Notebook - May-August 1974

South Carolina Institute of Archaeology and Anthropology--University of South Carolina

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A monthly report of news and activities of mutual interest to the individuals and organizations within the framework of the Institute of Archeology and Anthropology at the University of South Carolina and for the information of friends and associates of the Institute.

ROBERT L. STEPHENSON, EDITOR
The University of South Carolina
Columbia, South Carolina 29208

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See inside back cover for ARCHEOLOGICAL EXCAVATION CREWS.
INTRODUCTION

In 1848 one of the earliest archeological documents concerning the aboriginal occupation of North America was published as the first volume of the Smithsonian Contributions to Knowledge (Squier and Davis 1848). Included in this comprehensive survey of aboriginal mounds was a reference to the Mulberry Site in Kershaw District, South Carolina by Dr. William Blanding. Dr. Blanding, a physician from Camden, the seat of the District, had a special interest in Indian sites in the area, and he wrote a series of concise site reports accompanied by a map for the Smithsonian publication.

The Mulberry Site, or Taylor's Mounds as the location was then called, was one of the most impressive sites of Blanding's report. Located immediately south of the confluence of Big Pine Tree Creek and the Wateree River, the site contained an earthen embankment enclosing a group of several mounds. Blanding commented that at that time one of the mounds was being washed away by the Wateree River and that the prehistoric occupation levels were visible in the profile along the bluff.

Probably because of the publicity given in the early account by Blanding, the Mound Division of the Bureau of American Ethnology selected the Mulberry Site for investigation during the last part of the nineteenth century. Henry Reynolds, archeologist for the Division, gave the complex a cursory "trenching" and collected a few specimens for the National Archives (Thomas 1894).

Following the work of the Mound Division, the Mulberry Site as well as most of the other archeological resources in South Carolina received little attention. Even during the 1930's when archeological investigation was booming through Works Progress Administration and other federal employment programs, there was little work in South Carolina. However, the Irene Site in Chatham County, Georgia and the Town Creek Site in Richmond County, North Carolina were objects of research at this time. Both of these sites showed similarities to the material described by Dr. Blanding and Henry Reynolds, but there were no provisions for South Carolina archeology. The South Carolina reservoirs—Moultrie, Marion, Wateree, and Murray—were flooded without any prior archeological investigation.

Only in 1952 when Mr. David R. Williams, then owner of the Mulberry Plantation, made arrangements for salvage archeology at the Mulberry Site was there any modern archeological investigation in central South Carolina. Mr. Williams made arrangements for Dr. Arthur
Kelly of the University of Georgia (there was no archeologist at the University of South Carolina) to direct excavations that would salvage a portion of the mound and surrounding area that was eroding into the river. The Charleston Museum, then under the direction of E. Milby Burton, assisted and helped support the investigations. The work was carried out in the summer of 1952 employing the help of local high school students. One of those students, George Stuart, continued his interest in archeology and eventually wrote a Master's Thesis in Anthropology at George Washington University (Stuart 1970) on the archeological situation and potential of the Camden Locality.* Stuart based a considerable portion of his thesis on recollection of the work at Mulberry.

After the excavation Dr. Kelly began the work of assembling a report on his excavations. Dr. Joseph Caldwell of the University of Georgia, because of his familiarity with coastal ceramics, was asked to do the ceramic analysis. Illustrations and other incidental information were collected from George Stuart. Unfortunately, the report was slow in coming together. The years following the excavations at the Mulberry Site were busy ones for Dr. Kelly. The continuous demands of teaching and archeology in his home state of Georgia prevented his compiling a completed manuscript on the work at the Mulberry Site. Although there was no publication immediately forthcoming, Dr. Kelly, Dr. Caldwell and George Stuart continued to talk of the importance of this site. Archeologists frequently visited the site at the suggestion of these people and lamented the fact that erosion was continuing to seriously damage this important location.

Concern for the site continues to the present. In the spring of 1973 Mr. Richard W. Lloyd and Mrs. Hope Boykin of Camden contacted the Institute of Archeology and Anthropology of the University of South Carolina concerning the archeological situation on the Mulberry Site. Mr. Lloyd pointed out that while the 1952 excavation by Dr. Kelly had stripped back the face of the eroding mound, the river had eroded more since that time, and there was again a need for salvage archeology. Beyond the natural destruction, Mr. Lloyd reported that the site was being vandalized by relic hunters. After conferring with Mr. and Mrs. John Daniels of Mulberry Resources, I conducted an exploratory archeological investigation at the site between May 14 and May 25, 1973 (Ferguson 1973a). In the report of that investigation I recommended that the Mulberry Site be the object of an intensive archeological salvage program and that an effort be made to compile the data from all previous excavations.

Fortunately, soon after the publication of my short field report, Dr. Kelly contacted the Institute and reported that he had a completed manuscript on the Mulberry excavations. He kindly donated

*Stuart's use of the term "Locality" is consistent with the definition given by Willey and Phillips (1958).
this manuscript together with that of the late Dr. Caldwell on the pottery and all of the artifacts and notes from the excavations that were housed at the University of Georgia to the Institute of Archeology and Anthropology. This collection of artifacts together with a portion of the collection retained by the Charleston Museum constitutes all of the artifacts from the 1952 excavations.

The present report includes the information donated by Dr. Kelly together with the earlier information and sections from George Stuart's thesis. In actuality this report is a collage of Mulberry Site information designed to give the reader an idea of the content and potential of these archeological resources. The collection includes, in chronological order, Blanding's report from Volume 1 of the Smithsonian Contributions to Knowledge, Reynolds's report on the Mound Division work, Kelly and Caldwell's short reports on the work done in 1952, the sections of George Stuart's thesis that deal directly with the Mulberry Site, and an appendix by Jacki Carter and Lee Chickering on the burials excavated at Mulberry in 1952.

Since the most recent field work discussed was conducted twenty-two years ago this report is more of an historical document than an up-to-date research contribution. In many cases the approach and the terminology used herein will sound antiquated to ears accustomed to the newer archeological jargon. Nevertheless, the prehistoric cultural resources of South Carolina have received precious little attention, and the limited information on this site is integrally important to the construction of future research projects for the Mulberry Site as well as the remainder of the eastern portion of the South Appalachian Province.

The conclusions of this report were written by the editor and they attempt to emphasize the place of the Mulberry Site in temporal, spatial, and cultural perspective with respect to other archeological sites such as Town Creek (Coe 1952; Reid 1967), Irene (Caldwell and McCann 1941), Hollywood (Thomas 1894; DeBaillou 1965; Reid 1965), McCollum (Palmer n.d.; Ryan 1971), Charles Towne (South 1971) and Scott's Lake (formerly Fort Watson) (Ferguson 1973b) (Fig. 1). Perhaps for readers unfamiliar with the archeology of the late prehistoric period in South Carolina it would be more informative if they read the concluding section before reading the various sections of this compiled report.
FIGURE 1: The Mulberry Site in Relationship to Other Related Mound Sites.
DESCRIPTION OF THE MULBERRY SITE*

(by Dr. William Blanding)

On the opposite side of the river, about two hundred yards below the mouth of Pine-tree Creek, is a group of mounds, surrounded by a low embankment (J) [Fig. 2]. One of them has been nearly washed away by the river, and the others have been much reduced by cultivation. The largest is yet twelve or fifteen feet high, with a very wide base. From these mounds are disclosed arrow-heads, axes, urns, and other vestiges of art, accompanied by human bones and the bones of wild animals, and marine shells, all much decayed. As the water washes away the side of the mound on its bank, charcoal, urns, bones, etc., in successive strata are exposed; as though it had constituted a cemetery, receiving deposits from time to time, from its commencement to its completion. The strata vary in thickness from six to eighteen inches, and are mixed with much mica, sometimes in large plates. It was long under cultivation in corn, then indigo, and in 1806, when I first saw it, in cotton, which is still cultivated on it. On the large mound stood the overseer's house; around it, on the smaller piles, were the negro quarters.

In the bend of the river nearly opposite the south end of the 'Indian Ditch,' is a mound, perhaps fifteen feet high (K). Little is known respecting it, having been for many years the site of an overseer's house. I obtained a circular stone, with concave sides and finely polished, which had been found here, also two large urns, one holding twelve, the other twenty quarts, with a number of other aboriginal relics. At the mouth of Town creek, some distance below, there was formerly, no doubt, an Indian town or camp (L), judging from the quantity of relics found here. A very fine description of clay is found at this spot, which is resorted to by the Catawba Indians every spring and autumn, for the purpose of manufacturing pottery from it.

FIGURE 2: Dr. William Blanding's Map. (Adapted from Squier and Davis 1848.)
McDowell Mound No. 1

The Wateree river is at present washing away the western end of a large mound situated on its left bank on the McDowell farm, 4 miles southwest from Camden, South Carolina. It is a large, oblong structure, which, after repeated plowings and floods is now reduced to 10 feet in height. Its major axis is 154 feet, and minor axis 115 feet. Three smaller mounds are yet to be seen almost adjoining it on the north and east, all of which it is said, were, formerly encircled by a low earthen wall, no trace of which, however, is now visible.

In exploring it a trench 10 to 15 feet wide and 60 feet long was run lengthwise through the mound in a northwest and southeast direction, which was connected also with a north and south trench 15 feet wide, coming from near its southern edge towards the center.

This mound was not used as a place of burial, the scattered fragments of human bones that were found being rather accidentally thrown up with the earth than remains of deliberate interments. The investigation has not succeeded in demonstrating the use for which it was constructed: possibly it was a domiciliary mound.

Some fragmentary human bones, Unio shells, and the bones of deer were found scattered indiscriminately here and there through the earth at a depth of from 1 to 2 feet. They manifested but little sign of decay. A foot and a half below the surface, 3 feet east of the center, were the remains of a hearth or fire-bed about 9 feet in diameter. A similar fire-bed 4 feet in diameter lay at the same depth 15 feet south of the center. In the south trench, 6 feet from the center and 3 feet deep, was a small fire-bed, alongside of which were small piles of shells and charred corncobs [Fig. 3]. The molds left by four posts which had decayed away were met with a short distance east of the center 1½ feet below the surface. The two northernmost ran down perpendicularly 4½ feet, and at the base of the southernmost, 5 feet deep, was a pile of burnt corncobs 1½ feet in diameter and 3 inches deep. Other smaller piles of these charred corncobs were found here and there through the mound at various depths, the deepest being 8 feet. No other feature of interest could be discovered in connection with them. West of the northern post hole, near its base, had been placed a small rude pot of the texture similar to the fragments found in the vicinity [Figs. 4, 5]. It was found crushed in completely, with a few black coals and conch shells within it. Four feet to the northeast of this, on the same level, lay a pile of sixteen shells [N.M. 135763]. Two small pieces of human bones were also found in the vicinity.
FIGURE 3: Charred Corncobs Recovered From Mound 1. Courtesy of Smithsonian Institution.
FIGURE 4: Ceramics Recovered from the Mulberry Excavation. Courtesy of Smithsonian Institution.
FIGURE 5: Ceramics Recovered from the Mulberry Excavation. Courtesy of Smithsonian Institution.
Twenty-five feet south of the center, at a depth of 5 feet, a large fire-bed resting on sand was encountered, directly beneath which, in vertical succession, were three others, the lowermost being 8½ feet deep. A pile of charred corncobs and a pile of shells were found adjoining these hearths on the north at the depth of 6 feet. All the shells found thus in piles in this mound were of the same kind and uniform in size. In the earth directly over these fire-beds were found a piece of perforated sheet copper [N.M. 135761] and a broken pipe [N.M. 135759 - Fig. 6]. Forty-two feet east of the center, at a depth of 4 feet, four post holes were in a line north and south, but they could not be traced deeper than from a foot to a foot and a half. Immediately below the center, 9 feet deep, there was a pile of wood ashes mixed with black coals, 1½ feet in diameter. Nearby lay a small pottery disk and a small piece of bone from a human arm.

McDowell Mound No. 2

This is a small mound lying about 30 rods northeast of the one last described. It has been so materially reduced by the plow and the frequent floods of the river that it is at present only 2 feet high. A trench was carried through it north and south, 4 feet deep and 11 feet wide, but nothing was found except the remains of a perpendicular post, 1 foot in diameter, a little to the south of the center. The post was indicated by the charcoal in the mold and about 2 feet of decayed wood at the bottom. It appeared to be either of cottonwood or sassafras. Scattered promiscuously through the earth of this mound were fragments of pottery similar to that taken from mound No. 1. A small discoidal stone was found.

EXCAVATION HISTORY AT THE MULBERRY PLANTATION

(by A. R. Kelly)

The Mulberry Plantation mound and village site, on the Wateree River near Camden, South Carolina, has never been adequately explored, despite the fact that this major archaeological site has been known in the literature for one hundred and seventy years. The site has been described under different names at various times over this relatively long period, referred to variously as the McDowell Mounds, the Taylor Mounds, the Mulberry Mounds, and the Chesnut Mounds.

The mounds, in sadly deteriorated condition, and their related village site, are located upon a low-lying plateau or bluff on the east bank of the Wateree River, immediately south of the junction of Pine Tree Creek, about three miles from the downtown portion of Camden, South Carolina. The whole area is subject to heavy seasonal flooding when the Wateree gets out of bounds, and several feet of rich alluvium have mantled the village site in the last century or so. A lush cornfield was growing in the rich bottoms when the 1952 summer excavations were in progress. The land is part of the Mulberry Plantation estate, owned by Mr. David R. Williams of Camden, South Carolina, and extends along the river for a distance of approximately five miles.
FIGURE 6: Artifacts Recovered from the Mulberry Excavation. Courtesy of Smithsonian Institution.
The terrain is that of a typical flood plain, very level with the easy gradient of recent alluviation and lies about fifteen feet above the normal level of the river. Drainage in the heavy black soil, a stiff clay gumbo in the section nearest the river where the mound and densest midden occur, is rather poor and access to the excavations from the land side was made hazardous by muddy sloughs negotiated only by a jeep made available by the sponsor, Mr. David R. Williams. The river bank is steep and a wide sweep of the Wateree at the mouth of Pine Tree Creek had undercut the largest mound and tumbled at least half of the original structure, as estimated from the site description of Henry Reynolds, who conducted excavations in 1891 for the Smithsonian Institution. The rich midden of the village area showed in profile, under nearly three feet of black gumbo, with the heaviest deposition exposed at a point two hundred yards downstream from the large mound. The remaining half of Mound A and some particularly rich midden deposits, including a cemetery or burial area, were being currently undermined. The urgency of archaeological salvage led the owner to make contact with archaeologists so that at least some scientific record might be made at this late date. Great quantities of pottery and other artifacts, including restorable vessels, pipes, and stone tools had been recovered by local collectors from time to time.

Undoubtedly a large quantity of fine archaeological material has been lost. Between fifteen to twenty major freshets—references to the earliest are vague—have been eroding the site since 1771. A record flood of 1886 completely inundated the site, exposing a burial ground, pottery, pipes, stone axes, intermingled with typical midden of animal and human bones. Some of the collections made at that time and subsequently were studied and sketched by George E. Stuart, co-author of this report, then a student resident of Camden, South Carolina.

Since the time when William Blanding, local antiquarian, described the Mulberry site in the first quarter of the nineteenth century, the mounds have undergone an appalling destruction, until 1891, when Henry Reynolds of the Smithsonian Institution surveyed and found only four mounds left of what must have numbered around twelve or more in Blanding's record. Blanding's map of the site as it looked over 100 years ago was published, along with a short description, by Squier and Davis (1848) in their "Ancient Monuments of the Mississippi Valley."

The Mulberry site today exhibits fairly well the features described by Reynolds, except that appreciably larger portions of the mound and village have been sliced away in the last 80 years. Analysis of the freshly cut profile made on the river side in 1952 showed an overall length of approximately 150 feet. The other dimension can only be estimated as nearly half of the mound was gone in 1952; the shape from Reynold's description is a long oval. Within five feet of the exposed and recut 1952 profile, the mound summit shows the extensive scar of Reynold's excavation, only partially backfilled. A dense
scrub growth of trees, mostly hardwoods, and underbrush has mantled the summit of the remaining mound. Brickbats and other debris indicate a tenant house was built on top at one time. These may be the remains of the overseer's cabin, referred to by William Blanding.

About 480 feet northeast of Mound A lies its companion mound survivor. [Kelly does not mention the large mound in the center of the field east of Mound A (Figs. 7, 8).] This structure (in 1952) was approximately 30 feet in diameter, its feather edge undetermined as a consequence of previous excavation by Reynolds and the scouring action of recent freshets, with alluvium enveloping it to a depth of several feet. What is left is only a shell and could hardly be dignified as a vertigial mound except that tree growth and the fact that the site was spared from cultivation has preserved the remnant.

Reynolds recorded in 1891 that he saw no traces of the "low embankment" which Blanding showed in his map of the site. Our own village excavations were too small to intercept such a large feature. Blanding's drawing indicates that this fortification was a large oval encirclement around 12 or more mounds and an extended village area, and that the stockaded dike crossed the creek where the terrain sloped to the river. Reynold's observations show that the major portion of the village area was already plated with alluvium in 1891, so possibly some of the embankment has been preserved by the recent soil overburden. Extensive deep test trenches would be required to determine this, but were not part of the plan of operations in the summer of 1952.

Some of the observations of Blanding and Reynolds have pertinence to the features exposed in the 1952 profiling of Mound A and the nearby village area. I am indebted to my collaborator, George E. Stuart, for the notes and the plates which form part of the illustrations for the Mulberry report (Figs. 7, 10-12, 14-24).

The earliest known collector of Indian antiquities in and around Camden, and in Kershaw county, was Dr. William Blanding, who came to Camden around 1804 or 1806, sometime after the arrival of his brother, Abram Blanding, a prominent citizen of Camden at the turn of the nineteenth century. Dr. Blanding returned to Philadelphia in the thirties. During his sojourn at Camden, Blanding entertained his antiquarian pursuits by exploring the ancient works in the vicinity, and in collecting specimens. His observations relating to Mound A, our present subject, and the layout of the village in much better condition of preservation then, give focus to many details now obscured or lost by more than a century of erosion. [Blanding's report is given as Section I.]

Blanding's report was published in "Ancient Monuments," and was part of a letter from Blanding to his friend in Philadelphia, Dr. Samuel George Morton. Morton received some artifact collections from Blanding which he later gave to the Museum of the University of Pennsylvania. George E. Stuart communicates a reference to relics
FIGURE 7: Sketch Map of the Mulberry Site Showing the Areas Excavated in 1952. Taken from a Sketch by George Stuart III.
FIGURE 8: Sketch Map Showing the Grid System Used in the 1952 Excavation. Taken from a Sketch by George Stuart III.
gathered by Blanding, illustrated in Plates 43, 44, 45, and 46 of Volume II of Schoolcraft's Historical and Statistical Information Respecting the History, Conditions, and Prospects of the Indian Tribes of the United States.

In the spring of 1891, an archaeological field party supervised by Henry K. Reynolds, Bureau of American Ethnology, Smithsonian Institution, established a camp at the Mulberry site and carried out trenching operations. The land was then part of the McDowell farm, and two of the surviving mounds were dubbed "McDowell Mound No. 1" and "McDowell Mound No. 2." Reynolds died while the work was going on, and the excavations were not too productive of scientific results. [Cyrus Thomas' report of Reynolds' excavation is given as Section II.]

Actually Reynolds' account is somewhat more explicit and detailed than most submitted to the Smithsonian by their field men at this period of exploration. The present investigators are grateful as parts of the description help to explicate details of stratigraphy and features uncovered in the 1952 profile made through the long axis of Mound A, and cut to within approximately five feet of the old excavation scar still visible on the summit of the mound. Reynolds stated that the height of Mound A was about ten feet, and his excavations reached to a depth of nine feet which would about correspond to the submound occupation disclosed in the 1952 profile.

With reference to the 1952 explorations at Mound A, and a segment of buried village occupation uncovered under thick gumbo deposits on the nearby river bank, the following excerpt from Thomas J. Kirkland and Robert M. Kennedy's Historic Camden is noteworthy in the summary of excavation history. The authors quote from the Camden Journal a brief statement concerning the freshets, particularly the great May freshet of 1886:

Turning to our meager local discoveries of Indian archeology, we find by an item in the Camden Journal of 1850, that two large pots had been dug from the Adamson Mound, one being on exhibition at Mr. Alexander's Shop.

The same paper, June, 1886, describes the revelations made by the great May freshet of that year, at the Chestnut Mound, a short way south of Camden.

The spot, it states, when examined, proved to be no mound, but a plateau, an old Indian burial ground covering some acres. Excavations about four feet deep, made by the waters, exposed quantities of pottery, pipes, and stone axes, mixed with dog and deer skulls, and jawbones and teeth of some unknown animal. Specimens of human jaw- and thigh-bones indicated the owners to have been of tremendous proportions (Kirkland and Kennedy 1905:62).
The above description fits rather closely our findings in 1952 in the small excavation made along the river bank where burials, pottery and other artifacts were being washed out from underneath encumbering roots and gumbo by recent freshets. Undoubtedly in the last 75 years the spot described has suffered extensive undercutting, tumbling more and more village midden, burials, and burial furniture into the river. The continued exposure over the years of concentrations of burials may well justify the journalistic reference to "an old Indian burial ground covering some acres."

For over sixty years, after the Smithsonian Institution investigation of the Mulberry site, there was no new excavation until the summer of 1952, when a joint expedition under the auspices of the Charleston Museum and the University of Georgia undertook limited exploration of the major mound site, or what remained of this structure. The program was limited both by funds and time. Mr. David R. Williams, owner of Mulberry Plantation, arranged with A. R. Kelly of the University of Georgia for the conduct of the summer investigation, and very generously provided funds for field work, as well as the use of a guest house to serve as a dormitory and field laboratory for the student workers. Mr. John Hanahan assisted in the excavation and did most of the photography, acting as the field representative of the Charleston Museum. When funds ran short during mid-summer, the Kershaw County Commissioners, Mr. J. Slater Arrants, Chairman, collaborated in the work and made possible an extension. The City of Camden also gave every consideration possible through the courtesy of Mayor Henry Savage, Jr. Mr. Carl Lightfoot, plantation manager, assisted in loaning equipment and transportation to the workers, and in adding to the comfort of the crew billeted at the guest house. In particular, the availability of a bulldozer saved many hours of manual labor in the hot sun in peeling away over two feet of stiff gumbo from the village midden exposed on the river bank. Primary credit for implementing the Mulberry investigations, in acting as liaison officer with the cooperating institutions, city and state agencies, and the owner, goes to George E. Stuart, Jr., then a local resident and student investigator thoroughly familiar with all the documentary sources and history of prior excavations at the site. Later as a graduate in Anthropology at three universities, his investigations and interest in Mulberry persisted and he is co-author of the present archeological report. His survey of other mound sites in the Camden vicinity and his study of numerous local collections provide a much more extensive body of diagnostic cultural materials than was available at Mound A and related village surveyed in 1952. There was some justification for the wry commentary of one sponsor of the project, surveying museum accessions at the completion of "the dig": "Pretty poor pickings."

The plan of operations contemplated the fresh profiling of the mound face, exposed in an irregular, jagged cut made by the Wateree River at floodtide, and in exploration into a portion of the village area where human burials had been exposed in recent freshets. The
Reynolds account had indicated failure to obtain a picture of the purpose for which the mound was constructed, or to give any precise record of the stratigraphy and history of mound building. It was calculated that cutting a new profile through the mound on the exposed river side would entail slicing away some five feet or more of the body of the mound to straighten the profile and to provide a working platform for cataloging of contextual material and recording of occupations and constructional features. At the outset we had a very slender budget and only a few weeks with a half dozen workers. The most rigorous economy in man hours to obtain the maximum exposure of good archeological context was exigent.

The village excavations would check on midden stratigraphy, in comparison with the mound constructions including the submound occupations, and might provide extensive burial data if the presumptive "burial ground" could be extended. It was not feasible to contemplate any horizontal clearing of perceived occupation levels in the mound, much as this normative procedure was desirable. A whole new field season with more ample funds would be required. Moreover, the great central body of the mound had been extensively excavated to a depth of nine feet or more; very little of the summit area would be left intact for exposure of structural patterns. Reynolds' trenches had not cut through to the river-cut face of the mound so that a total profile study through one axis of the mound was about all that was possible under the circumstances. What follows is a narrative account of the 1952 summer excavation, July-August, at Mound A and the adjacent village area.

Excavations at Mound A in 1952

Inasmuch as no complete excavations through the remaining mound body were practical or contemplated at Mound A, no total grid system was established over the mound; only a base line with five foot grids was set out to allow for recording the mound profile and cataloging features and artifact finds in clearing the working platform on the river side (Fig. 8). In the process of recutting and straightening the 150 feet of mound profile from the present summit to below the mound base the working platform was extended into the mound face to an average depth of around five or six feet (Fig. 9). Reynolds stated in his report that the height of the mound in 1891 was around nine feet; our profile is over 12 feet as the base of cut averaged two to three feet below the clearly defined submound occupation. This operation did succeed in a complete cross-section revealing the significant stages of occupation and construction in total mound history. The resulting mound profile through one axis of the mound was recorded with detail within five foot panels. George Stuart's excellent drawing of the composite profile (see Fig. 13) is the basis of the following description of critical features and constructional details.
FIGURE 9: Mound Face After Cleaning Showing Working Platform and Stakes Marking Grid.
The first and most obvious determination was that the mound had been built in at least two stages, containing a primary mound with four distinct layerings of clay called "elements" in the mound profile drawing, and a secondary and final mound construction badly disrupted by root growth and probably modern disturbance. This final stage of mound construction covers four to five feet of basket laid mound fill, which in turn mantles a yellow sandy loam deposit over the final "element" in the primary mound. No less than seven large, irregularly shaped pits obtrude through the yellow sand summit and four layerings of the primary mound into the submound midden. In most instances these pits appear to be inserted from the surfaces of the primary mound and would normally be interpreted as occupational or constructional features belonging to the occupation of that interval. [Editor's note: these features may have resulted from tunneling during Henry Reynolds' excavation.]

The primary mound extends in profile from grid Station No. 1 to No. 20, and is thus approximately 100 feet wide in the mound dimension. Between Stations 1 and 2, the four composite layerings of "elements" dip sharply with the basal clay lens projecting beyond the two overlying layers. The fourth and uppermost element exhibits a v-shaped notch, speculated to represent a cross-section through a possible wall trench which might correspond to a stockade at this juncture. A deposit of charred bark on the downslope may have some relevance to this feature. Note that all four layerings maintain a very even thickness, less than a foot, throughout the extent of the mound platform, and lay pancaked on one another without any distinguishable midden or fill in between. The only evidence of any occupation in the constructional sequence of layers occurs on the summit of the final layer, where the yellow sand mantle of six to eight inches occurs, broken by the insertion of the large intrusive pits. On the other end of the mound platform, between Stations 18 and 20, one observes a mixed and confused panel in which the downslope segments are broken or eroded, with a ramp-like extension of about five feet feathering out over grid Station No. 20. Only one definite postmold is exposed anywhere, and no postmold pattern was partially uncovered in cutting back the profile. The only exception to the above observation occurs on the top of Element 3 between Station Nos. 5 and 6, in the shape of a narrow cross-section through a burned clay area. A larger baked clay feature was found just above on the top level of the fourth layer. Midden of any kind, and pottery, bone, ash or charcoal are rare to practically non-existent on the summit platform. One is impressed with the negative evidence of structures of any consequence or domestic "lived-on" aspect. And yet this large and impressive platform, with its extensive surface, over three feet high, represents a sizeable architectural feature, and must have had some important function in the cultural situation at that time of mound construction.

The seven large intrusive pits regarded in profile, and in review of their partial investigation incident to troweling, constitute
another puzzle. They vary from three to more than five feet in width, and from three to five feet in depth. They were intruded through both the yellow sand mantle and the pancaked platform layerings with two large pits penetrating into the submound occupation. They are all wider at the top than at the bottom, two with round to bell shaped bottoms, the others pinching out to v-shaped base of cuts. Between Station Nos. 12 and 13 one pit intrusive from the top of Element 4 shoulders into a wide pit which seems to be inserted from the top of Element 3. All exhibit a marbleized fill composed of mixed soils derived probably from the layerings through which the pits were inserted. It is as if the pits were dug and then backfilled with the spoil dirt from the fresh excavation. No bones, human or animal, were found in troweling or cross-sectioning any of the pits. For that matter, no midden or diagnostic material of any kind was encountered. If these were burial pits, one is compelled to believe on probability alone that some bones would have been exposed during the extensive vertical troweling. If they were storage pits it would seem some detritus or cultural residue would accumulate during occupation. The conclusion from study of the profile alone, without benefit of any horizontal clearing to obtain a better definition of the pit features, is negative; we are positive that such substantial features and the work involved in excavating them with primitive tools must have had an important function which is not suggested in the available data.

By volume or simple mass the largest single constructional feature exposed in profile consists of the four to five feet of basket laid mound fill intervening between the primary mound and the perceived top occupation indicated by broken yellow sand and an overburden of superficial top soil and sandy loam. Distinct lenses or pockets of mixed clay and sand occur randomly disposed throughout this continuous deposit extending from one mound slope to the other. The bringing in of so many tons of soil in basket loads must have been a communal enterprise of some magnitude and duration. The whole operation must have been incidental to the abandonment of mound structures and features, i.e., primary mound and large pits and presumptive ceremonial facilities associated with these, and would be a prelude to a complete new construction on the new summit thus provided. The original occupied summit remains unbroken only in the interval between grid Station Nos. 10 and 13, beyond that root disturbances and other erosive forces have broken the hardpan. Our profiling uncovered no postmolds, pits, hearths or fired areas anywhere along this level. There was no recognizable concentration of midden even in patches. In fact, hardly more than 200 scattered potsherds were recovered from the entire extent of the cross-sectioned main mound body. This small sample, plus an equal yield from the more constricted soil context of the submound, constitute the study series utilized by Joseph R. Caldwell in his ceramic analysis at Mulberry.

At this juncture it may be worthwhile to compare our notes and observations with those of Reynolds made in 1891. Reynolds concludes after his extensive core excavations into the mound that it was not a burial mound, opting out with the inevitable suggestion that it was a
"domiciliary." The trouble with this interpretation is that his considerable excavations uncovered very little evidences of any substantial buildings of any kind. At a depth of from one to three feet, which would correspond fairly closely with the presumptive occupation level on the final mound summit, he encountered "...fragmentary human bones, Unio shells, bones of deer scattered indiscriminately; also, approximately the same depth "...the remains of a hearth or fire-bed alongside of which were small piles of shells and charred corncobs. Then one and a half feet below the surface, "...the molds left by four posts which had decayed away...the northernmost ran down perpendicularly five and one-half feet, and at the base of the southernmost, five feet deep, was a pile of burnt corncobs two and one-half feet in diameter and three inches deep." A small "rude" pot containing black coals and conch shells was found near one of the postmolds.

All of the above would seem to fall about where the 1952 mound profile would place the top occupation level. No complete house patterns were discerned, a circumstance which probably derives from Reynolds' delving operations—he would not stop down on any perceived occupation and proceed with horizontal clearance to uncover complete architectural details. He did encounter small localized deposits of animal bones, charcoal, burned areas or hearths, and one crushed pottery vessel—all indicative of some kind of occupation although the total midden accumulation must have been sparse. The mention of scattered human bones does not pinpoint any single concentration that might be recognized as a "burial." Somehow one feels that Reynolds would have been sensitive to any burial indications, and would have described the particulars if any specific burial features had been encountered. Any number of possible explanations might account for the scattered human bones encountered: aboriginal disruption of a few interments made on the upper occupation level; the bones might have been brought in with baskets of fill dirt from neighboring village midden; or scavenging animals. The necessary data to make a more precise and probable determination could only have come from a meticulous horizontal clearing of the critical occupation zone and exact recording of features, and such procedures were not employed by any investigator in Reynolds' time whether he was an institutional representative or "amateur."

Next to be considered is the submound occupation. The working platform on the river side exposed about five feet of the basal midden throughout the 150 feet of cleared mound profile. In the approximate 1,000 square feet of submound cleared during the interval from early June into mid-July, there should be represented a fair sampling of the submound so far as accessioning of pottery and artifacts were concerned. Actually, the yield of pottery for J. R. Caldwell's ceramic analysis was about 200 sherds, comparable to the quantity obtained for the entire mound profile clearance. The yield from the village excavation and burial unit was far more prolific. The recorded mound profile exhibits a nearly complete absence of pits or postmolds for the first 75 feet of submound occupation cleared along the working platform—
there was one pit about two feet wide and deep found at the grid station 2 marked. The heaviest concentration, denoted by frequency of postmolds and intrusive pits, occurs between Station Nos. 15 and 24, a distance of about 50 feet. The average depth of dark midden soil increases several inches to a point beyond Station No. 28, but never attains the depth or rich midden content found in the village excavation unit on the river bank beyond the mound. The postmolds uncovered in the 50 foot submound segment might be part of perhaps two cabin structures, hardly more; that is, if one considers the narrow working platform segment to be a random sampling, recalling that half of the mound and submound had been cut away by the Wateree River before our excavations began. The evidence available suggests a relatively thin village occupation trapped beneath the encumbering mound. Theoretically, one contemplates three stages of village populations and corresponding occupations: 1) the pre-mound occupation; 2) the village corresponding to the primary mound; and 3) the final and maximum population and intensified village activity which was represented in the large, stockaded village enclosing at least 12 mounds and an extensive village area, as described by Blanding in the early 19th century. The total time span covered by the successive periods of growth and expansion at the Mulberry site would seem to require several centuries. So far we have no carbon 14 dates, and must rely upon the pottery-artifact analysis and whatever may be gleaned from ethnohistory of the immediate region to bring the picture of developing culture into clearer focus. My colleagues and fellow investigators, Joseph R. Caldwell and George E. Stuart, will report on these diagnostic data in this publication on the 1952 explorations at the Mulberry site.

Only three pits were found in the working platform clearing. The first, exhibited in profile near Station No. 2, was troweled and called a small "fire pit." It is about two feet in diameter and in depth, with no midden or cultural material associated. The second is almost identical in shape and size, occurring near the profile panel between Station Nos. 4 and 5. Except for the localized baking and fire-clouding, this feature would hardly have been noticed in the preliminary operations to clear the working platform. The third is much larger, nearly four feet at the surface confluent with the submound occupation level, located in profile panel between Station Nos. 23 and 24. In cross-section it is mushroom shaped, the top section five to six inches thick heavily fired a brick red, the lower stemmed portion is about one foot wide and extends through the midden zone into sterile base. It is labelled "fire pit" in the mound profile drawing (Fig. 13). The major portion of this feature extends back under the mound profile. Again no particular noteworthy associations were observed. The nearest postmolds possibly part of a wall continuity occur twenty feet away on the cleared working platform between Station Nos. 17 and 21. Reynolds apparently encountered these local burned areas, which he called "fire-pits" at varying depths in his 1891 excavations. In no recorded instance do they appear to relate to any perceived structures.
Burial data from the submound occupation (Fig. 10) present some interesting contrasts. Three burials, Nos. 5, 7, and 8 are typical flexed interments in shallow graves. Burials 5 and 7 occur within five feet of one another in the ten foot span between Station Nos. 20 and 22. They share some interesting burial features; both are semi-flexed, adult burials with the head oriented to the north or north-northwest; both have small rocks or boulders placed near the skull; both have shell beads around the neck--there are indications of other beads at the knee of Burial 5. Burial 5 also appears to have associated with it a broken bone awl and a small polished celt. Burial 6, troweled out just beyond the flexed leg bones of Burial 5, disclosed only a badly crushed skull, and the ubiquitous rock near the crushed skull. It should be noted that Burial 7 exhibits also a broken skull. The presence of rounded, fist-sized cobbles in close proximity to broken skulls is suggestive of mayhem, but may have more peaceful interpretations. After all the skull of Burial 5 is preserved in good condition. Referring again to Burial No. 6, with only the crushed and dismembered skull present, it seems likely that more of this burial was once present, but was lost in the slumping of the submound occupation due to undercutting and river erosion. Burial No. 8, between Station Nos. 16 and 17, is more tightly flexed and without burial associations. It also is adult, sex undetermined. Note that all four of these flexed burials seem to occur in close position to the intervening series of nine aligned postmolds implying a possible wall continuity. Burial No. 9, between Station Nos. 13 and 14, seems simply to be a pile of bones, one calvarium and long-bones, suggesting the possibility of a bundle reburial. No burial furniture was found in this instance.

Feature No. 11 is an urn burial in the submound burial plat. Three burial urns of approximately equal size, shape and style of decoration are illustrated in the report. The present example was troweled out about two feet beyond Burial No. 5, close to the standing profile. The contents consisted of some infant bones, shell beads, and recognizable sherds described on macroscopic examination as "textile." Such burial urns, frequently containing infant bones, covered with a top vessel of plain burnished or sometimes cazuela type, occur at several mound and village sites along the course of the Wateree. They also are found in private collections from various locations along the Santee-Cooper drainage. One of the largest mound and village complexes was at Scott's Lake. Both J. R. Caldwell and George Stuart will provide further documentation on this point. The significant fact is that urn burials, so far as records of finds at Mulberry Plantation are concerned, appear to derive from the submound occupation. George Stuart has called my attention to another urn that washed out from the base of Mound A after the freshet of 1948. Urn burials with cover pots have a wide distribution in coastal Georgia, the Savannah River, and well into the hinterland of Georgia, as at the Shinholser Mounds near Milledgeville, Georgia, the presumptive site of Oconee Old Town. The association with child burial and shell
FIGURE 10: Submound Burial Plan of Mound A.
beads necklace (a child's ornament) seems part of the diffused trait complex.

The submound flexed burials, however, in disposition of the bodies and other features, including the clobbered skulls, are strikingly similar to others about to be described for the burials uncovered in the village excavation unit, undertaken in July after the preliminary survey had completed profiling of Mound A.

It seems probable that further investigation of the submound level would uncover more information on structures, burials, and village activity data. Reynolds' core mound operation got down to nine feet, and probably intercepted at least the superficial layer of the submound occupation and some of the intrusive pits from the summit of the primary mound extend down into the submound occupation. Nevertheless, the main submound village occupation should be well shielded by the subsequent mound construction and should provide adequate data on this earliest phase of Mulberry prehistory.

The Village Site Excavation in 1952

The first operation in beginning the village exploration was to have the unit area along the river bank where recent floods had exposed burials and middens cleared by bulldozing off the top alluvium. We were grateful to Mr. Lightfoot, the plantation manager, for performing this very helpful service. Over two feet of tough gumbo, interlaced with heavy root infestation, was removed. A grid of stakes at five foot intervals was established on the river margin, which comprised the burial area and village features represented in George Stuart's village burial plat. Only a portion of the gridded area was actually cleared horizontally by trowelling, as time and funds would permit. It is highly probably that extension of the digging area would uncover more burials and village midden. Some fifteen distinct burials were uncovered in the central portion of the plat, covering an area of 15 by 25 feet. Within recent memory this section of the river bank had been undercut and slumped to uncover numerous other skeletons and artifacts. Some of the salvaged collections were cataloged and studied by George Stuart, and this valuable material has been added to our data bank.

In review of the individual burials uncovered (Fig. 11), and in study of the overall picture of the inhumation area, a strange contrast between the skeletons is observed. The general pattern is one of flexed burials in shallow graves or fairly narrow pits (Fig. 12). Two or three of the interments appear intact with little or no disturbance shown. This is true, for example, for Burials No. 42 and 30 (Fig. 11). The situation for Burials No. 35 and 40 is more complicated; No. 35 would seem to be a normal tightly flexed burial with some long bones of a dismembered burial floating on top. Burial No. 28 is a well preserved and unruffled interment in line just below the
FIGURE 12: Students Excavating Non-mound Burials.
OC grid with No. 25 whose long bones and axillary skeleton is intact, but the skull is badly crushed. Immediately above, Burial No. 38 abuts No. 32, without a skull or foot bones. Other badly scrambled interments are No. 24 and the group of seven comprising what seems to be a mass burial; the burials here 12, 13, 15, 16, 17, 18, and 19. Of these No. 12 seems to be lacking the whole mid-section, vertebral unit, from pelvis to skull; No. 13 is minus all skeletal remains below the lumbar vertebrae; Nos. 15 and 16 consist only of skulls, one badly clobbered, and one femoral head; No. 17 is missing leg and arm bones; Nos. 18 and 19 are scrambled together with a badly bashed skull for No. 18. Along the line of slumpage over the river bank note only the calvaria of Burials Nos. 10 and 11—presumably the remainder of these skeletons was lost in the river erosion of a recent freshet. Burial No. 24 exhibits the wildest array of all, without a semblance of any anatomical arrangement. An abrading stone and two packets of closely aligned, sharpened bird bones denominated as "bone combs" may or may not have been burial furniture. Burial No. 36 (Fig. 11) consisted of the body of a burial urn containing infant bones and 91 shell beads. This is the only instance of an urn burial coming from the context of village midden generally considered on stratigraphic evidence to represent the later village occupation at Mulberry.

The so-called "bone-combs" found scattered in the black midden of the village area on second thought may require some reconsideration as to their functional implications. On at least a half dozen separate occasions, trowelling in the gummy village deposits uncovered the sharpened bones with their prickly, needle-like finish. Always anywhere from six to ten of the finely honed, prickly specimens were found in close parallel alignment, sometimes with fibrous scaley horizontal fasteners constituting some sort of backing to the artifact. The more completely preserved examples are now in the Charleston Museum collections from Mulberry. Joffre Coe (1952: 309) has identified similar artifacts in a Peedee context as skin scratchers, with the strong implication of ritual blood letting as a trait complex. None of the specimens were found in the submound at Mulberry; most were exposed in the superficial midden of the village area, close by but not necessarily associated with the burials. If skin scratcher is the proper identification, then ritual blood letting is strongly suggested as a cultural trait of the latter occupation, the postmound stage which would be ascribed to the protohistoric culture of the Waterees and their congeners. It would be interesting to check for the presence of this custom among the tribes in the area in 18th century ethnography.

On the outslope of the slumped river bank, in the grid 16 line of stations, observe Burial No. 20, with apparent compression of a severely flexed interment in a narrow pit. Overlying black midden soil had been washed away; this was cataloged as a "sub-midden pit." This part of the evidence supports the view that burials were made at different times or stages of the accumulating midden. This could have
a bearing on the interpretation of the so-called mass burials. As the village burials were being troweled out of the matrix of gummy, black village midden, and in subsequent inspection of the ensemble effect, the impression was that many of these hapless villagers had been the victims of a massacre by marauding enemies. The condition of many of the skeletons suggested hasty burial after the bodies had been exposed for a time and had undergone decomposition. Bashed skulls and some broken bones might fit in with this hypothesis, but the total disarray and dismemberment implies further disturbance, possibly from scavenging animals. The individual skeletons belonged to adults of both sexes with some adolescents present. The only child burial was in association with the burial urn (Burial No. 36). We record only our initial impressions of the burial site; the burial plat by George Stuart still imparts some sense of macabre details (Fig. 11).

Admittedly there are difficulties in conducting a coroner's inquest some 300 years or so after the event. Even in a contemporaneous setting the verdict is frequently "Cause of Death unknown." Some years before the Mulberry exploration in 1952, the author excavated at the Trading Post site on the Ocmulgee river, Macon, Georgia, and uncovered burials with historic trade goods inserted into the surrounding moat and stockade line of the trading post, and after receiving reports from various specialists on historical technology, was able to convince Dr. John R. Swanton that the site was relic of the late 17th-early 18th century instead of being Halstead's factory in the early 19th century. There was also the historic datum that Colonel Moore had assembled 1,000 Creek warriors along with his 50 Carolinians at Ocmulgee, and had proceeded to Appalachicola to destroy the Spanish in 1706. The documentation was sufficiently precise to justify the preparation of a striking diorama based on Moore's rendezvous at Ocmulgee.

The Ocmulgee explorations included the excavations on the protohistoric Lamar mound and village site. In the last thirty-five years Lamar has been demonstrated to be a widespread cultural manifestation in Georgia and neighboring southeastern states with several sub-regional variants. Lamar ceramics and other diagnostics are predominating at the Mulberry site. A key problem relates to the Carolina-based Pee Dee complex as described by Joffre Coe in North and South Carolina.

The Wateree River was a tribal boundary in the 17th century for the Cherokees, as George Stuart points out. Siouan tribal affiliates, including the Waterees, had infiltrated and preempted the area before the founding of Charleston. The land was in contention. These could be significant background data in interpreting the sequence of events disclosed during the 1952 excavations at Mound A and the village burials. The present writer is content to leave the more precise elucidation of the central ethnographic problems to his colleagues.
The purpose of this study is to describe the Mulberry pottery so that the Mulberry site can be equated chronologically with other prehistoric southeastern sites. An effort was also made to determine if chronological changes in the pottery had taken place during the span of the Mulberry occupation. As we shall see, there were certain changes, and the site was apparently occupied for a considerable length of time. Finally, it will be suggested that the Lamar, or perhaps better, the Lamaroid sequence in central South Carolina is sufficiently different from the various Lamar sequences of Georgia to be considered a separate ceramic tradition.

Not all the Mulberry pottery was examined. I looked at about two-thirds of the sherds, several thousand from the village area along the IR and IL lines of stakes, and all of the sherds from the mound itself. No attempt was made to stratigraphically analyze the village material. Although it had been excavated in 6 inch levels and the midden deposit in some places reached 3 feet in depth, the village has been so riddled with burials that the chance of finding an undisturbed area seemed unlikely. After most of the pottery had been inspected it seemed that the best chance of obtaining chronological information would be provided by a comparison of the upper levels of the village with the older occupation layer under the mound (pre-mound).

Pottery Type Descriptions

Lamar Complicated Stamped (Mulberry variant)

Paste:
Construction: coiled. Temper: apparently grit. Sherd cross sections show that small silicious particles, and tiny hematite fragments are frequently present, though whether as intentional tempering material is uncertain. Color: exterior surfaces are dark gray through brown and buff. The color often varies on a single sherd and firing scars are common. Interiors are much more uniformly a dark gray or sometimes black. Cross section (paste) colors are red, gray, or brown, occasionally black, sometimes with a gray interior sharply differentiated from colors nearer the surfaces.

Surface Finish:
Exterior surfaces invariably bear an overall carved paddle stamped decoration. Interior surfaces are carefully smoothed or burnished.

Decoration:
Technique: stamped with a carved wooden paddle. Design: motifs which could be recognized included an equal armed cross, two variations on the filfot cross, the "line block," parallel
straight lines and a composite figure 8. A longer study might have yielded a few other designs. Most of the motifs can be regarded as holdovers from earlier southeastern potteries. The figure 8 is a common design of the preceding Savannah Period (Caldwell and McCann 1941, Fig. 18) and the line block with a simpler variety of filfot appeared together in the northern Georgia Etowah III horizon (Sears 1950: 139). There were not enough clear impressions in the pottery samples to determine whether design motifs had undergone any change during the Mulberry occupation, but it was observed that the later village examples were somewhat larger than those which occurred below the mound. Execution: the stamping was considerably better and the designs usually clearer in the older material from the premound level than in the later material from the village. Incidental rim decoration: There had been pronounced changes in these features during the span of the Mulberry occupation. In the premound level incidental decoration was mostly by use of a hollow reed, sometimes applied directly to the vessel wall, and sometimes pressed against an applique strip to give a beaded effect. Occasionally a row of small clay pellets had been pressed against the vessel wall with a hollow reed, resembling a row of buds or rosettes. Of several covered burial urns associated with the premound level (Stuart, this volume) at least one showed a combination of riveted nodes and reed punctuations. A few rims were undecorated. By the time the later deposits had accumulated in the village area these styles were somewhat changed. Most rims at that time were decorated by an applique rim strip fluted with a sharp stick or occasionally with the fingers. Examples of sherds decorated by the hollow reed were less frequent than before.

Form:
The most common vessel shape was a cylindrical jar with a rounded bottom, straight or slightly bulging sides, and with a slightly flaring rim. Some rims show a considerable degree of flare, and on a few specimens this is combined with a pronounced shoulder. The subjective impression was that the vessels were more nearly vertical than at northern or central Georgia Lamar sites, and the form bears a closer resemblance to transitional Lamar shapes found at Hollywood and Irene (Thomas 1894, Pl. XIX; Caldwell and McCann 1941, Fig. 16A). No bowl shapes occurred, though they have occasionally been found at other sites. Had there been a larger premound sample, it is probable that some form differences would have appeared in contrast to the village sherds.

Lamar Plain (Mulberry variant)

Most of the plain pottery from Mulberry, more than is usual at Georgia Lamar sites, was burnished. It may eventually become necessary to set these aside as a separate type. It
did appear at Mulberry that a special, later vessel form (small deep bowls with a low shoulder) were commonly burnished.

Paste:
Similar to Lamar Complicated Stamped.

Surface Finish:
Most sherds are burnished on the exterior and interior; a few are polished and a few are only smoothed. Exteriors are finished generally better than interiors, and carelessly finished specimens often show compacting marks of some tool.

Decoration:
A few specimens from jars, similar in shape to the jar forms of Lamar Complicated Stamped, showed fluted rim strips of the sort which ordinarily occurred on that type. Bowls often bear a horizontal series of vertical punctations or modeled nodes on the shoulder. These last are small and not riveted.

Form:
The overwhelming majority of sherds of this type are from bowls; there are a few jar specimens as mentioned above, and a few examples from constricted mouth vessels. The comparison between the premound and later village levels suggests that the ordinary form of earlier plainware was the usual Lamar type of widemouth or hemispherical bowl, sometimes with a slightly incurving rim. In the village sample the majority of vessels represented were smaller, relatively deeper bowls with a shoulder about midway to the bottom. Some bottoms were rounded and some flat. The smaller bowl form is a rather unusual one, which relying on our present limited knowledge, appears to be a specialty of the Wateree area, and was perhaps developed with the increasing emphasis on well made burnished pottery.

Minority type: Lamar Bold Incised
This is ordinarily one of the commonest Lamar types, but was not frequent at Mulberry. The only specimens noted were from the village deposits. None occurred in the premound layer.

Minority types: Etowah Complicated Stamped, Simple Stamped, Cordmarked, and Check Stamped
Most of these sherds came from the premound level and represent a situation found at most large prehistoric sites: Mulberry was a choice camping ground and a good place to live, and the spot had been visited in earlier times by several different people who made other kinds of pottery. There is a slight possibility, however, that in the case of Etowah Complicated Stamped, the specimens may actually have been part of the
Lamar pottery complex at the time interval represented by the premound level for two specimens occurred in the surface collection from Ft. Jackson, S.C.; others have been found at the Rembert Mounds on the upper Savannah River (Caldwell 1953, Pl. 56 0, P); and sherds seem to be present in the Pee Dee Focus of Piedmont North Carolina (type collection at University of Georgia). If so, this is not particularly surprising when it is recalled that both the filfot and line block designs of Mulberry pottery were earlier in use during the Etowah Periods in northern Georgia.

The cordmarked, check stamped and simple stamped sherds could not be identified. The decoration of the latter resembles the early central Georgia type Mossy Oak Simple Stamped (Jennings and Fairbanks 1939). There is a possibility that these sherds might be poor variations of the parallel straight line motif in the Mulberry Lamar Complicated Stamped, but this is considered unlikely as the only vessel form noted was an unusual widemouthed cup and most of the sherds show a breaking away of the exterior surface, suggesting that they were finished or fired by a different technique.

Comparison of the Premound Zone with the Upper Village

The assumption was that the premound layer should represent an earlier time than the top levels of the village which should in turn have been coeval with the mound or later. The entire premound collection of sherds, which had been obtained by cutting the exposed mound face back for 5 feet, numbered only 200 sherds. It was desired that the village sample be taken at random, and since the top 6 inches of the 10 foot square numbered IR 16 contained exactly the same number of sherds as the premound sample, this group of sherds was selected. Inspection of other village specimens suggested that the pottery assemblage in IR 16 was probably typical.

Comparison of the two samples is shown in Table 1. There are considerable differences between them. A larger number of sherds would have been desirable, but if these differences are not due to chance, then it appears that there was ceramic change during the occupation of Mulberry. Additional reason to suppose that the differences are significant comes from another site in South Carolina, Scott's Lake on the shore of Lake Marion in Clarendon County. A surface collection of 100 sherds from that site resembles the pottery of the premound layer in exactly those respects that the latter differs from the Upper Mulberry sample. The Scott's Lake data were inserted at the bottom of Table 1, but the counts have been multiplied by two to make them comparable to the other samples.

Indeed, our small sample suggests that the Scott's Lake pottery is like the premound sample, but carries its peculiarities further.
TABLE 1

Numerical occurrence of ceramic characteristics in the Mulberry Village, Premound and Scott’s Lake Samples.

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- Unidentified simple stamped
- Unidentified cordmarked
- Unidentified checkstamped
- Etowah Complicated Stamped
- Lamar Complicated Stamped
- Punctuation on top of lip
- Use of reed punctates
- Rosettes
- Polished lip
- Medium size stamped motifs
- Careful impressions frequent
- Riveted nodes
- Fluted rim strips
- Medium to large stamped motifs
- Rough fishured surfaces
- Lamar Plain
- Widemouth bowl
- Small bowl with low shoulder
- Jar form (plain)

*Since there were only 100 or half as many sherds in the Scott’s Lake sample as in each of the others, the Scott’s Lake figures are doubled.
Thus, where the Mulberry village sample shows only 75 complicated stamped sherds out of 200, the premound has 134 complicated stamped, and Scott's Lake 150. Where the village sample contains 103 plain sherds, the premound shows 49, and Scott's Lake only 20. The village has three examples of the use of the hollow reed for rim decoration, the premound has six and Scott's Lake has 26. The use of rosettes, that is small clay pellets pressed below the rim of the vessel with a hollow reed, occurs once in the premound, four times at Scott's Lake, and not at all in the Mulberry Village sample, where fluted rim strips are the most common variety of incidental decoration. The common type of wide Lamar Plain bowl is more characteristic of the few plain sherds at Scott's Lake and Mulberry premound, while the smaller deeper bowl with a low shoulder is the usual variety in the Mulberry Village.

The inference that the Scott's Lake surface collection is slightly older than Mulberry premound might be stronger if we had more sherds. It is something to be checked by later work. Stuart has illustrated (Fig. 21) a complicated stamped burial urn said to have been intrusive into the sterile sand from the Mulberry premound level. This vessel shows riveted nodes, a very early feature of the complicated stamped pottery under consideration, and which might be taken as evidence that Mulberry premound is as old as Scott's Lake. Nevertheless, a closer look at the illustration shows that the nodes are associated with only a single row of reed punctations, whereas the usual early form has a double row.

One of the most important features of change between the two Mulberry samples was the decline in the quality of the stamping. The paddle impressions on the village material are carelessly applied and there is a great deal of overstamping. The stamping in the premound sample appears to be more careful and the impressions more distinct. The Scott's Lake stamped sherds are again, if anything, even more carefully stamped.

The argument so far is that the Scott's Lake collection is probably older than the Mulberry premound, and both are certainly older than the Mulberry village. The early features of rim decoration are hollow reed punctations directly on the vessel wall, double lines of punctations, rosettes, and large riveted nodes. With the exception of the rosettes, these features are characteristic of a transitional ceramic interval between the Savannah and Lamar (Irene) pottery complexes at the Irene Site near the mouth of the Savannah River (Caldwell and McCann 1941: 42, Fig. 16). On the Georgia coast the rosettes appear at a later time, during the Irene Period proper.

At the Irene site Feature 61 was the posthole pattern of a small semisubterranean rectangular wattle and daub structure. Two vessels were found on the floor, one consisting of large fragments of the Savannah Check Stamped type and the other was an Irene (Lamar) Filfot Stamped vessel with straight sides, a rather sharply everted rim, and a rim decoration of riveted nodes. This pot had been standing
upright by one of the walls. Just outside the house were two more Savannah Check Stamped vessels, one of them with a decoration of riveted nodes similar to that of the Irene Filfot Stamped vessel in the house (Caldwell and McCann 1941: 36-37).

Although these features of rim decoration now seem to be most at home in central South Carolina, they appear at a specific time on the Georgia coast associated with an indigenous pottery complex of that region. This gives us a temporal correlation between central South Carolina and the lower Savannah River. Whether it also indicates more than cultural diffusion is a question which must be deferred.

Many years ago at the Hollywood Mound on the middle Savannah River below Augusta, the Bureau of American Ethnology obtained a clear case of ceramic stratigraphy showing a complicated stamped vessel with riveted nodes and reed punctations, a plain vessel, and a check stamped vessel all above a group of vessels of exotic "Southern Cult" forms (Thomas 1894: 317-326; Caldwell 1952, Fig. 174). Both groups of vessels were associated with burials, and the burial usages were sufficiently similar to suggest that both mound levels could be referred to a single ethnic group despite the differences in the mortuary pottery. Using this expression of the Southern Cult as a rough time marker, I would equate the Southern Cult level in the Hollywood burial mound with the Savannah II Period on the Georgia Coast, and, indeed, three fragments of a repousse copper plate were found on the occupation summit of Mound 6 at the Irene Site, the latest of the Savannah II burial mounds. The upper burials in the Hollywood Burial Mound with the filfot stamped, riveted nodes, plain and check stamped vessels should then equate nicely with the Transitional Period at Irene. In 1965, Clemens DeBaillou and J. Jefferson Reid published additional material from Hollywood and Town Creek. Judging from the pottery found in DeBaillou's Hollywood excavation, it appears that there was a major occupation there represented by check stamped, complicated stamped, and plain pottery. An assumption that the Southern Cult level in the Hollywood burial mound represents the mortuary aspect of the people making the check stamped and complicated stamped domestic pottery would conform to our equation of the Southern Cult level at Hollywood with Savannah II on the coast. A major difference between the Hollywood pottery and the coastal Savannah II materials at the Irene Site is that the latter contained quantities of Savannah Fine Cordmarked, while Hollywood showed very little cordmarked pottery. At the moment I can only account for this by suggesting a regional difference between coastal Savannah II, and the analogous ceramics at Hollywood. It is clear that we now need to know just what ceramic complex precedes Scott's Lake and the premound level at Mulberry in central South Carolina.

It is important to note that many of the features of rim decoration upon which this sequence is based occur most frequently in the Savannah River valley, at the mouth of the Savannah, in central South Carolina, and in the Uwharrie area of North Carolina where rosettes,
nodes and punctates are found on the pottery of the Pee Dee Focus. Although rosettes and punctates continue along the Georgia coast, they are uncommon in northern and central Georgia where variations of pinched, notched, or fluted rimstrips seem to predominate throughout the entire Lamar span. In central Georgia, reed punctation is more usually found in conjunction with Lamar Bold Incised rather than the complicated stamped type. Moreover, it cannot be expected that the earliest Lamar pottery in those areas will be associated with a transitional complex similar to that on the Savannah River, for Savannah Check Stamped is rare or absent in the west and north. In other words, the sequence of ceramic features suggested here can apply in many of its specific features only to the eastern portion of the Lamar pottery range, that is, to the Savannah River and central South Carolina, with a temporally limited extension into North Carolina.

In summary we may say that the pottery from Mulberry Plantation can be divided into two main types, Lamar Complicated Stamped and Lamar Plain. These occur widely in the Southeast and have repeatedly been shown by stratigraphic excavation to belong to late prehistoric and early historic times. Mulberry is also to be included with certain sites such as the Rembert Mounds on the upper Savannah (Caldwell 1953) where incised pottery is relatively infrequent. This is at least partly a matter of chronological position within the Lamar duration for none of the early Lamar manifestations show any incised pottery. This was true of the lower levels of the original Lamar site (Kelly 1938: 48-49), of the transitional complex at the Irene site at the mouth of the Savannah River (Caldwell and McCann 1941, Fig. 16), and appears at Stamp Creek (9Br60C) which is the earliest Lamar component known in the Etowah Valley. Central South Carolina may, however, be a subarea where incised pottery is infrequent even during the period of its greatest vogue elsewhere. Certainly, we might have expected to find more incised sherds in the upper levels of the Mulberry village.

Evidence has been presented that a number of changes took place in the Lamar pottery during the period of occupation at Mulberry, among these, the decline in the quality of stamping and the increase in the use of plain ware has been noted in the central Georgia area by Kelly. However, some of the incidental features of rim decoration which were changing seem to have been a continuation of changes which had begun earlier in the Savannah River Valley and central South Carolina, as we have seen with reference to the Irene site, Hollywood, and Scott's Lake. Thus, the suggested chronology of rim decoration applies only to the eastern Lamar pottery range, but is interesting in suggesting the existence of a localized tradition within the larger Lamar area.

In an accompanying paper, George Stuart proposes a close connection between the Mulberry village and the historically known Wateree. I suspect that he is right. Even so it remains to be determined how many other such groups may have participated in the localized ceramic tradition described above. It also remains to be determined that the
ceramic continuity is sufficient to infer the presence of the Wateree and possibly other closely related cultural groups back as far as the early period represented by Scott's Lake.

**DESCRIPTION OF THE MULBERRY SITE AND EXCAVATIONS***

(by George Stuart)

The Mulberry site occupies a relatively high expanse of the alluvial plain immediately south of Big Pine Tree Creek where that stream meets the Wateree River about two and a half miles south of Camden. Remains of two mounds are visible on the site (Fig. 7).

Mound A lies about 60 yards downstream from the mouth of Big Pine Tree Creek, directly on the river's edge, and its eroded cross-section accentuates the 25-foot escarpment of the east bank. The present height of the mound is about nine feet; its width from northwest to southeast, around 110 feet—both approximate measurements since the mound is badly preserved and almost devoid of measurable symmetry. The original length of Mound A is unknown, for its entire southwestern end has been washed into the river. An estimate based on a length of 154 feet in 1891 (Thomas 1894: 326) would place it around 170 feet. Only 115 feet remain at present.

Mound B, a short distance northeast of Mound A, consists of a broad low hump in the cultivated field. This is almost certainly the mound that Blanding described as "twelve to fifteen feet high, with a very wide base" (Squier and Davis 1848: 107). The configuration of the rise that marks the location of this mound indicates that it was oriented northwest-southeast and was, when intact, about 120 feet long and 80 feet wide.

Traces of a third mound were visible until 1953, when the remains were leveled. This mound, 480 feet northeast of Mound A along a line that crosses Mound B, was 25 to 30 feet in diameter and about two feet high, nearly as Thomas (1894: 327) described its 1891 appearance. Its center had been completely excavated.

William Blanding's manuscript map (Fig. 2) shows two large and eight small mounds at the Mulberry Site (then Taylor's Mounds). The large ones are clearly Mounds A and B, for even at this early date Mound A was being encroached by the river. The third mound, mentioned above, was presumably the northeasternmost of the eight surrounding Mound B.

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*Extracted from "Some Archeological Sites in the Middle Wateree Valley, South Carolina." Master's Thesis, Department of Anthropology, George Washington University, 1970. (For consistency, the name McDowell, used by Stuart, has been replaced by Mulberry.)
Blanding's map (Fig. 2) shows an embankment with exterior ditch encircling the ten-mound group at the Mulberry site, but no sign of the feature is extant. I doubt that this embankment and ditch crossed Big Pine Tree Creek as Blanding indicates, for it is apparent in both the manuscript and published versions of the map that scales of mounds and associated features were exaggerated for purposes of clarity. The Mulberry enclosure is a case in point; on the Blanding manuscript, it extends eastward to the Camden-Charleston road—a distance of about one mile. Though I have no direct evidence to contradict this, the distances between the existing mounds and the exposure of the cultural stratum in the river bank suggest that the maximum diameter of the McDowell site is no more than one-tenth that distance.

Tangible evidence of the horizontal extent of the site is visible along the eroded river bank from the mouth of Big Pine Tree Creek to a point about 350 feet south of mound A. Here, an occupation stratum 12 to 16 inches in thickness lies directly atop sterile river sand, a situation identical to that at the Adamson Site. At the Mulberry Site, this thick gray layer is capped by 14 to 20 inches of alluvium, and consequently cultural material rarely shows up in the cultivated area surrounding the mounds.

The Mulberry site had been under cultivation when Blanding first visited it in 1806, and "on the large mound stood the overseer's house; around it, on the smaller piles, were the negro quarters" (Squier and Davis 1848: 108). This historical use of the site continued at least until 1849, for the Carpenter letter [from L. Carpenter to William Blanding] mentions an invitation from Col. Chesnut, then owner of the Mulberry Site, "to visit a mound on their plantation, the overseer's house stands on it" (L. Carpenter to William Blanding, Blanding Papers, South Caroliniana Library, Columbia, S.C.).

According to local newspaper accounts, extensive damage to the Mulberry site resulted from the flood of May, 1886, which exposed artifacts and bones of humans and animals (Kirkland and Kennedy 1905: 62). By 1891, river floods and continuous cultivation had effected the destruction of six of the original ten mounds, for Thomas (1894: 326) noted only "bare traces of three smaller mounds" adjoining Mound A on the north and east—one of which must have been Mound B. The date at which use of the site by the plantation laborers ceased is not known beyond the fact that it was between 1849, the date of the Carpenter letter, and 1891, when the Bureau of American Ethnology began work at the unoccupied site.

In the spring of 1891, two mounds at the Mulberry Site were excavated by a small field party working under the auspices of the Smithsonian Institution's Bureau of American Ethnology. Traces of a long deep trench are still visible on top of Mound A, or McDowell Mound No. 1, as it was then termed (Thomas 1894: 326), and the pit in McDowell Mound No. 2, the third mound of the site description above,
was extant until that mound was bulldozed away in 1953. The material recovered from these excavations includes potsherds, part of a stone pipe, several miscellaneous objects of stone, and some Historic-period European items. The latter were probably deposited while the site was being used by the plantation laborers during the first half of the nineteenth century.

A second official excavation took place at the Mulberry Site during the summer of 1952. It was arranged by David R. Williams, the late owner of Mulberry Plantation, and carried out by small groups from the Charleston Museum and the University of Georgia, aided by teen-age labor from Camden, and under the overall direction of A. R. Kelly of the University of Georgia. During that excavation a profile of Mound A was recorded, and stratified ceramic samples were secured from the mound fill and the stratum underlying it, and from an area of the site south of the mound.

The relatively small sample from the Mulberry Site was recovered from the eroded river bank over a four-year period preceding the 1952 excavations. It includes 60 sherds (Figs. 14-20), two covered burial urns from pits intrusive into yellow river sand beneath Mound A (Fig. 21), projectile points and other miscellaneous artifacts (Figs. 22 and 23), and seven whole or restorable vessels (Fig. 24).

ANALYSIS OF THE MULBERRY SITE*
(by George Stuart)

Mulberry (McDowell)

The surface collection from the Mulberry, or McDowell, site provided the basis for a short unpublished paper (Stuart 1967) in which I noted that there appeared to be both quantitative and qualitative differences between the pottery from the stratum underlying Mound A on the one hand, and the village area stratum north and south of that mound on the other. The analysis of the pottery collected during the 1952 Charleston Museum-University of Georgia excavation of the site reinforces and expands those conclusions reached from a study of the earlier surface collections.

Caldwell's analysis drew upon a stratified sample of several thousand sherds recovered from those two parts of the McDowell stratigraphy: the presumably earlier stratum beneath Mound A, and the stratigraphically higher—and thus presumably later—level of the village area south of Mound A. From the total, Caldwell notes two principal types of pottery, complicated stamped and plain, which he names, respectively, Lamar Complicated Stamped (Mulberry variant) and Lamar Plain (Mulberry variant). Minority wares included, according to Caldwell, Lamar Bold Incised, Etowah Complicated Stamped, and a few

FIGURE 14: Miscellaneous Sherds From River Bank. Five Centimeter Scale.

FIGURE 15: Incised Sherds From Latest Level of Area South of the Mound. Five Centimeter Scale.
FIGURE 16: Miscellaneous Sherds From River Bank South of Mound A. Five Centimeter Scale.

FIGURE 17: Sherds From River Bank South of Mound A. Five Centimeter Scale.
FIGURE 18: Rim Sherds From Upper Level of Village Area South of Mound A. Five Centimeter Scale.

FIGURE 19: Incised Sherds From River Bank South of Mound A. Five Centimeter Scale.
FIGURE 20: Sherds From River Bank South of Mound A. Five Centimeter Scale.

FIGURE 21: Burial Urns and Cover Bowls From Stratum Beneath Mound A. Height of B Approximately 19 Inches. Courtesy of Mrs. J. Hubert Reese, Camden, South Carolina.
sherds decorated by simple stamping, cord marking, or check stamping. Of these, Lamar Bold Incised was confined to the village stratum; the rest, to the pre-mound sample.

The same study leads to the inference of a long occupation for the Mulberry site and—based on small selected samples from the total sample—an indication of certain pronounced differences between the ceramics of the two levels as follows: In the pre-mound sample, (1) complicated stamped ware is generally characterized by clear carving of paddles and careful application of stamping to vessel bodies; (2) there is more complicated stamped pottery in relation to plain sherds (ratio, 134:49); (3) rim decoration is mainly accomplished by the use of appliqued nodes or simple reed punctate. In contrast, the pottery from the village stratum (1) reflects a sharp decline in the quality of stamp carving and application; (2) contains less complicated stamped pottery in relation to plain (ratio, 75:103); also, (3) reed punctation decoration of rims is almost totally replaced by the use of notched or pinched appliqued strips just beneath rim edges.

The surface collections and other information available to me suggest several additions or modifications to the above data: First, the use of covered burial urns for the interment of infants is apparently confined to the earlier level of the site. Second, I believe—and admittedly, this is more subjective than statistical—that there is a proportionately greater amount of bold incised pottery at the site than indicated by Caldwell's sample, and third, this incised pottery, as was true of Caldwell's sample, is confined to the later village stratum of the site.

In view of the above data, and for convenience in the discussions below, I have tentatively divided the archeological profile of the Mulberry Site into two hypothetical sub-phases: Mulberry I and Mulberry II.

Pottery of the Mulberry I sub-phase equals the sub-mound manifestation and coincides strikingly with that of the Pee Dee Series represented by the Town Creek site in the Uwharrie Locality of North Carolina, and with the ceramics of the Irene Phase of the Savannah Locality.*

Mulberry I pottery (Figs. 17 and 21) includes all categories of rim decoration enumerated by Reid (1967) for the Town Creek pottery and, except for two (textile-wrapped and herring-bone stamp decoration), all stamps, including the "arc-angle" stamp (Fig. 24G) which Reid notes as unique to the Pee Dee Series (Reid 1967: 6). The 134-to-49

*Here Stuart's terminology for both Phase and Locality is that of Willey and Phillips (1958).
ratio of complicated stamped to plain ware in the Mulberry sub-mound sample—or Mulberry I stratum—is approximately equal to the Town Creek collection. Another diagnostic of the Pee Dee Complex, the presence of burial urns, is apparently characteristic of the Mulberry I sub-phase at the Mulberry Site as well.

Sherds resembling Pisgah pottery types (Dickens 1971) (Fig. 16, F and H) also occur at the Mulberry Site. Whether these particular examples are from the Mulberry I level or not, I do not know, but similar sherds of the same Pisgah type, evidently traded from the mountain area of western North Carolina, were found at Town Creek (Reid 1967: 69). Instead, the few incised sherds from that Uwharrie Locality site include a motif pattern of incised triangular zones filled with punctate stipple (Reid 1967, Plate XIV). Possible stylistic relatives of this Town Creek type of incising are evident in two sherds from the Mulberry Site (Fig. 14 I and J), though I do not know if these came from the pre-mound, or Mulberry I level.

Pottery of the postulated Mulberry II sub-phase is that which Caldwell found in association with the late village stratum at the Mulberry Site and, as noted above, it has pronounced differences from the characteristics of the Mulberry I sub-phase. Thus, it does not hold up well in comparison with the Pee Dee pottery from Town Creek. Mulberry II pottery does, however, bear close resemblances in quality of stamping and rim treatment to the North Carolina pottery type Qualla Complicated Stamped (Egloff 1967) that occurs on the historic Cherokee horizon in the western part of the state (Coe, personal communication). Specific modes of treatment common to both Qualla Complicated Stamped and the Mulberry II rim sherds in the available sample (Figs. 14A, 15, 18-20) include both the folded rim and the notching of an applique strip below the rim. Indeed, similarities are so pronounced between the two sets of ceramics that it would be difficult to separate a mixture of them. The incised pottery of the Qualla Series, Qualla Incised, also bears a strong similarity to the incised pottery of Mulberry II (Figs. 15 and 19).

On an areal level, this Protohistoric and/or Historic incised ware occurs in sundry and subtle variation over the coastal, piedmont, and mountain zones from Georgia into western North Carolina. As Caldwell recognizes, its manifestation at the Mulberry Site closely corresponds to the type Lamar Bold Incised, first published by Kelly (1938) and described by Jennings and Fairbanks (1939), and, by extension, to Irene Incised—another variant of Lamar (Caldwell and McCann 1941: 48).

The ultimate validity of the hypothetical Mulberry II sub-phase in the Wateree Valley Locality depends in part on an explanation that will account for the occurrence of this incised pottery in the Mulberry II complex at the type site, and its appearance with the Irene ceramic complex of the Savannah Locality, for the latter, as indicated
above, corresponds very closely with the Mulberry I manifestation in all other respects. One rather speculative explanation is suggested by the spatial and temporal distribution of this particular style of incising: that it diffused as a separate trait from the coastal area centered around the lower Savannah River, for it relates in slightly different ways to the pottery complexes within which it has been found. Its occurrence as part of the Irene Complex has been noted and, though extremely rare, the incised pottery occurs with Irene- (or Pee Dee-) like pottery at the Rembert Site, farther up the Savannah (Caldwell 1953). As one moves away from the Savannah drainage and inland, however, this type of incised pottery appears to fall chronologically later in relation to specific local sequences: Lamar Bold Incised, for example, appears in the upper level of its type site on the middle Ocmulgee (Kelly 1938)—a situation similar to that of the stratigraphic profile of the Mulberry Site. An even later manifestation appears in unusual "Hybrid" forms in which instances bold incising and complicated stamping occur on the same vessel, not at Mulberry, but at Lamar (Kelly 1938, Plate 12, A), Nacoochee (Heye, Hodge, and Pepper 1918, Plate XXXIX), and at the Peachtree Site (Setzler and Jennings 1941, Plate 36, A). No variants of Lamar Bold Incised ware appear—or, in terms of diffusion, ever reached—the Pee Dee site of Town Creek (Reid 1967). Though this areal picture is undoubtedly an over-simplification of a highly complicated situation, it could indicate why a variant of Lamar Bold Incised pottery appears in the Mulberry II sub-phase of the Wateree Valley rather than in Mulberry I.

The radiocarbon dates that place the beginning of the Pee Dee manifestation in the Uwharrie Locality around A. D. 1400 (Reid 1967: 62) suggest what appears to be a reasonable starting date for the Mulberry I sub-phase I have tentatively proposed for the Wateree Valley Locality, though the apparent southwest-to-northeast movement of culture that terminated in the Pee Dee manifestation at Town Creek might indicate a slightly earlier beginning for its appearance in the Wateree Valley. An ending date for Mulberry I is suggested by the estimated terminal date for the Pee Dee occupation of Town Creek, around 1650 (Reid 1967: 62-63). This corresponds closely to the estimated end of occupation at the Irene Site, about 1600 (Caldwell and McCann 1941: 73). If this span is correctly defined, the Mulberry II sub-phase must have lasted from sometime around A. D. 1600 or 1650 into the historic period.

CONCLUSIONS

(by Leland Ferguson)

Combining all of the previous information from the Mulberry Site provides a wealth of information concerning construction, burial and artifacts that will be useful in future archeological investigations not only at the Mulberry Site but at many other sites in South Carolina,
North Carolina, and Georgia. Unfortunately, the limited scope of the excavations at Mulberry has not allowed an in-depth local or areal synthesis. However, from the past research two fundamentally important facts concerning this site emerge. First, the site was occupied during the late prehistoric period in the Southeast and is associated with the archeological complex known as South Appalachian Mississippian. Second, the excavations of Kelly and the ceramic analysis by Caldwell both support Stuart's hypothesis that the Mulberry occupation may be divided into two sub-phases—Mulberry I and Mulberry II.

The basic operational definition of South Appalachian Mississippian is the association of complicated stamped pottery with platform mounds (Ferguson 1971). This association is a combination of both local and areally distributed cultural traits. Complicated stamped pottery is a trait primarily associated with Georgia, South Carolina, and the contiguous portions of the neighboring states. Platform mounds, on the other hand, have a wide distribution over the Southeast and Midwest during the 500 to 1000 years prior to contact by Europeans.

Platform mounds, the most striking attribute of the Mississippian Pattern (McKern 1939), are generally associated with an increased emphasis on farming, the development of larger villages, and a more complex social organization (Griffin 1967). However, this general description best fits the large Middle Mississippian occupations of the Ohio and Middle Mississippi River Valleys. Other areas conditionally adopted a few of the general Mississippian features. Thus, while we might suggest that the appearance of this type of mound in the South Appalachian Province and more specifically at Mulberry is related to more intense farming, larger villages and a more complex social organization the degree of such an emphasis must await further investigation.

The division between Mulberry I and Mulberry II primarily represents a division of ceramics. As mentioned by Caldwell and emphasized by Stuart, the ceramics from the lower levels of the mound are similar to those from Town Creek in North Carolina, Adamson and Scott's Lake in South Carolina, and Hollywood and Irene in Georgia. To these we might add the McCollum Mound in the piedmont of South Carolina (Ryan 1971 and personal communication). While the major component of these ceramics have some of the traits described for Lamar (Jennings and Fairbanks 1939), recent evidence suggests that these ceramics may be even earlier than the A.D. 1400 date presented by Stuart, and they may date as early or earlier than the Lamar Series ceramics in central Georgia. Radiocarbon dates from Town Creek cluster near the beginning of the fourteenth century (Daugherty, Martin and Phelps 1971) and these are corroborated by a date from the fifteenth century of the contemporary Pisgah complex from western North Carolina (Dickens 1970, 78).

Thus, while there is some similarity in attributes between the ceramics of Mulberry I and related sites and the Lamar ceramics of
central Georgia, they do not seem to be of the same type. This fact is anticipated by Caldwell when he suggests that the, "Lamaroid sequence in central Carolina is sufficiently different from the various Lamar sequences of Georgia to be a separate ceramic tradition." As a result the inclusion in this report of the ceramics from the Mulberry Site into the Lamar type by Caldwell should be considered in historical perspective. Newer evidence and more closely controlled ceramic analyses (such as that by Reid for Town Creek) indicate that ceramics similar to those of Mulberry I are sufficiently different so as to belong to a separate type.

While the ceramics of Mulberry I are probably sufficiently different from Lamar to be considered a separate type, those from the Mulberry II sub-phase are more similar to the Lamar Series from central Georgia. More specifically, Stuart reports that these ceramics are similar to the "Lamar style" Qualla ceramics from northwestern South Carolina and western North Carolina (Egloff 1967). George Stuart has suggested that the occupation associated with Mulberry II ceramics may be that of the historically documented Wateree Indians. This point may be tested through future archeological study. If it proves positive, it will be a particularly valuable tie between the historic and prehistoric periods in South Carolina.

The data and conclusion collected in this report are, from today's point of view, only a beginning. The work of the nineteenth century, the salvage work by Kelly and the associated studies by Caldwell are of the kind that "whet the appetite." They demonstrate that the site is large, that it was associated with complex mound construction and burials, and that it represents a lengthy period of cultural development in the eastern portion of the South Appalachian Mississippian area. There is a hint, by Stuart, that we may be able to tie the latest aboriginal occupation on the site to one of the historically known tribes of South Carolina. In short this site is one of the integral features of the archeological landscape of South Carolina and it must not be lost.

From the earliest reports by Blanding and Reynolds, portions of this important site were being lost to the eroding waters of the Wateree River. This erosion continues to the present day. We cannot be sure but it seems that perhaps one quarter to one half of the site has been destroyed due to its precarious natural position. As a result, one of the primary salvage goals of the Institute of Archeology and Anthropology in the near future will be to preserve the remaining portions of this important site from destruction.
APPENDIX A

PRELIMINARY ANALYSIS OF THE MULBERRY MOUND SITE BURIALS

(by Jacki Carter and Lee Chickering)

During the summer of 1974, the burial material from the Mulberry Mound Site (38KE12) was procured by the Institute of Archeology and Anthropology from the Department of Anthropology, University of Georgia. Once processed and catalogued, a preliminary analysis was carried out in order to determine the sex and age of the individuals (Table 1), record all possible metric traits (Table 2), and describe any pathological occurrences.

Of the thirty-four burials that had been excavated, nine were missing from the collection (Burials #10, 11, 17, 19, 26, 27, 32, 38, and Feature 11), with portions of the remaining burials missing due to loss and deterioration. The burials excavated from the submound level were poorly preserved, while those excavated from the non-mound area (referred to as the village area by Kelly) were in a state of good preservation. It was evident that the bone material had been partially consolidated in the field (presumably with a white glue and water mixture). An attempt was made to remove this, resulting in more bone destruction and abandonment of any plans for further consolidation.

Burial type, flexure, the number of individuals, and associated grave goods were determined from the field notes and the burial plat drawings. All other information was determined in the laboratory.

Submound Level

The excavations of the submound level of Mound A revealed six burials containing single inhumations. Three inhumations were of adult age, one of old-adult, and two infants. Two females and one male were present, with the remaining three inhumations undetermined as to sex.

The inhumations of Burials #5 and #7 exhibited reabsorption on the mandibles. With the inhumation of #5, reabsorption had taken place on the right mandible, with the first right molar and the second right premolar lost ante-mortem. The palatal bone and the horizontal ramus exhibited a high degree of porosity. With the inhumation of Burial #7, reabsorption had taken place on the right mandible, with the second and third molars lost ante-mortem.

Other pathologies included arthritic lipping on the cervical and thoracic vertebrae of the inhumation in #7. Traumatic swelling was evident on both distal ends of the femora of Burial #5. The left tibia exhibited excess bone growth on the nutrient foramina.
Non-Mound Area

Thirty-six inhumations were represented in the twenty-eight burials excavated from the non-mound area. Ten of these were male, eight were female and eighteen undetermined. Eight of old-adult status were present, with twelve adults, three young adults, two adolescents and five infants also represented. Six inhumations were undetermined as to age.

The most common pathological occurrences in the non-mound area were those of traumatic swelling, osteitis (excess bone growth, porosity), and arthritic lipping. Periodontal disease and reabsorption occurred with one individual, the single inhumation of Burial #13 (which could also be attributed to old age).

Traumatic swelling occurred on the long bones of four inhumations (those of Burials #16, 21, 23, and 24). The inhumation of Burial #16 exhibited extreme curvature and swelling of the sternal articulatory end of the clavicle. The single inhumation of Burial #21 exhibited a swelling on the central diaphysis and proximal end of the tibia. One of the individuals of Burial #23 exhibited swelling on both the lower posterior diaphysis of the femur and the distal end of the left humerus. Swelling also occurred on the inhumation of Burial #24, located on the central diaphysis of the left tibia.

Osteitis was evident on one of the inhumations of Burial #15, the single inhumations of Burials #22 and 24, and one of the inhumations of Burial #23. Osteitis of the long bones was apparent with the inhumations of Burial #15, 22, and 24. Osteitis of the parietal region was evident on one inhumation of Burial #23. Generally, the osteitis consisted of porous bone with excess bone growth. Also related to these occurrences were crater-like depressions, occurring on the diaphyses of long bones. Burial #22 exhibited the highest occurrence of these depressions, located on both the left humerus and the right tibia.

Bowing was also evident, occurring on three inhumations. One inhumation from Burial #15 exhibited bowing of the proximal end of the right ulna. One (or possibly two) inhumation exhibited bowing on the diaphysis of the left ulna (medially oriented) and on the left fibula (laterally oriented). The single inhumation of Burial #25 exhibited bowing of the left and right ulnae and the left radius (medially oriented).

Arthritic lipping, generally located on the thoracic and cervical vertebrae of the Mulberry Mound population, also occurred in conjunction with osteitis. Four individuals (from Burials #15, 16, 23, and 24) demonstrated varied degrees of arthritis, with one individual (Burial #24) showing an advanced stage of osteoarthritic lipping, including crater-like depressions, on the centrum of the lumbar vertebrae.
Deformations were also recorded. Cradleboarding was evident on three inhumations (Burials #12, 18 and one inhumation of #23). Frontoparietal-occipital deformation occurred, with wormian bones usually present along the lambdoidal suture.

Discussion

A few observations can be made concerning burial practices of the Mulberry Mound Site population. It appears that the total burial complex excavated was deposited during two different periods of time (see Ceramic Analysis). Whether or not the particular burials within the various areas (sub-mound and non-mound) were deposited at one time or separately remains to be determined. It is known that simple, compound and urn deposits were common modes of burial within the South Appalachian Province (Ferguson, personal communication). Compound burials required a longer period of time post-mortem for final deposition and necessitated the scaffolding of the individual in order for deterioration to take place (Bushnell 1920; Harper 1967; Hariss 1952; and Williams 1930). Only two (possibly four, with the flexure and type of Burials #23 and 26 unknown) of the thirty-four burials excavated were compound deposits (Burials #9 and 15). The remaining burials were simple deposits with the inhumations deposited at time of death.

Kelly states that a mass burial is present, involving Burials #10, 11, 12, 13, 15, 17 and 18. Each burial appears to have been deposited in separate pits. The burials also appear to have been deposited in a cluster, with some intrusions of one grave into another probable. It is possible that the inhumations were deposited during a short period of time but this has not been demonstrated conclusively.
### TABLE 1
Mulberry Mound Site Burials

<table>
<thead>
<tr>
<th>BURIAL NO.</th>
<th>TYPE</th>
<th>FLEXURE</th>
<th>INDIVIDUALS¹</th>
<th>SEX</th>
<th>AGE</th>
<th>ARTIFACTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>animal bone, shell beads, celt, bone</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>rock 'ubiquitous' rock rock</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>rock, shell beads</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>shell beads</td>
</tr>
</tbody>
</table>


2. The field notes were not clear as to whether these burials were excavated from a single pit or were in separate pits close together.

* undetermined
OA-old adult, 35+ yrs.
A-adult, 26-34 yrs.
YA-young adult, 18-25 yrs.
AD-adolescent, 13-17 yrs.
I-infant, 1-6 yrs.
<table>
<thead>
<tr>
<th>BURIAL</th>
<th>CRANIAL</th>
<th>POST-CRANIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burial 5</td>
<td>Max. Length = 165mm.</td>
<td>Femur(L.): Max. Length = (441mm.)</td>
</tr>
<tr>
<td></td>
<td>Upper Facial Height = 70mm.</td>
<td>Ant.-Post. Midsh. Dia. = 30mm.</td>
</tr>
<tr>
<td></td>
<td>Nasal Height = 56mm.</td>
<td>Med.-Lat. Midsh. Dia. = 24mm.</td>
</tr>
<tr>
<td></td>
<td>Nasal Breadth = 20mm.</td>
<td>Midsh. Circumference = 85mm.</td>
</tr>
<tr>
<td></td>
<td>Orbital Height = 36mm.</td>
<td>Bicond. Length = (427mm.)</td>
</tr>
<tr>
<td></td>
<td>Orbital Breadth = 36mm.</td>
<td>Subtroch. Ant.-Post. = 25mm.</td>
</tr>
<tr>
<td></td>
<td>Palatal Length = 37mm.</td>
<td>Subtroch. Med.-Lat. = 34mm.</td>
</tr>
<tr>
<td></td>
<td>Palatal Breadth = 48mm.</td>
<td>Max. Diam. Head = 44mm.</td>
</tr>
<tr>
<td></td>
<td>Max.-Alv. Length = 46mm.</td>
<td>Platymeric Index = 73.5mm.</td>
</tr>
<tr>
<td></td>
<td>Max.-Alv. Breadth = 69mm.</td>
<td>Robusticity Index = (12.6mm.)</td>
</tr>
<tr>
<td></td>
<td>Nasal Index = 35.7mm.</td>
<td>Humerus(L.): Least Circumference = 56mm.</td>
</tr>
<tr>
<td></td>
<td>Orbital Index = 85.7mm.</td>
<td>Fibula(L.): Max. Length = 337mm.</td>
</tr>
<tr>
<td></td>
<td>Palatal Index = 129.7mm.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Max.-Alv. Index = 150mm.</td>
<td></td>
</tr>
<tr>
<td>Burial 7</td>
<td>Mand. Breadth = 133mm.</td>
<td>Femur(L.): Max. Length = (447mm.)</td>
</tr>
<tr>
<td></td>
<td>Symphysial Height = 25mm.</td>
<td>Ant.-Post. Midsh. Dia. = 26mm.</td>
</tr>
<tr>
<td></td>
<td>Ascend. Ramus Height = 56mm.</td>
<td>Med.-Lat. Midsh. Dia. = 30mm.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subtroch. Med.-Lat. = 32mm.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Platymeric Index = 78.1mm.</td>
</tr>
<tr>
<td></td>
<td>Max. Breadth = 133mm.</td>
<td>Med.-Lat. Dia. = 25mm.</td>
</tr>
<tr>
<td></td>
<td>Mand. Bigon. Breadth = 108mm.</td>
<td>Platymeric Index = 71.4mm.</td>
</tr>
<tr>
<td></td>
<td>Symphysial Height = 25mm.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ascend. Ramus Height = 56mm.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ascend. Ramus Min. Breadth = 33mm.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Max.-Alv. Breadth = 66mm.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Palatal Breadth = 48mm.</td>
<td></td>
</tr>
<tr>
<td>Burial 15</td>
<td>Humerus(R.): Least Circumference = 70mm.</td>
<td>Femur(L.): Max. Length = (441mm.)</td>
</tr>
<tr>
<td></td>
<td>Max. Length = 164mm.</td>
<td>Ant.-Post. Midsh. Dia. = 29mm.</td>
</tr>
<tr>
<td></td>
<td>Max. Breadth = 150mm.</td>
<td>Med.-Lat. Midsh. Dia. = 20mm.</td>
</tr>
<tr>
<td></td>
<td>Min. Frontal = 97mm.</td>
<td>Platymeric Index = 69mm.</td>
</tr>
<tr>
<td></td>
<td>Cranial Index = 91.5mm.</td>
<td></td>
</tr>
<tr>
<td>Burial 18</td>
<td>Tibia(R.):</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Max. Length = 164mm.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Max. Breadth = 150mm.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Min. Frontal = 97mm.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cranial Index = 91.5mm.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Med.-Lat. Midsh. Dia. = 20mm.</td>
<td></td>
</tr>
<tr>
<td>BURIAL</td>
<td>CRANIAL</td>
<td>POST-CRANIAL</td>
</tr>
<tr>
<td>---------</td>
<td>------------------------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>Burial 22</td>
<td>Max Breadth = 146mm.</td>
<td>Humerus(R.): Least Circumference = 49mm.</td>
</tr>
<tr>
<td></td>
<td>(R)Porion-Bregma = 138mm.</td>
<td>Humerus(L.): Max. Length = 296mm.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Max. Midsh. Dia. = 16mm.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Min. Midsh. Dia. = 16mm.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Max. Head Dia. = 40mm.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Least Circumf. Shaft = 48mm.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Robusticity Index = 16.2mm.</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>Ulna(L.):</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physiol. Length = 208mm.</td>
<td>Least Circumference = 30mm.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Caliber Index = 14.4mm.</td>
</tr>
<tr>
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<td>Ulna(R.):</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physiol. Length = 206mm.</td>
<td>Least Circumference = 31mm.</td>
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<td>Caliber Index = 15mm.</td>
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<tr>
<td></td>
<td>Innominate(R.): Max. Breadth = 127mm.</td>
<td></td>
</tr>
</tbody>
</table>

Burial 23  
Max Breadth = 146mm.  
(R)Porion-Bregma = 138mm.  

Burial 24  

| Min. Midsh. Dia. = 15mm.  | Max. Head Dia. = 43mm.  |
| Max. Head Dia. = 43mm.  | Max. Head Dia. = 44mm.  |
| Least Circumference = 60mm.  | Robusticity Index = 17.7mm.  |

| Min. Midsh. Dia. = 14mm.  | Max. Head Dia. = 44mm.  |

TABLE 2  (cont. 'd)
<table>
<thead>
<tr>
<th>BURIAL</th>
<th>CRANIAL</th>
<th>POST-CRANIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burial 24</td>
<td></td>
<td>Least Circumference = 58mm.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Robusticity Index = 17.2mm.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Radio-Humeral Index = 78.1mm.</td>
</tr>
<tr>
<td>Ulna(L.):</td>
<td></td>
<td>Least Circumference = 35mm.</td>
</tr>
<tr>
<td>Radius(R.):</td>
<td>Max. Length = 264mm.</td>
<td>Humero-Radial Index = 78.1mm.</td>
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<tr>
<td>Femur(R.):</td>
<td>Max. Length = 467mm.</td>
<td>Bicond. Length = 474mm.</td>
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<td></td>
<td></td>
<td>Ant.-Post. Midsh. Dia. = 28mm.</td>
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<td>Med.-Lat. Midsh. Dia. = 23mm.</td>
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<tr>
<td></td>
<td></td>
<td>Max. Head Dia. = 47mm.</td>
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<tr>
<td></td>
<td></td>
<td>Midsh. Circumference = 81mm.</td>
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<td></td>
<td></td>
<td>Subtroch. Ant.-Post. = 22mm.</td>
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<td>Subtroch. Med.-Lat. = 29mm.</td>
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<tr>
<td></td>
<td></td>
<td>Platymeric Index = 75.9mm.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Robusticity Index = 10.8mm.</td>
</tr>
<tr>
<td>Femur(L.):</td>
<td>Max. Length = 463mm.</td>
<td>Bicond. Length = 468mm.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ant.-Post. Midsh. Dia. = 30mm.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Med.-Lat. Midsh. Dia. = 23mm.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Max. Head Dia. = 47mm.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Midsh. Circumference = 84mm.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subtroch. Ant.-Post. = 23mm.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subtroch. Med.-Lat. = 29mm.</td>
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<tr>
<td></td>
<td></td>
<td>Platymeric Index = 79.3mm.</td>
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<tr>
<td></td>
<td></td>
<td>Robusticity Index = 11.3mm.</td>
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<td></td>
<td></td>
<td>Med.-Lat. Midsh. Dia. = 23mm.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Platycnemic Index = 71.9mm.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Platycnemic Index = 65.6mm.</td>
</tr>
<tr>
<td>Fibula(R.):</td>
<td>Max. Length = 389mm.</td>
<td></td>
</tr>
</tbody>
</table>
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