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Notebook - March-April 1973

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.

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One of the primary advantages of the Institute of Archeology and Anthropology is the capability of its staff to do full-time research on a continuing basis throughout the year. The climate in South Carolina is such that nearly any month of the year is suitable for field work and projects can be initiated at any time. Even more important is that the staff members have no required teaching commitments and can do full-time research as a primary obligation. Staff members may, and do, teach occasional courses in the Department of Anthropology and Sociology but this is scheduled at the convenience of the Institute staff member so that it does not interfere with his research responsibilities.

This is a reversal of the procedure in most universities where teaching formal classes is the primary obligation and research is done as a secondary activity if it can be squeezed into a heavy teaching load. We are convinced that full-time research is necessary and that more and more universities are going to have to make this possible if American archeologists are ever going to provide the research necessary for an understanding of American archeology. American archeologists certainly have not generated solutions to archeological problems in proportion to the years of time spent in the discipline. This is not their fault! Neither is it because they have not been using the data available to them. It is because they have not had the time available to do the research that is required. They have been locked into a system of teaching for nine months and doing research for a few weeks in the summer. It is surprising that they have accomplished as much as they have.

This is not to disparage teaching. Certainly that is the main objective of a university. The full-time researcher, though, does teaching within the framework of his research. He hires students to work on his research projects. This gives the student training in the realities of how scholarly efforts are used to develop the things that go into the textbooks that he is required to read in his formal classes. This does not supplant the formal classes but it is a significant addition to them. The pay he receives as a student researcher is also a help to him in making it possible to attend the formal classes.

For these reasons we at the Institute feel privileged to have a situation at the University of South Carolina where full-time research is possible. We have, during March and April, been busy as usual in both field and laboratory projects. We have undertaken nine brief archeological surveys for Environmental Impact Statements, begun one major archeological survey, and continued laboratory work on several past field projects.

John Combes undertook a three day survey of an area at Lake Murray on the Saluda River in Lexington County. This was an Environmental Impact Statement for a housing development known as Watergate.
Dick Carrillo and David Mullis did a survey of the Hampton Plantation near Georgetown in Georgetown County where some restoration is anticipated on the buildings. Leland Ferguson and Richard Kimmel inspected the Sullivan Mound and surveyed some of the adjacent area on the Reedy River in Laurens County where the Soil Conservation Service plans a small reservoir. Stanley South and Susan Jackson spent three days surveying a proposed community development near Florence. Your editor, Dr. David Lawrence, and William Gettys inspected and core-sampled the Sewee Shell Ring Site in Charleston County for the U. S. Forest Service. Stanley South and Susan Jackson surveyed the south side of Jenkins Island on Hilton Head Island for the Hilton Head Company. Richard Kimmel, Susan Jackson, and Page Luttrell visited the Scott's Lake Site near Santee on the shore of Lake Marion to prepare for a second season of excavation there. John Combes, Travis Bianchi, and David Mullis surveyed a power line project near Calhoun Falls in Abbeville County. Following this four day survey Combes, Bianchi, and Mullis began the long-range survey of the Trotter's Shoals Reservoir area on the Savannah River for the National Park Service.

During March and April the Institute negotiated an agreement with the Savannah River Plant of the Atomic Energy Commission for an archeological survey of the Plant area. This is the first year of a two or more year project. The Institute also negotiated an agreement with the S. C. Department of Wildlife and Marine Resources and the College of Charleston for archeological excavations on their two properties at Ft. Johnson in Charleston County.

Laboratory analyses and reporting continued at the Institute on previous projects. Stanley South has been working on the Charles Towne report, John Combes has been working on the Fort Prince George report, Leland Ferguson on his Scott's Lake Site material, Dick Carrillo on Fort Dorchester material. In all of these projects, both field and laboratory, a substantial number of student assistants have been employed, all of whom are getting specialized training in various aspects of archeological research.

Mr. Alan Albright, Marine Archeologist, at the College of the Virgin Islands was hired as the Underwater Archeologist for the Institute. Mr. Albright will report for duty on July 1.

Out of state visitors included Dr. Thomas Myers, Assistant Curator of the University of Indiana Museum; Mr. Brad Rauchenberg, Assistant Director of the Museum of Early Southern Decorative Arts; Mr. Robert L. Ogle, collector of American Indian Ethnographic materials from Lakeview, Oregon; Dr. Richard Stalter of St. Johns University; and Mr. James Marshall of the University of Kansas.

This is being a very busy spring.

Robert L. Stephenson, Director
Institute of Archeology and Anthropology
University of South Carolina
Columbia, South Carolina
RADIOCARBON DATE FOR AN EARLY HUMAN BONE FROM EDISTO ISLAND, SOUTH CAROLINA

by E. Thomas Hemmings, William M. Bass, and Ted A. Rathbun

INTRODUCTION

In December, 1969 the Institute of Archeology and Anthropology, University of South Carolina received for study, a large collection of fossils from Edisto Beach State Park, 20 miles south of Charleston, South Carolina (Fig. 1). The collection had been gathered during several previous years by a former park superintendent along the Atlantic beach of Edisto Island (32°32'N, 80°18'W) in an area already known for its fossil remains (Ray 1965). The Institute's archeological excavations at the Fig Island Site nearby were concerned with the more recent prehistoric past of Edisto Island, but other data pertaining to its geological history were of interest, including these paleontological remains (Hemmings 1970). During sorting and cataloguing of the fossil collection, the shaft of a human femur unexpectedly turned up; the only human specimen among a large number of Rancholabrean mammal fossils representing mammoth, mastodon, horse, bison, sloth, and other extinct species of the Late Pleistocene (marine vertebrates and older Cenozoic fossils were present, but less abundant, in the collection).

The dark discoloration of the human bone resembled but was not identical to the condition of the other fossil material (Fig. 2). This character of the bone and its apparent association with Pleistocene fossils suggested considerable age. We reasoned that if the bone were dated and proved to be significantly old, Early Man's presence on the coast of South Carolina would at least be established, although no actual occupation site of this period is presently known in the state. Toward this end, the bone was first systematically studied and then sacrificed for radiocarbon dating. The resulting age determination by Geochron Laboratories (sample GX2280) is 6960 ± 240 radiocarbon years B.P. (5010 ± 240 B.C.). The age of the human specimen thus appears to be three or more milenia younger than the Rancholabrean mammals, which are presumably 10,000 years or greater in age (Martin and Wright 1967). Nevertheless, the Edisto femur is the oldest known human remains, and in fact the earliest dated archeological remains of any sort, from South Carolina. For these reasons, we believe a brief description of the specimen and some comments on its significance are warranted.

DESCRIPTION OF THE EDISTO FEMUR

The bone specimen (38CHOO/44G) is the mid-shaft of an adult human right femur. The head or proximal end is missing from a point just below the lesser trochanter. The distal end is also missing. These breaks appear to have occurred long after death when the bone had lost
organic matter or had begun to be mineralized. The bone appears to be fully mature, but is small in size, and thus may represent an adult female. The relatively short length of the mid-shaft fragment, indicating an individual of small stature, is one criterion in particular which suggests a female (Table 1).

**TABLE 1**

**SOME MEASUREMENTS OF THE EDISTO RIGHT FEMUR**

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum length of shaft fragment</td>
<td>258.0 mm</td>
</tr>
<tr>
<td>Sub-trochanteric diameter:</td>
<td></td>
</tr>
<tr>
<td>Antero-posterior</td>
<td>25.0</td>
</tr>
<tr>
<td>Transverse</td>
<td>29.0</td>
</tr>
<tr>
<td>Mid-shaft diameter:</td>
<td></td>
</tr>
<tr>
<td>Antero-posterior</td>
<td>27.0</td>
</tr>
<tr>
<td>Transverse</td>
<td>24.0</td>
</tr>
<tr>
<td>Diameter at foramen near mid-shaft:</td>
<td></td>
</tr>
<tr>
<td>Antero-posterior</td>
<td>27.5</td>
</tr>
<tr>
<td>Transverse</td>
<td>24.0</td>
</tr>
<tr>
<td>Wall thickness at proximal end</td>
<td></td>
</tr>
<tr>
<td>(average of four measurements)</td>
<td>4.6</td>
</tr>
<tr>
<td>Wall thickness at distal end</td>
<td></td>
</tr>
<tr>
<td>(average of four measurements)</td>
<td>4.4 mm</td>
</tr>
</tbody>
</table>

Attempts to X-ray the bone for lines of arrested growth (Harris lines) or pathologies met with limited success because of the heavy concentration of calcium in the bone. The medullary cavity contains small oyster valves and bryozoan skeletons which appear on the X-rays. The bone was considerably more dense to X-ray penetration than was anticipated and may have been partly replaced by mineral matter. The weight of the specimen is 149.1 grams which, however, is partly due to adhering shells. There is no external evidence of pathological conditions, and the X-rays indicate no areas of healed fractures.

**DISCUSSION**

Although we first planned to date the bone apatite fraction of the Edisto specimen, expecting immersion and exposure to have affected its organic content, sufficient collagen was extracted to permit dating of this fraction. The result, as previously stated, is an age of approximately 7000 radiocarbon years B.P. If we assume this age to be accurate, the owner of the femur probably represents one individual from an early Middle Archaic Indian population on the Atlantic Coast. Preceramic sites of this time period, about 5000 B.C., are less well-known on the coast.
than in the Piedmont of North and South Carolina where they are associated with Stanly and other Middle Archaic stone industries (Coe 1964). On the Atlantic Coast of the Southeast a number of preceramic sites may have been invaded by post-Pleistocene rising sea level, and, in fact, some of the earliest ceramic sites have been partially or entirely inundated (Shephard 1964; Emery and Edwards 1966). Daws Island (38BU9), an early ceramic shell midden in Port Royal Sound near Beaufort, South Carolina, which lies more than five feet below the modern high-water mark has provided us with an unusually well-preserved human burial, recently dated at 3395 radiocarbon years B.P. (Hemmings 1969; Michie 1973). The fauna of the Daws Island midden is entirely modern.

It is reasonable to assume that the source of the Edisto femur was similar to Daws Island where rising sea level encroached upon a habitation site and wavecutting exposed the human burial. The dark discoloration of the Edisto femur may derive from organic deposits (salt marsh peats) which, as at Daws Island, aggraded at the site location and caused humic acid staining of buried bone material prior to erosion and dispersal. The femur must have been exposed or carried into the intertidal zone where oyster spat found it a convenient substrate, but cannot have remained long in the surf as it appears unabraded. Perhaps a single severe storm scoured the sea bottom and cast debris, including the femur, onto the beach. The Pleistocene fossils from Edisto Beach may have a similar, though longer, history, and their apparent association with the femur is certainly fortuitous. Our Middle Archaic woman is unlikely to have seen any land mammal larger than living species of elk or bear, even though her ancestors may have hunted giant herbivores of the Pleistocene on much the same territory.

ACKNOWLEDGMENTS

The Edisto Beach fossil collection, including the human femur, was kindly made available for study by Mr. Janson L. Cox, South Carolina Department of Parks, Recreation and Tourism. We are especially grateful to Dr. Robert L. Stephenson, Director of the Institute of Archeology and Anthropology, University of South Carolina, for use of facilities and support for this study. Mr. Harold Krueger, Director of Geochron Laboratories, was most helpful in discussing with us the techniques for dating the Edisto human bone and in carrying out the age determination reported here.

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FIGURE 1. Map of South Carolina showing Edisto Island.

FIGURE 2. Two views of the Edisto femur.
UPDATE ON THE TROTTER'S SHOALS RESERVOIR  
(Richard B. Russell Dam and Lake)

In June, 1969 the Institute submitted a proposal to the National Park Service, U.S. Department of the Interior for an archeological survey of the South Carolina side of the Savannah River in the area of the proposed Trotter's Shoals Reservoir and was awarded a contract for that work. Dr. E. Thomas Hemmings of the Institute staff conducted the survey in January and February, 1970 and located 35 sites of archeological potential in the proposed flood area.

The University of Georgia, the year before, had proposed and carried out a similar survey of the archeological resources on the Georgia side of the Savannah River. That survey recorded 38 sites in the proposed Trotter's Shoals Reservoir area.

Dr. Hemmings' survey recommended further archeological work at twelve of the 35 sites recorded. These were: 1 prehistoric steatite quarry; 4 prehistoric agricultural village sites; 2 prehistoric fishing camps; 3 fish traps (historic and/or prehistoric); and two historic home and mill sites. In addition Dr. Hemmings recommended more intensive survey of portions of the area then too densely covered by underbrush to be satisfactorily searched.

A second contract was entered into between the Institute and the National Park Service in April, 1972 by which additional survey and some testing of the already recorded sites would be carried out. John D. Combes of the Institute staff undertook this survey during April, 1973. He recorded 53 sites, the majority of which are Archaic Period sites; four are prehistoric agricultural village sites; two are historic cabins; and one is an historic dam and mill site. This survey should be completed in the near future and recommendations will be made as to a full scale excavation and testing program for the area. Such recommendations will be made in consultation and coordination with the work to be recommended on the Georgia side of the Savannah River.

Sites of major interest include several of the prehistoric agricultural villages and the fish traps with associated fishing camps. The village sites in this area of the Piedmont are not well known and data derived from these will add a major dimension to the understanding of the late prehistoric occupation of the inland area. Two logs from one of the fish traps have been dated by Carbon-14. One dated 545 + 100 B.P. and the other dated 180 ± 80 B.P. suggesting that the trap was built about A.D. 1400 by the Indians and repaired and reused about 1770 by the colonists.

Perhaps the most productive sites in the reservoir area, though, are the Archaic sites of what has been called the "Old Quartz Industry". Sites of this grouping are abundant in the Georgia-Carolina Piedmont but are usually so shallow, unstratified, and unproductive that little is known of their cultural context and chronological placement. Several of these sites in the Trotter's Shoals area promise to have some depth to them and to provide significant increments of information on this little known culture complex of perhaps 4,000 - 8,000 years ago. We look forward with anticipation to the total research design for this area.

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A REVIEW OF EARLY POTTERY FROM THE
SOUTH CAROLINA COAST

by Chester B. DePratter,
Richard W. Jeffries, and
Charles Pearson

(Ed. Note: The authors are graduate students in anthropology at the
University of Georgia. They have been working on problems of the archeology
of early sites along the Georgia and South Carolina coast for the past
two or three years.)

THE PROBLEM

The earliest pottery on the South Carolina coast is a sand tempered
ware associated with both shell rings and simple shell middens. Dates
for this pottery range between 3900 and 3100 B.P., based on dates from
several sites (Calmes 1968; Hemmings 1970). No type description has
ever been given for this pottery but it has been called both Awendaw and
Horse Island Punctate. The difference between the two types has never
been accurately defined in the literature nor has the relationship be­tween
these two types and Thom’s Creek Punctate been established.

A REVIEW

A brief review of published material will shed some light on the
present confusion surrounding the classification of this pottery. Thom’s
Creek Punctate was first described by Griffin (1945) using a collection
gathered at the Thom’s Creek Site. This site is located near Columbia,
South Carolina, on the Congaree River and is over a hundred miles inland
from the coast. All of the other sites mentioned below are along the
South Carolina coast except as noted. He mentioned the punctate decora­tion
and made no formal type description. Caldwell (1952) illustrated
four sherds in the National Museum Collection from the Horse Island Site
near the mouth of the Edisto River. He saw these sherds as being "simi­lar
though not identical" to Griffin’s Thom’s Creek material, but in
his illustration he calls them Stallings Punctate, further confusing
the situation. In Trend and Tradition in the Prehistory of the Eastern
United States (1958), Caldwell states that sand tempered pottery is later
than fiber tempered pottery and occurs at the Thom’s Creek Site in South
Carolina, the Refuge Site in Georgia and at "sites of the Horse Island
Focus along the Atlantic Coast from Edisto Island to Wilmington, North
Carolina". Caldwell describes this pottery as sand tempered, coiled,
thinner than fiber tempered ware and having "punctations in areas and
patterns" (Caldwell 1958: 35).

Waring (1968), writing in 1952, gave the type name Horse Island
Punctate to Caldwell’s four illustrated sherds. Traits found elsewhere
on Horse Island material, according to Waring, include sand tempering,
numerous forms of punctation, and decoration covering the entire vessel.
Writing in 1961, however, Waring (Williams 1968: 330-31) calls similar
material from the Yough Hall Site, also on the South Carolina coast
just north of Charleston, Awendaw. This material is seen as being related to Thom's Creek, but the differences between the two are not described. Awendaw pottery, as defined by Waring, is sand tempered, coiled, and decoration is mainly gouging and jabbing with pinching present and punctating and incising scarce. Two years later, Waddell (1963) formally described Thom's Creek Punctate. Working with pottery from both the interior and the coast, he includes traits from both areas in one type description.

The distinction between coastal and interior pottery was defined by Waddell in 1965. Speaking of modeled pottery with finger pinching found at the Yough Hall Site, he used the type name Awendaw following Waring. He states that Awendaw may be related to Thom's Creek, but that linear pinched decoration and shell smoothing of vessel interiors are confined to the coast. He does say, however, that Thom's Creek and Awendaw are sometimes both present on coastal sites.

Williams (1968), summarizing Waring's work, states that sand tempered pottery in South Carolina is best known from the Thom's Creek Site but a closely related type, termed Awendaw by Waring, is found at the Horse Island Site.

Calmes (1968), working on Hilton Head Island, uses the term Thom's Creek for his sand tempered pottery, though the presence of fingernail marking and the relative absence of incising indicate that the pottery is probably Waring's Awendaw.

Phelps, also writing in 1968, presents the first complete description of the Thom's Creek ceramic complex which includes the previously described punctate, as well as incised, simple stamped and plain. Decorated rims are a common feature at Thom's Creek Sites. Although Thom's Creek pottery, as defined by Phelps, is mainly found in the interior, he recognizes Waring's Awendaw as a coastal variant.

Hemmings (1970), using data he collected during a survey of shell rings along the South Carolina and Georgia coast, recognizes both a Horse Island and an Awendaw type. He states that Horse Island is sand tempered or untempered and has a more southerly distribution than Awendaw which apparently has a coarser texture. No mention is made of Thom's Creek pottery being found on the coast.

**SOME COMMENTS**

It is easily seen from the foregoing that the early sand tempered pottery problem on the South Carolina coast is confused, to say the least. There are, however, regularities which crop up consistently in the jumbled information that is available, which may lead to a clearer understanding of the situation.

1. Simple stamping is not mentioned from coastal shell middens.
2. Incising is rare at coastal sites.
3. Finger pinching is not described from interior sites.
4. Shell scraping of vessel interiors is confined to the coast.
Based on the above traits, the distinction between an interior orientation for Thom's Creek traits, and a coastal orientation for traits of the Awendaw complex, appears to be valid. The distinction between Horse Island and Awendaw on the coast is not so clear. No differences in decoration have ever been given for the two complexes. Instead, the distinction seems to have been based mainly on size of sand inclusions and "feel".

Since only six sherds of Awendaw have been illustrated, the following photographs of material from the Horse Island Site (38CH14) and from the Edisto Island Site (38CH62) are presented to indicate the complexity and variety of decoration found on these two Awendaw Sites. No attempt is made to present a type description of Awendaw since collections available to us come from only these two sites and may not be representative of the complete ceramic complex.

The Horse Island Site is a C-shaped shell ring with the opening to the southwest. The average diameter is around one hundred fifty feet from crest to crest, with a rim height ranging between two and four feet. A collection was made from an exposed profile by Joseph R. Caldwell.

On Edisto Island, Caldwell visited another site containing similar sand tempered pottery. The site was a large shell midden located on the south end of the island within the State Park. The site was being eroded by the South Fork of the Edisto River, and a collection was made from the exposed profile and adjacent beach area. The site is also know as the Spanish Mount Site.

The collections from both Horse Island and Edisto Island are now on file in the University of Georgia Laboratory of Archaeology. It is from these collections that the illustrated sherds were selected. Traits which should be noted in the illustrated sample are:

1. finger pinching (Figures 3a,d; 4b; 7a)
2. periwinkle impressing (Figure 7i)
3. incising (Figure 4a)
4. simple stamping on rim (Figure 4c)
5. use of two or more punctating implements (Figures 4c-h; 6c)
6. zoning of decoration (Figures 3b,f; 4f; 5a-c; 6h; 7f,g)

Other important traits which are not illustrated are:

1. interior punctation near the rim (rare)
2. interior shell scraping (common)
FIGURE 3. Pottery from the Horse Island Site.
FIGURE 4. Pottery from the Horse Island Site.
FIGURE 5. Pottery from the Horse Island Site.
FIGURE 6. Pottery from the Edisto Island Site.
FIGURE 7. Pottery from the Edisto Island Site.
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WARING, Antonio J.

WILLIAMS, Stephen (editor)

A REVIEWER'S NOTE

by Leland G. Ferguson

As DePratter and his associates have pointed out there is, indeed, a well established atmosphere of confusion surrounding the sand tempered ceramics from lowland and coastal South Carolina. Type names have been firmly attached to the early ceramics of this region, but some of these are not founded upon any clear and usable definitions. The names Awendaw and Horse Island have for several years been problems rather than useful
tools. The present paper based on a small collection of artifacts from the South Carolina coast and the meager evidence in the literature leads in the right direction by suggesting we look at the distribution of attributes and from these try to develop some well founded insight into this ceramic complex.

Post-dating this paper by several months Stanley South provided a new set of tools for examining the ceramics of this region. Taking a purely taxonomic approach, South divided the ceramics of the South Carolina coast into a hierarchical system of Ware-Group, Ware, and Type: representative of Formative, Developmental, and Climactic stages of ceramic evolution (Fig. 8). The two major ware-groups of the Formative were the fiber tempered Stallings Ware-Group and the sand tempered Thom's Creek Ware-Group. Division was based primarily on temper, and South noted that the decorative techniques are similar for both ware-groups. Within the Thom's Creek Ware-Group South included the well defined Thom's Creek and Refuge Wares. The "types" Awendaw and Horse Island were not included in a ware because of their poor definition. (Operationally South uses Awendaw to refer to finger punctated ceramics while Horse Island is used to refer to those ceramics decorated with the punctations of marine shells.) Through this classificatory scheme South provides for reference of ceramics from the coast to the ware-group level if the materials cannot be placed within a well defined type.

Before we adequately understand the ceramic, and consequently the cultural, situation of this early period in eastern South Carolina and Georgia, serious archeological investigation will have to be undertaken. As the situation now stands there are a number of attributes from this ware-group spread over space and through time. As DePratter indicates some of the traits seem to have a coastal concentration while others are more frequently found inland. However, at this time comprehensive statements must be tenuous due to the limited and biased samples that form the archeological record. Thom's Creek and the few sites of the central Savannah Locality are the only sites from the interior reported in the literature. On the coast the shell rings at Horse Island and Sea Pines and the Edisto shell heap have provided most of the information. These few sites comprise the primary body of known information concerning these early ceramics; and no site of this complex has been extensively excavated, thoroughly analyzed, and reported. To suggest that the sample may be biased is an understatement. We need more sites and more intensive analysis of materials before comprehensive statements can be made.

As a result of excavations at Charles Towne and a survey of southeastern North Carolina and Horry County in South Carolina, Stanley South has substantiated the existence of important non-shell midden sites on the southern Atlantic Coast associated with Thom's Creek Ware-Group ceramics. The ceramics of this complex excavated at Charles Towne were significantly different from those found in the shell midden sites in that there was a high percentage of Thom's Creek pottery with simple stamping as a frequent attribute. Likewise, in the interior the Thom's Creek site and those referred to by Phelps for the central Savannah River Locality are on the periphery of the major distribution of this ware-group which appears to be in the central South Carolina coastal plain. In comparing the ceramics from these sites with those from the coastal
shell middens we are comparing artifacts from a small sample of sites that are not demonstrably representative of the areas in which they are found. It will be only after we have examined a representative sample of materials from the coast as well as the primary area of occupation in the interior that we will be able to wring order from the legacy of confusion that surrounds the Formative Period of the ceramic tradition in southeastern South Carolina.

ARCHEOLOGICAL SURVEY OF SOUTH CAROLINA ELECTRIC AND GAS COMPANY'S CALHOUN FALLS-HART 115KV TRANSMISSION LINE

by John D. Combes

(Ed. Note: This is an example of one kind of an Environmental Impact Statement provided by the Institute. It provides the sponsor with a brief analysis sufficient for his purposes, and generates archeological research data for the files of the Institute [see comments on this — the Trotter's Shoals note, page 44]. Other Impact Statements may be as brief as a couple of paragraphs or as long as full-research reports of many pages.)

The Institute of Archeology and Anthropology undertook an archeological survey of the right-of-way for the South Carolina Electric and Gas Company's proposed 115,000 watt overhead transmission line from an existing substation in the town of Calhoun Falls to a point just south of the Trotter's Shoals Dam Site. The Company requested the survey to comply with federal regulations for an Environmental Impact Statement regarding historic, archeological, and paleontological sites in the area. The right-of-way is about four and a half miles long and involves an estimated 52 acres of land, most of which is wooded.

A search of the area had not previously been made and the Institute had no sites on record that would be affected by the project. Knowledge of the surrounding area, however, suggested the presence of human habitation as far back as 10,000 years ago as well as later occupations. In view of this lack of data the field survey was undertaken.

The survey was undertaken in two phases. First a search was made of the entire area on foot to locate and record any possible evidence of human habitation or fossils. Second, a record search was instigated to determine if written records were available to document any sites of historic significance.

The field work was conducted on April 10th-12th by Travis Bianchi, David Mullis, and the writer, all of the Institute staff. At the time of the reconnaissance the line had just been surveyed and a site-line had been cut through the entire length of the right-of-way. Only a little more than one acre of the estimated 52 acres was cleared with the rest being heavily wooded. Special emphasis was placed on areas that were explored by old road cuts, road beds, erosional cuts, and sluffs. Wooded
areas were carefully searched for visual remains and in many places the ground cover was scraped off by shovel to expose the soil.

Four small stream branches were traversed along the line and the only major stream crossed was Coffer Creek near its confluence with Clark Hill Reservoir. None of these stream crossings were in areas well suited for an archeological site. Vertical relief along the line was almost 220 feet varying from 350 feet above sea level at the Savannah River to 570 feet mean sea level near the town of Calhoun Falls. It is very hilly terrain.

The documentary search for records of historic places in the area included contacts with people and agencies as well as written source material. People and agencies contacted included the South Carolina Department of Archives and History's Historic Services Division (Mr. Barney Slawson) and Historic Preservation Division (Mrs. Christie Fant). The latter represented the State Historic Preservation Officer and the National Register of Historic Places. The Anderson County Historical Society (Mr. William P. Kay) and a long-time resident of Calhoun Falls (Mr. H. L. Carlisle) were also contacted. Written sources consulted, besides the Institute Site Files, included the Mill's Atlas of South Carolina, by Robert Mills, Robert Pearce Wilkins and John D. Keels, Jr. Columbia, 1965 and Environmental Reconnaissance Inventory of the Charleston District, United States Army Corps of Engineers, 1972.

All of these sources indicated that information available at this time suggests that no evidence of historic sites, trails, roads, or events are located in the vicinity of the Company's proposed power transmission line.

The detailed ground search of the right-of-way for this line located eleven prehistoric archeological sites. No evidence of significant historic sites, trails, or events was found nor were any paleontological sites located.

The prehistoric archeological sites recorded are all of a single archeological tradition and time period -- the Archaic Period. This type of habitation site is frequently found on ridges and slopes in this part of the southeastern United States. The sites seem to cover a time span of about 6,500 to 3,500 B.C. and are characterized by evidence of quartz knapping. They represent a pattern of forest nomadism that includes an economic dependence upon gathering and use of wild plant foods as well as upon hunting activities involving small game.

It is recommended that these prehistoric site locations be disturbed as little as possible. Normal right-of-way clearing and the setting of poles will not damage these sites significantly. If burying of slash piles or other large-scale ground disturbance is undertaken, these site locations should be avoided at all costs. Otherwise this right-of-way line is cleared of historic, archeological, and paleontological resources, and power lines may proceed without endangering these resources.
INTRODUCTION

There is, of course, no scientific discipline known as Geo-archeology and it would be presumptuous to suggest that one be established. Geology is a field, or a group of fields, of scientific inquiry all its own and so is archeology. They are even taught in different colleges in our universities. I use this inter-disciplinary title simply to emphasize the point that while the two disciplines are separate and their problems pose very different questions, they have so much in common that the solutions to some of the problems of the one field may be arrived at by use of the data of the other field. They are intimately related. The practitioners of the one have a great deal to offer the practitioners of the other.

There is nothing new about this concept. Archeologists and geologists have been cooperating with each other to varying degrees for a long time. But that is just the point, it has been "to varying degrees" -- usually pretty minimal and usually one-sided. In some projects the cooperation extends nearly to its maximum potential. Most of us can recall some very fruitful cooperation between geologists and archeologists. The work of Kirk Bryan at Lindenmeier and elsewhere (Bryan and Roy 1940; Bryan 1954); or of Sheldon Judson at the San Jon Site (Judson 1953), the Cody Site and elsewhere; or of Vance Haynes at the Murray Springs Site and others in southern Arizona (Haynes 1969); may be cited to mention only a few of the classic examples. Most archeological sites, though, receive only minimal geological attention ranging from mere lip service with the insertion of the word "inter-disciplinary" into a grant proposal to some actual "on the ground" cooperation.

Furthermore, the cooperation that does exist usually is one-sided with the archeologist obtaining the help of the geologist to solve archeological problems. The geologist seldom seeks the help that he may have available to him from the archeologist. He is not getting his fair share of the cooperative effort. This is the main point that I wish to make. There is a body of geological data to be derived from most archeological sites and there is opportunity for the geologist to aid his discipline in the cooperative effort. In part, the reason that the geologist seldom benefits from archeology is that of awareness. Most archeologists have taken a course or two or even minored in geology. They are, therefore, aware of at least some of the help they can get from the geologist. Seldom do the geology students take courses in archeology. They are, thus, less aware of what archeology can do for them. Let us, then, examine a few of the many situations in which the geologist and the archeologist can work together for their mutual benefit and explore the means by which this cooperation can be brought about.

THE DATA OF ARCHEOLOGY

First of all, what does the archeologist do and how does he go about doing it? His milieu is the same as that of the geologist -- the
subsurface of the ground. His data are in the ground as are the data of the geologist. As he excavates square holes, long trenches, or large areas of an archeological site he is exposing soils, rocks, gravel, and other earth constituents that make up both archeological and geological data. He attempts to develop from the fragile scraps of evidence, both cultural and natural evidence, that he finds in the ground as thorough an understanding as he can of the life and times of the people who lived at that locality in the past. He is not merely an antiquarian searching for tools, weapons, ornaments and other artifacts. Those objects are only a part of his investigation. They are an important part for without them he probably does not even have a place where people lived. But with only the artifacts he would have little more than a meaningless collection of "things".

The data of archeology are found in the matrix from which the artifacts are recovered. It is the soils, the color and texture changes in the earth, the patterning of these changes, and their horizontal arrangements, the relationship of these arrangements of the artifacts, the chemical and mechanical constituents of the earth, the stratigraphic relationships of rocks, soil horizons, and artifacts, the vertical and horizontal relationship of artifacts to other artifacts, the relationships of these to the vegetation, the animal life, and the climate that provide the archeologist's data. The geologist, the soil scientist, and the paleontologist use much the same data.

The archeologist, though, works within a tiny micro-environment of a quarter acre, an acre, or seldom more than a square mile. The geologist works with large areas of the earth's surface usually measured in hundreds of square miles. The archeologist's time frame is much more restricted, too. He deals with centuries or a few millennia while the geologist deals with hundreds and thousands of millennia. Within the archeologist's restricted framework of time and space he must hone his techniques to their finest in order to derive maximum meaning from the subtlest changes of earth and artifact. With the utmost precision he uses all of the tools available to him from the huge bulldozer to the tiny dental pick. From the geological point of view he is a specialist in a microcosm at a moment in time.

Other specialists are called upon to help interpret the shreds of evidence that he can provide from this microcosm and to fit them into the geographically and temporally longer framework. The climatologist, the botanist, the zoologist, the physicist, the soil scientist, and the geologist, among others, may be called upon. Perhaps, of these, the geologist is really the most important at most archeological sites but the geologist must be one who is interested in Pleistocene-Recent geology and/or in small geographic areas. An engineering geologist might be just such a person. His concerns are temporally broader but spatially are often restricted to the small locality where some engineering feature such as a bridge, a building, or a dam is to be constructed. Such a locality might very well contain an ancient village or camp site that is also of concern to the archeologist.
THE COOPERATIVE EFFORT

Now it would be less than honest not to admit that the archeologist usually has more to gain from this cooperation than has the geologist, but my point is that there is often more for the geologist than he gets. The archeological precision used to understand the decade by decade and century by century history of a shale, gravel, silt, or other formation into which prehistoric man has dug holes, built houses, and left his garbage may provide the geologist with critical information, for example, about stability of this area for a bridge foundation or a dam footing. Let us look at some specific examples.

Along the Missouri River in the vicinity of Pierre, South Dakota are several prehistoric Indian villages consisting of clusters of well-built houses (Lehmer 1971). Two time periods are represented. The early villages of 1100 to 500 years ago have long, rectangular houses 40 to 70 feet long and 15 to 30 feet wide. The house floors were excavated by the Indians to depths of 3 or 4 feet below the surface of the ground at that time extending down through the terrace silt into 2 or 3 feet of the underlying, decomposed Pierre shale, or "gumbo".

Houses of the later villages, of 500 to 100 years ago, were circular structures 30 to 50 feet in diameter with domed, earth covered roofs. Floors were dug 1 to 3 feet below the surface but not into the underlying Pierre shale. The upright cedar posts that once formed the walls of both styles of houses are usually well preserved in the Pierre shale but are almost completely deteriorated in the terrace silt. Carbon-14 dates and a tree-ring chronology for the area provide archeologically derived dates to within a few years of the actual occupation of each village.

Thus archeologically derived data provide precise dates for the terrace fill and permit detailed measurement of the rate of deposition of the silt. The stability of the decomposed Pierre shale is measurable over a 1000 year period and it can be shown to have a tremendous preservative capability for wood. The detailed sequence of historical events provided by archeology for this microcosm along the Missouri River during the past 1000 years can provide a basis for predictions for the future. It can tell the geologist that decomposed Pierre shale is more stable than he might think and has great preservative capacity. It can suggest the rate at which the softer fills may accumulate. These just might be critical factors for the engineering geologist responsible for finding a suitable base for a bridge or a resort hotel in this area.

Other kinds of archeological sites may provide similarly useful data to the geologist where a time depth of 10,000 or more years may be involved. An Early Man campsite of some 10,000 years ago with stratified, later occupations could provide a detailed geological history of a small area. Even surface archeological surveys, or searching for sites, can be helpful to geologists at times. The Institute, in searching for archeological sites in the Savannah River Plant area near Aiken, South Carolina, located fossil oyster beds that were of extreme interest to the research projects of a University of South Carolina geologist. This was simply a matter of reporting a geological locality of importance.
Still another example of potential help to the geologist is seen at the recent excavations by the Institute at the historic site of the first Fort Moultrie near Charleston, South Carolina. Here archeological excavations revealed 6 feet of hurricane-laid sand covering a part of the 1776 fortification, the stratigraphy of which could readily be defined in the trench profiles, and was supported by documentary evidence for the storms. This provided detailed data to answer the geological questions as to whether this small bit of the coast of Sullivan's Island had been cut or filled by sea action.

These are only a few briefly stated ways in which the archeologist can provide useful information to the geologist. He is not a geologist and does not "do" geology but by earnest cooperation can be of real assistance to the geologist in almost any archeological project. The geologist, though, must have some kind of an interest in the project area and be aware that the archeologist can be called upon.

How, then, does the geologist become aware of the potential to him of archeological assistance? Most archeologists go to a geologist for help when they face a geological problem. Usually this results in a mutually productive effort, though the geologist often gives more than he receives. The reverse is also applicable and the geologist might consider asking an archeologist for assistance on a detailed, geological problem. There may be no archeological data in his problem area but the reasonable assumption should be that there probably is. Prehistoric and historic sites are numerous over most of the country; few square miles are without one. The fact that modern man in the twentieth century wishes to utilize a particular spot that our geologist is now concerned about suggests that ancient man probably was attracted to it also.

He may also assume that there is an archeologist nearby who would be interested in his problem. There usually is. Most colleges, universities, and larger museums have archeologists nowadays. Most of them are eager to be of help because, the chances are, the help will also benefit them. In South Carolina the Institute of Archeology and Anthropology's staff is most receptive to such cooperative efforts.

The recent federal regulations concerning Environmental Impact Statements and the newly passed Public Law 93-291, the Archeological Preservation Law, give great impetus to such cooperative efforts. The Environmental Policy Act requires a statement as to the archeological potential in any project, large or small, where federal funds are used to change the surface of the earth. Public Law 93-291 provides the mechanism by which archeological research can be funded on such federally sponsored projects. On many of these projects engineering geologists are involved with the construction agency. The opportunity on these projects is optimum for geological-archeological cooperation.

Time, though, is of the essence. The archeologist must be called in as soon as plans for the project are firm so that he can do his slow and meticulous job and be out of the way before construction begins. We cannot find ourselves in the position of holding up construction with our trowels and whisk brooms when the contractor comes with his
bulldozer. Also, if the archeological data are to be of any use to the geologist for a specific project those data must be out of the ground and analyzed long before the geological report is due. Such data just might be significant enough to suggest that the project site is not geologically feasible or that an alteration of construction materials might be appropriate.

SUMMARY

In summary I suggest that most archeological projects are amenable to Geo-Archeological cooperation and that that cooperation can be of mutual benefit to both disciplines. Such cooperation should be thorough and should begin in the earliest stages of the project. Without this cross-fertilization between the disciplines the archeologist may be deprived of the chance to understand the microcosm of his site in its relation to the geologic macrocosm around it. The geologist may be deprived of the opportunity to understand some of the geologic minutia of his earth formations. Together both can benefit tremendously.

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ARTIFACTS AT AUCTION

by Robert L. Stephenson

Recently I had the opportunity to watch one of the best known auction houses in the world conduct an antique auction sale of American Indian objects. I was the guest of a man whose collection was being sold. I was present at the galleries for two days before the sale and for a day after and had an opportunity to watch the sale from beginning to end. I was appalled at what I saw.

My friend's collection was of ethnographic objects. It was cataloged with a number on each specimen and most objects were extensively documented as to date and place of origin, tribe, history, etc. Some objects with even the maker's or user's name were recorded. In preparation for the sale all of the original numbers that could be removed were removed by the gallery staff. The documentation was not wanted. Nor was documentation wanted by any of the purchasers at the auction, though it was clearly offered. These were reduced to mere art objects when but a few days before they had been historic artifacts of American Indian culture as well as art objects.

In the store rooms prior to and after the sale I was shocked at the lack of security afforded this and all the other collections. Workmen were repairing pipes and painting a wall and had easy access to all of the objects sitting on open shelves. Small objects, a tray of cut diamonds, a jade figurine, and many other objects could have been pocketed easily by any of these people or even by me, if the desire had overwhelmed us. A very fine pre-Columbian vessel was accidentally knocked off a shelf and broken by one of the gallery employees without much more than an "Oops! Sorry about that."

Perhaps the most shocking aspect of this experience to me was the artificial price manipulation. This sale was not well advertised and only a handful of people attended. Gallery staff covertly downgraded the collection to customers and the general prices were clearly depressed intentionally. At another sale of similar objects shortly before, prices were vastly inflated by dealers bidding each other up when they knew they had a sure buyer to whom they could resell it.

After the sale my friend's collection was missing a number of objects and he was told that they had been "lost". Other objects of his collection had been broken or badly damaged. A claim for these lost, broken and damaged items has not been paid.

Never once did I learn of any attempt by the gallery, its staff, or by a bidder, or buyer to even ask if the objects were authentic, or if they had been stolen.

Perhaps I am naive as to the ways of the art market but I was shocked that this could be the way a reputable gallery handled American Indian ethnographic objects at auction. I doubt if I am the only anthropologist who is naive about this subject. My recent experience leads me to caution all anthropologists to beware of letting the cultural heritage of the American Indian (or any historic and cultural objects) fall into the hands of the Art Auction dealer. We owe more than this to our profession and to the heritage of the people whom we are attempting to study as cultural entities.
PRE-COLUMBIAN INTERCOURSE BETWEEN THE OLD WORLD AND THE NEW--CONSIDERED FROM AFRICA

by Alex R. Willcox

(Ed. Note: Mr. Willcox was born and raised in England and emigrated to South Africa as a young surveyor. He developed an interest in South African prehistory which he has pursued during the past thirty years or more, specializing in the study and recording of the rock art [pictographs and petroglyphs] of South Africa. He has published extensively on the subject. He is a Fellow of the Royal Anthropological Society and a Council Member of the Institute for the Study of Man in Africa.

In 1971 Mr. Willcox and his wife, Nancy, toured the United States and Canada to study American Rock Art. On that tour they spent three days in November as guests of the Institute of Archeology and Anthropology here in Columbia.

The present article was prepared as a lecture and offered to the Notebook for publication. Mr. Willcox's address is P.O. Box 26, Winterton, Natal, Republic of South Africa.)

How much the Cultures of the Americas owed to the Old World and how much was autochthonous are questions still much discussed in recent literature and debated by the archeologists I met on a recent visit to North America. A fresh look at the problem from a new viewpoint might be helpful. But it is only one case of the wider problem of how much in the Cultures of the World was obtained by diffusion of knowledge and how much by independent invention; so some preliminary consideration of the general question may be excused, even if it involves some restatement of the obvious.

In the absence of direct historical evidence the likelihood of there having been diffusion of cultures between any two centres depends upon the number of similar culture traits common to both and the closeness of the similarity in each case. It also depends—and I think the point has not been sufficiently stressed—on the complexity or elaborateness of the element concerned: the simpler it is the less need there is to explain the resemblance by diffusion; the more elaborate or ingenious the less likely to have been independently invented. For example: that the simple idea of sharpening the end of a stick to make a spear came to many minds independently is highly probable; but that the compound device of a stick and a string put together to use the elasticity of the stick to propel a projectile—i.e. the bow and arrow—was independently invented is a good deal less likely. And if simple picture writing is likely to have been invented more than once, alphabetic writing is much less likely to have been, and the independent invention of anything like the same alphabet virtually impossible.

Another important principle is that if the presence of some similar and not too simple elements in two cultures leads to suspicion of a cultural connection between them it is also necessary to account for the absence in one of the centres of any useful invention known to the other.
The first Americans, crossing from Asia via the Bering Straits certainly 10,000 and possibly over 20,000 years B.C., and in the Palaeolithic stage of development, took with them, of course, some knowledge and some artifacts. To survive in the long migration through Siberia and Alaska required skill in hunting, preparing skins for clothing, making fire, and probably the ability to make useful stone implements. They doubtless had fishing gear and the spear, and perhaps the atlatl. The bow came much later. For all else in the rich Cultures of pre-Columbian America we must look to autochthonous development or later infusions. What then is the evidence pro and contra other pre-Columbian influences on American Culture?

Comparing culture traits of the Old and New Worlds we find many of those most basic to be common to both but with some striking exceptions. See lists below.

<table>
<thead>
<tr>
<th>IN COMMON</th>
<th>OLD WORLD ONLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flaked and ground stone tools</td>
<td>Plough</td>
</tr>
<tr>
<td>Basketry and weaving</td>
<td>Wheel</td>
</tr>
<tr>
<td>Pottery</td>
<td>Production of iron</td>
</tr>
<tr>
<td>Metalwork in copper, gold</td>
<td>and steel</td>
</tr>
<tr>
<td>and silver</td>
<td>True arch</td>
</tr>
<tr>
<td>Use of fish hooks, fish spears,</td>
<td>Alphabet</td>
</tr>
<tr>
<td>fish weirs and nets</td>
<td>Plank built boats</td>
</tr>
<tr>
<td>Agriculture (but different plants)</td>
<td>Potter's wheel</td>
</tr>
<tr>
<td>Stone masonry</td>
<td></td>
</tr>
<tr>
<td>Dug-out canoes</td>
<td></td>
</tr>
<tr>
<td>Writing</td>
<td></td>
</tr>
<tr>
<td>Bow and arrow</td>
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</table>

I have not put on the first list knowledge of the heavenly bodies or of mathematics because the calendars and the systems of enumeration and calculation in the two "Worlds" were so radically different. Writing hardly merits a place there either as the script invented in Meso-America has nothing in common with Old World scripts except the basic idea.

The flaked stone tools and the fishing equipment and know-how could have come with the first immigrants. The bow and arrow could have followed from Asia by a similar route. The remaining items, although still an impressive list, can all be accepted, according to most American archeologists, as independent inventions.

I cannot accept this in respect to two technological processes, the making of bark cloth and the casting of metal by the cire-perdue process. The latter in its basic idea—the replacement of wax on a mould by molten metal—and in the highly technical details of pouring, preventing bubbles and pockets of air, and obtaining an even thickness of metal, is most unlikely to have been invented twice. The process is generally accepted to have originated in Egypt and it spread through most of the civilised parts of the Old World.

If, however, we look to one of the great early seafaring nations, e.g. the Phoenicians or Cretans, as the carriers of cire-perdue casting to America, we are in difficulties as they were well acquainted with all
the inventions in my second list and also, of course, had well developed scripts.

So we must look for a people who had some kind of sea-going craft, and the necessary knowledge of cire-perdue but not the plough, wheel, alphabet, potter's wheel, arch or plank-built boat. There is, I think, only one part of the world which fulfills these requirements—the West African coastal region before its exploration by the Portuguese. Its inhabitants also had bark cloth and they used bows and arrows. Could this culture contact have taken place?

The negroes of the West coast certainly had sea-worthy dug-out canoes when first encountered by Europeans. Diogo Cao saw such canoes as far South as Cabinda in 1483. Hakluyt records that William Towrson on his voyage to Guinea of 1555 saw canoes large enough to carry twelve men, and that these canoes were used for fishing out to sea, not merely in river estuaries. How early they had them can only be guessed but the dug-out canoe, probably originating in the Mediterranean, had reached Northern Europe by the seventh millennium B.C. and could reasonably have gone as far South down the coast by the same time.

When cire-perdue first appeared near the West African coast is also in doubt. It reached its zenith at Ife about the thirteenth century A.D. but iron had been worked at nearby Nok from about 300 B.C. and the beginnings of cire-perdue copper casting may well have been in the first centuries of our Era.

On the principle of explaining absences we must account for the non-introduction of African foodstuffs and iron-working at the same time as cire-perdue. The former is explicable if the voyage was an accidental one; the other will be discussed later.

How could West African negroes have reached America? It is hardly conceivable that they intended such a hazardous voyage not knowing if any land lay to the West, so the answer, it is suggested, was by accident of wind and current. From November to March a strong—sometimes gale-force—wind called the Harmattan blows sea-wards from the coast from Cape Verde to beyond Lagos. Fifteen miles out to sea it still carries clouds of desert sand. From about where this wind abates a branch of the Brazil current flows Westward all the way to the Caribbean Sea. Now picture the whole historic event!

One day of the Northern winter about the seventh century A.D. a party of fishermen, perhaps twelve in number, puts to sea in their large dug-out canoe from about point A on the map. They have of course, some food and jars of water, and probably, knowing their coast, emergency supplies. The Harmattan strikes at its fiercest and by the time the men regain some control of their craft they are, though they do not know this, drifting Westwards. Paddling by day and resting at night they believe they are making progress Eastwards but the night drift more than cancels any day Easting. As they are fishermen and have their gear they survive. Soon their Westward movement is accelerated by the North East trade winds which eventually drive them ashore. If I may be permitted the further exercise of imagination, some die, and
since cannibalism is already practised in their homeland, do not die in vain, so the survivors reach the Caribbean Coast of the American mainland. Having no women with them they are quickly assimilated by the local population but so also is their knowledge.

I will only insist on the cire-perdue (in a fairly elementary stage of development) and, less emphatically, on the bark cloth which could have come across the Pacific, but I cannot resist pointing out that the dug-out canoe, bow and arrow, and ingenious fishing methods involving fish-traps, nets and weirs, all existed at both ends of this hypothetical route, at the time of the European discovery of America. Columbus saw a Mayan canoe which carried forty or fifty people. John White's water colours of 1587 show the canoes, fishing methods and bows of the Indians of Virginia.

According to Alfonso Caso in Anthropology Today (Kroeber, ed.) the knowledge of working gold, silver and copper appeared in and spread from the regions of Costa Rica and Panama (B on the map) about 900 A.D. and thence to Colombia where the first metalwork was produced. The bow reached Meso-America about the same time, but it could have come from the North where it had long been in use. The huge dug-out canoe of the North-West coast could have been independently developed: it is unlikely that it came from Asia where plank built boats were the rule.

It remains only to explain why my hypothetical negroes introduced cire-perdue but did not import their knowledge of iron smelting and working. The latter was kept a guarded secret of the few initiates throughout most of Africa but if the voyagers had the knowledge they would still have not been able to pass it on unless they first prospected for, found and mined the ore—a tall order for uninterested fishermen. Copper on the other hand had long been in use from Lake Superior southwards, formed into tools and ornaments by hammering the naturally occurring nuggets of the metal. All the newcomers had to do was introduce the new casting process.

The mystery of the origin of the Olmecs with their negroid appearance and talent for sculpture provides a hint of a possible much earlier voyage of the same people by the same route.

FIGURE 9
Sketch map of possible route of access to the New World from West-Central Africa.

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Since the early years of the University of South Carolina and its predecessor, the South Carolina College (established in 1801), people have been giving objects and collections of objects for preservation, safe-keeping, and exhibit. Many of these gifts have been of outstanding quality and value. They have been donated by alumni, faculty, students and others who have had an interest in the University. The objects have been housed in the department to which they most appropriately pertain or in the Caroliniana Library or elsewhere on the campus. From time to time exhibits were prepared and museum efforts made. At least twice in the nineteenth century and again early in the twentieth century a University Museum was developed but in each instance, and for varying reasons, the effort was sidetracked.

In 1968, Dr. William H. Patterson, Provost of the University undertook to develop a University Museum. Mr. Alfred Rawlinson of the University Library was named curator. An accessions committee was appointed with Dr. Robert Ochs of the History Department as Chairman. Some space was made available in the War Memorial Building on the campus and some of the major collections were put on exhibit.

The collections were far too extensive to be housed in the space available. Only the second floor of the building was available. Four collections were selected for exhibit. These were the Bernard Baruch silver collection, the J. Henry Howard gemstone collection, the Mr. and Mrs. Sol Kohn doll collection, and the University ceremonial paraphernalia collection. The Baruch collection is a magnificent collection of more than 465 specimens of fine, antique silver flatware and table service. The Howard collection consists of approximately 2,600 examples of cut gemstones of excellent to good quality. The Kohn collection contains over 135 dressed dolls representing various cultures and periods. The University collection includes the Mace, the Presidential Medallion, and other ceremonial items.

Meanwhile the geology department continued to house an extensive collection of minerals and other geological specimens of international importance. This collection had been started by such eminent scholars as Joseph Le Conte, Thomas Cooper, Robert Gibbes and others in the early 1800's. It has had the continuing interest and attention, in more recent times, of Dr. Lawrence L. Smith, emeritus head of the Department of Geology. Many art specimens were in the custody of the Department of Art under the direction of Dr. John Benz. Still other collections were housed in the Caroliniana Library under the supervision of Mr. E. L. Inabinett. Some other objects were housed in other departments and administrative offices on the campus.

In 1970 Mr. Rawlinson retired and Mrs. Rhude Patterson was named Curator and a Museum Attendant was hired. This was primarily for the
general collections in the War Memorial Building. Meanwhile Dr. Smith continued to press for proper cataloging and exhibit of the geological collection. None of the University collections had been adequately cataloged, though all were accessioned and recorded in one way or another. Slowly some progress was being made.

In 1971 Dr. Patterson felt that all of these parts of the Museum and loose collections should be brought together as a single University Museum, not physically in one place because there was no available space for that, but at least administratively and budgetarily. He asked me to become Director of the University Museum in addition to my duties as Director of the Institute of Archeology and Anthropology. The archeological collections of the Institute, being the property of the State of South Carolina, would appropriately be exhibit material for the University Museum and the relationship of the Institute and the Museum were obviously close. Mrs. Patterson continued as Curator of General Collections with the assistance of a Museum Attendant. Other Curators could be appointed for other specialized collections. Dr. Smith continued his efforts on behalf of the geological collections. In 1972 Mr. Robert Middleton was hired to catalog and curate the geological collections and to arrange space in the geology building (Le Conte College) to adequately house and exhibit the collections. At the same time the cataloging of the Baruch and Howard collections began under Mrs. Patterson's direction.

Late in 1972 another significant collection came to the University Museum. This was the Francis A. Lord collection of American military arms and accouterments representing articles from the American Revolution and all succeeding American military engagements through the Viet Nam War. It is one of the most extensive collections of its kind in the country consisting of more than 11,500 specimens collected over a period of some forty years. Dr. Lord was retiring from the Directorship of the Lancaster Regional Campus of the University and loaned his entire collection to the University Museum. He was then invited to teach half-time in the History Department and devote his other half-time to curating his collection and continuing his research on it. He is now Curator of Historical Collections and the material is being cataloged.

The Lord Collection is housed in the Institute and parts of it will be prepared for exhibit in the War Memorial Building. In April Dr. Lord and two members of the Institute staff, David Mullis and Richard Kimmel, drove to Washington, D. C. in the Institute truck and picked up the portion of the Lord Collection that had been on exhibit at the Fort Ward Museum.

Also in April Dr. Smith's efforts came to fruition and the geological collections were opened to exhibit in an excellent, one room gallery in Le Conte College. Mr. Middleton had cataloged the collection and prepared the exhibit. This permanent exhibit was named the Lawrence L. Smith Geological Museum.

Recently discussions have begun in connection with the establishment of an Education Museum in the College of Education through the
efforts of Dr. William W. Savage, Emeritus Dean of that College.

Meanwhile various collections continue to be transferred from Caroliniana Library, and elsewhere on the campus, to the University Museum for cataloging and curating. The Sidney Eugene Babcock collection and the Robert Wauchope collection of prehistoric American Indian artifacts have been transferred and cataloged as has the W. J. Mazyck collection of marine and freshwater shells. Other collections are in the process of transfer.

The University Museum is thus moving ahead with strong support from the University administration and has promise of becoming a good museum. It is open to the public on a regular schedule of 9:00 a.m. to 5:00 p.m. on weekdays with weekends open for scheduled tours. A lecture series is developing in connection with the collections and the materials are available for research use. It operates in close conjunction with the Institute and the Geology Department and potentially with the Art Department, the College of Education and other parts of the University. It is not yet ready to request accreditation from the American Association of Museums but is a member of that association and will eventually be in a position to request accreditation.

The Museum has a Director, a Curator of General Collections, a Curator of Historical Collections, a Curator of Geological Collections, and a Museum Attendant. Exhibit galleries are located in the War Memorial Building and in the Lawrence L. Smith Museum of Le Conte College. The principal problem facing the Museum is that of space. Storage space is limited and geographically separated on the campus. Exhibit space in the two galleries is minimal. A solution to this problem will be a major step forward for the University Museum.

LESLIE L. BEUSCHEL JOINS STAFF

Miss Leslie L. Beuschel has joined the Institute staff on March 26 as Laboratory Supervisor to replace Richard Polhemus who has returned to school at the University of Tennessee. Leslie was born in Denver, Colorado and grew up in Annandale, Virginia where she graduated from high school in 1967. She attended the University of Kansas where she received the B. A. degree in anthropology in 1971.

At the University of Kansas she spent three summers in archeological excavations of both prehistoric and historic sites in Kansas and prepared a report on "Hunting, Butchering and Utilization of the Bison". She also assisted in the laboratory at the University and spent the fall and winter of 1971-72 as laboratory assistant in archeological research. She has had course work in computer science, museum techniques, and scientific illustration as well as the usual anthropology courses. In the winter of 1972-73 she was a tour guide at the Smithsonian Institution.

Leslie joins us with good credentials and high recommendations. She is a pleasant and sociable person and we all look forward to a smoothly operating laboratory under her supervision.
The Institute of Archeology and Anthropology
University of South Carolina
cordially invites you to attend and participate in the
Eighth Annual Conference of the Society for Historical Archaeology
and the
Sixth International Conference on Underwater Archaeology
to convene at
Charlestowne, South Carolina
during the second week of January
in the year of our Lord nineteen hundred and seventy-five

We will be honoured to have you participate with us in the scholarly sessions and symposia of these two conferences amidst the atmosphere and settings of Colonial South Carolina in 1775.
Mr. Robert N. Strickland
Lancaster Regional Campus
University of South Carolina
Lancaster, SC 29720