An Archeological Reconnaissance of the Widening and Cutoff of Specific Areas on the Savannah River, and the Channel Modification of Oates Creek, Augusta, Georgia

James L. Michie
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Keywords
Excavations, Savannah River, Oates Creek, Channelization, Environmental aspects, Augusta, Georgia, Archeology

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AND CUTOFF OF SPECIFIC AREAS ON THE SAVANNAH
RIVER, AND THE CHANNEL MODIFICATION OF
OATES CREEK, AUGUSTA, GEORGIA

by

James L. Michie
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ABSTRACT

On March 29 and 30, 1978, and on April 5, 1978, members of the Institute of Archeology and Anthropology conducted a reconnaissance of eight river locations on the Savannah River, and a reconnaissance of Oates Creek, Augusta, Georgia. The reconnaissances were conducted under an agreement with the United States Army Corps of Engineers, Savannah District, to evaluate the areas of proposed river and creek alterations for possible impact on cultural resources. The reconnaissance failed to locate any cultural resources within the proposed areas of stream flow alteration. Cultural material is probably absent because of the unstable environment, within the immediate vicinity of the river meanderings, and in the area of Oates Creek, Augusta, Georgia, subjection to intense land modification and previous dredgings of the creek. No further consideration of archeological and historic properties is recommended.
ACKNOWLEDGEMENTS

The author would like to thank the various people who contributed to the completion of this project. Mr. John Norris and Mr. Eric Poplin, Assistant Archeologists with the Institute of Archeology and Anthropology performed the field survey, while Mr. Ralph Wilbanks, Underwater Archeologist with the Institute of Archeology, contended with numerous log jams and poor visibility in his attempts to survey the river bed. The line drawings were provided by Mr. Darby Erd, Institute Illustrator, and the photographic plates were provided by Mr. Gordon Brown, Institute Photographer. The final typing was done by Ms. Sue Jane Alsing after Ms. Susan Jackson edited the original manuscript. Appreciation is also extended to Mr. George Lewis of Augusta, Georgia for his assistance in surveying portions of Oates Creek with the author, and to Dr. Paul Brockington, Environmental Impact Archeologist, for his advice and consultation regarding the project.
The archeological reconnaissance of the Savannah River and Oates Creek areas was conducted by several members of the Institute of Archeology and Anthropology, University of South Carolina, at the request of the Savannah District Corps of Engineers via Mr. Richard Anuskiewicz, Corps staff archeologist. The survey was conducted to comply with the National Historic Preservation Act of 1966 (PL 89-665); the National Environmental Policy Act of 1969 (PL 91-190); Executive Order 11593, "Protection and Enhancement of the Cultural Environment," (36 FR 8921); Preservation of Historic and Archeological Data, 1974 (PL 93-291); the Advisory Council on Historic Preservation, "Procedures for the Protection of Historic and Cultural Properties," (36 CFR VIII Part 800); and EC 1105-2-37, Identification and Administration of Cultural Resources (August 1975). The specific purpose of this archeological reconnaissance was to examine eight locations, prior to stream flow improvement in the Savannah River, below Augusta and drainage improvements of Oates Creek in Augusta, Georgia. The river locations involve widening of the channel and cutoff of meanderings, while Oates Creek involves channel modification in the form of dredging and widenings (see Figs. 1, 8-16).

The reconnaissance was performed on March 29 and 30, 1978, and on April 5, 1978, by James L. Michie, John Norris, and Eric Poplin, Assistant Archeologists with the Institute of Archeology and Anthropology, and by Ralph Wilbanks, Underwater Archeologist, also with the Institute. The three day reconnaissance was directed towards the discovery and evaluation of cultural resources; however, the survey failed to discover any archeological sites. Although a literature search was made prior to the survey, it too failed to disclose evidence of human occupation within the impacted areas. The absence of cultural material may be related to environmental conditions, and these conditions will be set forth in the following pages as an explanatory model.
FIGURE 1. Location map for Savannah River channel widening and cutoff project.
The Savannah River flows in a relatively straight path from the Piedmont of Georgia and South Carolina, crossing the Fall Line near Augusta, Georgia. At this point the river is rather broad as it flows over and around crystalline shoals, but as it enters the Coastal Plain it narrows and begins a meandering flow for more than two hundred miles to the Atlantic Ocean at the port of Savannah, Georgia. The areas surveyed were within the meandering river of the Coastal Plain, and at Oates Creek on the Fall Line.

For the most part, the curves of a meandering river system have two basic characteristics: they are convex and concave (see Fig. 2). The concave areas are those located on the outside of the meander curve, and those situated on the inside are complex curves. Generally speaking, the concave side receives the greatest amount of erosion and the least deposition, while the convex side is in a constant state of erosion and deposition, encouraging progradation and accretion. As deposition increases, the resulting accretion forces the river velocity to increase against the concave side, thus causing extensive erosion. The eroded sediments from the concave bank are quickly carried and deposited on the prograded point of the downstream point. This process of erosion and deposition is characteristic of a meandering river system, and it is found throughout the entire Savannah River within the Coastal Plain. The finer sediments that remain suspended are transported to coastal estuaries where they precipitate out into lagoons and deltas (Foster 1971).

FIGURE 2. Structure of typical river meanderings.
As evidenced from our survey, the convex banks of the river are quite unstable and these areas support a floral community somewhat different from the opposite concave banks. The areas of accretion are characterized by an undulating surface composed of sand, silts, and clays, and deciduous trees constitute the majority of flora. The floral community nearest the water includes mostly species of *Salix* (willow), but with increasing distances from the water, one finds mixed communities of *Nyssa* (gum) and *Quercus* (oak). Other and less frequent occurrences of *Acer* (maple), *Platanus* (sycamore), *Carya* (hickory), and *Betula* (birch) are seen. *Pinus* (pine) is nonexistent. The sands, silts, and clays that are constantly moving across the convex points fail to give support to any undergrowth of greenbriar, grasses, or weeds. Fragments of dead trees and logs, which are transported by floods, are frequently seen lying among the sand hummocks. In general, these areas are extremely unstable (see Figs. 3 & 4).

The concave banks and adjacent portions appear to be more stable, but are still subject to flood waters and the affect of floods and normal erosion. Sand hummocks are practically nonexistent, and, for the most part, the area is typically composed of compact silts and clays. Flora consists of *Quercus* (oak), *Carya* (hickory), *Platanus* (sycamore), *Acer* (maple), *Betula* (birch), and scattered *Pinus* (pine). Within this mixed forest small communities of *Sabal palmetto* and *Taxodium distichum* (bald-cypress) are also seen. These areas also collect debris from flood waters in the form of logs and dead trees, modern garbage such as beer cans and whiskey bottles, and a variety of other items. The undergrowth is thick on the concave sides, and it is represented by a mixture of weeds, grasses, and shrubs, and stands of great cane and briars.

The bottom of the river varies considerably from place to place, being composed of silts, clays, sands, gravel, and marl. The bottom in the concave meanders is usually composed of either silts or clays of its parent bank, and the area is usually swept clean of sediments. However, the sediments eroded from these banks are carried downstream and are deposited behind the convex points. Erosive channels are seen on the bottom, and these channels expose various strata of sand, silt, clay, and gravel, which represent various periods of deposition during the formation of meanders. Log jams are frequent on the river bottom and represent recent depositional episodes. Marl is occasionally present, and it probably represents earlier deposits presently dissected by the flow of water.

While the above environmental descriptions deal with specific areas, the floodplains of the river on both sides below Augusta appear to be, in general, quite similar. The major differences are the high bluffs appearing on the Georgia side, the smaller sandy bluffs that appear on the South Carolina side, and the numerous oxbow lakes existing on the South Carolina side. The floodplain, according to topographic maps, (e.g. Shell Bluff Landing, Hardeeville N.W., Peeples) also contains small depressions and numerous dissections by small streams and creeks.

The area of Oates Creek, located in Augusta, is different from the Savannah River floodplain. Oates Creek is formed within Augusta, and most of its flow is through the city. The creek has been dredged and
FIGURE 3: Typical view of the Savannah River and surrounding environment.

FIGURE 4: View typical of logs, sediments, and the river bank.
cleaned out at least twice, as witnessed by an old deposition of dredging, and a newer deposition located on the southwestern bank. The creek flows through several neighborhoods, through an automobile junk yard, through the edge of a high school, under highways, past brick yards, and it even flows through a cotton seed plant. Prior to its entry into Beaver Dam Creek, the creek passes U.S. Highway 1 and flows relatively undisturbed for several hundred yards. This latter area also shows evidence of at least the two separate periods of dredgings indicated above. The southwestern bank in this area is littered with old automobile tires, tin cans, bottles, boards, small logs, and a host of twentieth century cultural items, all throughly mixed with dredged soil. The northeastern side is similar, but time has allowed vegetation to cover the dredgings. Depositional strata can be observed in several localities, and appear to represent land improvement through filling and leveling. Some of the strata, located at .50 m, expose recent cultural items such as bottles and old toothbrushes. The creek itself is light green in color and it reeks with the odor of sewage. Views of Oates Creek are presented as Figures 5 and 6.

In summary none of the impact areas are favorable places for habitation. They are all lowlying and unstable. Fish resources are and were available in the Savannah River, especially during the spring, and may have attracted short term occupation and use along the riverbank during both historic and prehistoric times. Freshwater shellfish are available in a few restricted areas along the river; other animal and plant resources exist in the project areas, but were probably exploited from base camps on higher ground outside the project areas. The lowlying, unstable areas of the impact zones are not in general suitable for farming or habitation.

Environmental change in the last 12,000 years may have dramatically affected resources available in the project areas. Toward the end of the Late Wisconsin glacial episode (12,000 - 10,000 B.C.) the Savannah River as well as other rivers was probably more deeply entrenched than today, and the surrounding floodplains were much better drained (Foster 1971). During this time however, extinct megafauna, may have been present in the river valley and have been hunted. Kill sites involving Late Wisconsin megafauna are known for western North America, although none have been documented for the Southeast (Williams and Stoltman 1965). It is difficult to estimate the potential for discovering sites dating to this time in the major river valleys.

After approximately 10,000 B.C., sea level began to rise (Fairbridge 1961), and the Savannah River probably began to aggrade. Freshwater shellfish were available at localities along the river as indicated by the presence of shell midden occupations at Stallings Island near Augusta, Georgia (Calflin 1931) and at Groton Plantation in Allendale County, South Carolina (Stoltman 1974). After approximately 3,000 B.C. the environment of the areas under study became much like that of the present day (Whitehead 1965). More specific descriptions of resources available and general climatic and paleo-environmental data are presented in the following section.
FIGURE 5: Typical view of Oates Creek in residential area.

FIGURE 6: View of Oates Creek (at left) merging with Beaverdam Creek.
The Savannah River has been the focal point of human activities spanning approximately twelve thousand years. These varied human occupations include the exploitation of now extinct mega-fauna, a later subsistence pattern of generalized hunting and gathering, and finally the development of agriculture shortly before colonization and control of the area by European-Americans. These expressions of culture are not unique to the Savannah River drainage; they are common to most of the Southeast and the East. These cultural manifestations have been presented and summarized in detail by Coe (1964), Willey (1966), Wauchope (1966), and Caldwell (1958). Presently, the prehistory of South Carolina and the Savannah River valley is believed to represent at least four definitive periods, followed by a historic period, discussed below and outlined (Fig. 7).

**Paleo-Indian Period**

During some period of time prior to the tenth millennium B.C., nomadic hunters entered the Southeast with an economy oriented towards the exploitation of extinct mega-fauna and, in all probability, other fauna that are presently surviving. In South Carolina these people heavily utilized the resources of the Coastal Plain, the Fall Line, and the lower fringes of the Piedmont. Settlement patterns suggest that these early people were living along major rivers and certain large creeks, and that they were avoiding areas of high relief and rugged terrain (Michie 1977). Michie (1977) has recorded several Clovis fluted points from the Savannah River drainage, and the points were found on sand hills adjacent to the river valley. In addition, Stoltman (1974) indicates the discovery of a fluted point found near the property of Groton Plantation in Allendale County, near the Savannah River.

Although South Carolina has failed to provide positive evidence of subsistence patterns substantiating mega-fauna exploitation, a coastal site has yielded the remains of a juvenile mastodon and the tenuous association with stone tools (Michie 1976; Wright 1976). The site, located near Myrtle Beach, was buried under eight feet of sediments and suggested the presence of an ancient pond. A similar area in central Florida has also yielded the remains of proboscidia and two juvenile mammoths, in direct association with a Suwannee projectile point and chert debitage (Hoffman n.d.).

The exploitation of proboscidia is recorded in the Southwest at several localities, and the general pattern suggests that the animals were dispatched in moist, wet environments such as ponds and creek valleys. Based on the above evidence of subsistence and the occurrence of animal remains and the distributional pattern of early projectile points within South Carolina, Michie (1977) has suggested that research be directed towards
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Entry into Savannah River valley?

Figure 7: A cultural sequence for occupation of the Savannah River below Augusta (Source: Ferguson and Widmer 1976).
the investigation of ponds and river valleys in the Southeast in which sediment accumulated. Research was oriented in this direction during this survey.

The Paleo-Indian period occurred during the final phases of the Pleistocene (10,000-8,500 B.C.), when much of the state was cooler and supported open forests of spruce, fir, and jack pine (Whitehead 1965). With a climatic/environmental change during the waning of the Pleistocene, the forests began changing and the mega-fauna population diminished. The behavioral patterns and the lithic industries of the Paleo-Indian changed with the environment, and as the Holocene began a new cultural tradition emerged.

**Archaic Period**

With the beginning of the Holocene, the Pleistocene glaciers had retreated back into Canada and environmental conditions were significantly different. The semi-boreal forests of spruce, fir, and pine had disappeared and were replaced by northern hardwoods consisting of beech, hemlock, alder, and similar species (Whitehead 1965). These hardwoods lasted for a few millennia and they too were replaced. By at least 5,000 years ago the forests of South Carolina became dominated by oak, hickory, and pine and this association has remained basically intact to the present.

The Archaic period is represented by at least three cultural/technological stages: the Early, Middle, and Late. The Early Archaic is a technological expression of the earlier Paleo-Indian period. Characterized by Dalton, Palmer, and Kirk points, and specialized tool assemblages of end-scrapers, burins, pièces esquillées, and blades, the Early Archaic lasted from about 8,500-6,000 B.C., with subsistence directed towards the specialized hunting of white-tailed deer (Coe 1964; Dejarnette, et al. 1962). By the end of the Early Archaic, technologies were changing, and new projectile points and tools began to emerge. Stanly and Morrow Mountain points, along with Guilford (Coe 1964) serve as temporal indicators for the Middle Archaic, which lasted from about 6,000-3,000 B.C. During this time, people were utilizing more forest resources, while maintaining primary dependence on deer. Instead of remaining primarily in the major river valleys, as did Early Archaic and Paleo-Indian groups, people began to exploit resources of the inter-riverine forests, as well as the riverine. By at least 3,000 B.C., technologies changed are are defined as indicative of the Late Archaic period. There is evidence that people were becoming more sedentary by 2,000 B.C. Several large shell middens in the Savannah River valley, such as Stalling's Island (Claflin 1931), Groton Plantation (Stoltman 1974), and Bilbo (Williams 1968) demonstrate a Late Archaic dependence on shellfish in certain areas, and coastal South Carolina and Georgia display rings and heaps of oyster shell (Michie 1973; Williams 1968; Hemmings 1972). Technologies changed to include the manufacture of Savannah River Archaic point types (Coe 1964), the utilization of steatite, and the development of bone and antler alteration.
Although the manufacture of bone and antler tools is probably well rooted in the earlier Archaic and Paleo-Indian periods, it is not demonstrated in the archeological record until the Late Archaic. The calcium content within shell heaps preserved bone and other organic materials, while the acid soils of earlier non-shell sites quickly eroded and deteriorated organic cultural material. Another cultural innovation of this period was the development of fiber tempered pottery, which occurs with shell middens in the valley of the Savannah River and the areas outlined above. Even though subsistence appears to have been in some areas directed towards shellfish collecting, during the Late Archaic, people in these areas continued to exploit white-tailed deer and other resources of the forest. Many other, non-shell sites of this time period indicate that people existed on diets excluding shellfish. The traditions of the Archaic began to collapse at about 1,500 years B.C. A rising production and development of ceramics and the cultivation of certain plant foods are indicative of another cultural tradition.

During the Archaic, the people utilized many products of both the riverine and inter-riverine zones. The known riverine adaptation of the Late Archaic peoples is reflected in the utilization of shellfish, and settlement was within the floodplain of the river valley. With earlier riverine adaptation, people were living adjacent to the floodplains, and while they radiated out from their base camps, they certainly exploited the floodplains for various resources including white-tailed deer. That hunting camps were located within the floodplain seems certain, and with the presence of such camps one would expect to find tools for the processing of deer. Such tools and debitage would be represented by exhausted bifaces and flakes of bifacial retouch. Evidence of hunting or fishing camp sites was searched for during the survey, but nothing suggestive of such occupation was discovered.

Woodland Period

The Woodland period, which lasted from about 1,500 B.C. - A.D. 800, probably had its roots in the traditions and exploitative patterns of the Late Archaic. With the development of new technologies, such as ceramic production, also came small triangular projectile points that may have been associated with the introduction of the bow and arrow. Hunting and gathering continued as a subsistence base, but during this time the economy probably utilized certain cultivated plants (Willey 1966).

Through time, ceramics developed various forms of size, shape, temper, and types of decoration, while the small triangular projectile points became smaller and more delicate in appearance (Coe 1964). Burial mounds begin to appear during the Woodland period, and architectural features suggest an increasing trend towards sedentism. Woodland sites are often larger than the earlier Archaic sites, and many small sites are also noted, suggesting a diversity of cultural activities within differing microenvironments.
The settlement patterns of these people suggest that they exploited the riverine environments in addition to upland zones of creeks and streams. One could expect the floodplain to yield evidence of hunting camps. However, the reconnaissance failed to produce such evidence in the areas examined.

**Mississippian Period**

The Mississippian period, also known as the South Appalachian Mississippian as a regional complex, began approximately 800 A.D. and terminated with the European migration to the New World during the 17th and 18th centuries (Willey 1966). Prior to its collapse, the period is characterized by large truncated temple mounds and smaller burial mounds, and subsistence was based on cultivation of specific foods, especially corn. Settlement was oriented towards the floodplains of large river valleys, and political systems were becoming more sophisticated. Although corn and beans were domesticated, people were still hunting the adjacent forests and floodplains for white-tailed deer and smaller game and gathering wild plants.

Ceramic vessels became larger, and decorations were applied with carved paddles of complicated designs. Larger urns were frequently used for human burials. Population densities seemed to have increased with increased sedentism during the final phases prior to European colonization. At the time of the introduction of Europeans, the sociocultural system collapsed, and within a century the indigenous people were nearly exterminated.

The Mississippian is well represented within the Savannah River valley according to Ferguson (1971), Williams (1968), Stoltman (1974), and Moore (1899). The possibility that these sites with temple and burial mounds exist within the floodplain provided another directive for site discovery, but unfortunately, the survey failed to disclose any evidence of Mississippian sites in the areas examined.

**Historic Period**

The Historic period within South Carolina probably began with the abortive attempt at settlement of San Miguel De Gualdape in 1526 near the present city of Georgetown (Stephenson 1975). During the same century, DeSoto made his historic crossing of the Savannah River near Silver Bluff. In the seventeenth century, the French and Spanish settled portions of Beaufort County near Port Royal Sound (Stephenson 1975). These human occupations were relatively brief, and no successful attempt at permanent settlement was made.
However, in 1670, the settlement of Charles Towne led to a permanent occupation. With other settlers soon arriving, people began to spread across the lower Coastal Plain of South Carolina, and eventually into the interior. During this early settlement, several localities along the Savannah River were occupied as centers for trade with the Indians (Stephenson 1975).

The Indians of South Carolina and Georgia were greatly impacted by this trade with the English (Oliphant 1964). Known occupants of the project areas at about 1670 were the Westos, the Yamasees, and possibly some small groups of Creeks (Oliphant 1964). The Westos were Iroquoian with ties to groups in New York and Pennsylvania (Corkran 1970:4). They were originally corn farmers living in stable villages in the central Savannah River Valley area (Corkran 1970:4). Early trade with Europeans in Virginia or Pennsylvania, however, supplied the Westos with guns, and they became fierce warriors and conquerors of surrounding groups (Corkran 1970:4). The English at Charles Towne quickly allied themselves with the Westos and encouraged their aggressiveness by buying prisoners of the Westos as slaves (Corkran 1970:4-6). The Westos and their conquered groups also helped protect the English from the Spanish operating out of Florida (Corkran 1970:4-6). The Westo economy and general lifeway was dramatically changed by their trade with the English. They abandoned farming and lived by raiding and by hunting and trapping for skins to exchange for trade goods (Corkran 1970:4-6). In one of the many intrigues of the complex history of the Indian trade, the English turned against the Westos and drove them north to rejoin their Iroquoian kinship (Corkran 1970:6). Other Indian groups moved into the area, traded with the English, and eventually moved away or died from European diseases, war with the English, or war with other Indian groups (often instigated by the English to produce prisoners which could be sold as slaves) (Corkran 1970). No historic Indian camps or villages are known to have existed in any of the project area.

One of the major trading centers established on the Savannah River was Fort Moore on the South Carolina side of the river, which was constructed in 1716 adjacent to an Indian settlement known as Savano Town. The fort apparently served two purposes: for the trading with Indians and as a military outpost. The Savano Indians continued to occupy their town for several years, but departed in 1720. The occupation of the trading center, however, was maintained until 1763 (Polhemus 1971). In 1739, George Galphin erected another trading center several miles downstream from Fort Moore (Neill 1968). Galphin's post was built on Silver Bluff, also on the South Carolina side, which has been thought to be the site of Cofitachiqui, a lower Creek town. The trading post originally involved only trade with the lower Creeks, but it later served additional purposes as a political center for Indian relationships and as a supply point for European planters. The popularity of Galphin's post is also reflected in the fact that he had constructed barge docks and cabins to accommodate visitors. During the Revolution, the post was fortified with brick, and in 1785 it served as the location for
for the Treaty of Galphinton, which ceded certain Indian lands to the commissioners of Georgia (Neill 1968).

While these trading centers functioned, bursts of European migration were continuing to the interior. These interior settlements were established in the 1730's on the South Carolina side of the Savannah River as townships (Oliphant 1964:95-101). Purrysburg was founded in 1732 on the Savannah River in South Carolina by Jean Pierre Purry of Switzerland and peopleed with French Swiss settlers. These settlers soon abandoned Purrysburg because of its lowlying location and scattered over the countryside, establishing small farms (Oliphant 1964:97-98). The city of Savannah was founded in 1733 by Oglethorpe and became the center for settlement of the interior of the new colony of Georgia (Jones 1883). Although Savannah could not compete with Charles Towne, it slowly grew as a trading center, primarily through its exports of timber and agricultural products (Jones 1883). New Windsor township was established by the South Carolina colony on the upper Savannah River across from the present city of Augusta, Georgia in 1737. These settlers also spread over the countryside, establishing small farms (Oliphant 1964:101). Augusta had been founded in 1736 as an outpost for trade with Indians and slowly grew into a commercial center (Coleman 1977). As Augusta grew, New Windsor on the South Carolina side of the Savannah River declined in importance. In 1734 the town of Ebeneezer was founded near the Savannah River in present day Effingham County, Georgia by Salzburgers emigrating from Europe (Jones 1883). The town was moved four years later to a site overlooking the River. Immigrants to the colony began to move into the interior in the 1730's and 1740's, establishing small farms along roads between Savannah, Ebeneezer, and Augusta.

Agriculture was the most important industry in 18th century Georgia and South Carolina. The South Carolina Indian trade was the leading commercial enterprise in the early part of the century, but by the middle 1700's it had declined with the decline in Indian population (Oliphant 1964). Rice was the leading cash crop, grown on plantations near the coast (Oliphant 1964:108). Indigo was also a profitable crop, especially along river swamps in the interior (Oliphant 1964:108). Tobacco was an important, but secondary, crop throughout the century (Mills 1826; Oliphant 1964:208). Slaves had not been allowed during the first years of the Georgia colony, although after the 1750's they began to be imported in large numbers especially for work on rice plantations (Jones 1883; Coleman 1977). In Georgia most farms were small, and subsistence crops were the rule. Larger indigo and rice plantations were better established in South Carolina (Coleman 1977; Oliphant 1964).

The Revolutionary War was more destructive to the economy of South Carolina than that of Georgia because of the greater vulnerability of large plantations and their dependence on cash crops. The War destroyed the market for indigo, and lack of maintenance of the rice dikes during the war damaged the rice industry (Oliphant 1964:205-206). In the 1790's, however, new varieties of cotton were introduced, and with the development of the cotton gin this new cash crop revitalized the economy and gave great impetus to growth of the plantation system and increased importation of slaves (Oliphant 1964:207-209). By the mid-1800's cotton agriculture
was dominant, and plantations had been established far into the Piedmont (Oliphant 1964:216). The disastrous erosion and soil exhaustion caused by the implementation of the cotton monoculture system, especially in the Piedmont, resulted in a decline in the economy after 1850, particularly in South Carolina (Trimble 1974). Exhausted plantation lands were sold and the owners migrated to new lands in the west (Trimble 1974). Because of the generally low prices for crops other than cotton, the poorer farmers acquiring exhausted or nearly exhausted lands had no option except to continue the destructive monoculture system (Oliphant 1964; Trimble 1974). The greatly increased runoff resulting from clearing of the Piedmont in the 1800's dramatically increased flooding on the major rivers of the Coastal Plain, making floodplain agriculture very difficult (Trimble 1974).

Boat and barge traffic on the Savannah River grew in volume and importance during the 18th and 19th centuries as the interior became more settled and prosperous and as the cities of Savannah and Augusta grew in size (Coleman 1977). Docks and landings were common at plantations and at ferry crossings (Oliphant 1964; Coleman 1977).

The apparent intense utilization of the Savannah River during the Historic period has suggested that sites representing settler cabins, fishing camps, barge and ferry landings, and trading centers may be present within the floodplain, and that old barges and river craft may lie on the bottom. However, the reconnaissance failed to yield any evidence of these occupations.
METHOD OF RECONNAISSANCE

Before fieldwork began, the latest edition of the National Register of Historic Places was checked for the presence of listed or eligible sites occurring in the project areas. None were present. Consultation with the State Historic Preservation Officers of Georgia and South Carolina indicate further that no sites in the areas were under consideration for the National Register. Early maps of the area were examined for indications of historic sites, and local informants contacted. No sites were indicated or known for the areas under study.

As was indicated by the literature search there seemed a possibility that some type of human occupation should exist within the floodplain environment. The possibility that Paleo-Indians may have dispatched mega-fauna in the area, that Archaic and Woodland hunting and fishing camps should exist, and that Mississippian and Historic people utilized the floodplain, all indicate that sites may potentially be present.

In order to find these potential sites, two methods were applied: one required that a terrestrial survey team inspect the forest environment, while an underwater archeologist inspect the river bed. The field reconnaissance was accomplished in a short time because of effective utilization of the survey team, and the use of a boat and motor. The boat operator served as liaison among the forest surveyors, depositing one person on the river bank of the area to be examined and the second person downstream or on the opposite bank. While the widenings and cutoffs were being surveyed, the operator provided assistance to the underwater archeologist by placing him into position for a dive, and then recovering him afterwards. The dive, which usually lasted for about an hour, also allowed the survey team adequate time for their survey. After the diver was recovered, the survey team was gathered and another locality was visited until the reconnaissance was completed.

The survey of terrestrial areas was conducted by walking over the entire area of proposed impact and placing 25 cm square pits at selected points. Excavation of the 25 cm square test pits and examination of exposed cuts and profiles were carried out to gain a representative view of the stratigraphy, potential for cultural resources, and actual presence of artifacts or other remains. Placement of the small test pits was designed to provide, in conjunction with exposed cut examination, overall coverage of each of the project areas. Given the limited size of each of the project areas, their irregularity and previous disturbance, and the low predicted site potential, it was not thought to be cost-effective at a reconnaissance survey level of investigation to implement a rigorously-designed and time consuming sampling procedure. Approximate locations of tests were recorded and are shown in Figures 8-15. It is felt that these tests, together with examinations of the surface and of exposed cuts, provide sufficient information to evaluate potential presence of cultural resources in a cost-effective manner.
The survey of the river bed was accomplished by the diver drifting along the bottom, and scanning the area with a high intensity light. While the terrestrial survey was essentially comprehensive, the underwater survey was a quick scan of a relatively dark area. Log jams, swift currents, poor visibility, and other varied bottom conditions prevented a thorough survey of the river bed. If large items were present, such as boats, skeletons, or whole pottery vessels, they would have been found, but smaller items, such as isolated pottery sherds or lithic debitage, could easily have been overlooked.

The Savannah River reconnaissance began at the location of Plate C-8 (Fig. 15) and moved south toward Hardeeville, the last area inspected. The following paragraphs will set forth a cursory description of each area.

Plate C-1 (Fig. 8). The area is composed of lowlying floodplain on both sides and relatively dense forests. The western side of the river is silting in from earlier river diversion and placement of pile dikes, and the eastern side is Mayer's Lake. Between the two is a narrow peninsula of floodplain through which the river cutoff will be made. This strip of land was surveyed, as was the adjacent river bed. Test pits were placed as noted in Figure 8.

Plate C-2 (Fig. 9). The area is composed of lowlying floodplain on both sides and relatively dense forest on the South Carolina side where the river widening will occur. The area was surveyed, and the adjacent river bottom was scanned by the diver. Test pits were placed as noted in Figure 9.

Plate C-3 (Fig. 10). The area is very lowlying, and when surveyed it contained scattered puddles of water in depressed areas. The river cutoff occurs on the South Carolina side and the revetment on the Georgia side. Both areas were surveyed and several test pits placed as indicated in Figure 10.

Plate C-4 (Fig. 11). The area is very lowlying, and when surveyed it contained scattered puddles of water throughout the proposed river cutoff. A walk-through reconnaissance was done of the cutoff, while the underwater archeologist scanned the adjacent areas on both sides of the cutoff. Because of the standing water, test pits were not placed.

Plate C-5 (Fig. 12). The area of the river cutoff is lowlying, forested, and contains an undulating surface of recently deposited sands and silts. The terrestrial area was surveyed and test pits placed as indicated in Figure 12. The adjacent underwater area was scanned by the diver.

Plate C-6 (Fig. 13). The area of river widening, located on the Georgia side, is lowlying and heavily forested. The terrestrial survey team walked the area, and placed several test pits as indicated in Figure 13. The underwater archeologist provided reconnaissance of the river bed.
Plate C-7 (Fig. 14). The area of river widening, located on the Georgia side, is heavily forested and lowlying. The area was walked and several test pits placed as marked. The underwater archeologist surveyed the river bend adjacent to the proposed widening.

Plate C-8 (Fig. 15). The area of river widening, located on the South Carolina side, is lowlying and heavily forested, with occasional puddles of water in depressed areas. The survey crew walked the area of proposed impact and placed several test pits as indicated on the drawing. The underwater archeologist scanned the river bed.

The Oates Creek area was surveyed by walking portions of the creek, inspecting the eroded profiles. Most of Oates Creek flows under highways and roads, and through residential districts, making such inspection difficult (Fig. 16). Frequently the creek flowed along past the back doors of houses and other structures, and even through junk yards and a cotton seed mill. These conditions, paired with the extensive alteration of land and prior creek modifications, indicated little potential for archeological sites existing, even if they were once present.

FIGURES 8 - 15

Areas of archeological reconnaissance along the Savannah River.

\[\text{\textless\textless\textless\textless} - \text{indicates areas of reconnaissance and areas of low sensitivity (some previous natural disturbance, but unlikely site location).}\]

\[\text{\textdagger} - \text{indicates archeological test}\]

Figure 8 - (Plate C-1). River cutoff, mile 39.0-39.2.
Figure 9 - (Plate C-2). River widening, mile 44.7-44.9.
Figure 10 - (Plate C-3). River cutoff, mile 64.6-64.9.
Figure 11 - (Plate C-4). River cutoff, mile 97.6-99.0.
Figure 12 - (Plate C-5). River cutoff, mile 101.7-102.2.
Figure 13 - (Plate C-6). River widening, mile 133.3-133.9.
Figure 14 - (Plate C-7). River widening, mile 137.8-138.2.
Figure 15 - (Plate C-8). River widening, mile 138.9-139.3.
FIGURE 8.
SAVANNAH RIVER
GEORGIA AND SOUTH CAROLINA
RIVER CUTOFF
MILE 39.0 - 39.2
SCALE: 1" = 500'
SAVANNAH DISTRICT, CORPS OF ENGINEERS
PLATE C-1
FIGURE 9.
Figure 12.

Savannah River
Georgia and South Carolina

River Cutoff
Mile 101.7 - 102.2
Scale: 1" = 500' ±
Savannah District, Corps of Engineers
SAVANNAH RIVER
GEORGIA AND SOUTH CAROLINA
RIVER WIDENING
MILE 137.8 - 138.2
SCALE: 1" = 500' ±
SAVANNAH DISTRICT, CORPS OF ENGINEERS

FIGURE 14.
FIGURE 16: Archeological Reconnaissance of the Proposed Oates Creek Flood Control Project, Augusta, Georgia, showing sensitivity area. Selected portions were field checked as described in text.
RESULTS OF THE RECONNAISSANCE

The Savannah River has witnessed sporadic, if not continuous human occupation for the last twelve thousand years. The early Paleo-Indians were utilizing resources of the river valley, as were people of the succeeding periods. The survey of the eight river locations for proposed stream flow modification failed to disclose any evidence of human occupation. The area of Oates Creek in Augusta, Georgia, also failed to yield evidence of human occupation earlier than the twentieth Century. This area is disturbed to such a degree by modernization, occupation, and creek dredging, that hardly any original soil structure is recognizable.

While modernization is held accountable for the absence of earlier material culture at Oates Creek, the highly unstable environmental conditions in the vicinity of a meandering river channel are considered a deterrent for human occupation. The frequent overflowing of the river, the deposition of silts, clays, and sands, accompanied with dead trees and logs, and other debris would certainly dampen efforts of settlement, but it would not necessarily restrict short-term occupation in the form of temporary hunting or fishing camps. However, if hunting or fishing camps did once exist, they could not be discovered by the reconnaissance investigation.

Based on the negative results of the reconnaissance of eight specific locations within the Savannah River, and of Oates Creek, Augusta, Georgia, no adverse effects on cultural resources by the proposed channel and stream flow modifications were determined. No further consideration of cultural resources is recommended.
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