones and anvils, ceramic and carved stone pipes, celts, beveled and grooved abraders, grinding stones, probable polishing stones, quartz crystals, lumps of pigment, and sheet mica fragments (Rudolph and Hally 1985:305-311). An appreciable quantity of small unworked soapstone fragments was found, indicating on-site manufacturing activity. An outcrop of this material was located approximately 1 km away opposite Paris Island, and would have represented a convenient raw material source (see Chapter V, p. 200). Pipes, all variations on a segmented elbow form, tended to occur more commonly in the mound and premound areas of the site than in the village, although this may reflect the much greater volume of fill processed from the former areas. A small number of bone tools were recovered, including four awls, eight beads, a polished antler tine, a hollowed deer phalanx, and a cylindrical piece of bone.

Shell beads were found in appreciable numbers in Burial 2, and much lower numbers in several other burials. Three types of beads were present, perforated disks, perforated barrel shapes from whelk or conch shells, and whole *olivella* shells (Rudolph and Hally 1985:312-313). Most of the beads found at the site came from two burials; Burial 2 had 7043 disk and barrel-shaped beads, while 450 barrel-shaped beads were found with Burial 31. Only small numbers of bone or shell beads (one to eight specimens) were found with the remaining burials. Other shell artifacts from the site, all found with burials, included a columella pendant, a whelk shell cup, two square shell ornaments, a button-like object, two earspools, and three gorgets. Three copper ornaments were found with Burial 2. These included a crescent-shaped sheet ca. 20 x 6.3 cm in size from a probable headdress and two circular copper discs ca. 5.5 cm in diameter that were probably earspools (Rudolph and Hally 1985:314-315). The discovery of a largely intact copper covered celt in pothole spoil dirt during the 1971 fieldwork indicated that other elaborate burials were once present in the mound (Lee 1976:41-42; Rudolph and Hally 1985).

The Burial Assemblage. Fifty two burials were excavated at the Beaverdam Creek site, ten in the village area and the remainder in the mound or premound areas (Blakely et al. 1985; Rudolph and Hally 1985:317-351). Preservation was highly variable, ranging from excellent to extremely poor. Age determinations were possible for 43 individuals and the resulting mortality curve, with a high infant and childhood peak followed by decreased mortality in adolescence and increasing mortality thereafter, is fairly typical of initial agricultural populations (Figure 61; Cohen and Armelagos 1984). Nine of the 11 burials dated to between 20 and 30 years at time of death were female, probably reflecting deaths resulting from childbirth. Average age of death for adult females was 32 years, while for males it was 46 years. Stature estimates could be calculated for seven males and five females, with males ranging from 166 to 178 cm and females from 156 to 163 cm (Blakely et al. 1985:343). Males buried at the mound tended to be taller than those buried at Rucker's Bottom, where the average height, measured on three individuals, was 170.6 cm. This height difference may be due to a better diet or living conditions for those interred in the mound. Little difference in female stature was noted between the two sites; it should be cautioned, however, that the



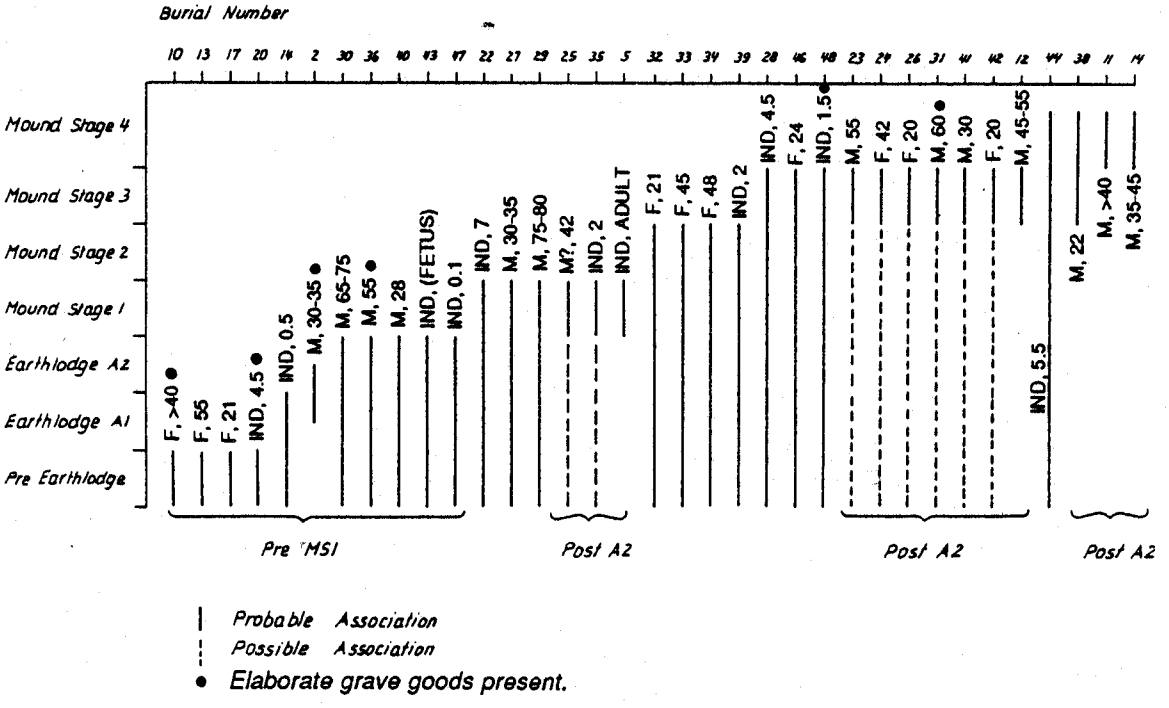
Burial 2, Beaverdam Creek Mound. The burial was that of a high status male whose internment occurred between the dismantling of Structure A1 and the construction of Structure A2.
Source: Rudolph and Hally 1985: 84



Mortality curve for the Beaverdam Creek Site.
(Source: Rudolph and Hally 1985: 342)

M		F		INDETERMINATE	
BURIAL	AGE	BURIAL	AGE	BURIAL	AGE
NO IDENTIFIABLE MALE BURIALS WERE FOUND IN THE VILLAGE.		3	30-35	1	SUBADOLESCENT
		4	20-25	7	ADULT INDETERMINATE
		6	35-45	8	3-5
		9	20-30	15	5.5
		16	20	45	INDETERMINATE

Age and sex of burials in the Village Area at the Beaverdam Creek Site.
Source: Rudolph and Hally 1985: 317-340



Age and sex, and relative dating of the burials at the Beaverdam Creek Mound Site.
Source: Rudolph and Hally 1985

Figure 61. Burial Assemblage Information, Beaverdam Creek Mound and Village Site, 9EB85.

sample sizes employed were very small.

Fronto-occipital cranial deformation was common among females at Beaverdam Creek, and appeared to have been caused by binding a board to the back of the head. Nine of 16 identifiable adult females and one of 15 adult males had this trait; the adult male was elderly (>65 years of age) and the deformation may have been due to age-thinning and post-depositional warping. General skeletal pathologies such as arthritis, localized periostitis, chronic osteomelitis, blastomycosis, and possibly tuberculosis were diagnosed but were uncommon, as was evidence for dental decay. This situation contrasted markedly with that observed in the Beaverdam phase population at Rucker's Bottom, and indicated that the individuals interred in the mound were, on the average, in much better health.

Burial in the mound apparently demarcated high status at the Beaverdam Creek site, and this status was age and sex-linked. Approximately one-third of the interments in the mound were characterized by grave goods or unusually elaborate burial treatment. Only one of the burials found in the village, in contrast, had associated grave goods. All of the identifiable burials found in the village area were either female or subadolescents; no identifiable adult males were found in this area (Figure 61). Within the mound the average age of death for males receiving special mortuary treatment (N=6, 46.7 years) was virtually identical to that for males buried with no special treatment (N=8, 46.2 years) (Rudolph and Hally 1985:345). In contrast, the average age of death of adult females receiving special mortuary treatment (N=5, 40.2 years) was considerably higher than that for adult females buried without special treatment (N=11; 27.7 years). Female status seems to have depended, in part, on surviving peak child-bearing years. Adults of both high and low status tended to be buried considerably deeper than subadults, with burial pit depth averaging 79 cm as opposed to 39 cm (Rudolph and Hally 1985:348).

Burials were typically extended to semi-flexed. Approximately two thirds of the burials were oriented along a northwest to southeast axis with the tops of the skulls pointing northeast; of those oriented along this axis there was about an equal preference for southwest and northeast facing positions (Rudolph and Hally 1986:345). An analysis of the relative age of the burials in the mound documented a decline in interments with elaborate grave goods over time (Figure 61; elaborate interments were defined as those with shell or copper ornaments). A pattern of progressive impoverishment of the center prior to its ultimate abandonment is suggested. While this may accurately reflect the local political situation, the extensive destruction of the upper stages and the difficulties attendant in dating many of the surviving burials renders this interpretation open to question.

Paleosubsistence Analyses. A wide range of carbonized plant remains were identified at the Beaverdam Creek site, including maize, squash, gourd, sunflower, sumpweed, hickory, acorn, walnut, hazelnut, maypops, persimmon, grape, bramble (raspberry), strawberry, plum, maygrass, panic grass, chenopodium, purslane, carpetweed, amaranth, and eyebane (Gardner 1985:400-

411). Wood charcoal was not identified to species, but both hardwoods and softwoods were noted in the collection. Both acorn and hickory nuts were common at 9EB85, occurring in over 80 percent of the samples; hazelnut and walnuts were much less common, and may not have played a major role in subsistence. Corn was the most frequently occurring plant food, present in 93 percent of the samples, and accounting for 53 percent of the food remains by weight. Cobs were common, with the majority eight rowed Northern Flint or Maiz de Ocho; lesser quantities of 10 and 12 rowed corn were also present (Gardner 1985:405). Squash and gourd were represented by one rind and one seed, and one rind fragment, respectively. The sunflower and sumpweed were present in incidental quantity; while the single identified sunflower seed was within the range of other reported Mississippian examples, the three sumpweed seeds (two of which were measurable) were small and more typical of Late Archaic or Early Woodland forms from the region.

Fruits appeared to have been extensively utilized. Maypop seeds were present in almost three quarters of the samples, with grape found in almost 40 percent. The other fruits that were identified occurred in fairly low incidence. The presence of amaranth, chenopod, maygrass, and panic grass seeds may have been due to ground disturbance associated with the use of the site area, although utilization as a food source cannot be ruled out (Cowan 1978; Asch and Asch 1985). Purslane, carpetweed, and amaranth could have been used as potherbs, while eyebane was a medicinal herb; all could have grown in the disturbed habitat about the site, and may have been encouraged (Gardner 1985:407). The fairly wide range of plant foods that were exploited indicated that something of a generalist foraging strategy was practiced, with clear dietary preferences for certain plants, particularly maize, nuts, and fruits. Neither a focal nor a diffuse strategy was followed, but rather a mixture of the two (Cleland 1976; Gardner 1985:409-411).

A sample of 7573 bones representing a minimum of 161 animals were collected and examined from the Beaverdam Creek site, from both 1/4 inch and flotation sample proveniences (Reitz 1985:416-428). A wide range of species from a number of habitats were exploited, most occurring in close proximity to the site. Both aquatic and terrestrial resources were exploited in some quantity, although terrestrial mammals, particularly deer, probably contributed the bulk of the food. Assemblage diversity and equitability were high, indicating a diffuse, or generalist subsistence strategy was practiced (Reitz 1985:427). An analysis of deer elements suggested that kills were returned intact to the site. The approximately equal occurrence of both hind and forequarters indicated that meat probably did not leave the site (i.e., as tribute), as was suggested at Rucker's Bottom. Many of the bones were burned, suggesting that roasting over an open fire was a common cooking practice. Carnivore gnawing was also observed, but no dog remains, one of the probable scavengers, were found.

Community Organization. The Beaverdam Creek Mound site throughout its history undoubtedly served as a ceremonial focus for populations in this part of the Savannah River Valley. The extent of its influence is unknown since only minimal investigations have been undertaken at the other two centers located in

this part of the drainage, at Tate and Rembert. Whether it was the primary ceremonial center for this part of the drainage during this period, or one of three relatively autonomous centers (i.e., Beaverdam Creek, Rembert, and Tate) remains unknown. Given the evidence for a near-continuous history of occupation, the site does not appear to have been alternately in use and then abandoned, with activities and populations shifting to other nearby centers (e.g., Williams and Shapiro 1986a).

The number of people actually living at the center remains unknown. The intensive examination of ca. 1140 square m of the village area revealed large numbers of features but only one definite house pattern. Another 1500 square meters were stripped and less intensively examined for features, again with no obvious evidence for structures found. Structure B, the small circular wall trench building near the earthlodges in the premound midden area also probably represented a habitation. The presence of only two readily identifiable domestic structures, given the area examined, may point to low resident populations. The presence of a ca. 2500 square m midden area around the mound, however, coupled with the large numbers of postmolds found below it, alternatively argues for a fairly intensive occupation of the site area. Rudolph and Hally (1985:356) have suggested that the postmolds found at the site lacking obvious patterning may have supported "racks, screens, platforms, arbors, and other short-lived constructions." If the site was the ceremonial focus for a larger area, evidence for these kinds of structures would be expected, to provide temporary shelter for groups visiting the site for ritual or other public activities.

Rucker's Bottom (9EB91)

Introduction. Rucker's Bottom was a large, multicomponent prehistoric site in Elbert County, Georgia that extended for almost a kilometer along the river terrace immediately to the north of Van Creek, a small tributary. Extensive excavations were conducted along the terrace from 1980 to 1982, documenting a sequence of prehistoric occupations ranging from the Early Archaic through the Mississippian periods (Anderson and Schuldenrein 1985:251-590). The landform defining the site was elevated 4 to 6 m above the river channel, with a pronounced low-lying swale situated between the levee and the Van Creek floodplain, which drained the terrain to the west. This swale would have been a seasonally flooded marsh, enhancing the microenvironmental variability in the site area. The soils in the immediate site area were Toccoa fine sandy loams, a well drained floodplain soil, while those in the swale were Cartecay poorly drained clayey loams (Frost 1979:40,45).

Field Investigations. The Rucker's Bottom site, which had been in pasture since the mid-1960s, was discovered in January 1969 when Hutto (1970:28) located nine "scattered chips... along eroded areas on the Savannah riverbank." In January 1977 the site was revisited by Taylor and Smith (1978:188, 388, 427), who noted that surface visibility was effectively zero. A 1 x 2 m testpit opened to a depth of 1.25 m in the northern part of the terrace produced an appreciable number of Mississippian sherds, pieces of debitage, and other artifacts. Based on these

findings the site was revisited in 1979, and three 2 x 2 m and one 1 x 1 m test pits were opened (Gardner et al. 1983:116-132). Almost 3,000 artifacts were found in the units, the highest artifact density encountered during the 1979 floodplain testing program. Dense Mississippian remains and several possible postmolds were found in the fill of the three larger units opened in the northern part of the terrace, while stratified Middle and Late Archaic remains at depths of up to a meter were found in the 1 x 1 m unit, which was opened some 160 m to the south. It is now known that the tests yielding Mississippian artifacts were placed almost exactly in the middle of the fortified late prehistoric village.

An intensive testing program was conducted at the site in 1980, followed by two seasons of large scale excavations in 1981 and 1982. The 1980 testing included controlled surface collections over the entire site area followed by the excavation of twenty 4 x 4 m and two 2 x 2 m test pits dispersed at roughly 20 m intervals along the terrace, 25 backhoe trenches to collect geoarchaeological data and probe for deeply buried deposits, and four bulldozer transects across the site to look for subplowzone features. To facilitate the controlled surface collection the field was disked and allowed to lie fallow until rained on. The disked area was arbitrarily divided into grid blocks 10 m on a side, with a 4 m diameter collection circle shot in and collected within each block (providing a 12.6 percent sample of the site area) followed by a general collection over the surrounding area (see Chapter II, pp. 41-44). The vast majority of the surface collection consisted of Late Archaic through Mississippian pottery, projectile points, cracked rock, and debitage. Most of the earlier Archaic and Woodland material occurred at the south end of the terrace, while Mississippian remains tended to occur in the central and northern areas (Figure 8).

Extensive late prehistoric, predominantly Woodland remains were found in the plowzone at the south end of the site, underlain by stratified Late, Middle, and Early Archaic assemblages at depths of up to 1.0 m below the surface. The test units opened in the central and northern parts of the terrace produced extensive Woodland and Mississippian period remains, including a dark, well defined midden extending over almost 20,000 square meters. The thickness of the midden varied, with the deepest deposits near the terrace crest, and thinning out as the swale or the river margin was approached. Most of the pre-Mississippian Archaic and Woodland remains occurred to the north and south of the midden area, particularly to the south, near Van Creek. Pits, posts, hearths, and daub concentrations were observed in many of the units, most recognized at or near the base of the midden, intruding into the underlying lighter soils.

To overcome the problem of feature detection and interpretation posed by the comparatively small test units, three 3.75 m transects were opened across the terrace and a fourth was opened into the swale using a bulldozer. The cuts were taken to the base of the plowzone, with all features flagged, cleaned, and mapped. Over the 850 square meter area examined 170 features were found, most characterized by Mississippian pottery. The densest concentrations of features were noted at and near the terrace crest. A thin stratum of Mississippian pottery was found at a depth of almost a meter in the swale, suggesting trash disposal or

extensive use of the swale margin during this period.

The 1980 testing results prompted two additional field seasons at the site. A 16 x 16 m block was opened into the later Archaic and Woodland deposits at the south end of the terrace. Following machine stripping of the plowzone, the block was opened in two 10 cm levels. Eighty of the 256 squares were taken to depths to 50 to 90 cm below the plowzone, to document the earlier deposits. Based on this work a second, 12 x 12 m block was laid out adjacent to and partially overlapping with the first block and, following machine stripping of the upper 40 cm of subplowzone deposits, a 160 square m area was removed in three 10 cm levels. Both blocks were opened using 1 m squares, with all fill waterscreened through 1/8 inch mesh. In all, 141 features, 254 diagnostic projectile points, 785 tools, and 134,102 pieces of debitage were found in these units. Almost all of this material was Woodland or earlier in age; only three of 308 Mississippian Triangulars and less than 50 of the more than 15,000 diagnostic Mississippian sherds found on the site came from these blocks, indicating the degree of spatial separation between the Mississippian and earlier pre-Mississippian components on the terrace (Anderson and Schuldenrein 1985:255, 321).

In 1981 an area of almost 4500 square meters was examined in the central part of the site, using a motor grader to remove overburden, followed by shovel skimming. Features exposed at the base of the plowzone were flagged, scribed with a trowel, and then mapped using a plane table and alidade or a transit. Features were characterized by concentrations of rock, pottery, shell, bone (including burials), charcoal, or other debris, or faint to pronounced gray or brown organic staining. A total of 1201 features were found, including a largely intact house floor about 8 m in diameter and set about 30 cm into the ground, and a semicircular ditch line. Features tended to occur at different depths, with a superpositioning in rough agreement with age. This created problems in interpretation in 1981, since the stripping operations were typically halted when concentrations of features first appeared, which was usually before all the midden had been stripped away. When the remaining midden was stripped away, other lower-lying features were frequently exposed, or faint features stood out better against the underlying yellowish sandy soils. Even though large numbers of features were found in 1981, when the same areas were restripped to the underlying yellow sands in 1982 it became apparent that only a small fraction of the total feature assemblage had been documented. In retrospect, two or three episodes of stripping and mapping or deeper initial stripping was called for; the latter procedure was employed in 1982.

Using first a D-6 bulldozer and then a motor grader, the plowzone was removed from an approximately 10,000 square meter area in the central and northern portions of the terrace (see Figure 8). The area examined formed a contiguous if somewhat irregular block approximately 200 x 50 m in extent, encompassing all of the area examined in 1981 and most of the area inside the semicircular ditch line (Figure 62). Once the feature level was reached with the heavy equipment, final clearing was done with a small tractor pulling a scraping blade, followed by shovel skimming. The revised stripping program located several thousand features including a second ditch and stockade line, evidence for upwards of 20

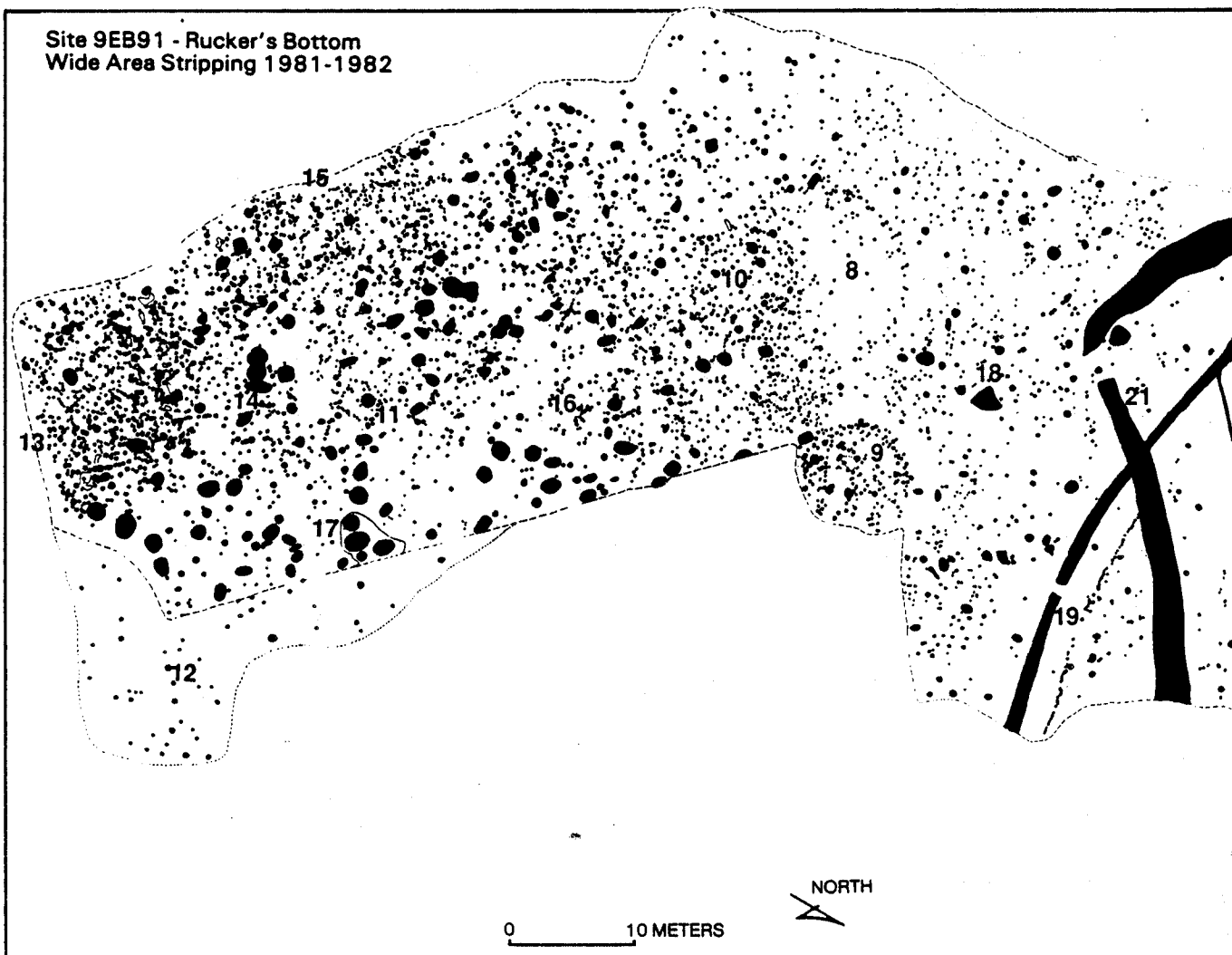
structures, and well over 100 large pits, exposing for the first time the internal organization of the Mississippian village.

Features were selected for excavation employing both judgemental and random sampling procedures. While most of the features that were ultimately examined were intuitively selected, a simple random sample of 212 features was excavated in 1981 to evaluate the overall assemblage. Three quarters of this sample proved to be cultural features, most dating to the Mississippian period, indicating that feature density at the site was high, and that the incidence of noncultural features was fairly low. The same approximate ratio of features to non-features, as noted previously, was also observed at the Beaverdam Creek Mound site. The random sampling procedure provided a standardized method for evaluating the exposed feature assemblage, and additionally ensured the examination of features that might have otherwise been avoided. In all, 584 features were examined within the stripped area, 457 of which could be identified as Mississippian in age. Counting the three Mississippian features found in the Archaic blocks, a total of 460 Mississippian features were excavated at the site.

The fill from all features was waterscreened through 1/8 inch mesh. To maximize the recovery of paleosubsistence data and small artifacts flotation was routinely employed, with 402 four liter samples collected and processed using a modified SMAP machine (Watson 1976). Project zooarchaeologists were on the site throughout the first and second field seasons (Scott 1985), while the ethnobotanist visited the project the second season to test the data recovery procedures as well as collect samples of the local flora (Moore 1985). The effectiveness of the flotation machine itself was tested using carbonized poppy seeds mixed into samples; an average of 82 (of 100) seeds were recovered from each sample, a fairly high recovery rate (Moore 1985).

Geoarchaeological research formed an important part of the Mississippian investigations (see Chapter III, pp. 81-86). In all, 58 backhoe trenches were opened over the Rucker's Bottom site area to examine the archaeological, geomorphological, and paleoenvironmental deposits. The backhoe was used with great success in 1981 to follow the arc of the 1 to 2 m wide, semicircular Mississippian palisade ditch, a small portion of which had been exposed in the stripping. Extrapolating the arc beyond the block, additional segments were detected using short cross trenches, quickly defining a semicircle 120 m wide and fronting on the river.

Site interpretation was partially constrained by the nature of the preservation encountered, and the field methods employed in data recovery. Historic plowing had occurred over the entire area, and plow scars were evident in the upper parts of many features. Shallow features, including posts, pottery vessels, and house floors were lost due to historic plowing and during the stripping operations, when up to 10 to 15 cm of midden was removed. While this information loss was regretted, an extensive feature assemblage was documented over large areas, permitting effective examination of the site's community plan and occupational history.



MISSISSIPPIAN ANALYTICAL STRATA (KEY)

1. Structure 1. Circular House (?) in the Western Sector of the Inner Village.
2. Structure 2. Squared House (?) in the Western Sector of the Inner Village.
3. Structure 3. Circular House (?) in the Southern Sector of the Inner Village.
4. Structure 4. Circular House (?) in the Southern Sector of the Inner Village.
5. Structure 5. Squared House (?) in the Eastern Sector of the Inner Village.
6. Structure 6. Circular House (?) in the Eastern Sector of the Inner Village.
7. Structure 7. Large (14 Meter Diameter) Public (?) Building in the Southern Sector of the Inner Village.
8. Structure 8. Large (14 Meter Diameter) Semicircular Enclosure in the Area Between the Two Villages.
9. Structure 9. Circular House (?) in the Northwestern Sector of the Outer Village.
10. Structure 10. Circular House (?) in the Northwestern Sector of the Outer Village.
11. Structure 11. Rectangular House (?) in the Southern Sector of the Outer Village.
12. Northeastern Sector of the Outer Village - Incompletely Stripped.
13. Southeastern Sector of the Outer Village (High Feature Density Area).
14. Large (13 Meter Diameter) Circular Public (?) Building in the Southern Sector of the Outer Village.

Source: Anderson and Schuldenrein 1985: 475

Figure 62. The Mississippian Village Feature Assemblage, Rucker's Bottom Site, 9EB91.

15. Southwestern Sector of the Outer Village (High Feature Density Area).
16. Northwestern Sector of the Outer Village (High Feature Density Area).
17. Central Portion of the Outer Village (Low Feature Density Area) - Possible Plaza (?).
18. Area Between the Two Villages (Low Feature Density Area).
19. Semicircular (Early) Ditch Fill - Southern Side of the Enclosure.
20. Semicircular (Early) Ditch Fill - Northern Side of the Enclosure.
21. Rectangular (Later) Ditch Fill-Southern Side of the Enclosure.
22. Rectangular (Later) Ditch Fill-Northern Side of the Enclosure.
23. Southern Sector of the Inner Village, Within the Two Enclosures (High Feature Density Area).
24. Western Sector of the Inner Village, Between the Two Enclosures.
25. Central Portion of the Inner Village (Low Feature Density Area) - Possible Plaza (?).
26. Eastern Sector of the Inner Village (High Feature Density Area).
27. Northern Sector of the Inner Village (High Feature Density Area).

Community Organization. The Mississippian assemblage at Rucker's Bottom, with its numerous features, house patterns, burials, and ditch and stockade lines clearly represented extended village occupation. Topographically, the site was located in one of the largest tracts of bottomland along this stretch of the Savannah, adjacent to both the main river channel and a swampy, partially filled oxbow or swale. The location thus offered access to extensive arable land and to a range of both riverine and backswamp resources. The occurrence of a dense Mississippian occupation in such a setting was thus not altogether unexpected (Murphy and Hudson 1968; Larson 1972; B. Smith 1978:480-486). To facilitate analysis of the Mississippian feature assemblage at Rucker's Bottom, the stripped area was subdivided into a series of analytical strata, each consisting of a major feature such as a structure or ditch line, or else a concentration of features such as the plazas or the high feature density areas around them (Figure 62).

Through a variety of procedures the Mississippian artifact and feature assemblage was dated to between ca. A.D. 1200 and A.D. 1450 (see Ceramic Analyses/Chronological Controls section pp. 287-291 below). Occupation appears to have been continuous over this interval, with settlement shifting from an open, roughly circular arrangement of houses about a central plaza in the south central part of the terrace to houses within first a semicircular and later a rectangular ditched and stockaded enclosure in the north-central part of the terrace (Figure 62). The early Mississippian community to the south of the enclosures was centered about a comparatively open area that may have been a plaza. Besides having a markedly lower feature density, several large rock filled pits were found in this area that may have functioned as trophy or gaming post supports (Bartram 1789/1853:34-35). Around this area were large numbers of features interpreted as the remains of numerous structures. Unfortunately, resolving patterns in the dense feature scatter proved difficult, and it is probable that many structures were only partially represented. When found reasonably intact, structures were typically circular in shape and from 4 to 8 m in diameter. Burials were found scattered over this area, some obviously below house floors. Several tight clusters of burials were found, suggesting family interments. One large public building, identified by a ring of posts and features approximately 14 m in diameter, appeared to have been present in the south-central part of the village, facing the plaza (Stratum 14, Figure 62). This structure was roughly similar in plan to descriptions of 18th century Cherokee and Creek town houses or rotundas (Bartram 1792:452-454; Hawkins 1848:71-72; Swanton 1928:170-188). No ditch lines or obvious evidence for a stockade line was found associated with this early village.

A moderate decrease in feature density was evident between the presumed center of the early community and the area inside the enclosures (Stratum 18, Figure 62). This area was not unoccupied, as partial patterns from a number of structures were present, including a very large arc of posts. This arc, which was poorly defined on its south side, may represent another public building or possibly some kind of an open enclosure (Stratum 8, Figure 62). A massive pit feature was also present in this area. This feature was located approximately 10 m south of the southern opening in the later rectangular ditchline, and may have been a

major post support.

The later village on the northern part of the terrace was initially characterized by a semicircular and then later a rectangular ditch and stockade network. The ditches were from 1 to 2.5 m across and from 0.5 to 1.2 m deep. Distinct gaps were found in both ditch lines, three in the earlier and one in the later, that may delimit entranceways. Ditch fill near these gaps contained large quantities of refuse (far more debris than observed in other sections), suggesting a pattern of intentional refuse disposal near entranceways. Rows of posts from probable banked stockade lines were found (where preserved) from 3 to 6 m inside these ditch lines. The rectangular enclosure clearly intruded the semicircular one, and contained later ceramics. A similar change from semicircular to rectangular stockades or enclosures at this approximate time level was noted at the Irene site (Caldwell and McCann 1941:71-72), and has been inferred at the Shoulderbone Mound group on the upper Oconee River (Williams and Shapiro 1986b).

Like the earlier village, a pattern of houses (i.e., areas of high feature density, including a number of identifiable structures) about a plaza (i.e., an area of comparatively low feature density) was found. As in the "plaza" in the earlier village, several large rock filled pits were found in this area inside the enclosures. Other than up to several hundred kg of large rocks, these pits typically had only low to moderate amounts of sherds, bone, or other debris in their fill. Low artifact density characterized many of the features found in this open area, suggesting somewhat less surface debris, or intentional refuse disposal elsewhere. Such a pattern is in keeping with historic accounts of Cherokee and Creek village maintenance (Bartram 1789, 1852:36).

A large circular structure, a possible town house or rotunda, was found in the southern part of the enclosed village, in approximately the same position with respect to the plaza as was observed in the earlier village (Stratum 7, Figure 62). Smaller circular and square, presumably domestic structures were also found within the ditch lines. Over the site assemblage there was a suggestion that the squared shape became more prevalent over time. At least two of the three squared structures found within the enclosure were dated to the Rembert phase, based on the presence of modified rims in associated features.

Plaza Areas. A marked decline in the density of post stains was evident in the northern and eastern parts of the southern village, and across the central part of the northern enclosed village (Strata 17 and 25, Figure 62). Fewer structures and far less rebuilding of structures occurred in these areas than around them. These open spaces were interpreted as plazas, a feature characteristic of both Creek and Cherokee village organization (e.g., Swanton 1928:170-190, 1946). A fair number of large pits were present, some of which contained burials while others were supports for major posts. While evidence for domestic or public structures was minimal, the area did contain some architectural features (i.e., large posts, and probably a few temporary structures), and additionally served as a burial ground.

No evidence for a formal enclosed square ground - four sheds/seating areas in a square or rectangular arrangement - was found, although this was a near universal feature on eighteenth and nineteenth century Creek town sites (Bartram 1789:54-56; Swanton 1928:170-183). While nothing resembling such a feature was found in the southern village, a squared structure (Stratum 5, Figure 62) was found south of the rotunda in the northern village. Given the recovery of only post stains from this structure, interpretation is difficult. The absence of pronounced interior supports suggests it could well have been an open structure. Bartram (1789:34-36) has provided a detailed description of a Creek plaza, or chunky yard, that included several of the features noted at Rucker's Bottom:

> The Chunky-Yard of the Creeks, so called by the traders, is a cubiform area, generally in the centre of the town, because the Public Square and the Rotunda, or great winter Council-house, stand at the two opposite corners of it. It is generally very extensive, especially in the large old towns, is exactly level, and sunk two, sometimes three, feet below the banks or terraces surrounding it, which are sometimes two, one above and behind the other, and are formed of earth cast out of the area at the time of its formation; these banks or terraces serve the purposes of seats for the spectators. In the centre of the yard there is a low circular mount or eminence, in the centre of which stands erect the chunky-pole, which is a high obelisk, or four square pillars declining upwards to an obtuse point, in shape and proportion much resembling the Egyptian obelisk. This is of wood, the heart or inward resinous part of the sound pine-tree, and is very durable; it is generally from thirty to forty feet high, and to the top of this is fastened some object to shoot at with bows and arrows, the rifle, etc., at certain times appointed. Near each corner of the lower and further end of the yard stand erect a lesser pillar or pole, about twelve feet high: these are called the slave-posts, because to them are bound the captives condemned to be burnt, and these posts are usually decorated with the scalps of their slain enemies; the pole is usually crowned with the white dry skull of an enemy. In some of these towns I have counted six or eight scalps fluttering on one pole in these yards. Thus it appears evidently enough that this area is designed for a public place of exhibition of shows and games, and formerly some of the scenes were of the most tragical and barbarous nature...I am convinced that the Chunky-Yards now, or lately, in use amongst the Creeks, are of very ancient date - not the formation of the present Indians. But in most towns they are cleaned out and kept in repair, being swept clean every day, and the poles kept up and decorated in the manner I have mentioned (Bartram 1789:34-36; cited in Swanton 1928:188-189).

The central location of the chunky yard in the village, near a large public building, was a pattern duplicated at Rucker's Bottom, where the 'plaza' areas in both the northern and southern villages were located just to the north of large circular buildings that may have been rotundas (Strata 7 and 14, Figure 62). Chunky poles, or major posts were suggested by the presence of large, rock-filled

pits that were located almost exactly in the center of the exposed low feature density areas; upon excavation these appeared to be post supports. A comparable feature, it should be noted, was located in the center of the plaza at the King site in northwest Georgia (Hally et al. 1975:60), and major posts have been reported from the center of Mississippian plaza areas from elsewhere in the southeast, including at the Ledford Island site in southeastern Tennessee (Sullivan 1987:20), the Cemochechobee site in southwest Georgia (Schnell et al. 1981:34-35), and the Zebree site in northeast Arkansas (Morse and Morse 1980:21-23).

Domestic Structures. Over 40 roughly circular or rectangular clusters of posts from possible buildings were found surrounding the apparent plaza areas at Rucker's Bottom. Many of the larger feature concentrations may have been the locations of domestic or public structures, while the smaller concentrations may have been storage buildings, food processing areas, or other non-residential structures or features. Structures over 3 or 4 m in diameter or extent were presumably domestic residential structures or, if very large (i.e., over 10-12 m across), public buildings. Considerable variability in size and construction was evident over the structures recognized at Rucker's Bottom; some had well-defined wall lines with closely set posts, while others were much more open.

Mississippian village life was described in some detail by early explorers (e.g., see Swanton 1946; Hudson 1976, n.d.; DePratter 1983 for summaries); differences in housing and construction were linked to seasonal considerations and to the status of the residing groups. A 1540 account from the De Soto entrada of a Mississippian village in southern Georgia illustrates some of the variability observed:

> The houses of this town were different from those behind, which were covered with dry grass; thenceforward they were roofed with cane, after the fashion of tile. They are kept very clean: some have their sides so made of clay as to look like tapia. Throughout the cold country every Indian has a winter house, plastered inside and out, with a very small door, which is closed at dark, and a fire being made within, it remains heated like an oven, so that clothing is not needed during the night-time. He has likewise a house for summer, and near it a kitchen, where fire is made and bread baked. Maize is kept in barbacoa, which is a house with wooden sides, like a room, raised aloft on four posts, and has a floor of cane. The difference between the houses of the masters, or principal men, and those of the common people is, besides being larger than the others, they have deep balconies on the front side, with cane seats, like benches; and about are many barbacoas, in which they bring together the tribute their people give them of maize, skins of deer, and blankets of the country (Elvas 1557, in Bourne 1904,I:53).

Summer and winter houses have been reported from throughout the southeast (Faulkner 1977), and comparable structures were undoubtedly present at Rucker's Bottom. The larger well-defined post concentrations on the site may be from winter houses, while the less well-defined clusters as well as many of the

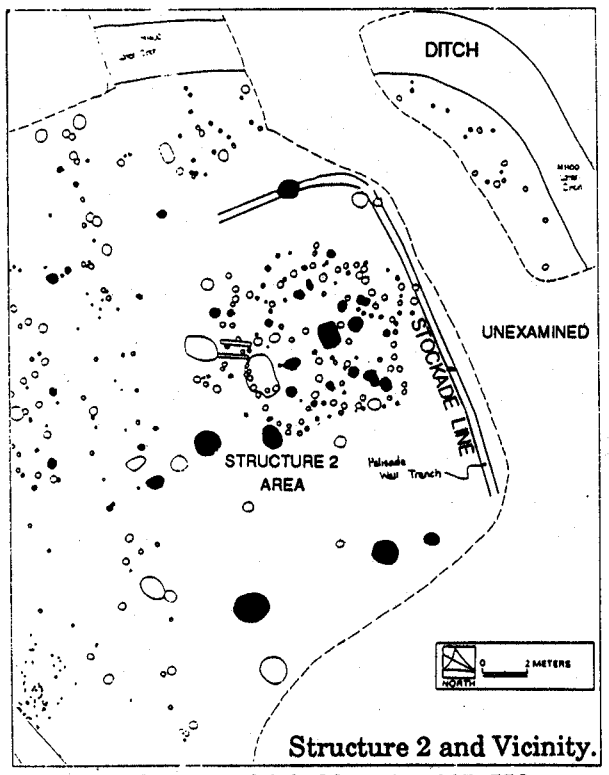
seemingly isolated or unconnected posts may be from summer houses, or possible storage or other features.

Structure 2. One square to slightly rounded building, Structure 2, was found in a low area at the north end of the Rucker's Bottom site with almost 30 cm of undisturbed fill over the floor (Stratum 2, Figure 62, Figure 63; Anderson and Schuldenrein 1985:561-578). Measuring approximately 6 by 7 m, the structure had an entrance on the southeast and a well defined central hearth, and had been rebuilt at least once. The entire area of the structure was excavated in 1 m squares, with all fill from 5 cm above the floor to the floor retained as a separate provenience, and all artifacts over 5 cm in size piece plotted. General fill was processed through 1/8 inch mesh, and flotation samples were taken from the floor of each square. The structure did not burn, but instead appeared to have been abandoned and then used for some time as a refuse dump. While dense quantities of refuse, such as broken sherds, bone, and debitage were found on the floor, no large artifacts or complete vessels were found.

Some of the smaller artifacts found on or in the floor may have been left behind when the structure was abandoned, or may have been trampled into the floor while it was in use. Intact Mississippian triangular projectile points, for example, were typically found near the outer walls, where they may have been lost or swept, while broken point fragments occurred all over the floor, with a strong incidence on the northern side (Figure 63). Large quantities of pottery, quartz debitage, animal bone, and carbonized plant remains (corn and nutshell) were also found to the north of the hearth, suggesting that a considerable range of activities, including many related to food processing, took place in this area, assuming the major portion of the debris predates the abandonment of the structure. Discoidals, pipe fragments, and a range of vessel forms, finishes, and rim treatments (i.e., notched, incised, folded, and pinched) were present; the rim treatments indicated a later Middle Mississippian Rembert phase age for the structure. The use of a number of vessels, with a range of decorative treatments, as well as gaming and smoking implements, was indicated. So few recognizably non-Mississippian artifacts were found that the structure could almost be regarded as a single large Rembert phase feature.

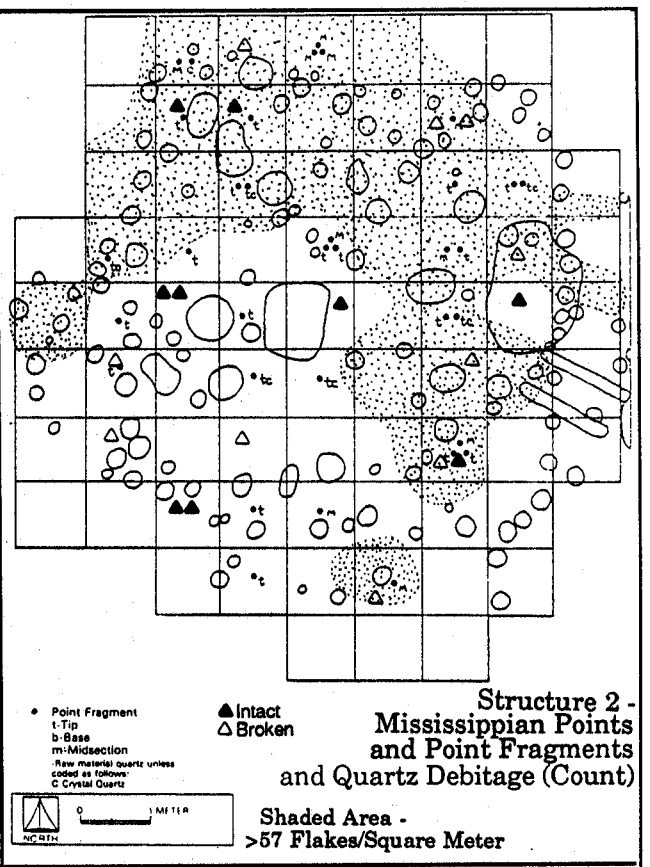
Little variation in average sherd size was evident over the floor, supporting the inference that at least a moderate proportion of the ceramic assemblage may have been post-abandonment refuse, since few large sherds and no vessels were found. The greatest quantity of pottery came from the northern half of the structure and from along the walls and in the corners. This may suggest a greater use of vessels (for food storage or preparation?) in the northern area, as well as the sweeping of debris into corners. While this finding tends to contradict that based on average sherd size, the two analyses together suggest that the floor assemblage included both later refuse as well as materials present when the structure was abandoned.

Pottery discoidals were scattered over the floor, indicating that game playing may not have been restricted to any one area. Pottery in general tended to occur in the northern half of the structure, as noted, suggesting more or larger vessels were



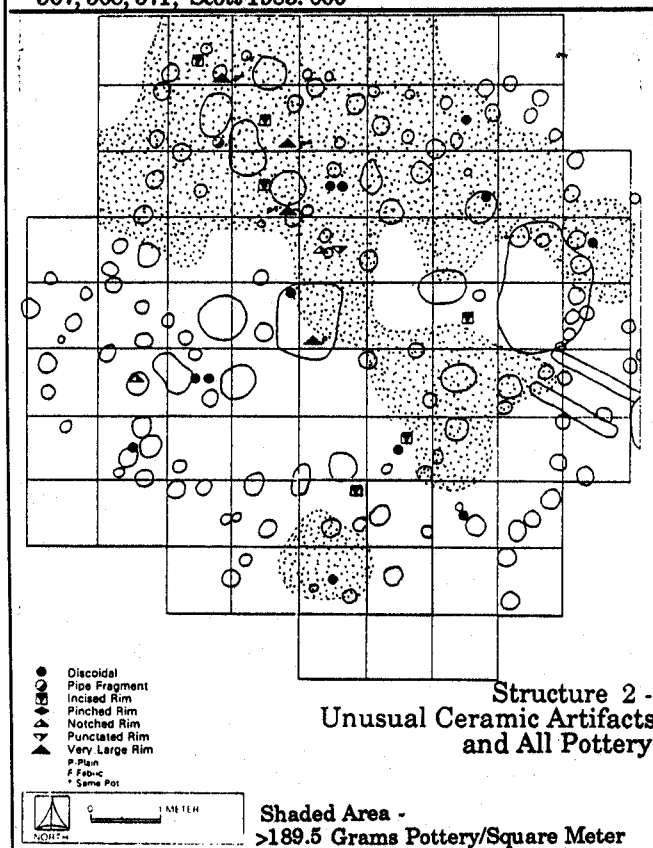
Structure 2 and Vicinity.

Source: Anderson and Schuldenrein 1985: 556, 567, 568, 571; Scott 1985: 660



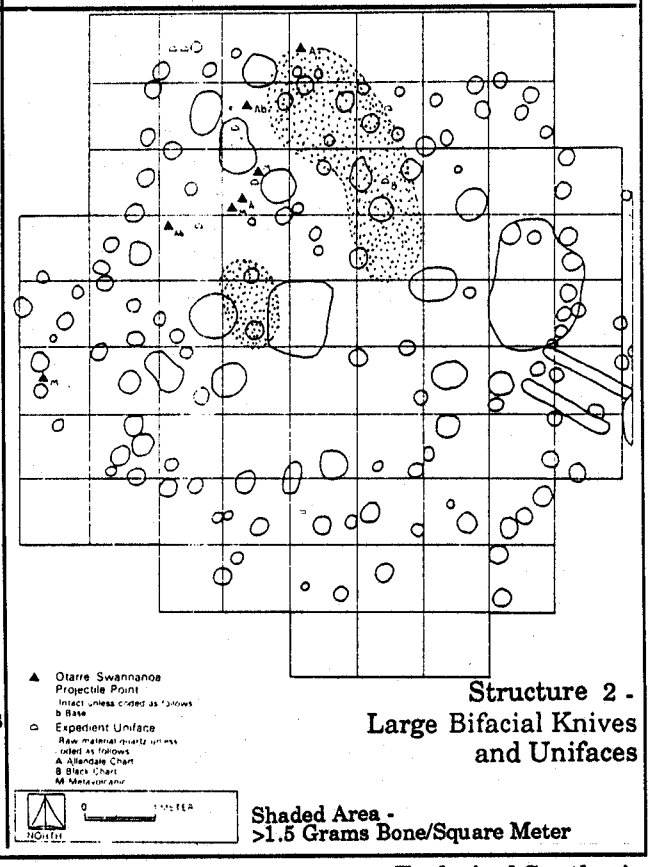
Structure 2 - Mississippian Points and Point Fragments and Quartz Debitage (Count)

Shaded Area - >57 Flakes/Square Meter



Structure 2 - Unusual Ceramic Artifacts and All Pottery

Shaded Area - >189.5 Grams Pottery/Square Meter



Structure 2 - Large Bifacial Knives and Unifaces

Shaded Area - >1.5 Grams Bone/Square Meter

Figure 63. Structure 2 Features, Points, Pottery, Bone, and Quartz Debitage Distributions, 9EB91.

used or stored in this area. Plain pottery, in contrast, was more evenly dispersed over the floor. Since most of the plain Mississippian period pottery at the site appeared to derive from bowls or small jars, this distribution may point to the use of individual eating dishes. An appreciable quantity of cracked rock was found in and around the structure, where it may have seen use as hearth stones or as construction supports. A pronounced concentration of cracked rock, in fact, was picked up in this area in the controlled surface collections. Quartz debitage, in contrast, tended to occur in greatest quantity adjacent to or away from structures, suggesting chipped stone tool manufacture or use was typically conducted outside of habitation areas (Anderson and Schuldenrein 1983b:106; 1985:471).

Several small clusters of chert and metavolcanic debitage were found on the floor of Structure 2 that may have come from single manufacturing episodes. Quartz debitage, which was the predominant raw material type, was more widely distributed, although again the most material came from the northern half of the structure. An examination of the distribution of the quartz debitage by average flake size, however, found that larger pieces tended to occur in the southern half of the structure. More initial manufacture may have taken place in this area, with final manufacturing occurring in the northern half. Many of the tools were distributed seemingly randomly over the floor, although some association with the debitage was indicated.

A dense concentration of bone surrounded by several cutting and scraping tools was found in the north central part of the structure (Figure 63; Scott 1985:665-660). This concentration consisted almost exclusively of large mammal bone (most deer or probable deer), and may reflect a butchering episode some time after the structure was abandoned. Interestingly, several of the points found in and around the bone were square-to-contracting stemmed Otarre/Swannanoa-like forms (Figures 53:ll-ss, 63). Re-use of earlier points is suggested; these artifacts would have been a common discovery in any fields or pits opened on the southern part of the terrace. A second cluster of bone from both large and small animals was found just outside the door area, suggesting intentional trash disposal. Large mammal skull fragments, missing from the interior cluster, were present in this deposit. Cold weather use of Structure 2 was indicated by the very low incidence of fish and small mammals, and the presence of deer elements indicating probable fall/winter kills (Scott 1985:659). On the basis of its sturdy construction, and the results of the paleosubsistence analyses, Structure 2 appears to have been a winter house (Faulkner 1977).

Council Houses or Rotundas. Evidence for possible public buildings, in the form of large rings of posts from structures ca. 12 to 15 m in diameter were found on the south sides of both the southern and northern villages at Rucker's Bottom (Strata 7 and 14, Figure 62). Concentric post arcs were readily apparent in Structure 7, in the northern village, while the existence of a large central post was suggested in Structure 14. Several large pits and a number of lesser posts were also present in the center of Structure 14, and one or more of these may have served as supports. A detailed description of Creek town life, and the rotunda or assembly room (also sometimes called a "hot house"), was made by Benjamin

Hawkins around 1799:

> The Micco, counsellors and warriors, meet every day, in the public square; sit and drink a-cee, a strong decoction of the cassine yupon, called by the traders, black drink; talk of news, the public and domestic concerns, smoke their pipes, and play Thla-chal-litch-cau, (roll the bullet.) Here all complaints are introduced, attended to, and redressed. They have a regular ceremony for making, as well as delivering the a-cee, to all who attend the square...the rotunda or assembly room, called by the traders, "hot-house." This is near the square, and is constructed after the following manner: eight posts are fixed in the ground, forming an octagon of thirty feet diameter. They are twelve feet high, and large enough to support the roof. On these, five or six logs are placed, of a side, drawn in as they rise. On these, long poles or rafters, to suit the height of the building, are laid, the upper ends forming a point, and the lower ends projecting out six feet from the octagon, and resting on posts five feet high, placed in a circle round the octagon, with plates on them, to which the rafters are tied with splits. The rafters are near together, and fastened with splits. These are covered with clay, and that with pine bark; the wall, six feet from the octagon, is clayed up; they have a small door into a small portico, curved round for five or six feet, then into the house.

Comprehensive archaeological and ethnohistorical summaries of evidence pertaining to Dallas and Cherokee townhouses have been prepared by investigators working in eastern Tennessee (Schroedl 1978, 1985:228-234; Baden 1983; Polhemus 1987:247-259). Large circular structures roughly comparable to those found at Rucker's Bottom have been reported from the Cemochechobee site (Schnell et al. 1981:63-66), at Bessemer (Dejarnette and Wimberly 1941:53), and Hiawassee Island (Lewis and Kneberg 1946:70-72), and an occurrence throughout the Mississippian era, and on sites of widely varying sizes, is indicated.

A second quotation, from Bartram, provides additional detail about Creek rotundas:

> The great council house or rotunda is appropriated to much the same purpose as the public square, but more private, and seems particularly dedicated to political affairs. It is a vast conical building or circular dome, capable of accommodating many hundred people; and constructed and furnished within, exactly in the same manner as those of the Cherokees already described, but much larger than any I had seen of them; there are people appointed to take care of it, to have it daily swept clean, and to provide canes for fuel, or to give light (Bartram 1792:448-449).

The use of cane for fuel was supported by the findings of the ethnobotanical analysis at Rucker's Bottom; charred cane was found in appreciable numbers of Mississippian features, including in several possible hearths (Moore 1985). The

careful cleaning of the rotunda area (and the nearby plaza) would probably result in comparatively lower artifact densities in these areas (Dickens 1976:66); this inference, however, was only somewhat ambiguously supported by the surface distributional evidence from the site (Figure 8).

Smaller villages, particularly in relatively uncomplicated Mississippian societies, may have had public buildings (town/council houses) instead of mound/temple complexes. DePratter (1983:209) has suggested that council houses were present only in "weakly centralized chiefdoms" in the southeast during the interval from roughly A.D. 1000 to A.D. 1600. The Rucker's Bottom site may have been a part of such a polity. Alternatively, the use of council houses (or at least large public buildings) may have been an integral part of Mississippian community life throughout this period, in both complex and less complex chiefdoms. In smaller villages away from sacred/ceremonial centers it is probable that communal decision-making was more prevalent than at the centers, where the chiefly elite would have been concentrated.

The decline of the Beaverdam Creek Mound center and its possible replacement by Rembert suggest major changes in local chiefdom organization; this flux may have permitted the Rucker's Bottom site to develop some measure of autonomy (necessitating stronger internal organization). The site record indicated that probable council houses or public buildings were present throughout the period of Mississippian occupation (ca. A.D. 1200-1450), including the period when the Beaverdam Mound center was in ascendancy. The existence and use of public buildings, it is suggested, probably occurred throughout the Mississippian period in this general region. Their role as decision making centers, or 'council' houses, however, may have been diminished in more complex chiefdoms and at ceremonial centers, where their use for religious activity may have been paramount.

Ditch and Stockade Lines. Two overlapping ditch lines were found in the central portion of the Rucker's Bottom site during the 1981 and 1982 stripping operations that formed semicircular and rectangular enclosures fronting on the river (Strata 19-22, Figure 62). Traces of stockade lines were found inside both ditches, suggesting probable ditch and bank arrangements, with the ditch fill used to elevate and support the stockade posts. A shallow wall trench roughly 30 cm wide by 10 to 20 cm deep was found some 5 m within and paralleling portions of the rectangular ditch; the surviving sections, on the northern and southern margins, indicate that the fence line paralleled the ditch. Scattered posts were also found paralleling the inside of the semicircular ditch line. In both stockade lines the posts were extremely shallow, with few surviving sections. The presence of only portions of the stockade lines was probably due to historic plowing, which appeared to have removed shallower features on the site.

The posts making up the stockade lines were fairly small, averaging 15 cm in diameter in the semicircular enclosure, and under 15-30 cm in diameter in the rectangular enclosure. No separate post stains were observed in the fill or bottom of the 30 cm wide rectangular wall trench, a 5 m section of which (near Structure 6) was shovel-skimmed out. The post sizes in this enclosure were estimated from

the size of the wall trench itself. The fill in the wall trench was quite mottled, suggesting one or more episodes of rebuilding (i.e., with posts pulled up and replaced), and/or the tamping of soil and other debris around the posts. Gray and/or orange clay was common in the fill of the wall trench (contributing to the mottling) and in a number of the individual post molds making up the semicircular stockade line. The clay may reflect a conscious attempt to coat and hence extend the life of the posts (Lafferty 1973:102; Cole and Albright 1981). Alternatively, it may represent an attempt to solidly fix the posts which, if shallow or short, might have been fairly easily uprooted from the sandy soils of the terrace. No evidence for large masses of clay were noted in the deposits, however, as might have been present if the entire fence line was coated.

Three pronounced gaps were found in the semicircular ditch, on the northern, western, and southern sides of the enclosure. These were interpreted as entranceways, although post lines from possible screening walls were observed inside these gaps. The largest surviving sections of the semicircular stockade, in fact, were typically noted just inside the openings. Entrance areas, if that is what the gaps represent, may have been better constructed than other sections of the stockades as a defensive measure. The fill on either side of these gaps was typically darker and more debris-laden than in ditch sections further away, suggesting intentional refuse disposal just outside the village. Comparable gaps were reported in the ditch at the Etowah site in northwest Georgia by the Reverend Elias Cornelius in 1818.

Three uncorrected radiocarbon dates obtained from debris found in the fill of the semicircular ditch indicated that it was dug between ca. A.D. 1360 to A.D. 1450 (average = A.D. 1407; see Appendix I). The rectangular ditch was probably built no more than 25 to 50 years later, given the lifespan of timbers in this climate, since no evidence for rebuilding was noted along the surviving semicircular wall line. The three dates point to an early Rembert phase age for the enclosures, an attribution that was supported by the ceramics found in the fill. No evidence for bastions was noted along the stockade line of either enclosure, although two curious features were found on either side of the northern entrance gap in the semicircular ditch that may have been sentry posts of some kind. About 3 to 4 m on each side of this gap, on the outside of the ditch, diffuse stains suggesting projections were found; the area to the north resolved into a square cluster of posts. A small, fairly flimsy structure was probably present here; its location near the 'entrance' is suggestive, but may be fortuitous. No comparable features were observed near the other gaps, or elsewhere along the ditches.

The nature of the stockade/defensive system along the river to the north of the stripped area was unknown. Several backhoe trenches were opened from the bluff edge out into the field, but failed to detect evidence for a ditch or stockade line. The comparatively high (ca. 4 m), steep bank would have afforded some protection, but it is probable that a stockade of some kind was also present. A large, semicircular blowout or hollow (ca. 20 m across and cutting 5 to 10 m into the bank) was present in the bank/bluff margin below the center of the semicircular enclosure; this depression (used to collect runoff from the

waterscreens in 1980) may have been from an eroded entrance area. Canoes were probably kept tied up in this general area, for use in both fishing and travel, and trips to the river margin by the village inhabitants for water, bathing, subsistence pursuits, and other activities would have undoubtedly been common and would have been facilitated by a path of some kind. A description of what the Rucker's Bottom village might have looked like from the river was provided by Henry Woodward, who in 1684 visited an Indian village on the upper Savannah somewhere north of Augusta. Although referring to a different, later village, many of his observations could apply to the Rucker's Bottom community:

> ...we came in sight of the Westo town...which stands upon a point of the river...upon the western side...the next day I viewed the Town, which is built in a confused manner, consisting of many houses whose sides and tops are both artificially done with bark, upon the tops of most wherof fastened to the ends of long poles hang the locks of hair of Indians that they have slain. The inland side of the town being doubly pallisaded, and that part which fronts on the river having only a single one. Under whose steep banks seldom lie less than one hundred fair canoes ready upon all occasions...

Ditches like those found at Rucker's Bottom were noted in early historic and early archaeological accounts (e.g., Hawkins 1848:33; Blanding 1848), and have been reported at a number of Mississippian sites in the southeast (e.g., Lafferty 1973; Morse and Morse 1980, 1983; Cole and Albright 1981).

The rectangular enclosure, encompassing an estimated area of about 7200 square m, surrounds an area about a quarter again larger than that within the semicircular enclosures (ca. 5600 square m); these figures suggest at least some increase in local population. With the apparent eclipse of the Beaverdam Mound by Rembert, a site over twice as far away, the Rucker's Bottom community may have attained greater prominence in the local settlement system (possibly becoming somewhat more autonomous and/or isolated). The greater emphasis on fortifications may, therefore, reflect a somewhat greater isolation of the community; it may also, consequently, have had to serve as a center or defended area for a somewhat larger surrounding population. Mississippian components, most appreciably smaller than the scatter at Rucker's Bottom, have been found throughout the floodplain along this stretch of the Savannah that appear to represent isolated hamlets or smaller communities. The inhabitants of these nearby sites may have gravitated to Rucker's Bottom in times of stress, and possibly at other times for communal activities or ceremonies.

The absence of obvious bastions, multiple stockade lines, or direct evidence for warfare such as burned houses or stockade lines at Rucker's Bottom suggests that community defense, while perhaps acknowledged, was not an overwhelming preoccupation. The De Soto chroniclers did not report substantial aboriginal fortifications until they reached the province of Coosa in north Georgia and Tennessee (Elvas 1557, in Bourne 1904, I:85). Ranjel, De Soto's secretary, noted that "in the land of this Chiaha was where the Spaniards first found fenced villages" (Ranjel ca. 1540, in Bourne 1904, II:109; see also Biedma 1544, in Bourne

1904, II:15). The apparent absence of substantial fortifications in the central Georgia and South Carolina areas in 1540 is interesting, since a pronounced rivalry was reported between the provinces of Ocute, centered on the Oconee in Georgia, and Cofitachequi, centered on the Wateree in South Carolina (Hudson et al. 1985, 1987). Direct travel and/or warfare between these complex chiefdoms appears, however, to have been infrequent; De Soto's guides (and several hundred bearers) from Ocute got thoroughly lost attempting to reach Cofitachequi (see Elvas 1557, in Bourne 1904, I:59-64). The need for fortifications in either area may not have been pressing; their absence in 1540 may reflect a relative stabilization of provincial boundaries, and possibly less conflict than during the fourteenth and fifteenth centuries. Alternatively, the Spaniards simply may not have regarded fence lines like those noted at Rucker's Bottom as serious or substantial fortifications; they may have only taken notice when obvious military features like bastions or archery loopholes were evident. The fortifications at Rucker's Bottom, therefore, were probably fairly uncomplicated by regional standards, perhaps serving as much to demarcate the community as to provide for its defense.

Ceramic Analyses/Chronological Controls. Internal chronological control at Rucker's Bottom was provided primarily by the ceramic analyses, although three radiocarbon dates placed the construction of the first, or semicircular ditch at about A.D. 1400 (Appendix I). All sherds over 1/2 inch in size from the site were examined and categorized by paste and surface finish, with rims and recognizably stamped sherds subjected to additional attribute analyses (43,461 specimens; Anderson and Schuldenrein 1985:321). Overall, the Mississippian ceramic assemblage at Rucker's Bottom was dominated by plain, burnished plain, check stamped, and complicated stamped finishes. Corncob impressions, cord marking, and modified (i.e., pinched, folded, punctated, notched or incised) rims were also present, but were much less common. The most common design motifs observed within the complicated stamped assemblage were nested diamonds, concentric circles, herringbone patterns, and the filfot cross (Figure 64). The assemblage included both Beaverdam and later Rembert phase materials, and bore strong similarities to Reid's (1965, 1967) Pee Dee series, and to Savannah period assemblages from Irene and other lower Savannah River sites. Affiliations with Pisgah assemblages were also suggested by the moderate incidence of rim notching, and nested diamond motifs were also common.

Examining the distribution of plain, complicated stamped, check stamped, corncob impressed, and modified rims, clear differences were evident between the northern and southern parts of the terrace. The area outside of the ditches, for example, had a much higher proportional incidence of check stamped pottery (8.4 percent) than the area inside the enclosures, where the finish accounted for only 3.7 percent of the total (Table 4). While some of the 'Mississippian' check stamped pottery on the site, particularly from the area outside of the enclosures, was probably earlier Deptford or Cartersville material, this incidence was thought to be low. At the Beaverdam Creek mound, where the period of Mississippian occupation was one to two centuries earlier than the Rembert phase occupations at Rucker's Bottom, the proportion of check stamping relative to other wares was between 6.9 and 9.7 percent. At the Rembert Mounds, a large multiple mound

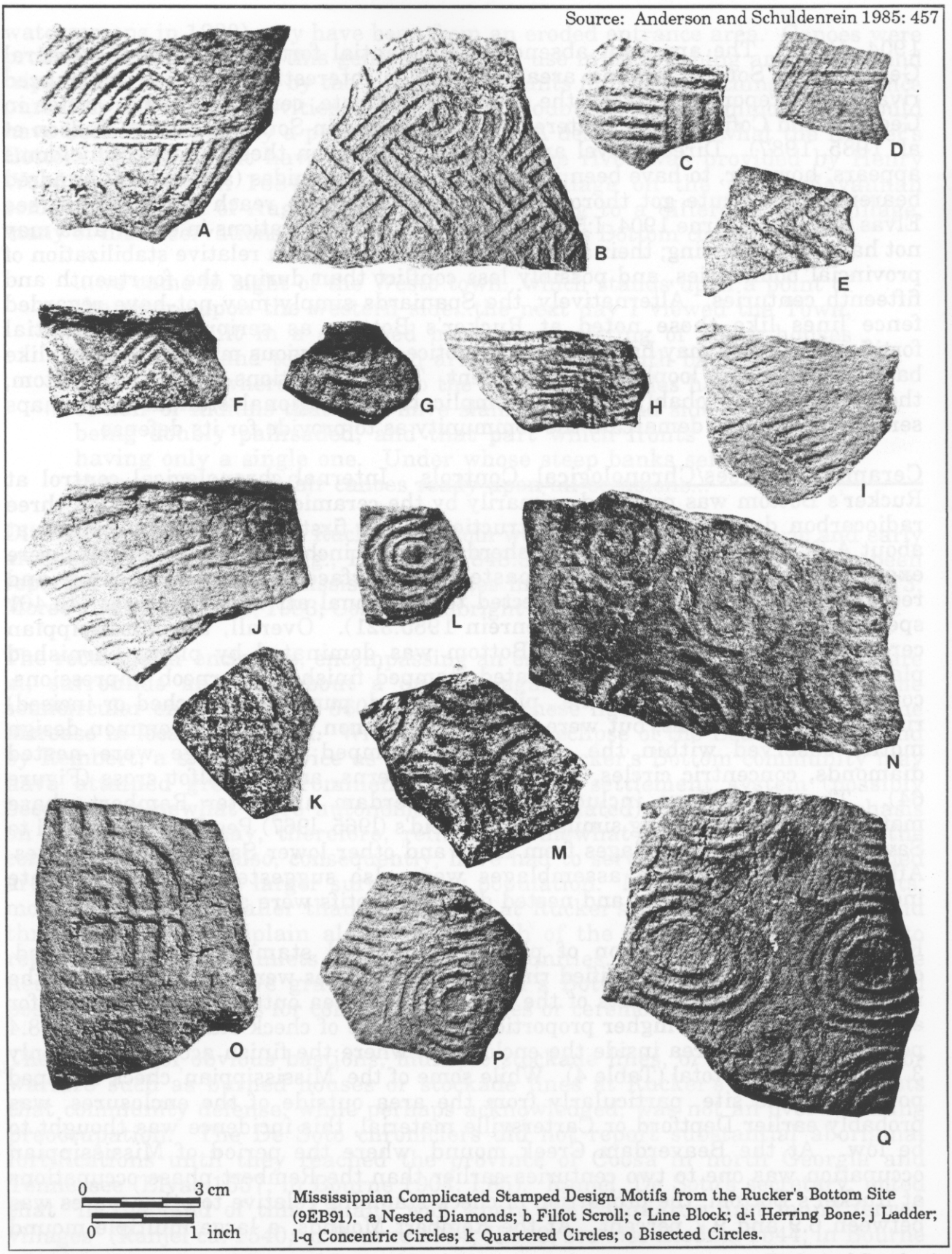


Figure 64. Complicated Stamped Design Motifs, Richard B. Russell Reservoir Area.

Table 4. A Comparison of Mississippian Ceramic Finishes at the Rucker's Bottom, Beaverdam Creek, and Rembert Mound Sites, Elbert County, Georgia.

	9EB91 Rucker's Bottom-1		9EB85 Beaverdam Creek Mound-2			9EB1 Rembert Mounds-2	
Design Motifs	Outside Enclosures	Inside Enclosures	Pre-mound Midden	Mound-3 Fill	Village Area	Mound-4	Village-5
All complicated stamped	2968 (29.4%)	5846 (33.0%)	708 (12.4%)	531 (18.9%)	428 (6.5%)	136 (46.9%)	196 (45.6%)
All check stamped	852 (8.4%)	652 (3.7%)	553 (9.7%)	194 (6.9%)	529 (8.1%)	3 (1.0%)	8 (1.9%)
All fabric/ corncob impressed	272 (2.7%)	717 (4.1%)	105 (1.8%)	125 (4.5%)	179 (2.7%)	2 (0.7%)	7 (1.6%)
Modified rims	55 (0.5%)	196 (1.1%)	12 (0.2%)	18 (0.6%)	14 (0.2%)	18 (6.2%)	24 (5.6%)
Plain	5961 (59.0%)	10,277 (58.1%)	4342 (75 9%)	1941 (69.1%)	5391 (82.5%)	131 (45.2%)	195 (45.3%)
TOTALS (100.0%)	10,108 (100.0%)	17,688 (100.0%)	5720 (100.0%)	2809 (100.0%)	6541 (100.0%)	290 (100.0%)	430 (100.0%)

-1
All 1980 EU's, 1981-1982 Features, and Structure 2 fill
-2
Data derived from Rudolph and Hally's (1984) Beaverdam Creek report which included a re-analysis of Caldwell's (1953) excavation sample
-3
Gray ashy layer
-4
Pits 2, 6
-5
Pits 1, 3-5, 7-9

Table 5. A Comparison of Mississippian Complicated Stamp Design Elements at the Rucker's Bottom, Beaverdam Creek, and Rembert Mound Sites, Elbert County, Georgia.

	9EB91 Rucker's Bottom		9EB85 Beaverdam Creek Mound-2			9EB1 Rembert Mounds-2	
Design Motifs	Outside Enclosures	Inside Enclosures	Pre-mound Midden	Mound Fill	Village Area	Mound-3	Village-4
Nested Triangles	127 (63.2%)	89 (54.3%)	42 (49.4%)	17 (22.7%)	25 (49 0%)	6 (21.4%)	17 (60.7%)
Concentric circles/ figure 8's	37 (18.4%)	36 (22.0%)	26 (30.6%)	30 (40.0%)	20 (39.2%)	5 (17.9%)	4 (14.3%)
Herring bone	14 (7.0%)	34 (20.7%)	8 (9.4%)	19 (25.3%)	1 (2.0%)	- (0.0%)	1 (3.6%)
Filfot cross	23 (11.4%)	5 (3.0%)	9 (10.6%)	9 (12.0%)	5 (9.8%)	17 (60.7%)	6 (21.4%)
TOTALS (100.0%)	201 (100.0%)	164 (100.0%)	85 (100.0%)	75 (100.0%)	51 (100.0%)	28 (100.0%)	28 (100.0%)

-1
All 1980 EU's 1981-1982 Features, and Structure 2 fill
-2
Data derived from Rudolph and Hally's (1984) Beaverdam Creek report and Hally's re-analysis of Caldwell's (1953) excavation sample
-3
Pits 2, 6
-4
Pits 1, 3-5, 7-9

group approximately 20 km downstream from Rucker's Bottom on the Georgia side of the Savannah, the incidence of check stamping was only between 1.0 and 1.9 percent.

A decrease in check stamping over the course of the Mississippian was evident along the Savannah and has been documented at both the mouth and at the Beaverdam Creek Mound (DePratter 1979:111; Rudolph and Hally 1985). Rim modification, in contrast, particularly the occurrence of folded and pinched, punctated, and notched rim strips, increased over time (Figures 65, 66). This phenomenon was originally noted by Kelly (1938:11) and by Caldwell and McCann (1941:41-42) in the Irene Mound report, where "transitional" rim forms were illustrated. Wauchope (1966), Reid (1967), South (1976), and others have also noted this trend, which has recently been documented in some detail in the upper Oconee drainage by University of Georgia researchers (Smith 1981, 1983; Rudolph 1983; Rudolph and Blanton 1980; Shapiro 1983). In particular, Rudolph and Blanton (1981:16) have noted that "in the Oconee Valley punctated rims tend to occur in earlier contexts than pinched rims" while Smith (1981:185-188) has documented an increase in pinching and a decrease in punctation over time at the Dyar site.

The evidence from the Beaverdam Creek and Rembert mound sites showed that collared, fine incised rims were earlier (i.e., Beaverdam phase, ca. A.D. 1200-1300) than folded pinched, notched, and punctated rims, which were characteristic of the Rembert phase (ca. A.D. 1350-1450). At Beaverdam Creek most of the modified rims were collared and incised. While incised rims were about evenly distributed between the northern (fortified) and southern (unfortified) village areas at Rucker's Bottom, folded pinched, punctated, and notched rims were common in the northern village, suggesting a later date. Incised rims were about evenly distributed over the site, while folded, pinched, punctated, and notched rims were about three times (N=168, 73.6 percent of the 228 modified rims) more common in the area inside the enclosures (Anderson and Schuldenrein 1985:463).

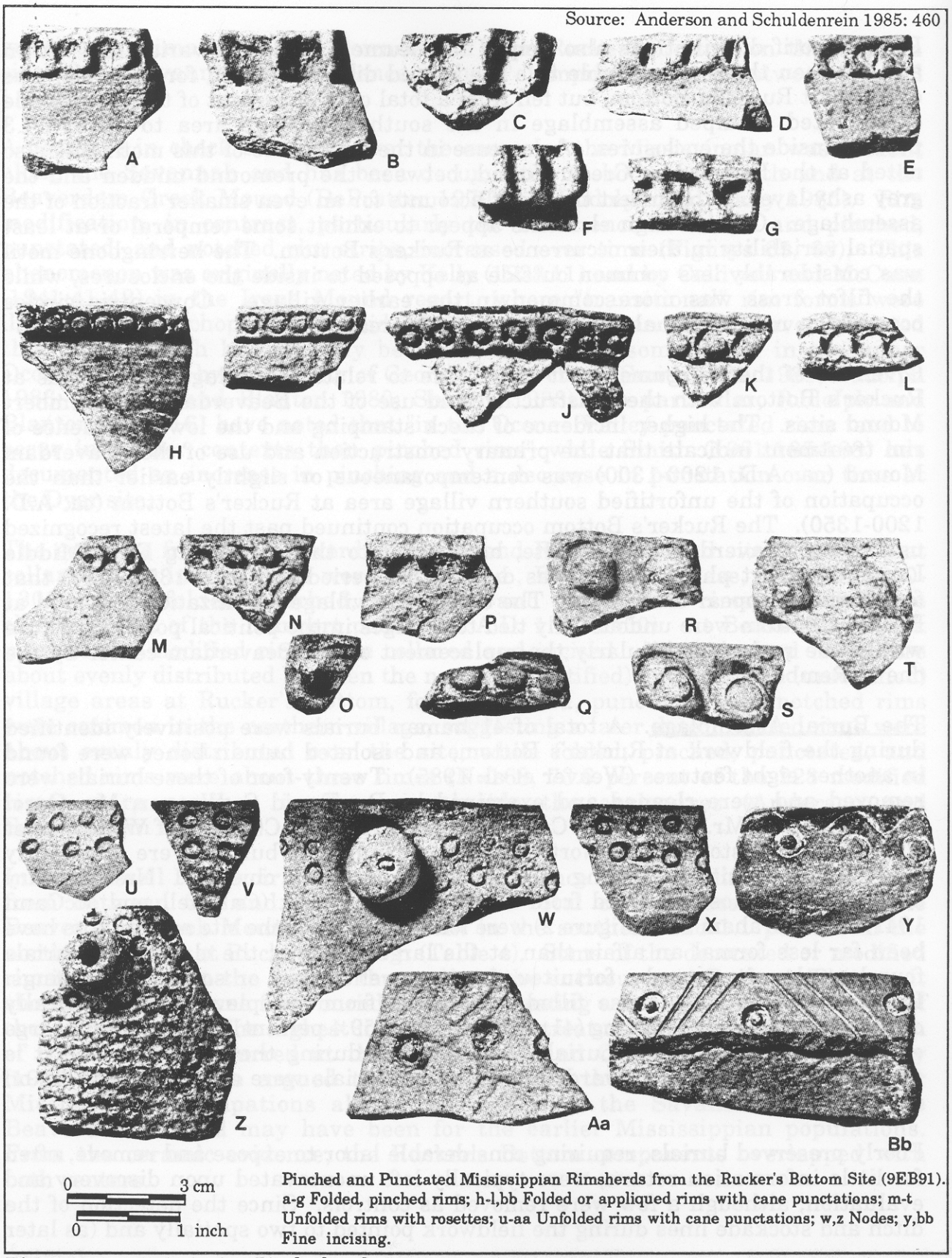
In the Russell Reservoir, the proportional incidence of rim modification increased from between 0.2 and 0.6 percent of the total ceramic assemblage at the Beaverdam Creek Mound to 0.5 percent in the southern and 1.1 percent in the northern village at Rucker's Bottom (Table 4). Some of the decorated or modified rimstrips found in the area to the south of the enclosures at Rucker's Bottom, it should be noted, came from burial pit fill, suggesting a late age for at least some of these interments. The highest incidence of rim treatment observed in this portion of the drainage occurred at the Rembert Mound Group. Rudolph and Hally (1985:453-459) have argued that Rembert was the political center for later Mississippian occupations along this stretch of the Savannah, just as the Beaverdam Mound may have been for the earlier Mississippian populations. From the ceramic evidence, the Rucker's Bottom components overlapped with both centers.

Design motif distributions also helped to document temporal variability within and between these sites (Table 5). The nested diamond motif, for example, was common at Rucker's Bottom, but fell from a total of 63.2 percent of the identifiable complicated stamped assemblage in the southern village area to about 54.3 percent inside the enclosures. A decrease in the occurrence of this motif was also noted at the Beaverdam Creek Mound, between the premound midden and the gray ashy layer. At Rembert the motif accounts for an even smaller fraction of the assemblage. Other design elements appear to exhibit some temporal or at least spatial variability in their occurrence at Rucker's Bottom. The herringbone motif was considerably less common outside as opposed to inside the enclosures, while the filfot cross was more common in the earlier village. Concentric circles occurred in roughly equal proportions in both areas.

Given all of these arguments, it is possible to relate the village occupations at Rucker's Bottom with the construction and use of the Beaverdam and Rembert Mound sites. The higher incidence of check stamping and the lower incidence of rim treatment indicate that the primary construction and use of the Beaverdam Mound (ca. A.D. 1200-1300) was contemporaneous or slightly earlier than the occupation of the unfortified southern village area at Rucker's Bottom (ca. A.D. 1200-1350). The Rucker's Bottom occupation continued past the latest recognized use of the Beaverdam Mound site, however, into the succeeding Early/Middle Lamar Rembert phase, and it was during this period (ca. A.D. 1350-1450) that fortifications appear on the site. The changes in village organization observed at Rucker's Bottom were undoubtedly tied to changes in the political power structure within the region, particularly the replacement of the Beaverdam center by the one at Rembert.

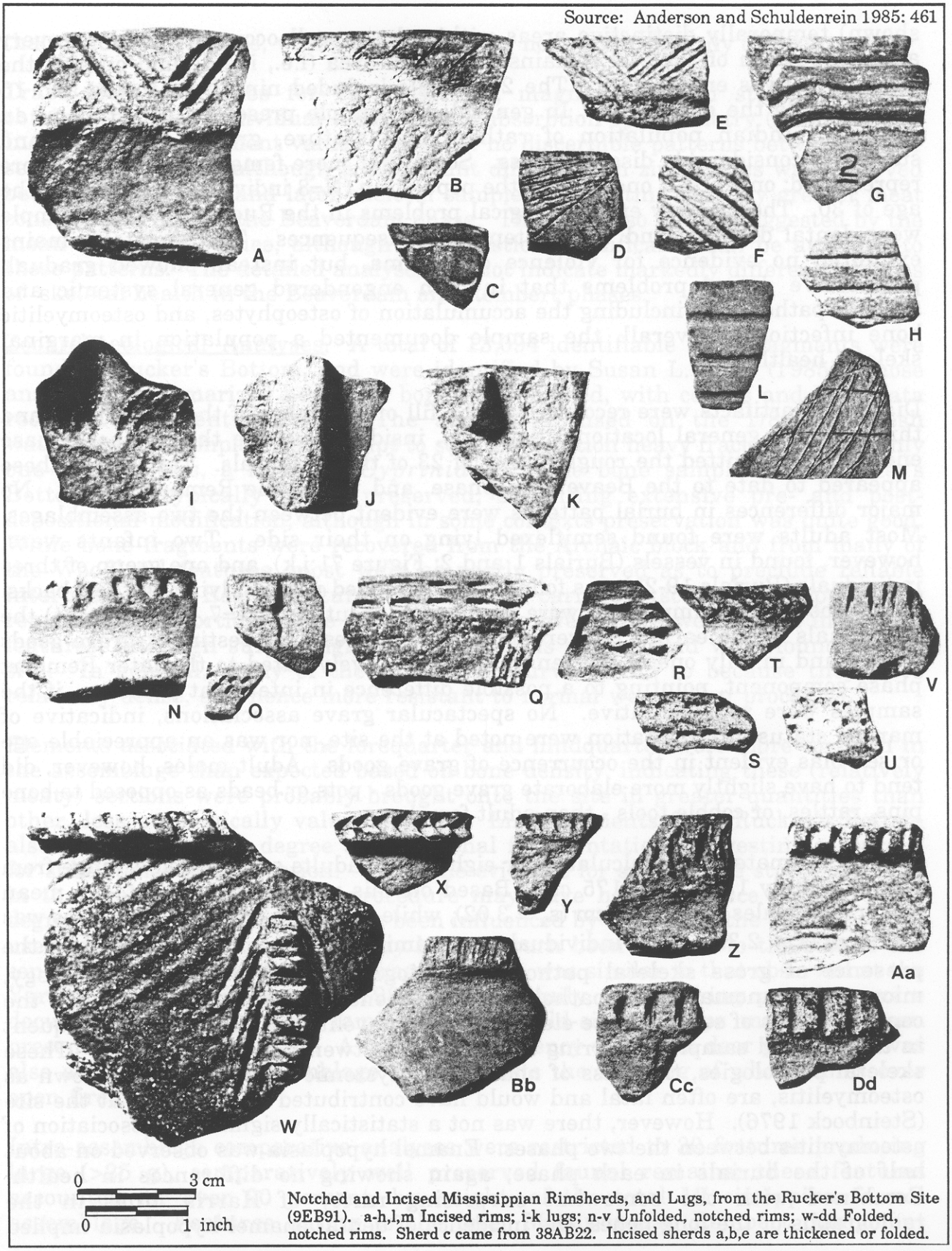
The Burial Assemblage. A total of 41 human burials were positively identified during the fieldwork at Rucker's Bottom, and isolated human bones were found in another eight features (Weaver et al. 1985). Twenty-four of these burials were removed and were cleaned and examined by Dr. David S. Weaver, Ms. Carol Roetzel Butler, Mr. William R. Culbreth, and Mr. David C. Crass of Wake Forest University, Winston-Salem, North Carolina. Numerous burials were apparently present on the site, occurring in isolation or in small clusters. No mortuary buildings like those reported from Irene or Town Creek (Caldwell and McCann 1941:25-26; Graham 1973:Figure 2) were found. Burial at the site appeared to have been far less formal an affair than at the larger centers; the clusters of burials found at the site may be fortuitous, or may reflect kin or sodality groupings. Large pits, excluding those filled with rocks from the plaza areas, typically contained burials upon testing (41 of 69 tested, or 59.4 percent). Over 125 pits large enough to have contained burials were mapped during the fieldwork, and it is therefore probable that upwards of a hundred burials were originally present on the site.

Poorly preserved burials, requiring considerable labor to expose and remove, often for little information return, were typically left unexcavated upon discovery and evaluation, although a few were removed as controls. Since the detection of the ditch and stockade lines during the fieldwork pointed to two spatially and (as later



Pinched and Punctated Mississippian Rimsherds from the Rucker's Bottom Site (9EB91). a-g Folded, pinched rims; h-l,bb Folded or appliqued rims with cane punctations; m-t Unfolded rims with rosettes; u-aa Unfolded rims with cane punctations; w,z Nodes; y,bb Fine incising.

Figure 65. Mississippian Pinched and Punctated Rims, Richard B. Russell Reservoir Area.



Notched and Incised Mississippian Rimsherds, and Lugs, from the Rucker's Bottom Site (9EB91). a-h,l,m Incised rims; i-k lugs; n-v Unfolded, notched rims; w-dd Folded, notched rims. Sherd c came from 38AB22. Incised sherds a,b,e are thickened or folded.

Figure 66. Mississippian Notched and Incised Rims, Richard B. Russell Reservoir Area.

shown) temporally distinctive areas within the overall occupation, the recovery and comparison of skeletal remains from each area (i.e., inside and outside the enclosures) was emphasized. The 24 burials included nine from inside and 15 from outside the enclosures. In general, the sample presented a picture of an American Indian population of rather short stature, gracile physique, and subject to considerable disease stress. Somewhat more females than males were represented; only about one/third of the population (N=8 individuals) lived past the age of 30. The primary epidemiological problems in the Rucker's Bottom sample were dental diseases and their attendant consequences. The skeletal remains exhibited no evidence for violence or trauma, but instead showed gradual, progressive dental problems that in turn engendered general systemic and skeletal pathologies, including the accumulation of osteophytes, and osteomyelitic bone infections. Overall, the sample documented a population in marginal skeletal health.

Diagnostic artifacts were recovered in the fill of a number of the burial pits, and this, and the general locational data (i.e., inside or outside the Rembert phase enclosure), permitted the rough dating of 23 of the 24 burials. Thirteen of these appeared to date to the Beaverdam phase, and ten to the Rembert phase. No major differences in burial patterns were evident between the two assemblages. Most adults were found semiflexed lying on their side. Two infants were, however, found in vessels (Burials 1 and 2; Figure 71:j,k), and one group of three individuals (Burials 19-21) was found in an extended position lying on their backs. Grave goods were simple and were found with about half (N=7, 53.8 percent) the individuals in the earlier Beaverdam phase samples. Interestingly, grave goods were found in only one of the ten burials tentatively dated to the later Rembert phase component, pointing to a possible difference in interment practices, if the samples were representative. No spectacular grave associations, indicative of marked status differentiation were noted at the site, nor was an appreciable age or sex bias evident in the occurrence of grave goods. Adult males, however, did tend to have slightly more elaborate grave goods - pots or beads as opposed to bone pins, rattles, or cobble tools - than adult females.

Stature estimates were calculated for eight of the adults and yielded a range from approximately 156 cm to 175 cm. Based on this very small sample, the mean stature for males was 170.6 cm (s_x = 3.02), while the mean stature for females was 163.9 cm (s_x = 2.39). Each individual was examined by Weaver and Roetzel for the presence of gross skeletal pathology, radiographic anomaly and pathology, microscopic anomaly and pathology, dental enamel hypoplasia, and for the concentrations of several trace elements. Osteomyelitis was surprisingly frequent in the skeletal sample, occurring in eight of the twenty-four individuals. These skeletal pathologies, the class of non-specific systemic bone infections known as osteomyelitis, are often fatal and would have contributed to morbidity at the site (Steinbock 1976). However, there was not a statistically significant association of osteomyelitis between the two phases. Enamel hypoplasia was observed on about half of the burials in each phase, again showing no differences in health. Combined with the somewhat surprising rarity of Harris' lines in the radiographs of the long bones, the incidence of dental enamel hypoplasia implied

that childhood stresses, while moderate, were not extraordinarily difficult.

Trace element values for zinc, calcium, magnesium, and strontium were obtained for each individual using atomic absorbtion spectrometry (Butler 1986). Individual trace element values presented no discernible patterns between age or sex defined groups, although a significant difference in zinc values was observed between the earlier and later skeletal samples, suggesting possibly greater meat consumption during the Beaverdam phase. This was also faintly suggested by the mean strontium values, although no statistical significance can be attached to these patterns. The detailed analyses did not indicate markedly different patterns of skeletal health in the Beaverdam and Rembert phases.

Zooarchaeological Analyses. A total of 13,094 identifiable bone fragments were found at Rucker's Bottom, and were identified by Susan L. Scott (1985), whose analysis is summarized here. All bone was weighed, with counts and MNI data recorded for identified taxa. The analysis focused on the 1/8 inch mesh waterscreened sample. An attempt to sort the flotation heavy fraction yielded only one new species, a minnow (*Cyprinidae*). The bone sample from Rucker's Bottom was typically poorly preserved, exhibiting extensive pre- and post-depositional modification, although in some contexts preservation was quite good. While bone fragments were recovered from the Archaic block and from many of the Woodland features, most were so poorly preserved as to preclude reliable interpretation. Beside natural weathering, carnivore scavenging apparently removed some portion of the assemblage. Gnawed bones were found in several features, although surprisingly no dog remains of any kind were found on the site. In general, many of the bones that survived did so because they were relatively dense, and hence more resistant to normal weathering processes.

Elements associated with the forequarter and hindquarter were more common in the assemblage than expected based on bone density, indicating these (relatively meaty) sections were probably brought onto the site in greater quantities than other, less economically valuable parts. Limb elements from Rucker's Bottom also exhibited a high degree of intentional fragmentation, suggesting a concern for subsistence maximization. Given the evidence for subsistence stress observed in the skeletal sample, this procedure may have helped reduce famine. The degree of fragmentation may have been influenced by the size of the cooking vessel used to boil the bones, which may have in turn been related to the size of the consumer group. The degree of fragmentation was similar to that observed at the Yarborough site (Scott 1981, 1982) where family unit cooking practices were documented. Comparable family or household-sized groups may have been present at Rucker's Bottom. A very high frequency of burned deer phalanges was also observed in the assemblage that suggests the roasting of whole limbs over open fires.

Intra-assemblage comparative analyses were restricted to 30 features producing large (>25 g), comparatively well preserved faunal remains; these features accounted for over 90 percent, by weight, of the total Mississippian faunal assemblage. Features dating to the later Mississippian Rembert component

(which included the Structure 2 house floor), typically contained species procured during cooler weather. Earlier Mississippian Beaverdam phase features, in contrast, yielded both warm and cool weather species. Small mammals and fish were common in these deposits, as were shellfish. Warm weather indicators from the Beaverdam phase features included a sunfish vertebra, probably from a mid-summer catch, and a tarsal from a fawn probably killed either in late summer or early autumn. Cold weather indicators (deer mandibles and frontals with antler attached indicating fall/winter kills) were found in the fill of the initial, semicircular ditch, indicating the move to fortifications at the site may have been accompanied by changes in subsistence. Three species dominated the Mississippian faunal assemblage at Rucker's Bottom: white-tailed deer, turkey, and box turtle. In terms of actual economic importance white-tailed deer was undoubtedly the most important species, followed by wild turkey; the apparent abundance of box turtles was probably related more to factors of preservation, and the use of carapaces for vessels and rattles, than to subsistence importance.

The Beaverdam phase faunal assemblage from Rucker's Bottom was very similar to that recovered from the Beaverdam Creek Mound (Reitz 1985). A greater abundance of fish at the Beaverdam Creek Mound (2.0 percent vs. 0.7 percent) was the major difference between these assemblages. This may reflect proximity to suitable fishing grounds; major shoals occur both to the north and south of the Beaverdam Creek site on the Savannah, but were not present for several km above or below Rucker's Bottom (Rudolph and Hally 1985:444). Beaverdam phase occupations at both Rucker's Bottom and Beaverdam Creek were characterized by fairly high species diversity, and appeared to derive primarily from warm weather occupation. A shift toward an increasingly focused subsistence economy in the later Mississippian Rembert period was indicated within the Rucker's Bottom faunal assemblage, which had a much lower species diversity. This may have been due to an intensification of large mammal procurement, to maximize hunting return and reduce the amount of labor it entailed that might have been needed elsewhere, possibly for farming or defense (c.f., Speth and Scott 1985). Alternatively, if the seasonality data are accurate, the differences between the two phases may signify a change in the overall subsistence-settlement system, from primarily summer occupations during the early Mississippian to winter occupations during the later Mississippian. This shift may reflect increased agricultural effort, and possibly the need to defend stored food in the winter village. While this latter explanation may partially account for the site record, given the intensive occupational debris seasonal occupation appears unlikely. A change from a diversified subsistence economy in the earlier Mississippian to an increasingly focused subsistence economy in the later Mississippian is thought to be the most plausible explanation (Rudolph and Hally 1985:444; Scott 1985).

The site faunal remains also help to delimit the apparent position of the Rucker's Bottom community in the local political hierarchy. The distribution of skeletal elements on contemporaneous, related sites has been shown to be related to the nature and direction of the flow of subsistence resources from one community to another (e.g., Scott 1981, 1982). At Rucker's Bottom deer/large mammal skeletal element distributions differed between the earlier and later occupations. During the Beaverdam phase component there was some evidence that meaty elements

were leaving the site, possibly as tribute. In the later Mississippian Rembert phase, in contrast, this pattern was not evident and the sample was more similar to that expected at a ceremonial center. Scott (1985:664) has noted:

> The differences between the early and later Mississippian components at Rucker's Bottom suggest a change in settlement function through time, from a more subservient role during the earlier period (with greater quantities of meat being transported from the village) to a higher position in the socio-political hierarchy in the later period (perhaps with meat coming in, but certainly with less meat going out).

This patterning is consistent with changing political relationships along the Savannah, notably the decline of the Beaverdam Creek site and an apparent relocation of power to Rembert after the Beaverdam phase. These changing political fortunes may have resulted in increased autonomy for the Rucker's Bottom community (e.g., Steponaitis 1978).

Shellfish Analyses. Shellfish remains were found in a number of Mississippian features at Rucker's Bottom, in varying but typically low quantity (Blanchard and Claassen 1985). Three species were found, all belonging to the Genus *Elliptio*, and including *E. fraterna* (Lea), *E. congaraea* (Lea), and *E. icterina* (Conrad), all of which are native to the river systems in the Atlantic Slope region. *E. fraterna* was the most common, with *E. congaraea* and *E. icterina* only incidentally represented. *E. fraterna* is found in swiftly moving water, typically on sand bars in large rivers (Johnson 1970:312). Given this, it is likely that the specimens found at the site came from the Savannah River. *E. icterina*, in contrast, occurs in a wide range of habitats and, where present, is usually the dominant species (Johnson 1970:328). This is not indicated in the site shellfish assemblage, suggesting they were collected from some other source than the Savannah, such as from Van Creek. *E. congaraea* is also a sandy substrate swift water species, and probably came from the Savannah River. Over the site assemblage as a whole, shell was more common in the earlier Mississippian Beaverdam occupation than in the later Rembert phase occupation.

Ethnobotanical Analyses. Flotation samples were collected from 119 Mississippian features at Rucker's Bottom, and from 54 of the 1 m squares opened on the floor of Structure 2 (Moore 1985). Three standardized measures were employed in comparative analyses: species density, diversity, and ubiquity. Species density is the count or weight of a species in a standardized sample, with count/liter and weight/liter used at Rucker's Bottom. Species diversity is a measure of the number of differing species of a given analytical category (i.e., cultigens, seeds, nuts, wood types) in a given sample. Species ubiquity refers to the percentage of all samples or features in which a specific species was present. Four identifiable species of seeds were found in the Mississippian features, maypops, grape, lambs-quarter, and doveweed. Maypops and grape were found in both the early and later occupations, while lambs-quarter was identified only in Beaverdam phase features, and doveweed in later Rembert features. Seeds were

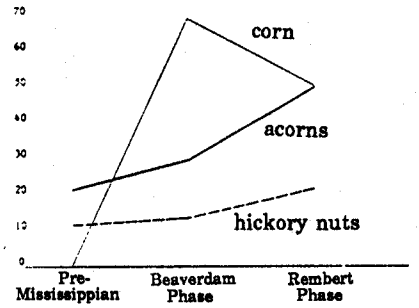
more common in the later occupation (ubiquity of 33 percent, as opposed to 21 percent in the Beaverdam phase), suggesting some subsistence intensification was occurring.

Corn was common at the site, occurring in over half of the features (ubiquity = 57 percent; see Figure 67). Corncob fragments represented the bulk of the sample, with only a few kernels and one small complete cob recovered. Although corn was found in a greater number of Early Mississippian features (ubiquity of 65 percent in the Beaverdam phase as opposed to 48 percent in the Rembert phase features), considerably more corn was found in the later occupation, with species density increasing 34 percent. Carbonized nutshells were recovered from just under half the Mississippian features at Rucker's Bottom, with no difference in ubiquity between the earlier and later occupations. Hickory and acorn were the only species identified. While hickory nut showed a fairly constant pattern of utilization between the early and later Mississippian occupations, use of acorns increased dramatically, measured over both ubiquity and density (Figure 67).

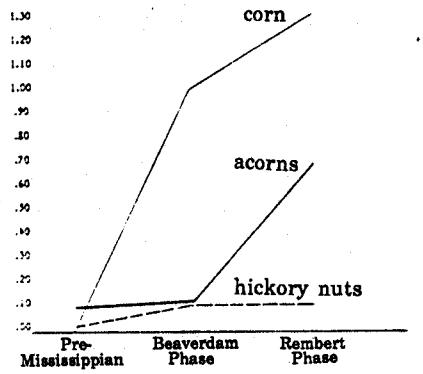
Examining the ubiquity of the wood versus nut charcoal for hickory and oak between the earlier and later Mississippian occupations, a slight decline in oak occurred, together with a sharp drop for hickory (Figure 67). If wood charcoal ubiquity can be considered an indicator of species availability and nutshell a measure of species utilization, then a decline in both tree species, but particularly hickory, appears to have occurred in the site area. The utilization of hickory nuts, in contrast, increased slightly while acorn use increased dramatically. Scarry (1980) has suggested that changes such as these in wood and nut utilization may have been due to intensive land clearance associated with agricultural intensification. As larger areas were cleared, the availability of wild resources would have declined. Plant succession would have been affected by this farming activity, with subclimax plant communities (which include pine and oak) becoming dominant. The high incidence of pine observed in the wood charcoal from the site, a pattern also noted in the pollen samples collected at the Beaverdam Creek Mound (Fish 1985), was probably due in part to this clearing.

The data indicate that the early Beaverdam phase population emphasized corn over nuts, and hickory nuts over acorns. In the later Rembert phase, in contrast, a relative decline in the use of corn and an increase in the use of nuts occurred, with a particular emphasis on acorns. This pattern may be seen in Figure 67, illustrating the proportional occurrence of corn, acorns, and hickory nuts at the Beaverdam Creek Mound site and in the Beaverdam and Rembert phase components at Rucker's Bottom. The increased use of wild plant resources in the later Mississippian occupation at Rucker's Bottom, notably the increased use of acorns, may reflect an attempt to augment carbohydrate yields, which may additionally indicate the population was under some stress. Alternatively, if the local Rembert phase community had become relatively free of tributary obligations, given the abandonment of the Beaverdam Creek mound center, less emphasis may have been placed on corn production. Yet another possibility may be that this apparent decline in the use of corn may have been due to localized soil exhaustion, brought about by the ca. 200 years or so of continuous occupation at the site. While seasonal flooding may have caused some soil replenishment, it

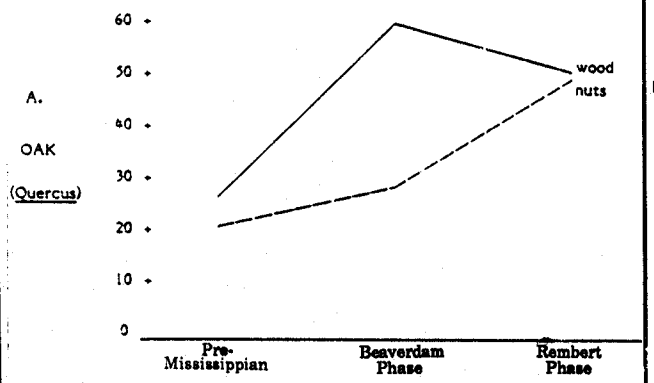
Species Ubiquity for Corn, Acorns, and Hickory Nuts at the Rucker's Bottom Site.



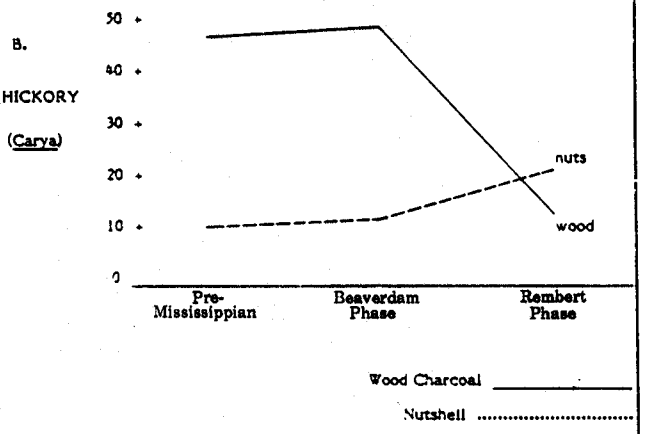
Species Density for Corn, Acorns, and Hickory Nuts at the Rucker's Bottom Site.



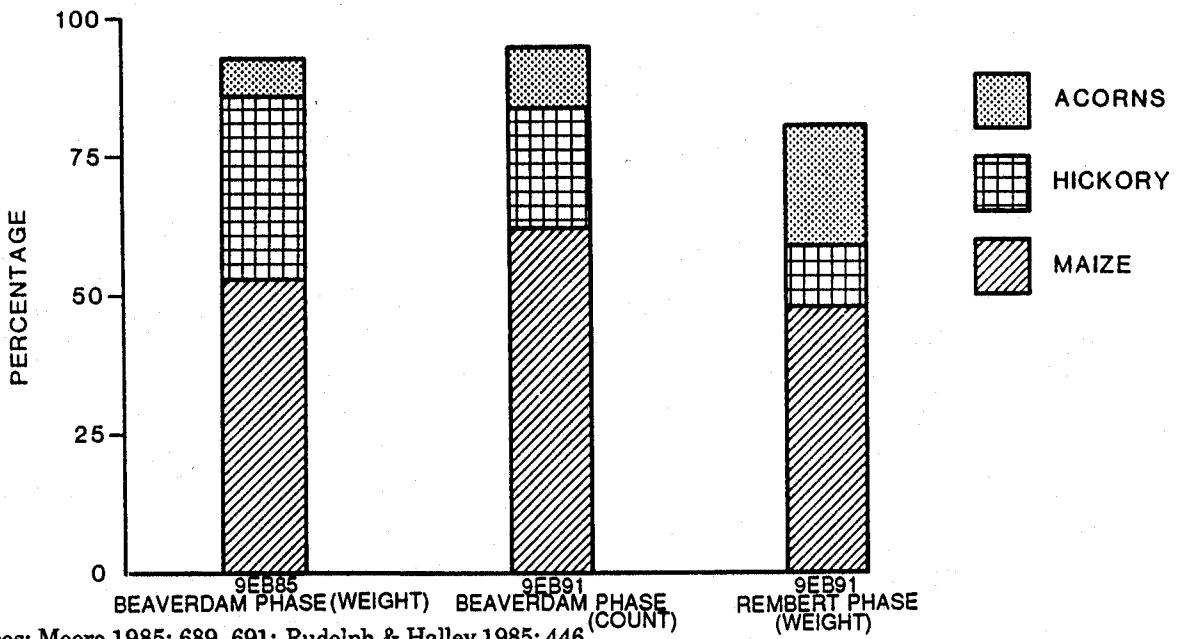
Nuts versus Wood Species Ubiquity at the Rucker's Bottom Site: Oak and Acorns.



Nuts versus Wood Species Ubiquity at the Rucker's Bottom Site: Hickory and Hickory Nuts.



Cumulative percentages of selected botanical species at 9EB85 and 9EB91, Russell Reservoir.



Sources: Moore 1985: 689, 691; Rudolph & Halley 1985: 446

Figure 67. Paleobotanical Comparisons, Rucker's Bottom and Beaverdam Creek Mound and Village.

also probably resulted in some scouring of loose topsoil. All of these possibilities warrant consideration. As noted, the Rucker's Bottom site, and indeed the entire central and lower Savannah drainage was abandoned after the Rembert phase; and the subsistence data may indicate some of the events leading up to it.

EVIDENCE FOR MISSISSIPPIAN OCCUPATION IN THE RUSSELL RESERVOIR: MINOR EXCAVATION ASSEMBLAGES

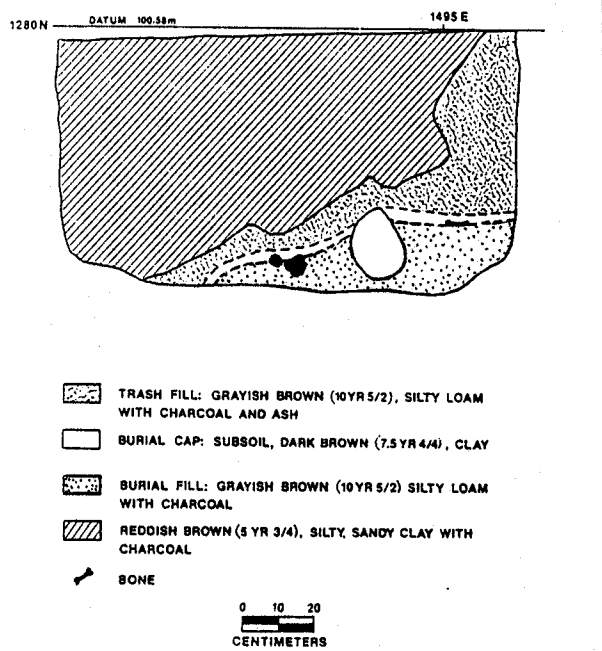
Several minor Mississippian components were examined in the Russell Reservoir, augmenting the picture provided by the work at Beaverdam Creek and Rucker's Bottom. With the exception of Clyde Gulley, which appeared to have been a small village, all of these assemblages were fairly small, possibly from hamlets or limited activity areas. No evidence for other major villages comparable to Rucker's Bottom was found, although given the general absence of wide-area stripping at many identified Mississippian sites, it is possible that other fairly large communities could have been missed. The presence of probable hamlets during the local Mississippian, albeit in low number, was clearly indicated by the reservoir excavations.

Clyde Gulley

A major Early Mississippian Jarrett phase component was discovered at the Clyde Gulley site, on a low rise on the terrace approximately 400 m below the confluence of Pickens Creek with the Savannah River (Tippitt and Marquardt 1984:8-9 to 8-14; 8-20 to 8-37). A dark Mississippian midden stain with associated artifacts and features was found extending over a roughly half hectare area that may have been the remains of a small village or several hamlets (Figure 68). The midden staining was initially found in two of 14 backhoe trenches opened over the terrace to delimit the nature and extent of the site deposits. Near the river on the levee crest the midden was found at a depth of 70 cm, below a recent plowzone and a thick zone of coarse bedded sand from historic flooding. These flood deposits thinned away from the river on the levee backslope, and in many respects the stratigraphy was similar to that observed in the Mississippian deposits at Rucker's Bottom.

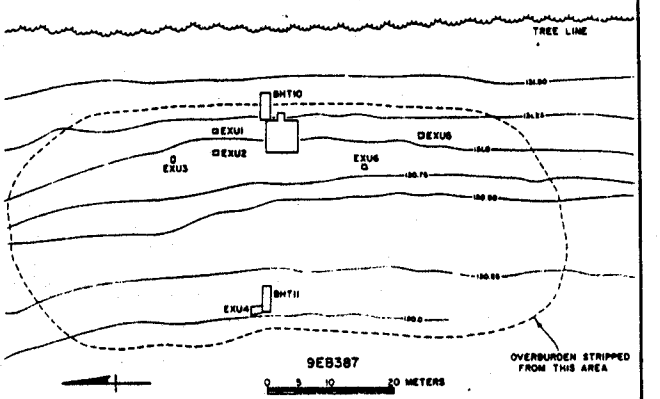
The thickness and extent of the midden was determined from systematically dispersed samples measured using a split spoon sampling auger (Figure 68). The midden was thickest on the low rise on the levee crest and thinned rapidly away from this area; concentrations, or slightly thicker deposits were observed in three areas that may represent the locations of structures or refuse disposal areas. Overburden to the top of the midden surface was then removed using a pan, with the final 10 to 15 cm of the fill removed with a road grader, to minimize damage to the deposits. To better examine the stratigraphy within the densest part of the midden, a 25 m long backhoe trench was opened through this area, connecting the two trenches where the midden had been first observed.

Burial 2 Profile, Simpson's Field , 38AN8.

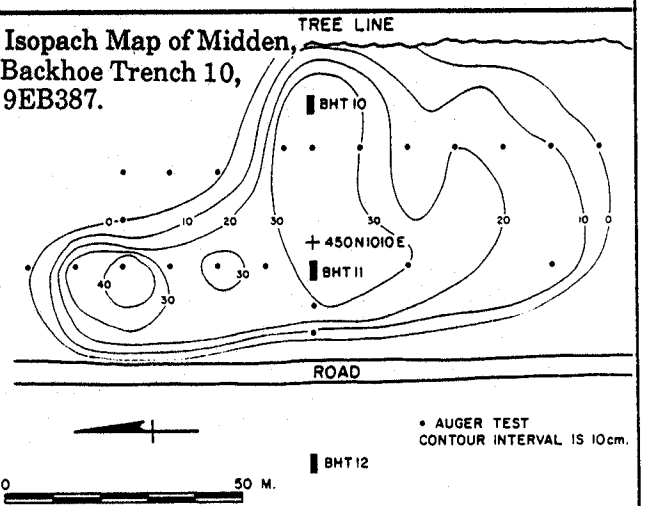


Sources: Tippitt & Marquardt 1984: 8-13, 8-25; Wood et al. 1986: 110; Dickens 1985: 57

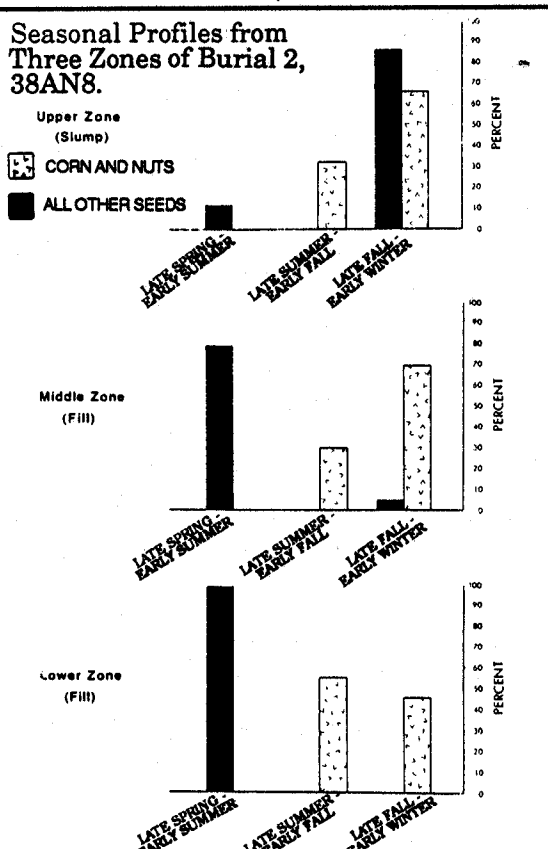
Excavation Units at 9EB387.



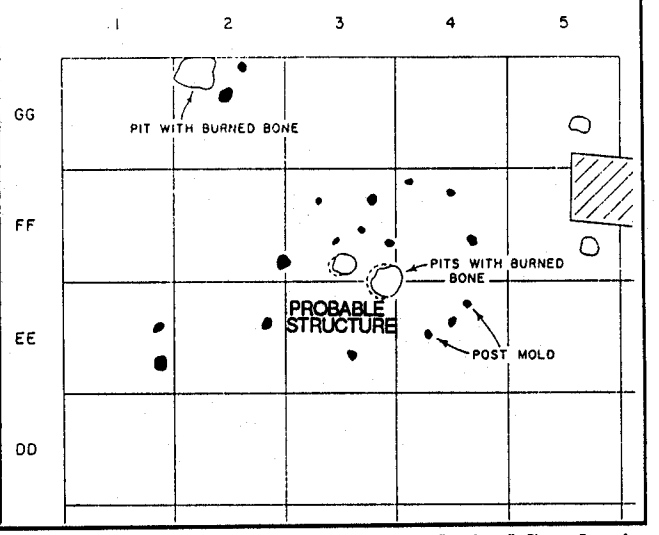
Isopach Map of Midden, Backhoe Trench 10, 9EB387.



Seasonal Profiles from Three Zones of Burial 2, 38AN8.



Probable Mississippian Structure, 9EB387.



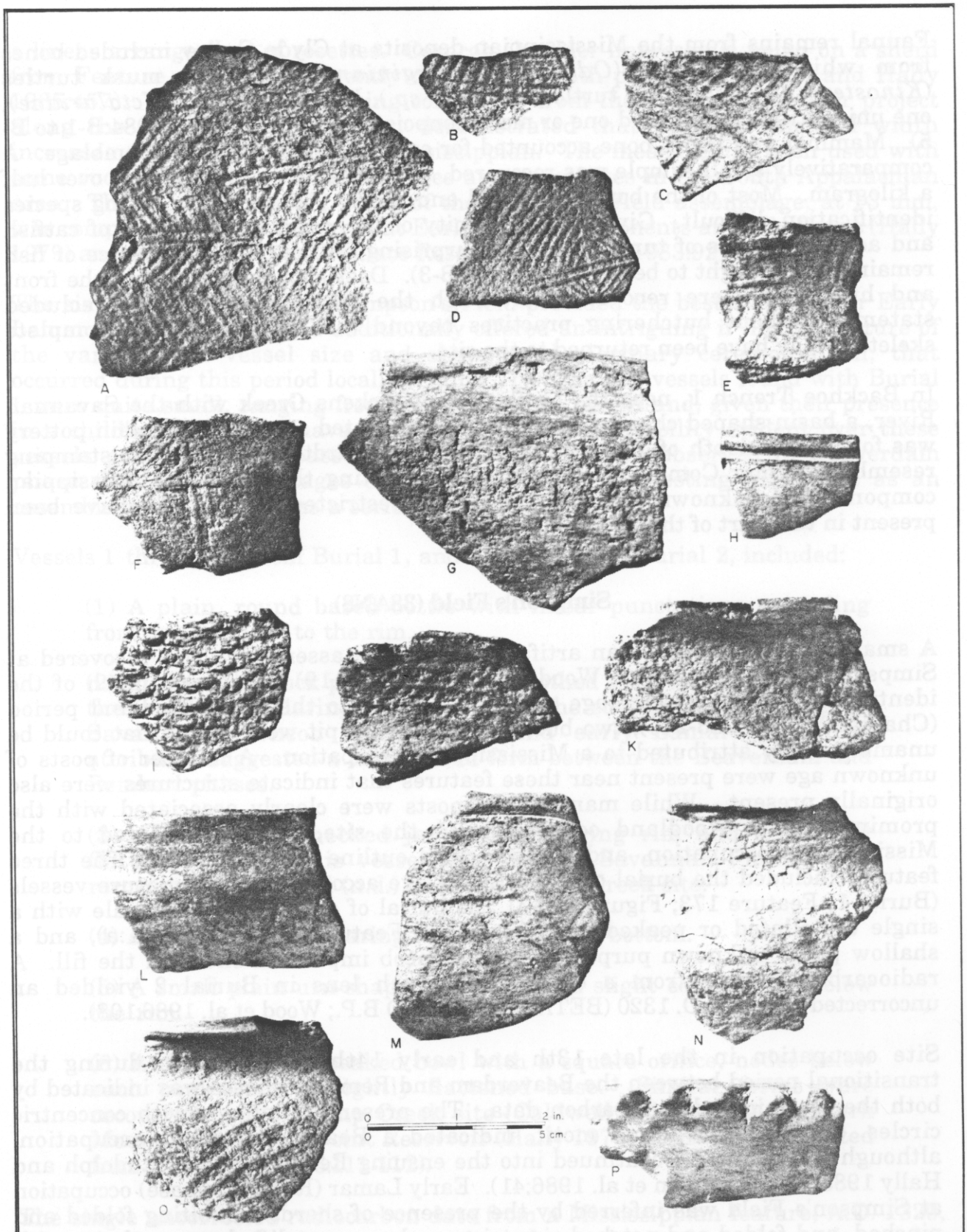
Courtesy University of Alabama Press

Figure 68. Mississippian Features and Paleobotanical Analysis, Simpson's Field and Clyde Gulley Sites.

While a number of features and artifacts were observed in the midden, their resolution was difficult. Rather than strip the midden away and look for features that extended below it over a large area, a program of hand excavation was implemented to document the deposits. A 10 x 10 m block unit was opened in 2 m squares and 10 cm levels near Backhoe Trench 10, on the levee crest near the river, and six other 2 x 2 m units were randomly placed across the midden to further examine the deposits (Figure 68). The units were taken through the midden, with all features encountered recorded and excavated. A number of pits, postmolds, and artifact concentrations, including the outline of one structure, were found in the block. Two pits within the structure contained burned earth and bone, while a ground stone tool fragment, several large sherds, and a number of small triangular points were found on the floor (Tippitt and Marquardt 1984:8-23). Given the low artifact density, the structure appeared to have been thoroughly cleaned prior to abandonment.

Over 8,300 sherds were collected from the midden, the majority plain or burnished. Decorated surface treatments included a roughened plain ware that may have been a smoothed-over cord or fabric impressed finished, and complicated stamping. The majority of the complicated stamped sherds were ladder-based and two bar nested diamonds, suggesting a later Etowah, Jarrett phase occupation (Figure 69). Comparable ceramics were found at 9EB388, a small surface scatter on a ridge overlooking the Clyde Gulley site that may have been an outlying hamlet or some other kind of activity area, such as a seasonally occupied agricultural camp (Tippitt and Marquardt 1984:9-5). Burnished bowls were represented in the Clyde Gulley assemblage, one with a duck head effigy. Other artifacts recovered included plain and incised pipe fragments, pottery discs, small isoceles triangular points, and a number of small bipolar cores and small blades with lateral wear retouch. Almost all of the flaked stone artifacts were made of very fine vein or clear crystal quartz. Use of the small blades in composite tools for a range of tasks, including cleaning fish, drilling, scarification, or working shell or bone was suggested (Tippitt and Marquardt 1984:8-37).

Flotation samples were taken from all of the unit levels and features, but comparatively few identifiable charred plant remains were recovered, something attributed to the minimal evidence for burning found at the site (Tippitt and Marquardt 1984:8-37). Identified remains included seeds from maypops, passion flower, and grass, together with hickory nutshell and pine cone fragments (Aulbach-Smith 1984). Only one corn fragment was found, from the area of the structure. Other identified remains included *Croton glandulosus* var. *septentrionalis*, *Panicum ramosum*, *Vinga*, and *Ampelopsis aborea*. The fruit seeds suggested late summer to fall occupation, something also indicated by the nutshell. The low incidence of corn may reflect preservation, or may indicate a lower dependence on this plant in the earlier Mississippian, as opposed to during later periods, when it was almost ubiquitous in reservoir feature assemblages (Moore 1985; Gardner 1985).



Source: Tippitt & Marquardt 1984: 29

Figure 69. Early Mississippian Ceramics from the Clyde Gulley Site.

Faunal remains from the Mississippian deposits at Clyde Gulley included bones from white-tailed deer (*Odocoileus virginianus*), mud or musk turtles (*Kinosternidae*), softshell turtles (*Trionyx sp.*), bullhead catfish (*Ictaluridae*), one unidentifiable bird, and one or more nonpoisonous snakes (Ruff 1984:B-1 to B-5). Mammal and turtle bone accounted for over 98 percent of the assemblage. A comparatively small sample was recovered, 1479 fragments totaling just over half a kilogram. Most of the bone was small and poorly preserved, rendering species identification difficult. Given the proximity of the river, the presence of catfish and aquatic species of turtles was not surprising, although the incidence of fish remains was thought to be low (Ruff 1984:B-3). Deer elements from both the front and hind legs were recovered, although the small sample size precluded statements about butchering practices beyond the suggestion that complete skeletons may have been returned to the site.

In Backhoe Trench 1, near the confluence of Pickens Creek with the Savannah River, a basin-shaped charcoal stain with complicated stamped and plain pottery was found at a depth of 30 cm (Tippitt and Marquardt 1984:8-1). The stamping resembled Lamar Complicated Stamped, suggesting that a later Mississippian component of unknown but probably fairly restricted extent may have been present in this part of the site.

Simpson's Field (38AN8)

A small Middle Mississippian artifact and feature assemblage was recovered at Simpson's Field (Figure 49; Wood et al. 1986:107-119). Although much of the identifiable feature assemblage at the site dated to the Late Woodland period (Chapter VI, pp. 233-240), two burials and a small pit were found that could be unambiguously attributed to a Mississippian occupation. A number of posts of unknown age were present near these features that indicate structures were also originally present. While many of the posts were clearly associated with the prominent Late Woodland occupation on the site, some also dated to the Mississippian occupation, and one structure outline was delimited. The three features included the burial of a child with five accompanying miniature vessels (Burial 1, Feature 173; Figure 71:e-i), the burial of a middle aged female with a single castellated or peaked bowl (Burial 2, Feature 160; Figure 71:a), and a shallow pit of unknown purpose with a corncob impressed sherd in the fill. A radiocarbon sample from a charcoal and ash lens in Burial 2 yielded an uncorrected date of A.D. 1320 (BETA-2803; 630±40 B.P.; Wood et al. 1986:108).

Site occupation in the late 13th and early 14th century A.D. during the transitional period between the Beaverdam and Rembert phases was indicated by both the ceramic and radiocarbon data. The presence of sherds with concentric circles, a typical Savannah motif, indicated a Beaverdam phase occupation, although the motif also continued into the ensuing Rembert phase (Rudolph and Hally 1985:457; Anderson et al. 1986:41). Early Lamar (Rembert phase) occupation at Simpson's Field was inferred by the presence of sherds exhibiting folded and pinched, and folded and notched rimstrips, and an unmodified stamped rim with

a linear arrangement of rosettes. Corncob shoulder impressing, noted on a sherd from Feature 48, also apparently occurred in both periods (Rudolph and Hally 1985:457). Rudolph (1983), using collections from the Wallace Reservoir project along the central Oconee River, demonstrated that average rim fold width increases over the course of the Mississippian. The measure has been used with some success to help date assemblages at several sites in the South Appalachian area. The average rim fold width of the Simpson's Field assemblage, at 13 mm, was comparable to that observed at Early Lamar components at Little Egypt (Hally 1979) and at 9PM222 in the Wallace Reservoir (Rudolph 1983:92).

The six vessels recovered at Simpson's Field provided the best evidence for Early Lamar site occupation, and additionally offered an intriguing if limited picture of the variation in vessel size and shape, and mortuary ceremonialism, that occurred during this period locally (Figure 71). The five vessels found with Burial 1 were quite small, ranging from 6.5 to 13 cm in height and, given their presence in a child's burial, may have been toy pots. The variability evident over these vessels partially encompassed the range of variation observed in Beaverdam phase domestic assemblages (Hally 1983, 1984), suggesting interment as an assemblage, rather than as a series of discrete offerings.

Vessels 1 through 5, from Burial 1, and Vessel 6, from Burial 2, included:

(1) A plain, round based bottle with linear punctations extending from the shoulder to the rim.

(2) A restricted neck plain jar with smoothed corncob impressions on the neck and a flaring, pinched rim. The combination of typically Savannah (corncob impressions) and early Lamar (pinching) attributes suggested a transitional form between the Beaverdam and Rembert phases.

(3) A plain, high-necked jar with a flaring rim and a slightly flattened base. This vessel resembled a Savannah Plain vessel recovered by Caldwell (n.d.) from the Stamp Creek site.

(4) A jar with a wide flaring rim and rounded bottom.

(5) A small plain urn-shaped vessel with a slight constriction below the rim.

(6) A castellated or peaked bowl with a square orifice, nodes below each peak, and a slightly flattened base. Similar forms were recovered at the Stamp Creek site (Caldwell n.d.) and at the Park Mound in the West Point Reservoir (Hally 1979)(descriptions adapted from Wood et al. 1986:111-112).

The single uncorrected radiocarbon date from a Mississippian feature, A.D. 1320, was complemented by the two anomalous dates obtained on charcoal samples

from two presumably Late Woodland features of A.D. 1260±60 and A.D. 1230±50 (BETA-6397, 7010; uncorrected). If all three samples accurately date the Mississippian occupation, then site use during both the Beaverdam phase (as indicated by the two earlier dates and some of the ceramics) and into the Rembert phase (as indicated by the latest date and some of the ceramics) appears probable.

An oval-to-rectangular cluster of postmolds was found in the northeast corner of the primary excavation block that may have been the remains of a Mississippian structure; Burials 1 and 2 lay within this cluster while Feature 48 lay just outside of it to the north (Figure 49). Since most of the identifiable Woodland features were located in the western portion of the block while the three Mississippian features occurred in the eastern portion, the cluster of posts around these features were assumed to date to the Mississippian era. The fact that the two Mississippian burials were within the apparent postmold pattern defining the structure also supported this interpretation, since subfloor burial was found to be common during this period elsewhere in this part of the drainage, notably at Rucker's Bottom (Wood et al. 1986:119; Weaver et al. 1985). The Rembert phase structure at Simpson's Field was indistinct but was roughly rectangular in shape, and from 10 to 12 m in length (NW/SE) by ca. 7.5 m wide (NE/SW)(Wood et al. 1986:119). Floor deposits that may have been present had been destroyed by historic cultivation; features were typically found intruding into subsoil at the base of the plowzone. A number of internal posts were present that may represent benches or dividers, but no other pit features beyond the two burials were found.

Burial 1 was only minimally preserved and consisted of 15 teeth and a few small cranial fragments. These remains were attributed to a child of about ten years (Tyzzer 1986:362). Burial 2 was in much better condition, and represented the remains of a middle aged women about 157-160 cm in height (Tyzzer 1986:363-366). There was some indication of cranial deformation, specifically posterior flattening, but the skull was too fragmentary to be certain about this. Antemortum tooth loss and bone resorbtion, and the presence of excessive wear, caries, and abcesses in the remaining teeth suggested a fairly stressful existence, similar to that in many of the burials recovered at Rucker's Bottom, particularly in the Beaverdam phase village assemblage (Weaver et al. 1985:593-594). If a hamlet or small village was present at Simpson's Field, occupation by commoners, rather than high status individuals, appears probable.

Faunal remains were rare at Simpson's Field, although 571 comparatively small fragments (average weight = 2.41 grams; MNI= 11 individuals) were found in the fill of Burial 2, the only feature with preserved animal bone. The sample was dominated by deer (*Odocoileus virginianus,* MNI=6), with other identified species present including rabbit (*Sylvilagus spp.*, MNI=1), oppossum (*Didelphis virginiana,* MNI=1), raccoon (*Procyon lotor,* MNI=1), turkey (*Meleagris gallopava,* MNI=1), and box turtle (*Terrapene sp.*, MNI=1), and unidentified mammal, bird, and turtle (Wood 1986:374). Mammals dominated the assemblage, accounting for 82 percent of the MNI and 97 percent of the biomass (Wood 1986:372). The absence of identifiable riverine species was somewhat surprising, given the close proximity of the river channel. Specialized upland-oriented game procurement was suggested, a pattern similar to that observed in the Rembert

phase occupation at Rucker's Bottom (Scott 1985:659-663). While this may reflect sample size and preservation, a hunting economy focused on the exploitation of a few species may be indicated. This may be attributable to either a winter occupation, or a highly focused subsistence system, possibly accompanying a general increase in agricultural food production over the region (Speth and Scott 1985; Scott 1985:663-664).

Floral remains from the fill of Feature 160 (Burial 2) were examined by Gardner (1986b:377-386). Identifiable domesticates included corn (*Zea mays L.*; five eight-rowed cob fragments, one twelve-rowed cob butt, and five kernels) "of the type variously referred to as Eastern Complex, Northern Flint, or Maiz de Ocho" (Gardner 1986b:378), and a gourd rind fragment (*Lagenaria sp.*). Wild plant foods present included acorn and hickory nut fragments; acorn fragments were only minimally represented, although hickory was more than twice as abundant, by weight, than corn. A high incidence of nut remains was also observed in the Rembert phase component at Rucker's Bottom (Moore 1985:686-692), something attributed to increasing agricultural intensification and a concomitant increase in population carbohydrate requirements. A single chenopodium seed was recovered, and was interpreted as probably more indicative of localized agricultural disturbance than consumption of this species (Gardner 1986b:378). Fleshy fruits recovered included grape (*Vitus sp.*), persimmon (*Diospyros virginiana*), strawberry (*Fragaria sp.*), bramble (*Rubus sp.*, i.e., raspberry, blackberry, and dewberry), and maypops (*Passiflora incarnata*). The presence of these open-habitat species suggested possible localized field clearing and abandonment, and the exploitation of early successional communities (Gardner 1986b:378).

An analysis of the ethnobotanical remains by fill zone within Feature 160 (Burial 2) was conducted by Dickens (1985:55-57), to demonstrate the kind of information that can be gained when careful control is exercised in field excavation (Figure 68). Seasonal differences were noted between the two lower zones, around and above the burial, and an upper zone that accumulated sometime later:

> This pit, which appears to be of the shaft-and-side chamber variety (Dickens 1976:103), contained three garbage-laden soil zones: (1) a zone of fill in the lower part of the pit around the skeletal remains, (2) a zone of fill in the central part of the pit, and (3) a zone of postburial slump in the upper part of the pit.
>
> ...Plant remains from the lower fill zone produced a seasonal profile indicating Late Spring-Early Summer deposition (i.e., interment). The middle zone (probably fill) also produced a Late Spring-Early Summer profile. The upper zone, undoubtedly representing post-burial slump, produced a Late Fall-Early Winter profile. It is important to note that the ratio of corn to nuts shifts from the lower to the upper zones. This feature provides an excellent example of the importance of separating, in recovery and analysis, fill from slump material in any feature (Dickens 1985:55-56).

From this example it is evident that paleosubsistence remains may indicate periods of feature use, abandonment, and filling.

The diversity of plant foods represented in the Feature 160 samples led Gardner (1986b:379-380) to question Cleland's (1976) assumption that Mississippian subsistence was focused on maize agriculture. Instead, Gardner suggested that either (1) the case for Mississippian focal strategies was overstated, something other investigators have noted (e.g., Smith 1975; Dickens 1976, 1978); (2) that subsistence was more diversified in the South Appalachian area than in the Middle Mississippi heartland (see also Ferguson 1971; Ferguson and Green 1984); and/or (3) that subsistence diversity was probably related to site function, and greater diversity was likely at habitation sites than at ceremonial centers. The evidence from the reservoir indicated that all three of these observations were probably to some extent valid.

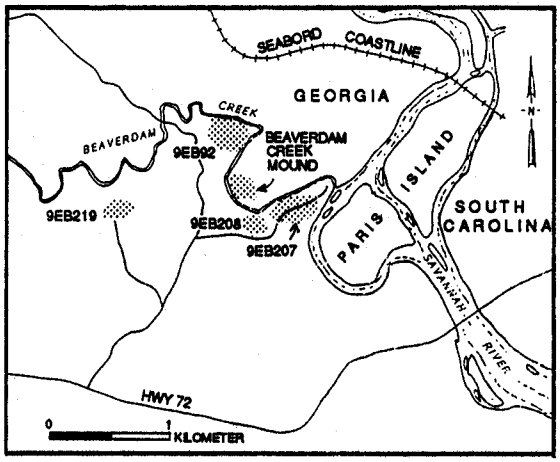
Beaverdam Site Group (9EB92, 9EB207, 9EB208, 9EB219)

Four sites in the vicinity of the Beaverdam Creek Mound where Mississippian artifacts had been found in earlier survey and testing activity were examined in 1980 (Gardner et al. 1983; Campbell and Weed 1984). All were located along Beaverdam Creek within two km of the mound center (Figure 70). A primary goal of the research was determining whether any relationship existed between these sites and the center, particularly whether the four sites represented outlying villages or hamlets in a local Mississippian settlement hierarchy. Systematically dispersed surface collection or shovel tests units were dispersed over each site area to locate concentrations, which were then examined by small, machine stripped block units or hand excavated test pits.

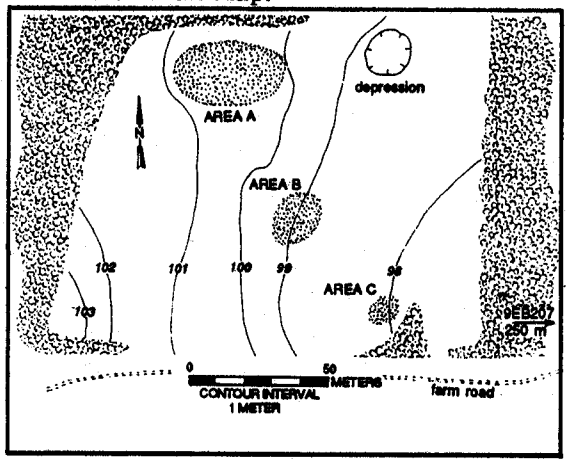
Mississippian components were found at all four sites, complementing the results of the earlier testing. Mississippian artifact and feature concentrations tended to be fairly small, and household or hamlet-sized occupations were indicated. Post stains were found at all four sites, with evidence for structures found at two of the four. A fairly well defined circular postmold pattern from a probable domestic structure was found at 9EB208, while less conclusive evidence was found at 9EB92. The evidence for hamlet-size occupations found in the Beaverdam Site Group was the only clear indication of these site types found in the reservoir. The evidence from these sites has been used to help posit a three fold settlement hierarchy for the Mississippian in the upper Savannah River, consisting of mounds such as Beaverdam Creek and Tate, large villages such as Rucker's Bottom and possibly Clyde Gulley, and hamlets (Campbell and Weed 1984:138-139).

9EB92. Site 9EB92 was located on a large alluvial terrace overlooking a major bend in Beaverdam Creek. The site area was bisected by a depression running into the creek, and was bounded to the west by upland slopes. Fourteen test pits and an extensive general surface collection was made at the site during initial survey and testing operations (Taylor and Smith 1978:368, 388; Gardner et al. 1983:48-55), recovering Early Archaic through Mississippian remains. Following

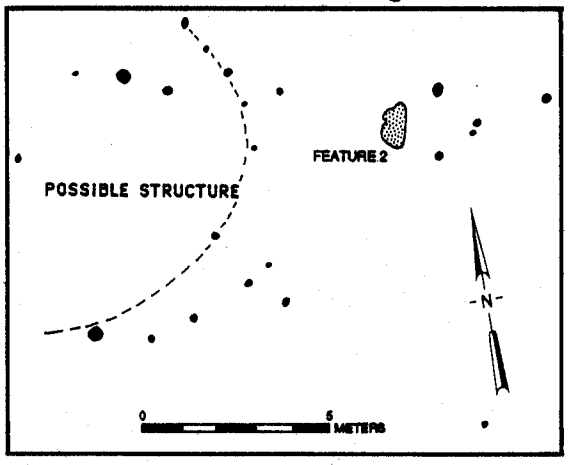
Beaverdam Group Site Locations.



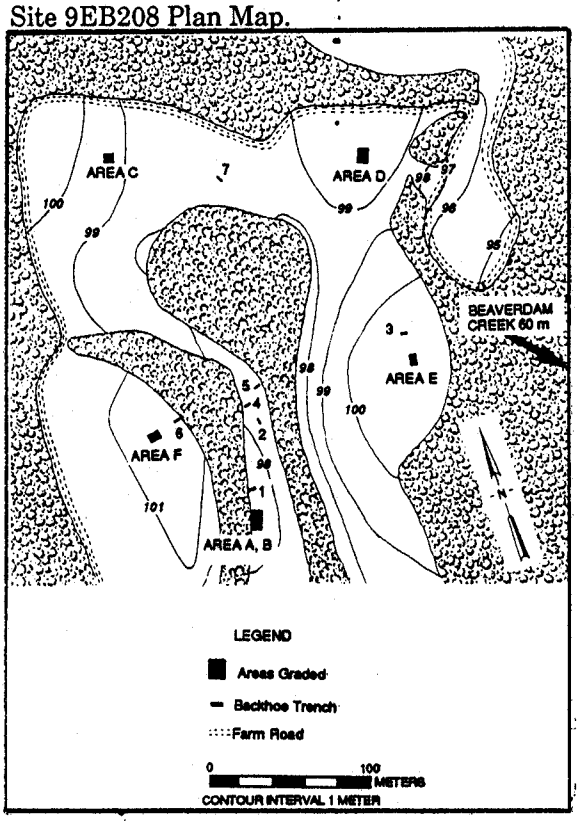
Site 9EB92 Plan Map.



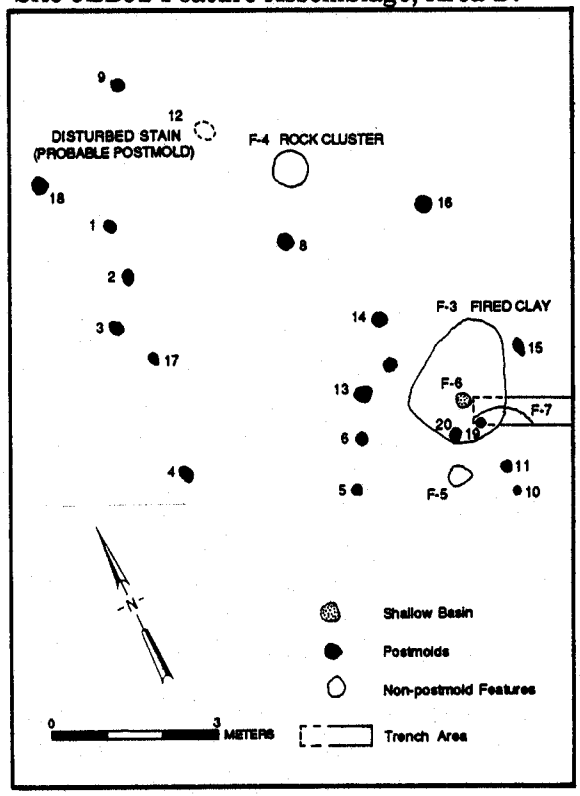
Site 9EB208 Feature Assemblage.



Site 9EB208 Plan Map.



Site 9EB92 Feature Assemblage, Area D.



Source: Campbell & Wood 1984: 4, 63, 64, 99, 103

Figure 70. Beaverdam Site Group Locations and Features.

controlled surface collection, the plowzone was stripped from five 6 x 5 m blocks scattered over the site area and placed, where possible, within artifact concentrations. In the northeast corner of the site (Area D), 20 postmolds, a rock cluster, and three pits were found, scattered about a patch of burned clay from a possible hearth (Figure 70; Campbell and Weed 1984:62-66). Pottery was found in 13 of the 25 features. While most of this was plain, the presence of several burnished, check and complicated stamped sherds, and one folded rim, indicate that most of the feature assemblage derived from a Beaverdam or Rembert phase occupation. The only exception, the rock cluster, contained a Savannah River point and was assumed to date to the Late Archaic.

No patterning was observed over the postmold assemblage, although at least three possible wall lines were suggested. Two of the three pit features (Features 5 and 6) were small, averaging 20 and 40 cm in diameter, respectively, while the third, Feature 7, was a large bell-shaped pit ca. 1.5 m in diameter (Campbell and Weed 1984:65-66). Feature 5 intruded into the fired clay zone, while Feature 7 was found below it. Probable Mississippian ceramics were found in the fill of all three features, and traces of bone were found in Feature 5; Feature 7 was only partially examined, and its function was uncertain. Three maize kernels were found in one of the post stains, together with wood charcoal (Campbell and Weed 1984:134). Fairly extended Mississippian use of the site was indicated by the number of features in the block, and the three successive features found centered on the hearth. Several Mississippian structures may have been present on the site, given the various possible wall post lines that were observed; unfortunately, no further investigations were conducted. The feature assemblage was tentatively interpreted as the remains of a hamlet.

9EB207 At site 9EB207, a low alluvial terrace along Beaverdam Creek, only inconclusive evidence for Mississippian structures was found. Investigations at the site included a general surface collection (Taylor and Smith 1978:369), the excavation of 24 1 m units in initial testing (Gardner et al. 1979:39-47), followed by a controlled surface collection, 20 additional 1 m or 1 x 2 m test pits, 15 backhoe trenches, and two 5 x 10 m blocks that were machine stripped in an effort to locate subplowzone features (Campbell and Weed 1984:73-98). Only six small pit features and seven postmolds were found in the units, none identifiable to a specific period. The only concentration of features detected was three scattered postmolds and a pit found at the base of the plowzone in one of the two 5 x 10 m blocks. Small quantities of check stamped, Savannah complicated stamped, and well smoothed plain pottery were found in the upper levels of several of the units and on the surface, suggesting a probable Beaverdam phase component. Earlier Archaic and Woodland materials were also found in these same contexts, however, rendering the dating of the feature assemblage equivocal. Given the infrequent occurrence of both Mississippian artifacts and possible features, little more than a hamlet or special activity area was indicated.

9EB208 Evidence for a Mississippian structure was found at 9EB208, on an upland ridge nose some 450 m south of Beaverdam Creek (Campbell and Weed 1984:98-110). A quartz outcrop was present on the ridge, and a large quantity of

chipping debris was observed about it, together with Early Archaic through Woodland projectile points and a number of ceramics, most presumably Mississippian in age (Taylor and Smith 1978:416, 427; Campbell and Weed 1984:99-100). During county soil removal operations at the site in 1980 a large number of features were observed, prompting hurried shovel skimming and mapping at two areas within the site. Three scattered posts were found in one area, and 26 posts and a pit in the other; the majority of the posts in the latter area formed a semicircular outline approximately 7 m across (Figure 70). The presence of one or more structures was clearly indicated, although given the extent of disturbance little more could be determined.

The post arc, if complete, would have formed an outline comparable in size to several of the circular structures observed at Rucker's Bottom, suggesting a hamlet may have been present at the site. A Beaverdam phase occupation was indicated; two Savannah check stamped sherds were found in the fill of one of the posts, while a Savannah Complicated Stamped sherd was found in the fill of Feature 2. Feature 2, was an irregular basin ca. 90 x 50 x 40 cm in extent with several lenses of ash, charcoal, and fired clay in the fill; no evidence for bone was observed. Located about three meters east of the post arc, with several small post stains nearby, it appeared to have been a hearth that saw repeated use. The nearby posts may have been from a windbreak, drying racks, or other facilities associated with the hearth. While contemporaneity cannot be determined, the feature may have been an exterior (warm weather?) hearth used by the occupants of the structure. At Rucker's Bottom a comparable feature, M-1042, was found the same distance to the east of a well defined house floor, Structure 2. This feature, which contained dense quantities of charcoal, bone, and fired clay, was almost certainly an exterior cooking pit associated with the structure (Anderson and Schuldenrein 1985:559).

9EB219 At 9EB219, the fourth site examined in the Beaverdam Group, evidence for a small Etowah component was found (Campbell and Weed 1984:110-126). Investigations included general surface collection (Taylor and Smith 1978:426), the excavation of six 1 m and two 0.5 m units (Gardner et al. 1983:56-61), systematic shovel testing, and the excavation of eight 2 m units (Campbell and Weed 1980:115-116). Four postmolds, one amorphous basin-shaped pit feature, and portions of a crushed Etowah Complicated Stamped vessel with a rectilinear nested square design were the only features found in the units (Gardner et al. 1983:57; Campbell and Weed 1980:118). Two of the postmolds and the crushed vessel were found in a single 2 m unit, while the other features were isolated. A range of Archaic, Woodland, and Mississippian diagnostics were found mixed together in the upper levels of the test units, making the dating of the features difficult. While the presence of Mississippian structures at the site was suggested, it could not be confirmed. Moderate Mississippian occupation was indicated by the presence of small triangular points, burnished plain and complicated stamped sherds, and the crushed vessel. Two bar nested diamond motifs were present, together with a number of unidentifiable curvilinear design fragments, suggesting Jarrett and Beaverdam phase (Etowah and Savannah) components.

Big Generostee Creek (38AN126)

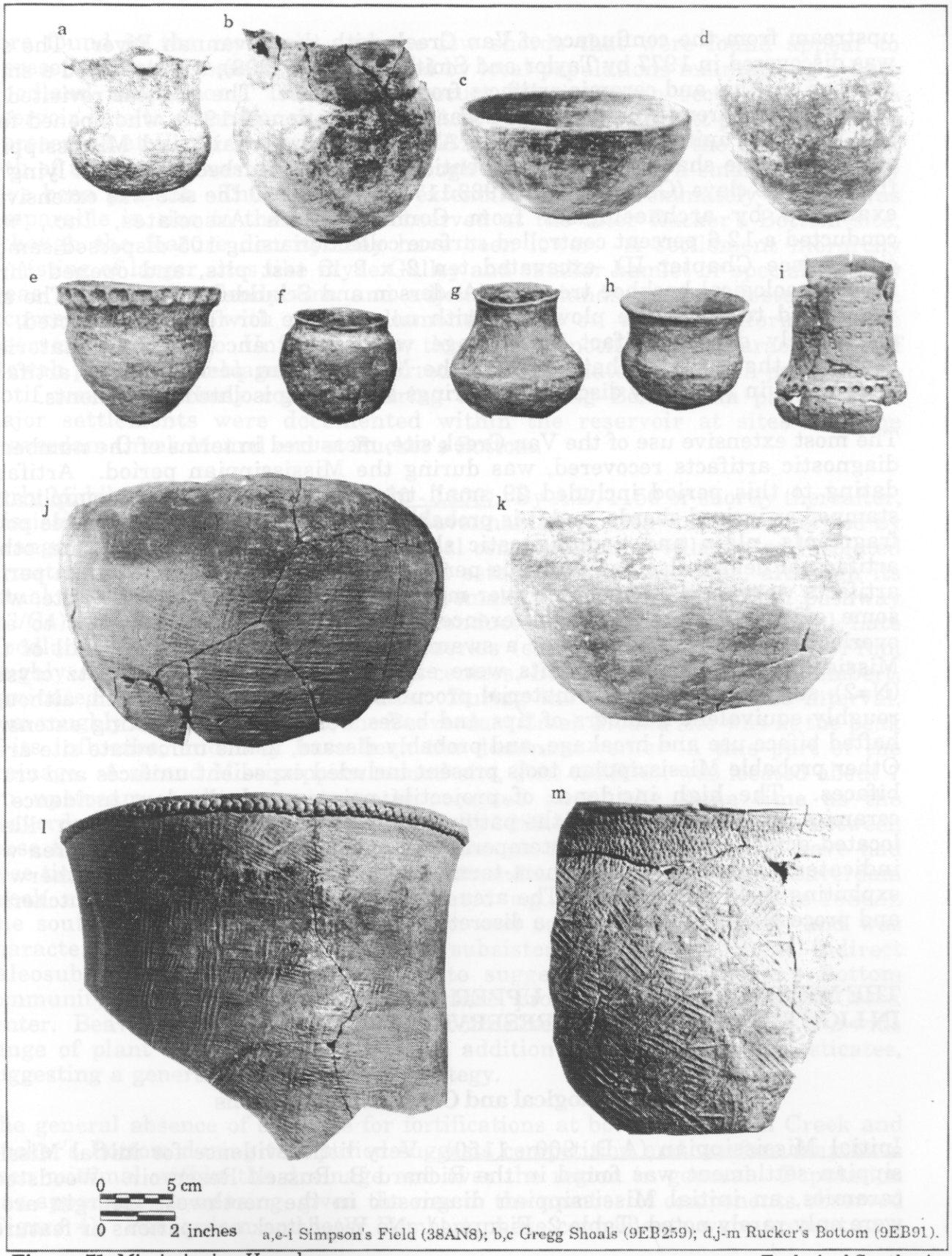
A single disturbed burial of an adult female was found in a 2 x 2 m test unit opened at the Big Generostee Creek site (38AN126; Wood et al. 1986:197). The degree of preservation, the presence of Mississippian small triangular points, and a ceramic assemblage characterized by notched appliqued rimstrips, finger pinched appliqued rimstrips, bold incising, corncob impressions, and bisected concentric diamonds in the upper levels of the five test units opened at the site argued for a probable later Mississippian, Rembert phase age for the interment (Wood et al. 1986:203-205). Although numerous Mississippian sherds and two triangular points were present in the fill, the dating of this burial must be considered provisional since earlier Connestee and Dunlap materials, and two historic square nails, were also present (Wood et al. 1986:178, 185-186). The burial, which had been badly disturbed by a historic excavation, was apparently of an adult female of comparatively short stature (150 - 155 cm) and indeterminate age, although probably somewhere between 20 and 40 years (Tyzzer 1986:367-369). In the absence of pelvic remains the sex determination was tentative, having been based on the presence of a gracile cranial and facial morphology. Antemortum molar and premolar loss with significant resorbtion, caries, and wear to the secondary dentine on many of the surviving teeth, and fairly severe dental pathologies, implied a stressful existence, comparable to that noted on most apparent commoner burials from this period.

Gregg Shoals (9EB259)

Two small Mississippian vessels were found near the primary excavation block at Gregg Shoals during the stripping operations conducted to expose the Early and Middle Archaic occupation surfaces (Figure 71:b,c; Tippitt and Marquardt 1984:7-6). The vessels were found lying side by side, although no pit outline, human bone, or other evidence for a feature was detected. The vessels, a small plain jar with four reed impressed nodes and a small plain bowl, appeared to date to the Beaverdam or possibly early Rembert phase, given the presence of nodes, a classic Pee Dee attribute (Reid 1967). Within the primary excavation block at the site, Mississippian artifacts were confined to the disturbed upper levels; four small Caraway Triangulars, a Randolph Stemmed, and a number of sherds of complicated stamped pottery were found in these levels, suggesting minor site use during this period (Figure 29; Tippitt and Marquardt 1984:7-15 to 7-21).

Van Creek (9EB382)

A minor Mississippian component was found at the Van Creek site in a plowed field on an old Pleistocene terrace overlooking Van Creek (Anderson and Schuldenrein 1985:115-147). The diagnostic assemblage was unusual in that it was dominated by lithic artifacts, a pattern accentuated by the fact that the site was located just 400 m west of the dense village occupation at Rucker's Bottom, across a swampy swale. The site was a predominantly surface and plowzone artifact scatter extending over approximately half a hectare about 1.0 km



a,e-i Simpson's Field (38AN8); b,c Gregg Shoals (9EB259); d,j-m Rucker's Bottom (9EB91).

Figure 71. Mississippian Vessels from the Russell Reservoir Area.

upstream from the confluence of Van Creek with the Savannah River. The site was discovered in 1977 by Taylor and Smith (1978:376, 398), who collected a small number of lithic and ceramic artifacts from the surface. The site was revisited by archaeologists from Thunderbird Research Corporation in 1979, who opened four 1 x 1 m test units and found Early Archaic, Late Archaic, and Mississippian artifacts in the shallow deposits, essentially a plow-disturbed A-horizon lying on thick, sterile clays (Gardner et al. 1983:117-118). In 1980 the site was extensively examined by archaeologists from Commonwealth Associates, Inc., who conducted a 12.6 percent controlled surface collection using 105 dispersed sample circles (see Chapter II), excavated ten 2 x 2 m test pits, and opened three geoarchaeological backhoe trenches (Anderson and Schuldenrein 1985). The site was found to lie in the plowzone, with no evidence for features detected. A moderately dense artifact assemblage was found, encompassing materials spanning the Early Archaic through the Mississippian periods. Some artifacts were noted in relatively discrete clusterings suggesting isolated components.

The most extensive use of the Van Creek site, measured in terms of the number of diagnostic artifacts recovered, was during the Mississippian period. Artifacts dating to this period included 29 small triangular points and 11 complicated stamped or incised sherds, and it is probable that many of the unidentifiable point fragments, plain and nondiagnostic sherds, and at least some of the other artifactual debris also dated to this period. The diagnostic Mississippian period artifacts were found distributed over much of the northern part of the site, with some evidence for a slight preference for lower elevations, adjacent to and overlooking either the swale or a swampy tributary of Van Creek. All of the Mississippian Triangular points were either quartz (N=27) or quartz crystal (N=2), suggesting local raw material procurement. Many were broken, although roughly equivalent numbers of tips and bases were found, suggesting extensive hafted biface use and breakage, and probably discard, in the immediate site area. Other probable Mississippian tools present included expedient unifaces and crude bifaces. The high incidence of projectile points, and the low incidence of ceramics, was the opposite of the pattern observed at the Rucker's Bottom village located across the swale. Contemporaneous use of the Van Creek site area was indicated, apparently for short-term tasks such as hunting or otherwise exploiting the swale margin. The area may have served as an animal butchering and processing station, located a discrete distance from the main village.

THE MISSISSIPPIAN IN THE UPPER SAVANNAH RIVER IN LIGHT OF THE RUSSELL RESERVOIR INVESTIGATIONS

Chronological and Cultural Subdivisions

Initial Mississippian (A.D. 900 - 1150). Very little evidence for initial Mississippian settlement was found in the Richard B. Russell Reservoir. Woodstock ceramics, an initial Mississippian diagnostic in the northwest Georgia area, were only rarely noted (Table 2, Figure 4). No Woodstock occupations or features

were found in the reservoir, and the few sherds that were found appear to represent isolated vessels, possibly used by local populations maintaining a Late Woodland adaptation. The earliest secure Mississippian occupations in the reservoir date to around or shortly after A.D. 1100, to the Jarrett phase, and were represented at Clyde Gulley and site 9EB219. The nature of the occupations at both of these sites was uncertain, although at Clyde Gulley a small village may have been present. This occupation, extending over approximately 0.5 ha, was comparable in size to the villages observed at the later Rucker's Bottom site, although the feature density may have been lower. A settlement hierarchy consisting of larger sites like Clyde Gulley and smaller hamlet or special activity areas in both the floodplains and adjoining uplands was suggested by the occurrence of sites with nested diamond motifs on these landforms in the reservoir collections. Unfortunately, this design motif, while characteristic of Etowah period assemblages, also occurred during the later Savannah period. The motif was particularly common during the ensuing Beaverdam phase, when major settlements were documented within the reservoir at sites like the Beaverdam Creek Mound and at Rucker's Bottom.

Early Middle Mississippian (A.D. 1150 - 1300). By A.D. 1150 or shortly thereafter, Mississippian settlement in the upper Savannah River area was characterized by a range of site types, including ceremonial centers, smaller villages, and isolated farmsteads. Maize agriculture was well established by this time, although its actual contribution to subsistence will remain unknown until carbon pathway (C3/C4) and related analyses can be conducted on securely dated local Late Woodland and Mississippian skeletal series (e.g., Lynott et al. 1986). From roughly A.D. 1200 to 1450 two mound centers, Beaverdam Creek and Rembert, dominated local Mississippian affairs. During the early part of this interval, from roughly A.D. 1200 to 1300, the Beaverdam Creek Mound site was at the peak of its influence, and may have been the dominant center in this part of the drainage. A second Mississippian mound site, Tate (9EB86), was located about 7 km upstream, and was apparently occupied about the same time as the Beaverdam Creek Mound (Rudolph and Hally 1985:436). The relationship between these two sites is presently unknown, although they are assumed to have had close ties. Occupation, in fact, may have alternated between Tate and Beaverdam Creek, although this cannot be demonstrated (e.g., Williams and Shapiro 1986a). The southern village at Rucker's Bottom was occupied at this time, and was characterized by a highly diversified subsistence economy. Some indirect paleosubsistence evidence was found to suggest that the Rucker's Bottom community was submitting tribute elsewhere, probably to the Beaverdam Creek center. Beaverdam phase occupations at both sites apparently made use of a wide range of plant and animal resources in addition to agricultural domesticates, suggesting a generalized subsistence strategy.

The general absence of evidence for fortifications at both Beaverdam Creek and Rucker's Bottom during this period suggests competition and warfare may have been minimal within the drainage and over the region in general. Population was apparently increasing, given the rise in the number of components observed (Figure 4). Beaverdam and later Rembert phase components were present at a

fair number of sites in the reservoir, most spatially restricted assemblages indicative of hamlets or special activity areas. A three level settlement hierarchy has been inferred, consisting of hamlets or special activity stations like the occupations found at 9EB209 and Simpson's Field, small villages like that at Rucker's Bottom, and ceremonial centers like Tate and Beaverdam Creek.

Later Middle Mississippian (A.D. 1300 - 1450). Some time after A.D. 1300 the Beaverdam Mound site was abandoned, and the Rembert Mound group further to the south presumably became the dominant center in this part of the drainage (Figure 72). Roughly concurrently, the village at Rucker's Bottom was relocated to the northern part of the terrace, and simple fortifications appeared. This may reflect an increase in conflict within the drainage or over the surrounding region, and an increased need to protect not only the villagers themselves, but also the occupants of surrounding hamlets. Evidence for tributary status was no longer evident at Rucker's Bottom, and the existence of a council house or rotunda may indicate the village enjoyed a fair degree of autonomy, although a similar structure was apparently present earlier.

A shift to a more focused subsistence economy was evident, possibly a result of increasing agricultural intensification. Changes in nut utilization were observed, particularly a decrease in hickory nut and an increase in acorn remains, that may reflect increasing caloric demands by local populations. The changes in nut use and wood species diversity observed at the Rucker's Bottom site indicate increasing exploitation of the surrounding forest. A shift from mature to immature successional communities was suggested at both the Rucker's Bottom and Beaverdam Creek Mound sites, something possibly due to increased land clearance associated with agricultural food production (Moore 1985:686-693; Fish 1985). Local population density may have been at an all time high for the prehistoric era, given the number of Early Lamar components found in the reservoir area (Figure 4).

During the later Middle Mississippian period and particularly in the Late Mississippian prior to the historic era settlement nucleation becomes increasingly evident throughout the southeast. Fortified villages are common and farmsteads disappear in many areas, although this pattern was by no means universal. This has been linked to increasing regional population density, and a concomitant expansion of warfare, arising in part over political rivalries, and ultimately based on the control of important resources such as trade routes, agricultural lands, or hunting territories (e.g., Larson 1972; Smith 1978; Anderson 1987a, 1987b, 1988b). The fortifications observed at the Rucker's Bottom site may be related to this regional trend.

Late Mississippian and Protohistoric Occupations. Evidence for the later prehistoric and protohistoric native American occupation of the Russell Reservoir area, as documented archaeologically and historically, was virtually nonexistent (Figure 72; The History Group 1981:64-75; Hally et al. 1985; Anderson et al. 1986). Only six Late Lamar components were found in the reservoir area (Figure 4). All of these were identified by the presence of one to a few sherds of Lamar Bold Incised pottery, a type that actually appeared during the Rembert phase

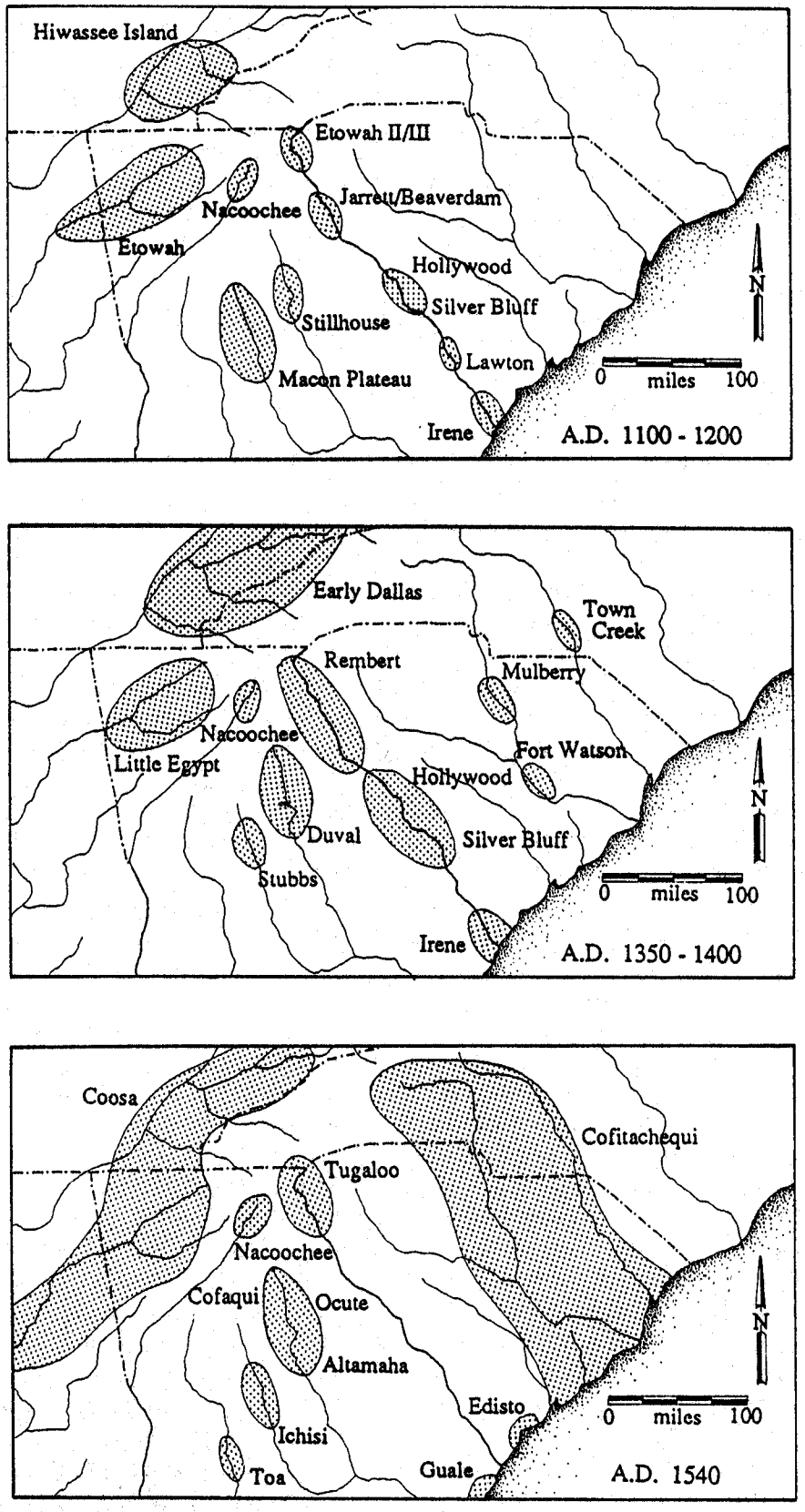


Figure 72. Mississippian Polities in the South Atlantic Area.

(indicating these sites may be earlier than inferred). The entire lower Savannah River basin, from the Russell Reservoir south, appears to have been largely abandoned from ca. A.D. 1450 - 1650, and was only briefly occupied after that time, primarily by displaced groups moving in from other areas such as the Westo settlement near Augusta (Woodward 1674; see also Milling 1940, Smith 1986; DePratter 1988a). Only the extreme upper reaches of the Savannah appear to have been occupied throughout the late prehistoric and protohistoric era (Hally et al. 1985; Anderson et al. 1986; DePratter 1988b).

Ceramic Taxonomy

Regarding the utilization of ceramic artifacts in sequence development, unquestionably one of the most significant advances to come out of the reservoir work was the development of a fairly refined Mississippian sequence for the upper Savannah River, research largely accomplished by Hally. The work in the reservoir clearly demonstrated, however, that use of this sequence proceeded best when applied on an assemblage level, and not on a sherd by sherd basis. Nested or cross diamond motifs, for example, were common during both the Jarrett and subsequent Beaverdam phase, although a decrease in incidence was evident over time. This motif, traditionally inferred to document Etowah components, has been found to encompass a much broader range in the general region. The nested diamond motif continues to occur in post-Etowah period assemblages in the middle Oconee drainage of east-central Georgia (Smith 1981:183-184, 1983). At the Dyar Mound, for example, nested diamonds were reported as the most common motif throughout both the Early and Middle Mississippian Stillhouse and Duvall phases, which roughly correspond to the Etowah/Early Savannah Beaverdam and late Savannah/early Lamar Rembert phases in the Russell Reservoir area. What these findings indicate is that the presence of specific complicated stamped (or incised) motifs, by themselves, should not be taken as clear evidence for specific periods of site use.

The position of cord marked pottery within the Mississippian sequence remains largely unknown. A small quantity of sherds with this finish was found in unequivocal Mississippian context at Rucker's Bottom on the floor of Structure 2. Unlike the earlier Woodland cordmarked sherds from the site, the material was characterized by carefully applied, closely spaced parallel cord impressions and well smoothed interior surfaces. Many of the sherds resembled Savannah Fine Cord Marked, which has been shown to be widespread throughout the lower portion of the drainage (Caldwell and Waring 1939; DePratter 1979; Anderson 1988a), although the incidence of cross stamping was lower in the Russell Reservoir sample. While Savannah Fine Cord Marked has been dated from ca. 1150 to 1300 at the mouth of the river and from ca. A.D. 800 to 1300 in the interior (DePratter 1979:111, Anderson et al. 1986:42-43), no cord marked pottery was reported among the more than 25,000 sherds recovered at the Beaverdam Mound, which was occupied from ca. A.D. 1200 - 1300. Thus, in spite of a considerable popularity throughout prehistory in the coastal plain, cord marked finishes were uncommon along the upper Savannah. The position of this and other finishes

such as check stamping, fabric marking, and simple stamping within the local late prehistoric sequence need to be better resolved. Although the current sequence is an excellent beginning, many questions remain to be addressed. There is a particular need throughout the region to narrow the chronological intervals employed to well under the 100 to 150 year intervals currently in use, to more effectively approach the study of local Mississippian political and cultural evolution.

The Abandonment of the Savannah River

The middle Savannah River was densely settled by Mississippian populations during the twelfth through fourteenth centuries, but was then precipitously abandoned around A.D. 1450 (Figure 72). This event was clearly documented within the Russell Reservoir. Mississippian components, which showed a pattern of increase over the centuries from ca. A.D. 900 to 1450, exhibited a pronounced drop after this time (Figure 4). Artifacts dating from the interval A.D. 1450 - 1650 were virtually nonexistent in the reservoir collections and throughout the central piedmont, a finding that has been duplicated in the middle and lower course of the drainage where hundreds of collections have been analyzed in recent years. About the same time that the Savannah was depopulated, there is evidence that a number of chiefly centers in western South Carolina were also abandoned (DePratter 1987b, 1988b). At the time of the De Soto entrada the middle Savannah was uninhabited, and formed part of an extensive buffer zone separating the rival provinces of Ocute and Cofitachequi (Hudson et al. 1985, 1987; Hally et al. 1985; Anderson et al. 1986; DePratter 1987b, 1988b). Possible evidence for the emergence of this buffer was observed at Rucker's Bottom where increasingly complex fortifications appeared in the last century prior to site abandonment, which occurred about the same time that the entire lower drainage was depopulated. Increasing tension, and possibly hostilities between local chiefly polities (i.e., presumably between those along the Savannah, the Oconee in central Georgia, and along the Santee/Wateree in central South Carolina) has been inferred by this appearance and elaboration of fortifications (Anderson 1986b, 1987a, 1987b).

Several Mississippian ceremonial/political centers emerged, saw use for a century or two, and were then abandoned along the Savannah prior to the final depopulation in the fifteenth century. These sites include the Lawton Mound Group, occupied ca. A.D. 1100-1300; the Hollywood Mound Group, occupied ca. A.D. 1250-1350; and the Beaverdam Creek Mound site, occupied ca. A.D. 1200-1300 (Rudolph and Hally 1985; Anderson et al. 1986). A marked decline in sumptuary goods accompanying burials was evident in the upper stages of two of these mounds, at Beaverdam Creek and particularly Hollywood. These patterns suggest increasing elite impoverishment and concomitant social disruption, following arguments developed by Peebles and Kus (1977:425, 430). Why these centers were abandoned remains unknown, although it appears that the activities undertaken at them were subsumed by other, much larger centers elsewhere along the drainage, at the Irene, Silver Bluff, and Rembert Mound Groups. This

suggests that, locally, the development of increasing social complexity was coupled with increasing centralization of authority, at the expense of smaller centers.

Since no obvious evidence for warfare has been found anywhere along the Savannah (although our data samples are small), an immediate question that arises is what happened to the people when these centers, and ultimately the whole lower portion of the drainage was abandoned? Where did they go, and why? Were they relocated, forcibly or voluntarily? Did they flee to other areas? Rudolph and Blanton (1981) have documented a major increase in population in the central Oconee drainage during later Mississippian times; some of this increase may be due to population relocation from other areas, including possibly from along the Savannah. There is tenuous evidence, in the form of the appearance of similar ceramic assemblages, for the relocation of at least some people into central Georgia (Ledbetter and Wynn 1987). Comparable questions can be asked about the decline of Macon Plateau, Etowah, and other South Appalachian Mississippian polities.

The depopulation of the lower Savannah River after ca. A.D. 1450 may have been caused, at least in part, by an increasing encroachment on the Savannah polities traditional hunting preserves by expanding Mississippian populations in central South Carolina and Georgia. This circumscription appears to have occurred gradually, leading to increasing problems for the elites in the Savannah River Basin. About this same time (A.D. 1400-1450) a general decline in rainfall occurred over the southwestern South Carolina area, as documented in dendrochronological records obtained from bald cypress trees (Stahle and Cleaveland: personal communication 1987; see also Anderson 1987a, 1987b). By itself the effects of this decline, which was from an above average to average level of rainfall, would have probably been minimal. In conjunction with the increasing pressures brought on by other causes, however, even a slight increase in the probability of crop failure would have likely exacerbated tensions within local agriculturally-based political structures.

The populations of Cofitachequi and Ocute observed in the early contact era were extensive and, at least in the case of Ocute, were apparently also increasing dramatically (Rudolph and Blanton 1981; Ranjel 1544/in Bourne 1904, II:89-102, 140; Elvas 1557/in Bourne 1904, I:55-69). The size of the buffers surrounding these polities, due to the abandonment of the Savannah, were much larger than those in place over the region previously (Hally and Rudolph 1986). The patterns of chiefly competition that apparently led to the abandonment of the Savannah do not appear to have been over prime agricultural land, the explanation for Mississippian warfare in the southeast advanced by Larson (1972). The entire lower and central Savannah River, containing some extremely rich farmland, was abandoned for two centuries, while complex Mississippian chiefdoms existed in each of the adjoining major drainages. Exactly why and how the central and lower drainage was abandoned remains unknown, although the problem is receiving increasing attention.