Archeology at the Charles Towne Site (38CH1) on Albemarle Point in South Carolina, Part I, The Text

Stanley South

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Archeology at the Charles Towne Site (38CH1) on Albemarle Point in South Carolina, Part I, The Text

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This volume constitutes Part I, the text of the report on the archeology done at the Charles Towne Site in Charleston County, South Carolina. A companion to this volume is a volume of over seventy photographs, "Archeology at the Charles Towne Site (38CH1) on Albemarle Point in South Carolina, Part II, The Photographic Study". It should be recognized that, rather than being tied to the text of Part I in the usual cross-referenced manner, Part II can stand alone as a visual record of the archeology done at the Charles Towne Site as reported in Part I, although its format parallels that of Part I and thus has been designed to accompany the written report of the archeology and the results based on it as presented in Part I.
ARCHEOLOGY AT THE CHARLES TOWNE SITE (38CH1)

ON

ALBEMARLE POINT IN SOUTH CAROLINA

Part I

The Text

By

Stanley South

Institute of Archeology and Anthropology
University of South Carolina
Columbia, South Carolina
May 1971
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I
INTRODUCTION

by Robert L. Stephenson

From the pages of the earth, the historical archeologist gathers bits and pieces representing past human activity and relates these to the shreds and patches surviving as the worn documents and faded words of history. From this collection of essentially meaningless, unique fragments of the past, he abstracts the order, and strives to press a meaning (South:1969).

The South Carolina Tricentennial Commission was established by the General Assembly to provide the leadership and direction for the celebration of the 300th anniversary of European settlement in what is now the State of South Carolina. Many kinds of activities were developed for the Tricentennial Year. There were county and local celebrations, exhibits, publications, graphic arts displays, performing arts, house restorations, and many other events. The main focal points, though, were the three Tricentennial Centers. One was located at Charleston to mark the first century, one at Columbia to mark the second century, and one at Greenville to mark the third century of the development of South Carolina. The Tricentennial Year opened in April 1970 to commemorate the landing of the colonists on the banks of the Ashley River in that month in 1670, and closed in April 1971.

The development of the Tricentennial Center in Charleston took place on a large and beautiful tract of land within the present city limits of metropolitan Charleston. Here, where the colonists first landed, the Old Town Plantation had magnificently preserved the original site and its surroundings for three centuries. Amid the hustle and bustle of modern
progress, surrounded by the achievements of a great modern city with its freeways, housing projects, community centers, airports, and industrial growth, a large tract of over 200 acres was preserved as an almost pristine garden spot. This was no accident. It is a tribute to the devotion to history and to beauty that is a part of the South Carolinian's spirit and tradition. It is especially a tribute to the devotion of one South Carolinian, Mrs. Joseph I. Waring, and to her husband Dr. Joseph I. Waring.

This particular plot of land was taken up as a plantation shortly after the original colonists moved from it to the peninsula, called Oyster Point, only a decade after founding the colony. The land changed hands several times and, in the mid-Nineteenth century, came into the possession of the Legare family. Throughout nearly three centuries it has remained as a beautiful plantation with Spanish moss-draped oaks, blossoming shrubs, lovely ponds, herons, egrets, other gorgeous birds and native animals and varying amounts of shallow-tilled agricultural land. A descendant of the Legare family, Mrs. Waring has devoted much of her life to maintaining, landscaping, and planting the Old Town Plantation as a place of beauty, and her husband has aided her in every way possible. It is of interest to note, too, that Dr. Waring is the uncle of the late Dr. Antonio J. Waring of Savannah, who contributed so much to southeastern archeology before his recent untimely death. The efforts of the Warings to create and preserve the beauty of this place have been thoroughly successful. On a visit some years ago, the late Walt Disney called it "...a veritable fairyland..."
With the advent of the Tricentennial Year, the Warings sold the plantation to the State of South Carolina for the purpose of creating a great park in commemoration of the first efforts of the colonists to found a settlement here. They retained the privilege of continuing to live in the plantation house on the property. Mrs. Waring has continued with the landscaping and developing of the scenic beauty of the plantation.

It was in this setting that South Carolina first scientific archeological excavations were to take place on an historic site of the seventeenth century.

The Tricentennial Commission's Executive Director, Mr. James Barnett, and several of the Commission members at once realized that in order to properly develop the historic aspects of this first colonial settlement site, archeological and documentary research would be required. Much folklore and conjecture had always been associated with this first settlement site, as is usually the situation with early historic sites. "Everyone knows" where it is and conjecture determines "what it must have looked like." The reality of the place and its appearance, however, must be determined by a thorough study of the documentary evidence combined with as extensive studies as possible of the archeological evidence that remains buried in the ground. This was especially true of South Carolina's first settlement. Despite the conjecture concerning the location and appearance of the settlement, there were opinions expressed that the actual site was not even on this property but was at one or another of several locations a mile or more away. As is so often the case, careful
research has revealed that all of these conjectures were partly wrong and partly right but to have accepted any of them would have been totally wrong, resulting in a completely erroneous interpretation.

During the winter of 1967-68, the Commission hired Mr. John Miller, then of Charleston, to conduct some test excavations in the locality most generally accepted as the true location of the site. Tradition, supported by some documentary evidence, mainly from the Shaftsbury Papers, indicated that the colonists had settled on a point of land, known as Albemarle Point, adjacent to a creek (now known as Old Town Creek) on the west side of the Ashley River and that they had fortified the "neck" of that point of land. Other conjecture suggested locations several hundred yards to the north of this point of land and as far to the north as the west end of the present Ashley River Bridge on State Route 7. Mr. Miller, an enthusiastic amateur archeologist, tested several areas on this point of land, especially in the vicinity of the "neck." He excavated numerous trenches and test squares and located various features and artifacts. These tests were inconclusive but were well done and much of the resulting information is incorporated in the present report. The main result of these tests was to confirm that a great deal of intensive, meticulous archeological excavation would be required to understand the true location and appearance of the 1670 colonial settlement.

The Commission also engaged Mr. Emmett Robinson, of Charleston, and Mrs. Agnes Baldwin, of Summerville, to pursue the research of the contemporary documents of the site. Both these researchers compiled
extensive files of information concerning the people and events of the period from available sources.

In the early fall of 1968, the newly reorganized Institute of Archaeology and Anthropology at the University of South Carolina was asked to evaluate the archeological work that had been done and to suggest a program of further work. I visited the site with Mr. Barnett, in September, and we began a pleasant and fruitful association. The work done by Miller appeared to have been well done but obviously raised more questions than it answered. Plans were then made for a six weeks, exploratory, archeological excavation to see more clearly what was beneath the ground. Almost no evidence of any archeological remains, except for a later house ruin, were to be seen on the surface of the ground. This exploratory excavation was planned to attempt to answer four basic questions. (1) Was there enough evidence in the ground to demonstrate that this was or was not the actual location of the colonial settlement of 1670-1680? (2) If there was such evidence, would it be sufficiently abundant, when combined with documentary evidence, to provide data for a sound interpretation of the appearance of the settlement? (3) How were the excavations done by Miller to be interpreted? (4) How extensive an archeological program should be done in the whole site area, based on the results of the exploratory excavations, to provide a sound interpretation of the site?

Mr. Stanley South was hired from the North Carolina Department of Archives and History for six weeks and he and Mr. John Combes, of the Institute staff, began the exploratory excavation on November 12, 1968. A small crew of four to six local laborers was hired, and a field head-
quarters was established in the Institute trailer house parked at the site. Work was continued through December 20. The Miller trenches were reexamined and slot trenches were cut in various places in the area of the "neck" of land that the documents indicated had been fortified. Other slot trenches were cut over a much larger area and a long, exploratory trench was excavated along the center of the "point of land" where the settlement was said to have been. Evidence of a palisade and fortification were found running up the "neck," rather than across it, enclosing a much larger area than the "point of land." Scores of vineyard ditches were found, and the long trench revealed a large, deep fortification ditch near the end of the "point of land." Artifacts of the period were not abundant, but enough were found to establish the period, and no house foundations were found. Throughout the six weeks of excavation, Mr. South worked extensively with the documentary sources provided by Mr. Robinson and Mrs. Baldwin. He and Mrs. Baldwin and her daughter Mrs. Susan Solomons, devoted much time to analysis and interpretation of these documents and added many new sources to the growing list of contemporary accounts.

During these six weeks of exploratory excavation, answers to the four basic questions were obtained: (1) Though artifacts of the period were not abundant, enough evidence from architectural features was found in the ground that coincided with the documentary evidence to establish clearly that this was the site of the colonial settlement of 1670-80 and that the site extended beyond the "neck of land" to cover at least a dozen or more additional acres. (2) There was unquestionably sufficient evidence in the ground here that, when excavated and correlated with the
documentary evidence, would provide a basis for a reasonably sound in-
terpretation of the site. (3) The excavations done by Miller added sup-
port to and correlated well with results of these exploratory excavations.
(4) These results clearly suggested that a large-scale excavation program
would be required to properly interpret the site.

On the basis of these answers, a new agreement was drawn up between
the Institute and the Commission providing for 18 weeks of intensive ex-
cavation, 18 weeks of laboratory analysis and 18 weeks of report prep-
paration to be done by the Institute. The field work was to begin April
1, 1969.

Meanwhile the Commission was considering a proposal to build "a
typical seventeenth century English village" on the point of land at
Albemarle Point where traditionally "everyone knows" the 1670 settle-
ment was located. Contemporary documents did not clearly indicate the
appearance of this settlement, the style of the houses, their locations,
or numbers, nor had archeology revealed any of these things. The village
was to be based on sketches and descriptions of contemporary English
country towns and of contemporary colonial settlements along the New
England coast. Such a village could only be completely conjectural and
would be imposed falsely on the site as a thoroughly misleading inter-
pretation. Furthermore, it was not then know from archeology what evi-
dence remained beneath the ground, and such a construction would destroy
the archeological record.

The archeologists objected vigorously to this, at least until ex-
cavation could demonstrate what was beneath the ground there. When the
results of the exploratory excavations became available and clearly showed that such a village as was planned had never been there, the objections were sustained. The Commission then considered the possibility of erecting the conjectural village elsewhere, simply as an exhibit for tourists, much in the manner of the model town at Jamestown, Virginia --- away from the actual historic site.

With the completion of the exploratory excavations in the field, Mr. South drafted a base map of the area and prepared a report of the first six weeks of work (South, Stanley. "Exploratory Archeology at the Site of 1670-1680 Charles Towne on Albemarle Point in South Carolina." Institute of Archeology and Anthropology, University of South Carolina. Manuscript). The site had been assigned the archeological site number 38CH1 at the beginning of the excavations and was designated as the "Charles Towne Site," deriving this name from the words "Charles Towne" on a 1671 map of the site.

Mr. South was hired on the permanent staff of the Institute on April 1, 1969 and with a crew of laborers began work again at the Charles Towne Site on that date. Instead of the 18 weeks planned for this excavation, subsequent developments required that the field work continue for almost eight consecutive months ending on November 21, 1969. The field crew began with four men, ranged up to as many as 50 men by mid-summer, and tapered off to eight or 10 by mid-fall. A pleasant field camp and headquarters with warm showers, electricity, and a swimming pool was established in and around a cottage near the Waring home, through the courtesy of Dr. and Mrs. Waring.
The first three months were devoted mainly to the excavation of the fortifications around the town. This included the shallow moat, earthwork, and palisade around the northeast and northwest sides of the town, the deep moat and parapet on the "point," and a large, fan-shaped redoubt or artillery emplacement in front of the deep moat. It also included scores of slot trenches searching the surrounding area for additional evidence of the remains of the settlement. These excavations caused some problems because the archeologists were asked not to disturb the grass, shrubs, and trees in the course of their work. This is understandable in an area as beautifully landscaped as this and where someone has devoted almost a lifetime to planting these things and coaxing them to grow. On the other hand, the archeologists could not learn what was beneath the ground without digging up the sod and removing at least some trees and shrubs. Compromises were made and with understanding on everyone's part only those plantings that absolutely had to be removed were sacrificed and, of course, the sod that was removed was replaced. Much of the area that the archeologists would have liked to investigate, such as the open grassy area within the fortification, or the timbered area around the earthworks on the point, could not be examined. These areas, though, remain for future excavation.

During these months several minor excavations interrupted the main effort on the fortifications, as is expectable during any archeological work.

A new location had been selected for the placement of the conjectural village and had to be tested to see if archeological remains would be disturbed there. The new location was some 200 yards northeast of the
north tip of the palisade around the town. Here a large, circular ditch 56 feet across was found that appeared to be another redoubt or artillery emplacement similar to the one then being excavated on the "point." Subsequent evidence revealed that, instead of a redoubt, this had been a tar kiln of the eighteenth century. This "subsequent evidence" came to light later in the excavations when another, almost identical, eighteenth century tar kiln was found and excavated a few feet north of the Indian Ceremonial Center that will be discussed later. While of a period later than that of main concern, this was another historic monument on the site and the archeologists urged that it not be destroyed to be replaced by an artificial tourist attraction. This, together with vigorous objections to the whole concept of the conjectural village, offered by eminent architectural historians and historical archeologists from outside the state, brought to an end the consideration of building the conjectural village. The whole idea was abandoned.

The Commission was also faced with the problem of a location for a visitors' pavilion. The architects had selected a site that seemed suitable for their purposes. This site would have obliterated the remains of the plantation house owned by Jonathan Lucas in 1836 of which a drawing is still in existence. The foundation of the house, the front steps, and other features were still standing above ground. Minor excavation of portions of the foundation was undertaken and contemporary documents were examined. It was determined that the house had been built in the 1790's by the Elias Horry family and had been a plantation house of significance during the first third of the nineteenth century under the
ownership of Jonathan Lucas. It had burned in the late 1830's with many objects buried in it providing a sealed deposit of archeological information. The Commission agreed to move the pavilion site. Unfortunately, after the ruin was thus saved, the landscaper undertook to beautify the area and removed a portion of the artifact-bearing layer above the brick floor. This well-intended effort was stopped before too much damage was done, but some of the record was lost through innocent lack of understanding of the archeological process.

Other brief interruptions of the main effort to excavate the colonial settlement included an examination of an outbuilding of the Horry-Lucas House and of the area where an 1836 map of that place indicated a "Negro Settlement." Increasing national interest in Black history makes this "Negro Settlement" of particular interest for future excavation in an effort to reveal the realities of "slave cabins" as they really were rather than as folklore tells us they were. Then there was the location of the house of Colonial Governor West of 1671 to be considered. A contemporary map clearly located this across Old Town Creek about a half mile south of the fortifications on Albemarle Point. The site was examined and found to be nearly obliterated by low-rent housing, garbage dumps, and a large drainage ditch. This, together with the fact that the land was in multiple private ownership, made archeological work here impracticable. Other brief tests were made in the area to the west of the fortified area of Charles Towne to try to locate the cemetery of the colonial period that was said to have been on Colonial Governor Sayles' property. These tests were completely unsuccessful.
By the end of June, a new pavilion site was selected by the architects some 700 feet north of the north corner of the palisade around the town. The Commission asked us to test this area for archeological remains that might be damaged by construction of the pavilion, a testing operation that was expected to take "about two days." The architects' plan called for a visitors' pavilion 200 feet square. An observer at the time facetiously remarked that the archeologists would probably find an Indian pavilion 200 feet square on this spot. These words were certainly prophetic as an Indian Ceremonial Center of almost exactly these proportions was, indeed, found precisely on the site planned for construction of the visitors' pavilion. A palisade wall in the form of three concentric rows of posthole impressions was discovered along with Indian burials, complete pottery vessels, and other features. In the center of the 200 foot square compound were postholes of the walls of a ceremonial temple and three ceremonial sheds with clay-plastered walls. The three concentric rows of palisade postholes represented the original wall of the compound and two replacement walls, the last of which had been plastered with clay.

This brought to mind the intimate relationship of the Kiawah Indians and the colonists at the Charles Towne settlement in 1670, as the evidence indicated that this ceremonial center had been used by the ancestors of the Kiawah sometime, not too long, before that date. If preserved and interpreted through reconstruction, it would be an impressive educational exhibit representing that relationship. The ceremonial center, if archeologically excavated, could be reconstructed on its exact location as a
full-scale, living exhibit, based upon complete reality with little or no conjecture. The data lay in the ground awaiting the archeologists’ shovels to reveal the essential details of its former appearance.

Again we asked that the pavilion site location be changed. In my proposal to the Commission, I strongly urged that the site be moved a couple of hundred feet to the north and that the archeologists be given time and funds to fully excavate the ceremonial center and to reconstruct it as part of the long-range development of the Charles Towne story. In this I was strongly supported by several of the most eminent archeologists in the eastern United States. As an alternative, if the pavilion site could not be moved, I asked that time and funds be allowed for a crash program of archeological salvage of the ceremonial center so that at least the record of its having been there would be preserved. The Commission chose the latter alternative and we were given six weeks to salvage the archeological record before the bulldozers moved in. This decision was made on the advice of the architects and to avoid a few weeks delay in meeting the schedule opening date of April 4, 1970 to begin the Tricentennial Year.

This decision resulted in much public interest in the daily discoveries made at the ceremonial center. The news media provided tremendous coverage and invaluable publicity for the Charles Towne Tricentennial Project, climaxed by on-the-spot coverage by the N.B.C. Huntley-Brinkley television crew to give it national publicity. Thousands of people were thus made aware of South Carolina's Tricentennial celebration, and this awareness has been reflected in attendance at
the Charles Towne Site throughout the year.

The "Two days" of checking the pavilion site began on July 7 and continued until the site was destroyed by the bulldozers on September 30, 1969. The archeological crew reached a peak of over fifty men during this period and the excavation tools included small, earth-moving, power machines, as well as hand shovels, trowels, brushes, and other standard tools. The excavations on the 1670 colonial fortifications were curtailed for these twelve weeks, but small crews were maintained on that work, too. Excavation disclosed that the 200 foot square compound had an adjoining 100 foot square compound attached to its north corner, and that this smaller compound had a circular bastion or tower at its west corner to protect a nearby entranceway. This ceremonial center was, indeed, unique in the known history of Indian settlements in the southeastern United States. None other like it has ever been found. The six weeks of time allowed for the salvage excavation, permitted excavation of nearly 80 percent of the larger, 200 foot square compound. The smaller, 100 foot square compound, having been found only a week before destruction of the site, was obliterated with only its outer walls and its circular tower having been excavated, leaving the interior 60 percent of the feature unknown.

This large ceremonial center was not the only Indian evidence found at the Charles Towne Site. Throughout the excavations, prehistoric artifacts representing many early periods of occupation of the area were found. These include projectile points, soapstone bowl fragments, and a spear-thrower weight of the Archaic Period. Some of the
earliest known types of pottery (fiber-tempered) in North America were found here, as well as numerous baked clay balls. These latter are interesting in that they are similar to baked clay balls from Louisiana and Mississippi that have been dated at about 4,000 years ago. Other fragments of pottery and related artifacts of later periods, up to and including the Colono-Indian pottery made by the Indians to trade to the colonists, were found. All of these artifacts attest to the use of Albemarle Point as a dwelling place for Indians of many cultures during the past several thousand years to be climaxed by a large and elaborate ceremonial center shortly before the area was invaded by the European colonists in 1670.

With the excavations essentially completed, as far as we could go with them, by the end of September, the restoration of the colonial fortifications was undertaken. The earth that had been excavated from the various fortification ditches had been piled alongside those ditches much as it had been when the colonists first excavated them 300 years before. Now this had to be shaped up to form parapets and gun emplacements and then sodded over to make an interpretive exhibit. This was done during the next six weeks, and palisade posts were purchased and placed in the line of palisade postholes that had been archeologically excavated around the northeast and northwest sides of the town.

Early in November, when the earthworks had been restored, the sod placed on them, and about half the palisade posts installed, a torrential, six inch, rain deluged the site one afternoon. The main earthwork, sod and all, washed into the fortification ditch and a great
deal of that tedious work had to be done over. By this time the labor crew had been reduced to only a few men and the task seemed impossible. Fortunately, a local landscaper came to the aid of the project and under the archeologists' guidance replaced the earthworks and sod, and by the end of December the restoration was completed. The remaining half of the palisade posts had to be sacrificed as the money for purchase and installation of these posts had to be used to pay the landscaper to replace the earthworks and sod. He did an excellent job of the restoration and we are all grateful to Micah Jenkins Nurseries. There has been no subsequent damage to these earthworks and the sod is now, after more than a year, firmly rooted in place. The restored redoubt, the deep moat and earthworks with gun emplacements, and the shallow moat and palisade wall all make a most impressive interpretive exhibit of the fortification system of the 1670-1680 colonial settlement at Charles Towne.

Following the end of the field work in the fall of 1969, Mr. South and two to four laboratory assistants devoted full time for the next three months to the processing, cataloging, and analyses of the specimen materials recovered and to the preparation of the annotated base maps of the project. By March 1970 other field excavation projects became urgent taking up a substantial portion of Mr. South's time. Laboratory work continued, though, on the Charles Towne material and during the next 16 months Mr. South and two to three laboratory assistants devoted approximately 25 percent of their time to this work and to the preparation of the present report, the entire months of April and May 1971 being devoted to this report.

Mr. South has prepared this report in two parts. The first is the
text, dealing specifically with the details of the documentary evidence of the site and the archeological data that have been recovered from beneath the ground. In this he quotes and interprets the wordings of the contemporary observers of the settlement and relates these descriptions of the place and events to the shreds and tatters of evidence that were found in the excavations, to form a cohesive story of what is, so far, known of the settlement. An important part of this first section is the series of large-scale, annotated maps of the site that he has prepared to illustrate the relationships of these places and events to each other. The second part of the report is a separate volume of captioned photographs illustrating the archeological features found in the ground, the artifacts recovered, and the restoration of the fortifications. Together the two volumes comprise the first demonstrably clear insight into the life and times of this first English settlement in South Carolina since the last of the inhabitants passed from the scene almost three centuries ago.

It has been a richly rewarding experience for all of us in the Institute of Archeology and Anthropology to have worked with the Tri-centennial Commission and its Executive Director on this project. In the first place, it is one of the, if not the, most significant historical archeological sites in the state and is thus a tremendously rewarding professional experience. The data recovered here are of the utmost state and national importance. It has been a challenge, at all times, to use our fullest professional competence to insure that the technical aspects of the work were done with the utmost care and
accuracy. This I believe to have been done.

In the second phase it has been a rewarding experience to have worked closely with a fine group of sincere and dedicated people -- The Tricentennial Commission. I was privileged to sit in on many of the regular and special meetings of this Commission. I had the opportunity to see, at first hand, the struggles and conflicts that these Commission members had to resolve. Day after day these people accepted fully their responsibilities to do the best job they could, in their judgment, to make this Tricentennial Year a success. The problems confronting them often seemed insurmountable, but they stood up to each one with vigor and courage, striving constantly for acceptable solutions.

Not the least of these problems were those caused by the archaeological work. The dictates of professional integrity, as determined by what was found in the ground, made the archeologists insist upon certain procedures and actions that, time after time, conflicted with plans of the architects, landscapers, and other developers on the overall Tricentennial Center at Charles Towne. The Executive Director had an almost impossible task making his recommendations to the Commission as to the most workable procedures possible to allow for archeology and at the same time to meet an opening day deadline. He made those recommendations as he thought best with sincere dedication.

I wish to express the deep gratitude of the archeologists to Mr. James M. Barnett, the Executive Director, and to all of the members of the Commission for providing nearly all of the funds for the archaeological work at this site, and to Dr. and Mrs. Joseph I. Waring for
their patience in putting up with the archeological work and providing a pleasant field camp. There are two of the Commissioners that earned our particular gratitude during the trials and tribulations of the project. These are Commissioner Eugene N. Zeigler of Florence and Commissioner T. Travis Medlock of Columbia. Both were knowledgeable about the archeological process and the requirements of the work to be done. Both were always at our side defending the archeological needs. Without them as Commissioners, much less would be known about the fascinating story of Charles Towne as told in the following pages.
"WE BUILD OUR TOWNE UPON A POINT OF LAND CALLED ALBEMARLE POINT"

The settlement of Carolina was planned as a planting and trading province by the Lords Proprietor, and the success of the venture came about through the efforts of Sir Anthony Ashley Cooper, after a 1664 settlement on the Cape Fear had failed (Cheves 1897:Preface 3-4). After a stormy voyage during which the vessels Albemarle and Port Royal were lost, the Carolina anchored off the Carolina coast where a discussion as to whether to plant at Port Royal or Kayawah was carried out by the settlers.

...The Gouerno^ adhearing for Kayawah & most of us ... cryed out for Kayawah yet some dissentend ... those that inclyned for Port royall were looked upon straingely soe thus wee came to Kayawah... (Cheves 1897:168).

They arrived early in April 1670 (Cheves 1897:167). This group was joined on May 23rd by a sloop The Three Brothers that had come by way of Virginia, and these people began the settlement that was to be referred to as "Albemarle poyn at Kyawaw" (Cheves 1897:169, 174).

In September the surveyor for the colony, Florence O'Sullivan, wrote to Lord Ashley and described the country in which they had planted.

The Country proves good beyond expectation and abounds in all things as good Oake, Ash, Deare Turkies, partridges rabbitts turtle and fish and land produceth anything that is putt in it for wee have tried itt with Corne Cotton and tobacco and other provisions, which proves very well the lateness of the season considered, the country is stored severall pleasant fruits as peaches strawberrys and other sorts we are settled at Kaaway near 20 leagues to the Northward of Port Royall it not prouving according to
report we build our towne upon a point of land called Albemarle point seated upon the River that leads in from the sea called by us Ashley river where we are afortifieing ourselves... (Cheves 1897:188).

In the same month William Owen also wrote to Lord Ashley giving a more particular description of the site of the settlement on Albemarle Point.

...we haue made choise for ye better, hauing pitcht on a pointe defended by ye maine riuer with a brooke on ye one side, and inaccessible Marshe one ye other wch att high tides is euer ouerfowne: ioyning itself to ye mainland in a small neck not exceeding fiftie yards which now is pallizadoed, and with a verye small charg might be made Impregnable: for neither by water on ye one side nor by land on ye other cann ye enemie make any considerable attack but yt a handfull of men may defend with securietie, if this neck of land would be seuered from the Continent (Cheves 1897:196-197).

From these descriptions we learn that the settlement was located on Ashley River in country known by the Indians as Kayawah, and that it was on a point of land having the river on one side and a marsh on the other, known as Albemarle Point. In November 1670, the colonists were informed that the town in which they were settled was to be known as Charles' Towne* (Cheves 1897:210). The frontispiece of Volume V of the Collections of the South Carolina Historical Society is a map showing "Charles Towne" on "Ashley River" which was made by John Culpeper in July or August 1671, and which allows the location of the settlement on Albemarle Point to be

*The historically correct seventeenth century spelling of Charles Towne with an "e" on the end of Towne, has been used throughout this report. We should not modernize the name to "Charles Town" any more than we would change "Jamestown" to James Town, or "Hillsborough" to Hillsboro to modernize these names. Also, in the seventeenth century, Charles Towne was not known as "Old Town." "Old Town Plantation" is a proper name for the plantation since this refers to a post-Charles Towne phenomenon, but Charles Towne itself should not be called "Old Town."
By using the Charleston Quadrangle of the United States Geological Survey, and comparing this with the 1671 Culpeper Map, it becomes clear that the site of the Charles Towne is located on the point formed by the junction of Old Town Creek and Orangegrove Creek on the west bank of the Ashley River, where "Old Towne" is written to designate the name of the plantation on the site in 1958. This plantation is the traditional site of the location of Charles Towne of 1670, now owned by Dr. J. I. Waring, and known as "Old Town Plantation." Thus, through the correlation of the 1671 Map with the 1958 Map, plus tradition, we come quickly to the pinpointing of the location of the earliest English settlement in South Carolina.

**The microfilm of this map shows some important differences between the original and the copy used as the frontispiece (N.C. Dept. of Archives and History Microfilm). One of these is the fact that the handwriting on this unsigned map is not the same as that on the signed Culpeper Map of the Lord Proprietors plantation dated 1671 (Cheves 1897:371). However, there seems to be no doubt that the Ashley River Map is also Culpeper's work, for the map maker mentions his lack of a boat, and John Locke says that Culpeper had sent a draft (map) of Ashley River, and also mentions the lack of a boat; thus Locke provides the proof that this draft is by Culpeper (Cheves 1897:354).
"THE SPANYARD WATCHETH ONELY FOR AN OPPORTUNY TO DESTROY VS"

In a letter to Governor William Sayle at Charles Towne, Lord Ashley stated that the purpose of the settlement was planting and trade, and that if Sayle would follow his directions the way would be open to:

...gett all the Spaniards riches in that Country with their consent, and without any hazard to yourselves... (Cheves 1897:327).

Thus we see some of the motivation for the Carolina enterprise. In order to provide protection for the Carolina settlement Joseph West, before he left for the Carolina venture in 1669, was provided with:

...four iron demi-culverin and eight sacres, with ship carriages, ladles, sponges and linstocks & 12 rounds of shot for each... (Cheves 1897:93).

Instructions to the governor and council in July 1669, stated:

You & yo'r Councell are to choose some fitting place whereon to build a Fort under ye protection of wch is to be yo'r first Towne, placeing yo'r houses soe as ye Gunns of yr Fortes may command all yo'r Streets. Within this Forte is to be kept all yo'r Stores of all sorts (Cheves 1897:120).

Further directions to Mr. West stated that he was to erect within the fort two houses which were not to be thatched:

...in one of wch you are to putt o'r Stores of Warr, in the other, the Victualls, Cloathes, Tooles &c (Cheves 1897:127).

Thus we see that advance preparation for defence of the colony was being made even before the fleet set sail from England. Within three months after their arrival, Governor Sayle wrote to Lord Ashley telling of an effort to recover from the Spanish at St. Katherina some Englishmen detained there, during which effort two others were lost to the Spaniards. He also reported that there were only seven weeks of provisions left and
that food was being rationed at a pint of peas per day for each man (Cheves 1897:174). This shortage became so serious that a daily supply of food was received from friendly Indians, who also brought word in August that the Spaniards had sent out parties of Indians against the English (Cheves 1897:179). Before this alarm the Albemarle Point residents had mounted their great guns and had fortified themselves (Cheves 1897:179). Stephen Bull wrote to Lord Ashley and explained the situation to him in a letter of September 12, 1670:

About the 18th of August last wee received newes that the Spaniard wth all the Indians about Ste Augustine & the Spanishe Keyes was come to a River about 6 miles from vs & vpon the recepcon of the Larum having continuall notice for 7 or 8 dayes before of their comings wee had putt our selves in reasonable good Posture to defend out SELVES agt an Enemy the Indians informeth vs that there was about 200 Spaniards & 300 Indians & one as wee conceived to bee Affryer & thanke god for itt our Menn notteVth standinge hard workinge in fortification shortnesse of Provision & stricte dutyes in watchinge yett they were possesst wth good courrage & were very ready and desirous to fight the Enemy & all the Indians about va came in wth their full strength to our Ayde... (Cheves 1897:194). Our Indians Informeth vs that the Spanishe Indians seeing the scalinge of our great gunns & seeinge the shipp that they possesst wth such feare that the Spaniard could nott bring them vp nor gett them to staye our Indians alsoe Informeth vs that they had 3 shipps & 12 Perriaugers... (Cheves 1897:195).

From the time of this alarm in August, for the next several months, fortification seemed to be uppermost in the minds of the settlers on Albemarle Point. Governor Sayle writing to Lord Ashley in September 1670, requested more supplies and people so as to be strengthened against the enemy:

...for the Spanyard watcheth onely for an opportuny to destroy vs... (Cheves 1897:185).

From Spanish records we learn that three vessels with infantry were sent out from St. Augustine under orders from the governor, Don Francisco
de la Guerra y de la Vega, to dislodge the English from their settlement on the Ashley River, but that due to a storm they were forced to drift to sea, and the expedition was called off (Gallardo, 1936, No. 2:57). No date for this expedition was given, but we might suspect that it was the August effort mentioned by Stephen Bull and Governor Sayle which had caused the alarm in the English settlement. The exact date of the expedition can perhaps be fixed as August 6 and 7, 1670, on the report of Captain Henry Brayne, who said that on those days his vessel:

...rid out a Hurry Cane being verie ill provided for such purposes but God be thanked I saved my shipp... (Cheves 1897:226).

He further reported that on the 23rd of August, he arrived at:

...the towne now called Albemarle poynt where we found them all in armes (Cheves 1897:227). ...I consulted with the Governor and Captain West as to my farther proceding eyther to take in timber for Barbadoes or what else they could think on better for the Countreyes good and their owne saufty whereupon they answered mee that all the time I was absent thay was faine to put the people to a pint of pease a day by which sharp allowance was the cause that there was little worke don and noe timber ready or fitt to be shipped off and the distrac­tion that they ware in about those spaniards; they thought it better to fortifie themselves as strong as thay could and to send me away emediately to Barbadoes that I might come time enough to gett in before the weather did come in... (Cheves 1897:228).

It appears that the intervention of the "Hurry Cane" which almost cost Captain Brayne his ship may have prevented the Spanish from carrying out their planned attack against Albemarle Point, and although the settlers could not know it, no such expedition would again be launched by the Spanish.

By March 1671, Governor Sayle was dead, and Joseph West had been elected governor (Cheves 1897:282). The colony had grown by over 100 people who had arrived on two ships, the John and Thomas and the Carolina,
but relatively few provisions were brought to alleviate the shortage of food (Cheves 1897:282). The Council reported the situation to the Lords Proprietor on March 21, 1671:

We have with much ado, our people being weak by reason of scarcity of provisions, pallisadoed about 9 Acres of land, being a point, whereon we first set downe for our better security, and mounted seaven great Gunns, all the other carriages haveing been lost with the ship Port Royall (Cheves 1897:283).

From this reference we learn something of the nature of the fortification which had commanded so much effort in the fall and winter after the failure of the Spanish expedition; a palisade enclosing about nine acres, including the point. In another letter, apparently written before the fortification was carried out, a broad trench was mentioned as the type of fortification that might likely be used:

Our town called Albemarle point is situate on a point which is almost encompassed with a large March & may easily be strongly fortifyd with a broad trench, it contains about 10* acres of Land (Cheves 1897:309).

Although at the time of writing of this letter the fortification had not been completed, the means of accomplishing this was said to be through "a broad trench," and the land contained within the area about ten acres. From these sources it would appear then, that both a broad ditch and a palisade may likely have been used.

Although their expedition against the settlement of the English had failed in 1670, the Spaniards at St. Augustine had by no means forgotten

*"The Shaftsbury Papers" (Cheves 1897) of 1897 has 80 acres instead of 10 acres, but Emmett Robinson in examining the microfilm of the original document has discovered that the original document mentions 10 acres, not 80.
their unwanted neighbors. The governor of St. Augustine, Don Manuel de Cendoya, sent a spy named Antonio Camunas (who could speak ten Indian languages) to the settlement on Albemarle Point, called San Jorge by the Spanish. Camunas was a 57 year old Spanish soldier who had served in the army for 40 years, and apparently knew his way around. The purpose of the long land journey was to find out what he could about the fortification and other details of the English town. Camunas began in May, and returned from his assignment to St. Augustine and reported in a deposition dated July 12, 1672 (Childs).

Camunas traveled overland to the English settlement, assisted by some men and a canoe. At the Indian village of Osao he met a female, Casica who had been at St. Augustine, who insisted on accompanying him to within a short distance of the English town. He was met by six Englishmen, "all with military insigna," who escorted him to the village and to the governor's house. The governor received him cordially, and Camunas presented the governor with a packet of letters, and was shown the garden plots of the town while the letters were being read. After this tour of the vegetable garden, the governor offered wine in a silver cup, and toasts were exchanged for the kings of England and Spain.

While enjoying the hospitality of the English governor, Camunas was observing all around him with more than a tourist's eye, and later was to report:

...at the entrance to the said village on the land side a matter of a quarter of a league in the woods, [from the governor's home] they have a strong house of wood roofed with shingles. Around & within this wooden fort, fifty men are stationed with an infantry captain in charge, as appeared to him, and in the said house were many firearms, shot-guns & naked cutlasses (Childs).
This wooden fort covered with shingles would appear to have a striking resemblance to the structure which Joseph West was supposed to build when he arrived in Carolina. He was instructed to build two houses within the fort protecting the town, both of which were not to be thatched, i.e., they were to be covered with a more secure and permanent roof; shingles. One was to contain the food, clothing, tools, etc., while the other was to house the stores of war (Cheves 1897:127). It is apparently this shingled building, located on the land side of the village, and housing the stores of war, that Camunas saw and described. It was constructed to protect, not against the Spaniards, but against the Indians and whoever might want to harm them on this land side of the village (Childs).

After passing the wooden fort at the land side of the village, Camunas says he saw about 90 houses in the village, without any formal streets. His description apparently then continues as he moves toward the tip end of Albemarle Point:

And from the village along the edge of the river some houses continue, all of wood & disposed with much regularity, until one comes near the Castle [fort] which also is of wood made into a sort of wall of heavy logs & its height & elevation is about two and a half varas [7 feet] with twenty-eight pieces of artillery of iron & bronze, twelve of which are pointed toward the river & the port by which the ships enter, and the rest, from their low embrasure, toward different points on the mainland. And inside of this fortification there are some lodgings and others of the same sort outside of it which, as he was informed, were built at first when they began to settle for fear of the Indians (Childs).

From this description of the protective "castle" or fortification for the settlement, we learn that it had a protective heavy log wall, and that 12 guns were mounted on a low embrasure pointed toward the river and the port where the ships entered to load and unload, no doubt, at the
end of Albemarle Point. The embrasure was likely accompanied by a ditch from which the soil was likely obtained for the embrasure on which the guns were mounted. We can conclude from this account, therefore, that there was a defensive ditch with accompanying parapet and palisade or cribbed log wall, along which 12 guns were mounted.

A most important additional fact is that inside of this fortification, as well as outside, were "some lodgings," which were "built at first when they began to settle for fear of the Indians. Having previously described the village, Camunas then describes this fortification on what is apparently the tip end of Albemarle Point, as having only "some lodgings," clearly indicating that the village of 1672 was located, not on this point, but further inland! All that was near or inside the fortified area were "some lodgings," built when they first landed in 1670.

The location of this fortified "castle" was some distance from the village, as indicated by his statement that "from the village along the edge of the river some houses continue ... until one comes near the Castle...", definitely revealing a separation of some distance "along the edge of the river" between the village and the fortified area.

From the references it becomes clear that fortifications against the Spanish were in the form of a strong wall of logs, with from seven to 12 "great Gunns" mounted on a low embrasure or platform, and a broad trench, with marshland acting as an additional protection. The guns were pointed toward the river and the deep water channel of the creek whereby any ships gaining access to the point must enter. Behind this fortification were a few lodgings, probably for those men charged with the responsibility of standing watch and manning the artillery if
necessary. Outside of this fortification were a few other lodgings, and further along the river, away from these structures which were "built at first when they began to settle," the village itself was located.

From Spanish sources we learn also that the plan of attack on the settlement was indeed by way of the water. In a letter to the Queen of Spain dated July 8, 1673, Don Nicolas Ponce de Leon discussed the prospects of attacking the English on Albemarle Point, using no doubt, information provided by the spy Camunas.

The enterprise is further made difficult by the conditions of the coastland, made up of lowlands with many shoals and sandbars. The ebb and flow of the sea through the various estuaries and inlets flood the ground, making it swampy, and thus inaccessible to infantry on the march and for the transportation of artillery. It is, therefore, necessary to reach the enemy's port sailing on small craft within the shoals and estuaries (Gallardo 1936:No. 2, 58).

From this we learn that an attack by the Spanish would likely come from the direction of the water. The English on Albemarle Point had come to the same conclusion, and had placed their fortification facing the river, between the tip of the point and the village.

Other Spanish documents reveal details as to the type of fortification present at the English settlement. In February 1674, four Englishmen from the Ashley River settlement arrived at St. Augustine and said they had been mistreated, and had suffered from lack of supplies at Albemarle Point, and had come as refugees to the Spanish (Gallardo 1936: No. 3, 93). These men were questioned by the Spanish as to the type of fortification then existing at the Charles Towne Settlement.

James Fleming reported that the settlement:

...contained probably a hundred men, that there was no paid infantry and that there was only a fort built with stakes
and fascines, and equipped with five iron artillery pieces. He knew of no other forts (Gallardo 1936:No. 3, 95).

Thomas Vide reported that he had lived in Charles Towne about two years and had seen no fortifications except:

...a platform with a stockade and fascines, which was practically demolished, and which contained about thirty pieces of artillery. He estimated that there were about ten pieces of iron artillery, large and small, mounted on the platform, and said there were no other fortifications (Gallardo 1936: No. 3, 96).

Hugh Jordan reported that:

...the only fort in existence was a platform surrounded by stakes and fascines, with about twenty pieces of artillery, only four of which were mounted (Gallardo 1936:No. 3, 97).

Charles Miller stated that the settlement:

...had only a platform with stakes and fascines, and that although it (the platform) had about thirty artillery pieces, only eight of them were mounted and ready for action. He stated that it seemed to him that there were about one hundred men in the town capable of bearing arms (Gallardo 1936:No. 3, 98).

From these reports it becomes evident that there was a platform on which eight to ten pieces of artillery were mounted, which was additionally protected with a stockade and fascines, correlating with what Camunas had seen earlier, with the addition of the fascines. The type of artillery present we can judge from the 1669 list of:

...four iron demi-culverin and eight sacres, with ship carriages, ladles, sponges and linstocks & 12 rounds of shot for each... (Cheves 1897:93).

These were taken to Carolina with the first settlers, or were at least ordered to be taken. Later in May 1671, Captain Halstead was given instructions to deliver four minons and four drakes with ship carriages to Charles Towne on board the ship Blessing (Cheves 1897:310, 318).
Along with the fortification of the town by palisades and through artillery positioned on an earth platform accompanied by palisades and fascines, the people of the colony were ordered in October 1671, to appear in arms ready to be fitted into companies for the better defense of the settlement (Cheves 1897:346).

On May 16, 1672, Stephen Bull was commissioned Master of the Ordinance and Captain of the Fort at Charles Towne (Cheves 1897:393). From a deed record dated four days later we learn that a three pole lot in Charles Towne bordered "Westerly on the Towne fortificac'on or Palisadoes...", indicating that the west palisade for the town ran in a north-south direction (Salley 1944:27).

By July 1672, the town watch was cut in half because the:

...constant and diligent watches among the people the continuation whereof may not only hazard their healthes but will prove altogether destructive of their improvements... (Cheves 1897:406).

By February 1674, the original palisade around the town had apparently fallen into ruin as witnessed by Thomas Vide who said at that time, apparently in reference to the stockades and fascines, that they were "practically demolished" (Gallardo 1936:No. 3, 96). The Grand Council at Charles Towne was also taking notice of this situation at the same time, for on February 9, 1674, they advised:

...upon the erecting of a new fortification about Charles Towne It is resolved that Capt Stephen Bull be present at the Councill upon Friday next with his surveying instruments to run the line of the said fortification as shall then be advised (Cheves 1897:462).

From this it becomes clear that a new palisade was built in 1674, likely as a result, not only of disrepair of the old one, but from the fact that the village was located some distance outside the original fortified
point, and a palisade was thought to be necessary "about Charles Towne."
Since the village itself had never been palisaded, a surveyor was
needed to lay out the "line of the said fortification as shall then be
advised."

The Spanish never got around to attacking the original settlement,
and it continued to grow and spread out along the banks of the Ashley
River. Throughout the 1670's people moved from the area of the original
settlement site to Oyster Point between the Ashley and the Cooper Rivers,
where a town was fast developing. By 1679, the new Charles Towne was de-
clared the port town, and by the following year the old site was referred
to as "Kaiawah sometimes called Charles Towne." From this time on,
Oyster Point was to be known as Charles Towne, and the original landing
site came to be known as "Old Town Plantation" (Cheves 1897:378-379; Smith
1915:No. 1, 5).

A new Spanish scare occurred in the summer of 1682, as the word
reached the new Charles Towne that 800 Spaniards were marching toward
the town from St. Augustine. The Council met and ordered that 20 great
guns:

...that lay at a place where the town was first designed to
be made, to be brought to Charls Town... (Salley 1959:186).

If the 20 guns were removed to the new town at this time there were pro-
bably some eight or ten remaining. In a document dated November 18,
1685, the Lords Proprietor stated:

...that there are divers pieces of our Cannon that lye unm-
mounted & useless at old Charles Town And haveing taken into
our consideration That Stewarts Town at Port Royall is the
Frontier of ye Whole Settlement towards ye Spainard and most
lyable to be hurt by them whenever they Shall be disposed to
disturb us
Wee doe therefore Order That you deliver Five of ye afore-said Peeces of Cannon to ... Stewards Town or Some other Town in Port-Royall in Carolina and there to mount ye same for ye safety thereof... (Salley 1929:105).

This accounts for almost all the artillery known to have been in the Charles Towne fort, and with the removal of the artillery the 15-year recorded history of the fort comes to a close (Smith 1915:No. 1, 6-7).
"WE WERE FORCED TO GRANT THEM TOWNE LOTS"

In the original planning for the Carolina settlement a town site was to be selected after they arrived and looked over the various possible sites. However, in March 1671, the Council at Ashley River wrote to the Lords Proprietor explaining that:

When we arrived here, we thought it most conducing to our safety, to build a town where we are now settled, it being a point with a very convenient landing, and safely fortified, being almost surrounded with a large Marsh, and Creek... (Cheves 1897:284).

This was in the way of explaining why they had begun to build a town on Albemarle Point. The reference to the town site being surrounded by a marsh, however, apparently misled Ashley for in a letter to Sir John Yeamans in September 1671, he said that:

The Place they are now planted in is so Moorish that it must needs be unhealthy and bring great Disrepute upon our new settlement where as a Towne in a healthy Place will give more Reputation, Security and Advantage to us then ten times that number of People scattered about the countrey When you have chosen a Place for the Town... (Cheves 1897:343).

From this we see that Ashley was not impressed with the accounts he had received of the first town site. He thought it too marshy and spoke of selecting another site for a port town. However, in December 1671, Ashley wrote that the Proprietors had changed their minds about the site on the Ashley River, and said that the Albemarle Point settlement should be the port town, and:

...though through the little care was taken to lay it out into Convenient Streets at their first coming it cannot be made soe exactly regular and beautyful as wee wish, yet wee desire you would use your Endeavor to have the Streets layd out as
large orderly and convenient as possibly may be, and when that is done the houses which shall hereafter be built on each side those designed Streets, will grow in beauty with the Trade and Riches of the Towne. To prevent the like inconvenience hereafter I desire you would bee early enough in choosing a place and laying out the Modell of an exact regular Towne on the Next River and thereof to send us the Draught (Cheves 1897: 360).

From this we see that the first town was carelessly laid out in an irregular manner, which agrees with the observation made by Camunas. One reason for the poorly laid out settlement should be examined.

Shortly after their arrival at Albemarle Point, the Council decided that in order:

...that we might keep as neer together as we could, for the better security of this place, we were forced to grant them towne lotts cont: eleven poles or thereabouts Pr. head, and Tenn acres Pr head to plant as afores'd; which tenn acre lotts were, and are laid out to them, & about the Towns from the South, westwards to ye North, by wch we humbly conceive, we shall prvent any sudden surpriseall; this modell we were forced to exercise at first for our better defence... (Cheves 1897:284).

This statement indicates that in order to keep the people together in a town, it was necessary to grant them town lots of eleven poles. The Surveyor General responsible for laying out these lots was Capt. Florence O'Sullivan, who according to Stephen Bull:

...is a p'soun that doth acte very strangely & heere is nott any p'soun in the Callony butt complains of his vnjust practices being A very dissencious troublesome Mann ... wee finde in our smale towne lotts very strange & grosse Errors wch would much shame most People butt hee is of another nature shamed of nothinge... (Cheves 1897:195).

It is apparent, therefore, that "grosse Errors" were made in laying out the town lots on Albemarle Point. Henry Brayne complained to Lord Ashley in November 1670, that:
Capt: O. Swilowvun our Surveyor Generall who doth by his absurd language abuse the Governor, Counsell and Country and by his rash and base dealings he hath caused everie one in the Country almoast to be his Enimie and especially he hath given the people a verie great Jelousie of him as to his act of surveying for I assure your Lordship all lands that he hath pretended to lay and run out is verie irregular not knowing how to give us any satisfaction in things of plaine cases in soe much that we are everie day almost togeather by the ears and especially with him pret­ending knowledg but acts nothing to make it out for at the verie day I came away hardly any person was sattesfied as to there small lotts... (Cheves 1897:215).

In addition to the problems with O'Sullivan in matters of survey­ing, John Locke in his "Carolina Memoranda" states that O'Sullivan was a buggerer of children (Cheves 1897:248). It is apparent, therefore, that the Surveyor General was a focus for problems involving the irregular layout of Charles Towne, resulting in the re-survey of 1672.

On June 1, 1672, within six months after Lord Ashley had asked that the town be made more orderly, the Council passed an "Act for the uniforme building of Charles Towne" (Cheves 1897:393). And as a result, in July, people owning lots in Charles Towne came before the Grand Council and turned them in, and were issued new ones according to the new plan of the town (Cheves 1897:408). The record of lots mentioned at this time indicates that there were at least 62 lots in the new plan. As a result of this action, it becomes clear that a new arrangement for the town was laid out in 1672.

Although we find that the early record of the lots in the town referred to 11 pole lots (Cheves 1897:284), other records reveal that 12 pole lots* were most prevalent, with some three pole lots having been issued (Salley 1944:14, 18, 21, 27).

*One pole equals 272 1/4 sq. feet; 12 poles equal 3267 sq. feet; a lot 33 by 99 feet (for instance) would be a 12 pole lot.
In May 1671, a model of an ideal town was sent to the Carolina settlement which showed:

...streets running straight, whereof ye largest was 80 foot, ye back street to ye 40 foot, ye next, 60 foot, & ye back street 30, wch streets divided the Towne into squares, each of whose sides was 600 foot (Cheves 1897:324).

Just how much attention was paid to this model plan when the town lots were re-issued in 1672 is not known, but we might suspect that it was used as a general guide in as far as was possible considering the already existing structures within the village. Camunas states that:

...the place where they have the village built is a wooded village consisting of dwelling houses without having any formal streets although he could count about ninety houses, some higher than others apparently according to the means of each individual (Childs).

The street between the village and the fortified point running along the river's edge was said to be more regular in appearance:

...along the edge of the river some houses continue, all of wood & disposed with much regularity... (Childs).

At the same time that the act for the uniform building of Charles Towne was passed by the Grand Council, they also resolved that the governor live in town (Cheves 1897:393). The governor's plantation was located on the point of land across the creek to the south of Albemarle Point. Culpeper had made a draft of the plantation in 1671 showing the star palisade around the buildings, and indicated that the plantation consisted of 44 1/2 acres of land (Cheves 1897:421; Smith 1915:No. 2, 51). In describing this plantation, which was set aside as Lords Proprietor land, Governor Joseph West reported to Lord Ashley on March 21, 1671:
I have taken up for present planting about 300 Akers and built convenient Houses for ourselves & servts and Inclosed the Houses wth Pallisadoes, wch doth containe betweene 6 & 700 foote and have soe placed them yt one Angle shall cleare another soe yt wee doe not feare all ye Indians yt shall attempt us, wch worke was all compleated before the Arriveall of the 2 shipps (Cheves 1897:297).

At the same meeting in which the governor was asked to live in town, an act was also passed "For the building of a bridge on the Southward part of Charles Towne," apparently to allow the governor to have an easier access to the town (Cheves 1897:393). In order that the bridge be speedily built, each man in the province was to contribute five and one-half days work under the direction of Major Thomas Gray (Cheves 1897:409). By September 1672, the bridge was apparently completed, for at that time the Council directed the Surveyor General to lay out a path or highway from the governor's house to the town (Cheves 1897:412). This directive is of interest in that it directs a path to be laid out from the end of the bridge on the southward part of Albemarle Point "to be sd Towne." This supports the observation made by Camunas, that the town lay at some distance from the end of Albemarle Point; so far, in fact, that a surveyor was needed to lay out a path or highway from the point to the town. If the town were located on the tip of Albemarle Point, there would be no need to lay out a highway to the town from that point. In the directive the Council stated that the bridge was to be built on the "Southward part of Charles Towne," indicating that the tip of Albemarle Point was considered the southern part of the town (Cheves 1897:393).

Although this summary of the property evidence within the town of Charles Towne has emphasized the town proper, most of the settlers on
the Ashley River were scattered on individual tracts some distance from Albemarle Point. This tendency to spread out along the river is seen in the statement that in order to keep as near together as possible, "we were forced to grant them town lotts" (Cheves 1897:284). Since planting and trade was the design and interest of the Lords Proprietor, it was necessary to grant land in large enough tracts to encourage planting (Cheves 1897:327). When the Carolina arrived in February 1671 with from 170 to 180 people, they were settled so that no family was seated "lesse than 2 Miles Either up or down the River, from the Town" (Cheves 1897:381). In a letter of instructions to Andrew Percivall, Lord Shaftsbury states that new townships should be settled "not scatteringly as they have done at Ashley River" (Cheves 1897:441), indicating again the scattered nature of the settlement and the fact that not many people likely lived inside the palisade itself. There is mention in the deed records of only five houses, but this does not mean that there were no more. Diacan, an Indian questioned by the Spanish at St. Augustine, stated that there were 30 houses, and as we have seen, Camunas stated that there were 90 in the village (Salley 1944:14, 27, 36, 55, 65; Gallardo 1936:No. 2, 55; Childs). In January 1672, Joseph Dalton reported over 250 people on Ashley River, but only a fraction of these likely lived inside the town (Cheves 1897:381).

On the Culpeper draft of 1671 three houses are shown as symbols for the location of Charles Towne.* Just north of these houses a series of

*Through a study of the original on microfilm from the N. C. Dept. of Archives and History, Emmett Robinson found that these houses were not copied accurately in 1897 when "The Shaftsbury Papers" (Cheves 1897) were published. The chimneys on the original are much longer, and therefore more accurate as to seventeenth century style architecture than those incorrect ones shown on the published draft.
eight narrow lots are shown abutting an angled line along their west end.

The key accompanying the map states that:

- The small division Betwixt t & Towne are two acres & four acre lots belonging to Hugh Carterett George Beadon & others Cont: about 20 [acres] (Cheves 1897:Frontispiece).

The t over wr does not make sense as applied to the map, but this becomes clearer when this description is compared with that printed in "The Shaftsbury Papers" where the sentence in question reads:

- The small division betwixt wt & towne are two acre & 4 acre lotts... (Cheves 1897:340).

This indicates that these two and four acre lots were between the water (Ashley River) and the town, which would be to the west of these lots where "Charles Towne" is written on the map. However, in studying a print of the original map, Mrs. Susan Solomons found that the wt is actually Mr, and proof of this is seen in other uses of Mr. on the draft itself. This interpretation would make the sentence read:

- The small division betwixt Mr & Towne are two acre & 4 acre lotts...

The name of "Mr Thos Smith" and "Mr Will Owens," owners of larger tracts adjoining on the north, were likely intended to have been written in here but were omitted. This interpretation would place the location of the town toward the southwest of these two acre lots. An additional piece of information indicating that this west property line for these two and four acre lots was also the property line; for the town is seen in the deed record of October 25, 1672, whereon one of these two acre lots was sold by Ralph Marshall for six pounds to Thomas Butler of Charles Towne, a carpenter. The description for the lot states that the lot was near Charles Towne and was bordered on the east by the Ashley River,
on the north by William Owen, and on the south by Thomas Norris (Salley
1944:37-38). The significant fact here is that the boundary for the
west end of the two acre lot is not mentioned, and we are left to assume
that this line was the property line for Charles Towne, a not too dangerous
assumption when we remember that the words "Charles Towne" were written
in this area just west of these two acre lots on the 1671 Map. This
diagonal line along the west end of these two acre lots, therefore, is
seen as the property line for Charles Towne in 1671. Later it will be
seen that this line, with its 123° angle, was represented by a ditch,
which also has a relationship of an angle of 123°.

The documents indicate that although lots were granted inside the
original fortified area to encourage settlement there, by 1672 Camunas
saw only a few lodgings inside and some outside the fortification and
indicated the town was north of this area. The scattered and irregular
nature of the town is well documented, but by 1674 enough concentration
of houses was evident to warrant a new palisade around it. We have then,
the original Charles Towne Landing Site which was fortified, and which
was considered the town of Charles Towne from 1670 to 1671. By 1672,
probably directly relating to the reassignment of lots at that time,
enough houses had been constructed outside the fortification to cause
Camunas to describe the village and the fortification at separate
locations, probably no greater than a musket shot apart. This cluster-
ing of houses outside the original fortified area apparently continued
until 1674, when a new palisade was built around them. Thus it appears
that the records are referring to two settlement sites a short distance
apart; the first, a fortified area where only a few houses were built, representing the years 1670 and 1671, and the second, the Charles Towne Site as seen from 1672 to 1680. Also a factor here is the new settlement on Oyster Point that was seen by Camunas which was to grow and replace the original settlement as the city of Charleston.
"WE FOUND VERY GREAT ASSISTANCE FROM THE INDIANS"

On the 16th or 17th of March 1670, "the ffirst Adventurers to the Province of Carolina, in America" arrived at what is now Bull Bay, South Carolina, north of their eventual settlement site on the Ashley River (Cheves 1897:165-166, 288). Governor Sayle and a party went ashore and met the Indians and were royally entertained. They traded knives, beads, and tobacco for deer skins and meat. They learned of the Westoes, a group of Indians reputed to be man eaters, who had raided at Kayawah. The Casseeeka of Kayawah came aboard the vessel where they found that he was "a very Ingenious Indian & a great Linguist" (Cheves 1897:166-167). This Indian leader was so ingenious, in fact, that although the colonists found very attractive land at St. Helena, he was able to persuade them that the land at Kayawah was better, and they dispatched a sloop to investigate, resulting in the first settlement being made at Kayawah on the Ashley River (Cheves 1897:168).

The sloop The Three Brothers which arrived at the settlement site on May 23, 1670, also encountered Indians before arriving at Kayawah. They anchored off St. Catharines Island (Georgia), to take on wood and water, and the Indians came aboard and were entertained for three days, during which time:

...they traded with us for beads & old Clothes, & gaue our people bread of Indian Corne, Peas, Leakes, Onyons, deare skins, Hens, Earthen pots &c... (Cheves 1897:169).

When they first arrived at Albemarle Point, therefore, the colonists had Indian pots and supplies brought with them from south of the
Savannah River. Shortly after their arrival, Dr. Henry Woodward began dealing with the Indians in the area of Kayawah and traveled far inland from May to July 1670. He had been at St. Helena prior to joining the Carolina venture and had been captured by the Spanish who held him prisoner at St. Augustine until he was freed by the buccaneer Capt. Robert Searle. On his way to England he was shipwrecked by a hurricane at Nevis, in the West Indies, where he joined the Carolina adventurers (Cheves 1897:188, 190-191). He proved exceedingly useful to the settlement of Albemarle Point:

...in dealing with the Indian for our supplyes who by his meanes have furnished us beyond our expectations... (Cheves 1897:191).

When Henry Woodward returned from his travel among the Indians, he found that supplies were extremely low, and as a result, made arrangements to receive help from the neighboring Indians (Cheves 1897:187). On September 12, 1670, Stephen Bull reported to Lord Ashley on the shortage of supplies and stated that:

...wee found very great Assistance from the Indians who shewed them selves very kinde & sold us Provisions at very reasonable rates & takeinge notice of our necessitys did almost daylie bringe one thinge or another otherwise we must undoubtedly have binn putt to extreame hardships...

(Cheves 1897:194).

In return for their friendship the Indians expected protection against the feared Westoes who:

...doe strike a great feare in these Indians havinge gunns & powder & shott & doe come vpon these Indians heere in the tyme of their cropp & destroye all by killinge Carryinge awaye their Corne & Children & eat them & our neibouringe Indians doe promise Ayd all Exigencies wch they have manifested (Cheves 1897:194).

In a letter of William Owen to Lord Ashley written September 15,
1670, the friendly relations with the Indians during the Spanish alarm of the preceding month are described. These Indians reported that the Spanish planned an attack by ship, with Indians friendly to the Spanish attacking the settlement by land. Owen states that the enemy encamped for six days at the mouth of the river:

...and hindered out correspondence with our friends of Edistah, Asha-po and Combohe, yet ye more notherne Indians as those of Wando, Ituan, seweh and sehey, came to our assistance and I am persuaded yt in 10 days time we might haue muster'd neere 1000 bowemen they seemed verie zealous in our behalfe... (Cheves 1897:199).

With the friendly Indians acting as scouts and offering military assistance, supplying the colonists with Indian pottery, food, and supplies, we know that trade goods were also flowing into the hands of the Indians from the settlement. William Owen reveals some of the objects the Indians were receiving from the English when he reports that the Indian leaders would make speeches:

...inveigheing agt ye Spaniard & applauding ye English for the hoes Axes beades and kniues wch they had brought them and shewing us with his bowe & arrowes and an ould sword we gaue him wtt massacre he would doe (Cheves 1897:199).

A further clue as to goods being received by the Indians is found in John Locke's memoranda dated November 1671, mentioning the needs of the colony, which included 100 pounds weight "For Indian trade hats and beads bleu and white some great ones..." (Cheves 1897:353). From these records it becomes clear that rather than constituting a major problem for Charles' Towne, the colonists "found very great Assistance from the Indians..." and returned the favor (Cheves 1897:194).
"THE PROVISSIONS BOUGHT FOR THE EXPEDITION TO CAROLINA"

"The Shaftsbury Papers" provide a detailed picture of the inventories, men, and "Apertinances" for the vessels of the Carolina Fleet, consisting of the Port Royall, the Albemarle, and the Carolina (Cheves 1897:132-145). Of particular interest to an historical archeology study are the lists of provisions, clothing, arms, tools, etc., taken to Carolina to begin the settlement (Cheves 1897:146-149). Although not all the provisions mentioned in these lists arrived in Carolina due to the loss of the Port Royall and Albemarle, they do provide a clue to what might be expected to be found through archeology at Charles Towne. Other goods were brought in ships arriving at later times, but they too would likely be of a similar nature to those aboard the first fleet. "The Provissions Bought for the Expedition to Carolina" were:

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>154</td>
<td>2 qrs</td>
</tr>
<tr>
<td>112</td>
<td>qrs 6 bushells</td>
</tr>
<tr>
<td>59</td>
<td>1/2 bushls</td>
</tr>
<tr>
<td>58</td>
<td>bushls</td>
</tr>
<tr>
<td>162</td>
<td>2 qrs</td>
</tr>
<tr>
<td>43</td>
<td>bushells</td>
</tr>
<tr>
<td>54</td>
<td>bushells</td>
</tr>
<tr>
<td>10</td>
<td>firkins</td>
</tr>
<tr>
<td>2</td>
<td>cwt</td>
</tr>
<tr>
<td>48</td>
<td>Gallons</td>
</tr>
<tr>
<td>400</td>
<td>Couple</td>
</tr>
<tr>
<td>13</td>
<td>tonn 1/2 of</td>
</tr>
<tr>
<td>2</td>
<td>tonn &amp; a barrell</td>
</tr>
<tr>
<td>16</td>
<td>doz:</td>
</tr>
<tr>
<td>30</td>
<td>Gallons</td>
</tr>
</tbody>
</table>

biskt
pease
flower
Oatmeale
beefe
white salt
bay salte
butter
Cheese
Oyle
stock fish
Haberdine fish
beere
beere
Candles
Garden seeds
butter and cheese
Brandy

(Cheves 1897:146).
From this list of provisions only beefe and fish bones and metal, glass or ceramic container fragments might survive the three centuries, to be found by the archeologist, after they were discarded in pits or ditches by the colonists.

The "Cloathes Bought for the Present Expedition to Carolina" were:

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Bedds, Ruggs &amp; Pillows</td>
</tr>
<tr>
<td>30</td>
<td>leather bed</td>
</tr>
<tr>
<td>100</td>
<td>Hammocks</td>
</tr>
<tr>
<td>20 doz:</td>
<td>Cloath suits</td>
</tr>
<tr>
<td>10 doz:</td>
<td>Shierts</td>
</tr>
<tr>
<td>10 doz:</td>
<td>drawers</td>
</tr>
<tr>
<td>20 doz:</td>
<td>redd capps</td>
</tr>
<tr>
<td>10 doz:</td>
<td>shoes</td>
</tr>
<tr>
<td></td>
<td>a flagg for the Fort at Carolina</td>
</tr>
<tr>
<td></td>
<td>Stockings</td>
</tr>
<tr>
<td></td>
<td>needles and thred</td>
</tr>
</tbody>
</table>

Of this list of clothes, the needles would likely survive; however, needles are very rarely found archeologically. At the tailor shop in the eighteenth century colonial town of Brunswick, North Carolina, for instance, over 5000 straight pins were recovered, but only one needle. This high value on needles is reflected in wills, where a needle will be passed on from parent to child as an inheritance. Besides the needles, the buckles and buttons accompanying the shirts, drawers, shoes, and suits would survive in pits and ditches. However, buttons were not the abundant item in seventeenth century clothing that they would come to be in the eighteenth century.

More likely to produce objects that would survive to be recovered by the archeologist is the "Account of the Armes, Powder and Munition of Warr for the Expedition to Carolina."
200 French fyerlocks muskets
13 fouling pieces
58 swords
200 pike heads
200 Collers Bandeleers
30 barrells of powder
10 lbs 2 qrs of Muskett shott
30 barrells of small shott
6 paires of shott moulds
1000 of Flints
6 Chests to pack these goods in
100 of Match
sheet lead, paper Royall, tand hydes
powder hornes, 14 sheep skins,
and severall other things

12 suits of Armour
a fother of lead to make shott
200 deale boards
a drum

(Cheves 1897:147).

Of these objects the archeologist would expect to find musket balls
and small shot, as well as the gunflints which were present in some
quantity. It would appear rather unlikely that the archeologist would
recover a sword, a shot mold, or other military objects present only in
small quantity, though the possibility is always present.

A list of objects that by all means would survive to be found by
the archeologist are the "Tooles and Iron Ware Bought for the Present
Expedition to Carolina." However, due to the fact that tools are not
something that are frequently discarded, and even when broken are often
repaired or turned to other uses, their appearance in an archeological
context is rarer than might be expected at first glance.

15 of Iron and 50 of Steele
a whole sett of smiths' tooles
a sett of stock makers tooles
6 sett of Carpenters and Joyners tooles
2 sett of Coopers tooles
10 Carpenters adzes
10 broad axes
2 doz. of hammers
20 cross cut saws
10 whipsaws
2 tennant saws & one Carpenters joynter
10 steele hand saws
4 setts of Iron Wedges
3 doz. of ordinary Augers
6 syeths and sneiths ffitted
20 m of 20d nailes
40 m of 10d nailes
60 m of 8d nailes
40 m of 6d nailes
100m of 4d nailes
80 m of 3d nailes
3 doz. of strong eyed hows
10 doz. of broad hoes
7 doz. of Narrow hoes
- doz. best narrow hoes
10 doz. of felling aizes
6 doz of Stockbills
- doz. of Spades and Shovels
18 Stock locks & 1 doz. of hooks & hinges
17 barrells & 4 Fatts to pack them in
9 English iron Potts
one flemish iron Pott
2 brasse Ketles
6 frying panns
10 of pothooks
a brasse tind pott & stue pann
3 steel mills
2 of hand skrues
12 iron crows
4 chaind hooks, 2 fisgys & 2 harping Irons
1000 bricks and 6 Grind stones
2 pr of Cartwhee1es and 12 wheele barrow wheeles
1/2 a Chatherne of Coales [stove]
a pr of Stilliards

(Cheves 1897:148-149).

Although any one of these objects or parts thereof would survive in the earth for 300 years, it is not likely that many found their way into discarded garbage dumps in pits on the town site in the ten years from 1670 to 1680, when the settlement was located on Albemarle Point. Rarer yet would be that tool broken and discarded between 1670 and 1672 inside the fortified area. Although the archeologist would not expect to find many, if any, of the tools listed here, he would expect to find
some of the 340,000 nails. The list of tools becomes, therefore, of primary interest in its reflection of the process involved in hacking a clearing in the wilderness and establishing a toe-hold for civilization in the new world of Carolina.

Also of interest is the list of containers necessary for the expedition and the contents some were to hold.

8 tunn 1/2 hhds for beefe
8 tunns of Great Butts for bread and pease
20 tunns of hhd
21 barrells for Oatmeale & flower
2 tunn of hhd to pack Cloathes
14 tunn of Water Caske
6 bucketts and 3 tunnells
trimming 4 tunns of Caske
420 Iron hoops
hooping 20 tuns of Caske
7 tunn 1/2 of Beare Caske

(Cheves 1897:149).

Of these items, some of the 420 iron hoops for the casks would, under certain conditions, survive 300 years in the earth and might be found by the archeologist.

The needs for the fishing trade in Carolina were:

3 seanes one of 60 yds and 2 of 40
5 casting netts
17 doz. fishing lines of all sorts
63 doz. of fishing hooks of all sorts
107 lb of twine

(Cheves 1897:149).

The only item the archeologist might find to represent this industry would be one of the 756 fishhooks, or the bones of the fish caught with this list of tackle.

An important list of goods for the successful survival of the settlement in the Carolina wilderness was that destined for the Indian
trade.

240 lbs of glasse beads
300 hatchets
100 hoes
100 hollowing adses
4 grosse of knives
3 doz. of white hafts
2 grosse of sizzard
10 striped suits

(Cheves 1897:150).

Of this list the archeologist might expect to find none of the items, if they were indeed traded to the Indians. If some of them were in the hands of the settlers the beads, particularly, might show up in excavations on the town site. In September 1671, the governor and the council wrote to the Lords Proprietor indicating other Indian trade items which include "Indian trade hats and beads bleu and white some great ones..." (Cheves 1897:353). Langdon Cheves, of "The Shaftsbury Papers" says that in the 1880's a number of such beads were found in an Indian grave near the site of Charles Towne (Cheves 1897:150).

The final object listed for the expedition to Carolina was a surgeon's chest and instruments, a most important item (Cheves 1897:150), though not one likely to be encountered by the archeologist in his search on the town site.

In summarizing the preceding lists of goods for the Carolina expedition, we find that the objects that might be recovered by the archeologist would be:

animal bone
fish bone
needles
buckles
buttons
lead shot
gunflints
fragments of military arms
tools
nails
barrel hoops
fishhooks
beads

The objects in this list that would, because of their large numbers, most likely to be found archeologically are:

animal and fish bone
lead shot
gunflints
nails

Most significantly absent from this list of supplies for the Carolina expedition is any reference to ceramics or glass bottles, and thus we would not expect these objects to appear in any great numbers on the Charles Towne Site. However, since the lists of supplies included here are public in nature, objects individually owned might vary in nature from those seen here. A view of the individual possessions of the Charles Towne citizens of the 1670's can be obtained from the inventories of personal property that are available. A number of these exist, but only two will be presented here as examples. One of these is an inventory of the division of goods from a business partnership between John Foster and Capt. Thomas Gray on January 13, 1672, and the other is the personal inventory of William Brett taken in 1679. The division of goods on the dissolution of the partnership of Foster and Gray is presented first:

Mr. John Foster          Captain Thomas Gray
Land & House on North side      Land lying on South side
(of Charles Towne)         (of Charles Towne)
<table>
<thead>
<tr>
<th>(Servants)</th>
<th>(Servants)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thomas Witty</td>
<td>Richard Poore</td>
</tr>
<tr>
<td>Wm Davis</td>
<td>Richard Barginer</td>
</tr>
<tr>
<td>Jno. Ratlife</td>
<td>Edw. Howell</td>
</tr>
<tr>
<td>James Powell</td>
<td>Joan Burnett</td>
</tr>
<tr>
<td>2 tanned deer skins</td>
<td>3 tanned deer skins</td>
</tr>
<tr>
<td>6 ditto with hair on</td>
<td>3 bear skins</td>
</tr>
<tr>
<td>2 bear skins</td>
<td>4 deer skins with hair on</td>
</tr>
<tr>
<td>(Linen)</td>
<td>(Linen)</td>
</tr>
<tr>
<td>12 1/2 yds osandbriggs</td>
<td>12 1/2 yds osandbriggs</td>
</tr>
<tr>
<td>6 1/2 yds blue linen</td>
<td>6 1/2 yds blue linen</td>
</tr>
<tr>
<td>(Iron ware)</td>
<td>(Iron ware)</td>
</tr>
<tr>
<td>6 new Hows</td>
<td>6 new Hows</td>
</tr>
<tr>
<td>1 iron square</td>
<td>1 iron square</td>
</tr>
<tr>
<td>1 hand saw</td>
<td>1 hand saw</td>
</tr>
<tr>
<td>4 new falling axes</td>
<td>5 new axes</td>
</tr>
<tr>
<td>1 coopers Adge</td>
<td>4 Chissells</td>
</tr>
<tr>
<td>3 Chissells</td>
<td>1 hammer</td>
</tr>
<tr>
<td>2 hammers</td>
<td>2 augers</td>
</tr>
<tr>
<td>2 augers</td>
<td>1 adge</td>
</tr>
<tr>
<td>1 adge</td>
<td>1 Iron candlestick</td>
</tr>
<tr>
<td>1 Iron candlestick</td>
<td>1 Howell</td>
</tr>
<tr>
<td>2 Iron wedges</td>
<td>2 Iron wedges</td>
</tr>
<tr>
<td>1 whip saw</td>
<td>2 whip saw</td>
</tr>
<tr>
<td>1 cross-cut saw</td>
<td>1 How helved</td>
</tr>
<tr>
<td>2 Hows helved</td>
<td>1 pitchin axe</td>
</tr>
<tr>
<td>1 pitchin axe</td>
<td></td>
</tr>
<tr>
<td>1 Showell</td>
<td></td>
</tr>
<tr>
<td>1 Fill</td>
<td></td>
</tr>
<tr>
<td>2 Beetle rings</td>
<td></td>
</tr>
<tr>
<td>1 Iron Fro</td>
<td>2 Beetle rings</td>
</tr>
<tr>
<td>1 Frying Pan</td>
<td>1 Fro</td>
</tr>
<tr>
<td>1 brass skillet</td>
<td>1 Frying Pan</td>
</tr>
<tr>
<td>1 Iron sledge</td>
<td>2 small skillets</td>
</tr>
<tr>
<td>1 Broad axe</td>
<td>1 Broad axe</td>
</tr>
<tr>
<td>1 Lattin Hammer</td>
<td>1 Fallin axe</td>
</tr>
<tr>
<td>1 Fallin axe</td>
<td>1 Coopers axe</td>
</tr>
<tr>
<td></td>
<td>1 Auger</td>
</tr>
<tr>
<td></td>
<td>1 Iron square</td>
</tr>
<tr>
<td></td>
<td>1 Spaid</td>
</tr>
<tr>
<td></td>
<td>2 Iron Pots (Wm Gray payeth</td>
</tr>
<tr>
<td></td>
<td>the half of one)</td>
</tr>
</tbody>
</table>

58
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2 barrells Beef</td>
<td>2 barrells beef</td>
</tr>
<tr>
<td>1 1/2 pint Oil</td>
<td>1 1/2 pint sweet oil</td>
</tr>
<tr>
<td>2 psis of Pork</td>
<td>2 psis of Pork</td>
</tr>
<tr>
<td>1/3 barrel of Casado Biskett</td>
<td>1/3 barrel of Casado Biskett</td>
</tr>
<tr>
<td>4 bushels of peas</td>
<td></td>
</tr>
<tr>
<td>10 3/4 gals. Molasses</td>
<td>10 3/4 gals Molasses</td>
</tr>
<tr>
<td>3 barrels &amp; 1 hhd of Corn</td>
<td>3 barrels &amp; 1 hhd of Corn</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Living Stock</th>
<th>Living Stock</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 hens, 2 Cokes</td>
<td>6 hens, 2 Cokes</td>
</tr>
<tr>
<td>3 Hogs</td>
<td>2 Hogs</td>
</tr>
<tr>
<td>6 Ducks, 1 Drake</td>
<td>5 Ducks, 1 Drake</td>
</tr>
<tr>
<td>1 Turkey Hen</td>
<td>1 Turkey Coke</td>
</tr>
<tr>
<td>1 Dunghill Fowl</td>
<td>2 Turkey Hens</td>
</tr>
<tr>
<td></td>
<td>1 sheep</td>
</tr>
<tr>
<td>6 firelocks, 4 ps Bandolears</td>
<td>6 firelocks, 4 ps Bandolears</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Returned</th>
<th>Returned</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 box Medicaments</td>
<td></td>
</tr>
<tr>
<td>30 pounds of powder</td>
<td></td>
</tr>
<tr>
<td>88 lb bullets &amp; shot</td>
<td></td>
</tr>
<tr>
<td>1/2 doz. of Ivory &amp; 1 doz. of other Combs</td>
<td></td>
</tr>
<tr>
<td>1 doz Scissors</td>
<td></td>
</tr>
<tr>
<td>1 Fussee</td>
<td></td>
</tr>
<tr>
<td>1 box of Medicins</td>
<td></td>
</tr>
<tr>
<td>100 of needles, yams</td>
<td></td>
</tr>
</tbody>
</table>

(Rivers 1856:383; List taken from notes of Emmett Robinson).

From this record of these merchants who apparently ran what might be called a general store, we have another cross-section of the goods available to the Charles Towne citizen of the 1670's. Of this list, tools also predominate, but as has been pointed out, such objects are kept for many years by an individual, and it is unlikely that many would have found their way into the discard piles in Charles Towne between 1670 and 1680. The most abundant object, and one that would most likely be found by the archeologist, would be part of the 88 pounds of bullets and shot. Conspicuously absent again is any mention of
ceramics, glass bottles, or tobacco pipes.

The personal inventory of William Brett taken in 1679 is typical of those of the period, and perhaps reflects the goods of an individual of more modest means than the merchants.

**Inventory of William Brett**

1 house and Plantation [valued at 20 pounds]
1 ould chest without a lock
4 falling axes
2 broad Hooes
1 hamar
1 larkge Hooe
1 Grubing hooe
1 Iron pott
1 old Ruulett
3 Pint ***
1 small Ooalo box
1 saus pan
1 Bible and 4 small books
1 drawing kinife
1 pewter chamber pott
1 frying pan
1 oorzo Shirt
3 old Towells
1 old black suit and coate
2 blue shirts and a pr of blue draw- ers
***
1 pr Franch salles
1 stock lock and stappell
5 old napkins and a tabell cloth
1 old callico shirt
a parcells of colorred thread
1 old dowlas shirte
1 callico neckcloth
1 old Layne Jackett
1 old capp and 2 sea handcerchess
4 old towells and 2 sea handcerchess
2 prs of old thread stockings
3 prs worsted stockings
4 Skaines of brown thread
400 of six penny nailes and 300 of 10 peney
1 pr of old gloves
5 small aIls and 1 gimblett and one peginall
1 callico shirt and a pr of drawers
1 new coate
1 old black hatt
1 small remnant of white tape
1 old holland jacket
1 old hatt
1 old black suit
1 small trunk
1 corse old capp
1 pocket booke
2 pr of corse dimity drawers
1 callico neckcloth
1 pr of white dimity drawers
1 Red wescott
3 small fishing lines
1 pr of colored dimity drawers
1 iron pott
1 sea bed Rugg and pillow and blankett
1 pitching ax and ade
1 pr pot hooks
1 carineir

(South Carolina Archives, Records of the Secretary of the Province, 1675-95:67. From notes taken from the original by Mrs. Agnes Baldwin. Hereinafter cited SCA, RSP, 1675-95).

From this list of personal possessions the only item that appears in quantity enough to have a predictive value for archeological recovery would be the 700 nails. Again the absence of a mention of ceramics, bottles, or tobacco pipes is remarkable.

A reference of June 28, 1673, provides us with another view of the possessions of an individual. John Culpeper had been involved with Thomas Gray and others in a disturbance and had fled the colony. Gray was trying to remove his wife and family and goods in a sloop when it was seized and her goods confiscated. She appealed to Governor West for the return of her goods, which were ordered returned to her "considering her great necessity...". She was allowed to have:

...the greiter kettle & necessary wearing apparell, her childrens cloths 3 pewter dishes 6 plates &c all her provisns aboard the sloop seized for the delinquency of her Husband & others (Cheves 1897:424).
From this we learn that at least some of the Charles Towne citizens had pewter dishes and plates. There is also a mention of platters and dishes in a reference of 1680, in which the household implements for a family and six persons are listed (Microfilm #14, N. C. Dept. of Archives and History). However, the reference states "Platters, dishes, spoones of wood," which again does not include ceramics as among the possessions of the Charles Towne families.

In the inventory of the estate of John Hill, in 1682, which totalled over 88 pounds, "2 leather sives and nine thenchers" were mentioned, as well as "three quart bottles" (SCA, RSP, 1675-95:111). It becomes clear from the documents, that platters, dishes and spoons of wood, and trenchers of leather were present, but not ceramics. The mention of "three quart bottles" refer to glass bottles, though these could have been of stoneware or other ceramic material. There are a number of references to bottles and earthenware after 1680 when Charles Towne was on Oyster Point, but we are here concerned with the first two years of the colony.

From the documentary evidence we begin to see that archeological evidence would not likely take the form of fragments of glass or ceramics, but could very well be seen in the more numerous objects mentioned in the inventories; nails, lead musket balls, and gunflints, with an occasional gun part, broken took, needle, or buckle or button. These potential archeological objects present a pitifully small possibility for the interpretation of the Charles Towne Settlement from archeological evidence alone. It is here that the value of an interweaving of historical and archeological data through the process of historical archeology.
is most dramatically revealed; neither being able to present the complete fabric of understanding of the past without the interlocking of the woof of history with the weave of archeology. How well the archeological data will correlate with the documentary evidence, and how the interpretation of this will contribute to our understanding will depend on; the garbage disposal habits of the residents of Charles Towne; the preservation of the objects in the earth; the amount of erosion wrought by 300 years of wind and rain; the violation of the earth by man; as well as the competence and technical skill of the archeologist whose responsibility it is to find, record, recover, preserve and interpret these ephemeral clues to past human activity on the historic site.

From the pages of the earth the historical archeologist gathers bits and pieces representing past human activity and relates these to the shreds and patches surviving as the worn documents and faded words of history. On this collection of essentially meaningless, unique fragments of the past, he abstracts the order and strives to press a meaning.
"PLANTING AND TRADE IS BOTH OUR DESIGNE AND YOUR INTEREST"

Lord Ashley writing to Governor William Sayle at Charles Towne in May 1671, stated that "Planting and Trade is both our designe and your interest...", thus stating the purpose of the Carolina adventure (Cheves 1897:327). The country in which they had come to plant, according to Florence O'Sullivan:

...proves good beyond expectation and aboundeth in all things as good Oake, Ash, Deare Turkies, partridges rabbitts turtle and fish and land produceth anything that is putt in it for we have tried itt with Corne Cotton and toba and other provisions, which proves very well the lateness of the season considered, the country is stored with severall pleasant fruits as peaches strawberrys and other sorts... (Cheves 1897:188).

This was written in September 1670, and perhaps gives a too optimis-tic picture of the situation at the settlement during this first year, for in the same month Stephen Bull wrote that they had found great assistance from the Indians who almost daily brought food, and but for this help, they would have been put to extreme hardship (Cheves 1897:194).

The Indians had apparently rescued the colonists during the summer while their crops were growing, and continued to do so during the winter, for the hoped-for crop was not to produce the expected return. In March 1671, the leaders of the colony reported from Albemarle Point that shortly after their arrival:

...we did bestirr ourselves in Planting of Corne, Pease, pumptions, &c wht though somewhat unseasonably committed to the Earth, yett itt pleased God, to give us the comforte of a promisinge Cropp, butt, before wee could come to taste of our hard Labours, our provisions failed vs, and the Spainard well knowing our Condicon, besett vs: wht caused the losse of all our planted provisions, ... having noe other thing to support vs, but a pint of pease, a mann a day, ... (Cheves 1897:288).
We see then, that the goal of planting was not very well begun in that first season of 1670, when "all things blasted in October before they could come to perfection..." (Cheves 1897:267). In describing the misfortune and hardship of that first winter the "ffirst Adventurers to the Province of Carolina, in America" compared their infant settlement to the birth of a child in a choice piece of metaphorical writing:

Wee cannott Imagine, butt that yo\textsuperscript{r} Hono\textsuperscript{rs} are very senceable of the grievous pangs, & many sorrowes, that all new Setten\textsuperscript{s} (wee meane the people concerned therein) doe sufferr, before that happy Issue (Hope) cann bee brought forth, beinge only the concepcon vpon arrivall: whereof wee have had a full, nay a double Share. Now after soe Painfull travells, wee doe heere prsent, an Infant Setlem\textsuperscript{t} to y\textsuperscript{r} Hono\textsuperscript{rs} (though in a meane dress) yett if cherrished by yo\textsuperscript{r} Hono\textsuperscript{rs} favo\textsuperscript{rs} may proove not less serviceable, than yo\textsuperscript{r} Hono\textsuperscript{rs} have designed; butt, such is our misery, that unless yo\textsuperscript{r} Hono\textsuperscript{rs} bountye doe Countermande, the after birth is likely to proove more fatall to us, than all our former troubles; wch have binn none of the Least (Cheves 1897:287).

Among those things which were killed by the frost (or "blasted") in October of 1670 were some of the plants brought to introduce into Carolina. In the instructions for Joseph West given him prior to sailing for Carolina was a list of specific plants he was to obtain in Barbados. He was directed to:

\ldots furnish yr selfe wth Cotton seed, Indigo Seed, Ginger Roots, wch roots you\textsuperscript{u} are to carry planted in a tubb of earth, yt they may not dye before yo\textsuperscript{r} arrivall ... alseoe you\textsuperscript{u} may in another tubb carry some Canes planted for a tryall--alsoe of ye severall sorts of vines of that Island & some Ollive setts... (Cheves 1897:125).

As well as these instructions, West was advised to plant in sandy soil as well as in black mound, and on high ground as well as in the low ground, and to plant seeds and roots in March, April, May, and June, in a kind of experimental agriculture project:
...by wch means you will come to finde wch soyle agrees best wth every specie planted, & what is ye properest time to plant in. You are to doe ye same as to ye soyle wth yo' vine & Ollive Plants, & this will be done wth a man or two; ye rest of yo' people are to be employed about planting Indian Corne, Beanes, Pease, Turnipps, Carrotts & Potatoes for Provisions (Cheves 1897:126).

Specific instructions for grape vines were given:

Yo' Grape vines plant in a Sandy mould & drye, & as soone as they will afford other Slipps plant them alsoe y't you may increase yo' stock of plants (Cheves 1897:127).

Perhaps with this admonition in mind Joseph West in a letter of September 15, 1670, requested from Lord Ashley for planting, beans, Indian corn, ginger roots, and grape vines (Cheves 1897:204, 259). In the following January, Joseph Dalton also requested more vines, and stated that he hoped that they could:

...sett forward in the husbandry of Vines and Olive Trees which I judge to be the only profitable commodities wee can follow and most agreeable with our Climate. Wee have indeed plenty of diverse sorts of grapes here some very pleasant and large but being prest the thickness of their outward skinn yeilds a kind of harshness which gives us reason to feare (though we intend to make tryall of them) that they will hardly ever be reclaymed or with very great difficulty. We must therefore recomend to yo' LoP to furnish us with the Plants of good Vines and Olives with some persons who know the true husbandry of them herein yo' LoP need not doubt the diversities of Vines for I doe verily beleeve we have gound suitable to all their varietie. Your LoP may further be pleased to add Almonds and Date stones agreeing with the place as well as any where (Cheves 1897:382).

From these references it is seen that among the variety of plants tried at Charles Towne, vineyards and olive groves were considered quite important. From Spanish documents we have another record of the growing of crops in Charles Towne. When Camunas came to spy on the town, he reported on July 12, 1672, that he saw fields of maize, pumpkins, cow-peas, peas, and:
...in each house their trellises for grape vines of different sorts. And also a great quantity of sweet potatoes and some fig trees... (Childs).

It is interesting to note that grapes were reported being grown at each house in Charles Towne, and that they were of "different sorts," indicating that the "diversities of Vines" mentioned by Joseph Dalton the previous year were, by 1672, apparently being grown in the settlement.

One hundred years later, growing of grapes at the Charles Towne Site was still practiced, in fact, was "well known." In that year of 1772, a book on the growing of grapes in South Carolina was published by Louis de Saint Pierre (de Saint Pierre 1772:xxvii; copy studied by Susan Solomons at The Charleston Library Society, F66 RG. Sa 2). He was actively encouraging the growing of vineyards in South Carolina, particularly at New Bourdeaux (north of Augusta) and stated that many families were ready to undertake the growing of vines:

They are all Vignerons to a man, experienced & trained in this sort of husbandry from their infancy. The promising aspect of the establishment was demonstrated to those on the spot. It was well known at Charles Towne (de Saint Pierre 1772:xxvii).

The interest in the cultivation of vines in the first years of its settlement had apparently resulted in model vineyards by 1772, that were used to demonstrate what could be accomplished by vignerons.

In his book, de Saint Pierre provides us with a description of how vineyards were planted to form "arbors" or "palissadoes" in furrows one and one-half feet broad and the same depth, and "When we mean to train the plants for standards," they are planted in "small alleys in straight lines, six foot distant from each other" (de Saint Pierre 1772:53).
De St. Pierre was killed in an expedition against the Indians, and in 1798 the importance of his plans was recognized:

...there can be little doubt, but what Carolina would ere now be rich in her vineyards, had not the untimely end of M. de Saint Pierre overturned the establishment in its infancy (Young and Cox 1798:5).

We have seen that the Charles Towne settlement was begun as a planting and trading enterprise, and almost immediately upon their arrival at Albemarle Point, the colonists began planting and trading with the Indians. They planted corn, cotton, tobacco, peas, pumpkins, indigo, ginger, sugar cane, beans, turnips, carrots, potatoes, sweet potatoes, almonds, dates, and figs. Among those plants considered most important in the 1670's were grape vines and olives, both of which continued to be grown for many years in the area. We know that vineyards were still being grown at Charles Towne in the 1770's, and olives still flourished until 1837, when a severe frost killed most of the trees then growing (Salley 1959:144). Three hundred years after their introduction into the garden plots at the little village of Charles Towne, neither olives nor grapes have fulfilled the promise they once held for the economy of the area.

"Old Town Plantation" - A Postscript

As early as 1670, Governor Sayle had set aside the land known as Oyster Point, between the Ashley and Wandoo Rivers (Cooper) as a town site (Cheves 1897:378). As the 1670's passed, more people moved to this site across the river from the original settlement on Albemarle Point, and in 1679, the new Charles Towne was declared the port town (Cheves 1897:379). By the following year the old site was referred to in the minutes of the Grand Council as "Kaiawah sometimes called Charles Towne," and from
this time on, Oyster Point and its settlement was to carry this name, eventually evolving to Charleston (Smith 1915:No. 1, 5).

Between 1694 and 1697, 760 acres of land known as "Old Town Plantation" was granted to James Le Sade. This included the site of the original Charles Towne, and no record survives revealing the transfer of the town lots or the adjoining two acre lots by the individual property owners (Smith 1915:No. 1, 6-7). From James Le Sade the plantation went to his brother, Peter, in 1703, who passed it on to his wife, Ann, and his son, Peter, in 1716 (Smith 1915:No. 1, 6). In 1734 Daniel Cartwright conveyed Old Town Plantation to John Beresford, who passed it on to William Branford a few days later. From Branford it went to his son, William, in 1717, from whom it went to his son, William, who died about 1772. From William it went to his daughters, Ann Branford Horry and Elizabeth Branford Horry, and by 1774, it was owned entirely by Elizabeth and her husband, Elias Horry, Jr. It was sold in 1833 to Anthony Barbot, who, in 1835, conveyed it to Jonathan Lucas (Smith 1915: No. 1, 7-8).

A map of 1836 shows the plantation house occupied by Jonathan Lucas and the associated "Negro Settlement."* In 1850 the plantation went to William McKenzie Parker, and then into the Legare family (Smith 1915:No. 1, 8; Salley 1959:167n). The South Carolina Tricentennial Commission, in the spring of 1969, acquired Old Town Plantation from Dr. and Mrs. J. I. (Legare) Waring for the purpose of creating a major historical park.

*Copy of this map drawn by Robert Q. Pinckney in 1836 secured through the permission of Dr. J. I. Waring, present owner of Old Town Plantation.
Background

With the approach of the Tricentennial Year commemorating the first settlement of South Carolina by the English on Albemarle Point in 1670, interest began to focus on the site of Charles Towne, traditionally said to be located on Old Town Plantation. The first work was carried out on the site through the auspices of the South Carolina Tricentennial Commission from December 1967 to February 1968, by John Miller, an enthusiastic amateur digger. Miller concentrated on exploratory trenches in the area of the narrow neck of land joining the tip of Albemarle Point to the mainland, in an effort to locate the palisade ditch which the references indicated should be in this area. He found a number of parallel ditches in a proper alignment between arms of the marsh on both sides on the neck, as well as a larger ditch roughly at a right angle to these. Other trenches in the area west of the neck revealed 25 parallel ditches, which he interpreted as drainage ditches. To the east of the neck, on the high ground bordering the Ashley River Marsh, he located the ruin of a building which, due to the large number of wine bottle fragments present, he interpreted as a tavern. China, pipes, a fragment of armour, and other objects from this ruin appeared to date from the early years of the eighteenth century.
North of the tip of Albemarle Point, in the area west of a pond site dam, several ruins were to be seen, and it was here that Miller felt the settlement of Charles Towne was located (Miller). The visible ruins in the area indicated by him as the likely site of the town were those of a plantation house and outbuildings owned by Jonathan Lucas in 1836, as revealed by a map of that date showing these features, as well as the "Negro Settlement" some distance to the west. Subsequent testing of this plantation house ruin has revealed that it was very likely built in the 1790's and was definitely not a Charles Towne structure.

In the fall of 1968, the South Carolina Tricentennial Commission contracted with the Institute of Archeology and Anthropology at the University of South Carolina to undertake an exploratory project in historical archeology in order to recover clues to the location of Charles Towne. A one month project was outlined, and Stanley South (on leave from the North Carolina Department of Archives and History) and John Combes, Assistant Director of the Institute of Archeology and Anthropology, were the archeologists who were to execute the project. An additional week was later added to the field work in order to obtain additional data.

The Surface Survey of the Albemarle Point Site

The site of particular interest was the point of land some 12 feet above sea level, at the tip of which flowed the stream now known as Old Town Creek. On both sides of this peninsula is tidal marsh, and from descriptions of the site in the seventeenth century, such was also the case at that time. A narrow neck of land not over 50 yards wide
was all that connected this tip of Albemarle Point to the mainland in the seventeenth century, and the records indicate that this neck was palisaded. Today, however, fill dirt has been hauled into the west half of the neck and a part of the marsh in that area has been filled to make a firm footing for an access road to the site. The site was farmed in the twentieth century, and signs of the old furrows could still be seen throughout the pine woods and undergrowth which covered the site when excavation began. The highest part of the site is down the center of the peninsula, as might be expected, with a slope toward the marshes on each side. As a result of this topography, erosion through three centuries has been from the top of this ridge toward the marshes. In the area of the narrow neck, erosion has been toward the marsh also, and consequently, before the west marsh at the neck was filled to make room for the access road, considerable soil had already been carried into the marsh from the adjoining higher ground through natural erosion.

To the north of the neck the ground rises and levels at about six feet higher than the lower tip of Albemarle Point. At present a grassy field is located here, bordered by trees and flowering shrubs. Much discussion with the landscapers eventually developed over the fact that this grass had to be disturbed by the archeologist in his search for the Charles Towne Settlement. Fortunately, the Tricentennial Commission voted to allow archeology to be carried out beneath this grassy field.

The soil profile of the site begins with a thin layer of woods mold on the top, with a plowed soil zone beneath, resulting from the farming of the land in the past. This, of course, is mixed soil consisting of a
light brown sand. The remaining geological stratigraphy seen on the site was adequately described by Nicholas Carteret in 1670, and needs no elaboration:

...ye surface of the earth is a light blackish mould under that is whiter & about 3: or 4: feet is a clay some read wth blew vaines & some blew wth read vaines soe is all ye Land I haue seen (Cheves 1897:168).

A survey of the surface of a historic site will usually produce fragments of china and bottles, as well as bone and oyster shell discarded by the previous occupants of the area. With this in mind, a surface survey of the Albemarle Point Site was conducted in order to recover any clues to its past use as a dwelling site. The ground had been lightly scratched over by a bulldozer brought in by the Charleston Tricentennial Committee to push down the undergrowth so the site would be accessible. Thus there were areas of the entire point of land where the surface had been disturbed enough to reveal any concentration of artifacts of the seventeenth or of the eighteenth century. None were revealed nor were quantities of oyster shell found at any point that would provide a clue to previous habitation. Only one surface concentration of oyster shell was found near the tip of the point, and this was in association with twentieth century fragments of china, indicating a very recent deposit.

This absence of cultural material was most disconcerting throughout the exploratory project, and if the documents had not so specifically pinpointed Albemarle Point as the site of Charles Towne, a search for it may have been made elsewhere. In fact, many suggestions were made by various people as to other possible locations. As excavation progressed
and trenches were opened on this point as well as on the high ground to the north, a clearer picture began to emerge. The tip of Albemarle Point still did not reveal any oyster shell deposit, which most certainly should have been present on the town site, but the high ground to the north of the point did reveal the presence of oysters. From this fact alone, the archeologists began to look toward this more northernly site as a major occupation area, and it was here that the north and west fortification ditches were discovered. Subsequently, after the preliminary project was completed, a document by a Spanish spy, Camunas, revealed that there were only a few lodgings on the tip of Albemarle Point, built shortly after they arrived, and that the village was located further to the north, beyond the fortified tip of Albemarle Point.

The absence of china and wine bottle fragments on the surface of the site also became more understandable when seen in the light of the inventories of goods owned by the Charles Towne citizens, which revealed that wine bottles and ceramics were not listed among those items having been brought in during those first two years of the settlement. Since these two items are among the most numerous often seen on historic sites, their absence leaves very little else to provide a clue to the occupation of the site, except in coastal towns, where the presence of oyster shell middens provides an added clue. Also, the documents have revealed that the fortified tip of Albemarle Point was apparently not occupied as a town settlement except during the years of 1670 and 1671, which would account for the virtual absence of artifacts recoverable in a surface survey.
THE EXPLORATORY EXCAVATION

A Note On Method

In dealing with an archeological site involving a large tract of land such as the Charles Towne Site, the direct "base line" method of establishing relationships between excavated areas and archeological features is sometimes used. Particularly in a survey type project where the broadest sample from a large area is desired, the "base line" provenience control method demonstrates its usefulness. It has an advantage over the traditional grid system in that it allows the measurements to be taken without the limitations imposed by the strict use of 90° angles, thus it allows trees to be bypassed in forest areas; a decided advantage at times. The base line can be used at any subsequent time to lay out a grid system for detailed excavation in any area of the site.

At the Charles Towne Site the base line was established along the length of Albemarle Point along the west side of the access road to the point, and parallel with it. Cement markers were poured at three points along this base line, and large nails were positioned at 100 foot intervals along this provenience control line as temporary control positions. The transit was used from this base line to shoot a line to any desired position, with angles and tape readings in feet and tenths locating any point on the site by direct transit readings rather than by triangulation from wooden stakes. This method allowed the plotting of any feature with speed and accuracy throughout the site.

Under such a system provenience control designation is not by means
of squares, but by a provenience number assigned to horizontal areas, with a letter used to refer to a level or layer. Therefore, instead of the provenience designation CHl (Charleston County Site 1), followed by "Sq. 100L485, Level 1, 0-8", the provenience number 67 may be assigned to an excavated unit, with the letter "A" representing the 0-8" level. In such a case the designation would then read CHl-67A, a simple means of keeping horizontal and vertical control for any excavated unit. The comments pertinent to this provenience are kept on a provenience card, the provenience number becoming then, a basic control and analysis number for processing and study of the recovered artifacts. It has the advantage, when used in conjunction with the traditional catalog number, of allowing artifacts to be associated by context without the necessity of resorting to the catalog to determine this fact, a decided advantage during analysis. It carries the disadvantage of a loss of convenience in not quickly establishing the relationship between various provenience numbers without resorting to the master site map and profile illustrations. For instance, Sq. 100L485 can immediately be seen to have a particular mathematical relationship to Sq. 100L500; whereas, provenience number 67 is not necessarily related to number 68 in terms of horizontal position. However, since Sq. 100L485 Level 1, 0-8" is usually represented on the artifact by a single number in the catalog, which must be referred to for provenience data, it is a decided advantage to have the provenience number 67A as an integral part of the catalog number to allow for instant contextual association during analysis, without the need for constant cross-reference to the catalog.

In summary, the "base line" method used at the Charles Towne Site, with its accompanying "provenience number" system, is a variation on the
traditional grid approach. Although the grid designations are not used, the grid is always implied in the base line and the control it provides. In terms of the cataloging system, the provenience number, with its accompanying catalog number sequence, constitutes a provenience number system extremely useful in speeding up laboratory analysis as opposed to the traditional continuous catalog number sequence, under which no reference to provenience for the artifact is indicated on the artifact itself, requiring constant reference to the catalog for provenience associations.

Since the surface survey had revealed virtually no seventeenth century artifacts, and since test sifting of various areas revealed the same picture, the plowed zone was not systematically sifted. The process of locating features involved cutting slot trenches in some cases, in order to locate underlying subsoil intrusions, and standard five or ten foot wide trenches in others. Ditches could be followed by this method by skipping a distance and cutting another 18 inch wide slot to cross it at a right angle. As fast as features were thus located, the transit crew moved into the area and recorded the located features. A few areas were selected to be examined in detail so as to have control data for the broad picture being revealed in the exploratory survey. The opening of extremely large areas to expose major features would come with the major archeological effort. All areas in the exploratory survey were opened by hand labor, with machines not being brought into the scene until the major archeological project had begun.

The Exploratory Archeology

One of the first steps was to examine the trenches opened by John Miller and to determine if the data revealed in his trenches had been
destroyed through excavation, or if it was still intact. Fortunately, it was discovered that Miller had not removed the contents of the ditch outlines he had revealed, so these could be cleaned, photographed, and plotted, a situation which would not have been possible had the ditches been completely excavated. While this reopening and examination of the Miller trenches was underway, John Combes opened a ten foot wide exploratory trench extending from the neck toward the south along the center of the ridge of the point. This trench revealed a number of ditches varying from six to eight feet apart and running at a general right angle to those found by John Miller in the neck. A trench to the north of the neck and west of the old pond also revealed a series of 14 ditches generally parallel and crossed by an intrusive ditch of later date. The presence of so many parallel ditches was somewhat disconcerting since almost every trench revealed new ditches to be measured and interpreted. The presence of these in the high ground as well as in the swampy marsh tended to rule out any agricultural practice since it was difficult to imagine what crop could survive both extreme conditions. With the idea that they may represent vineyard ditches, Mrs. Agnes Baldwin was asked to conduct research with this in mind, with particular emphasis on the seventeenth and eighteenth centuries. Mrs. Baldwin and her daughter, Susan, found that a book published in 1772 dealt with vineyards in South Carolina and indicated that vineyards at Charles Towne were well known at that time. This source also stated that vineyards were planted in parallel ditches, in straight lines, six feet apart, and that they were planted in furrows one and one-half feet broad and the same in depth. It was also said that grapes could be planted in the marshy ground as well as on the higher land (de Saint Pierre 1772:xxvii). From this
information it became clear that what we were dealing with at Charles Towne were vineyard ditches, not drainage ditches as Miller had thought. Later the report of the spy, Camunas, who visited the town in 1672, was found, stating that each lot in the town had a trellis for grapes at that time, providing evidence that the vineyard ditches could date anywhere from 1672 to 1772 and later (Childs).

In the area of the neck a section was examined in detail in which several vineyard ditches were seen, as well as the larger ditch, and the ditches were excavated in order to determine more fully their period of use through artifacts that might be recovered. This area was designated CH1-1. At the western end of this area, the soil above the ditches had not been removed by Miller, in a belief that this hard packed area containing pipe stems, Indian pottery, and wrought nails was a house floor. The area had, indeed, been packed harder than the soil in the adjoining area, but no further evidence for a house floor was found. One of the vineyard ditches, Ditch CH1-1E, contained red filmed Indian pottery (a type not usually found locally), wrought nails, oyster shell midden, stamped and burnished Indian pottery, and a pipe of seventeenth century form, impressed on the heel with the letter "EB". This is very likely the mark of Edward Battle, who received his freedom as a pipemaker in
1660.*

From this evidence from the layer above the ditches, as well as the ditch contents themselves, it appears that the Indian pottery, nails and pipe fragments represent a seventeenth century deposit. As additional exploratory trenches were opened, it was found that Ditches CHl-1D and CHl-1E appeared to extend much further than the other ditches in length, and very well may represent a double palisade, extending from the marsh on the east, past the marsh on the west of the neck, and abutting the marsh much farther to the west (See Archeological Base Map). A

*Pipes marked "EB" on the heel have been found in an Indian grave (in the late nineteenth century), by Mr. S. L. Frey of Palatine Bridge, New York; and by Mr. P. C. Hiller, of Conestoga, Pennsylvania, in Lancaster County; and by Mr. Lott Van De Water in Hempstead, Long Island, while digging a well. They are not thought to have been made in Hull, England though one was found in excavations there. In discussing Phillip Edwards, (a Bristol pipemaker in 1649) John Pritchard says that he appears to have taught three lads the pipe making trade, one of whom was Edward Battle, who took his freedom in 1660. In regard to "EB" pipes, it is interesting to note that some were also found in excavations at Jamestown, Virginia.

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3 Thomas Sheppard, Early Hull Tobacco Pipes and Their Makers. Second Edition, September, 1912, 3-39. (Mr. Sheppard also states that the Hull "EB" pipe had a milled line below the rim, as does the Charles Towne specimen. He says it is a latter 17th century pipe.


5 Noël Hume, Personal Communication.

(The above notes are from a collection of papers owned by Elias Bull, and presented to the South Carolina Archaeological Society.)
significant fact in terms of the evidence from the ditches is concerned, is that nothing from the ditches in this area indicated that they had to date later than the seventeenth century.

In the bottom of one of the ditches in the swamp area of the neck was a triangular drain made of three boards fastened together along the edges. The fact that it was underwater made examination difficult, but it appears that this may represent a means of draining the water from the ditches in this area, insuring that the water level remains low enough to prevent damage to the grapes growing in the ditch fill above. However, this is only a theory, and further work needs to be done in these ditches to determine more about these drains.

The 38CH1-2L Pit

In the long ten-foot wide exploratory trench down the length of the point (designated CH1-2), two dark pit outlines were excavated. Pit CH1-2L contained a quantity of bone midden, along with a pipe of seventeenth century form, a trigger from a musket, a large quantity of nails, and Indian pottery. From this group of artifacts, virtually identical with the group from Ditch CH1-1E, it appears that this pit represents a seventeenth century garbage dump.

The 38CH1-2N Pit

This pit also contained a seventeenth century pipe, this one with the initials "EB" impressed into the heel; along with nails, Indian pottery and oyster shell and bone midden in small amounts. Again the components are similar and represent a seventeenth century pit.
The 38CH1-2X Fortification Ditch

Near the south end of the exploratory trench CHl-2, a dark area 17 feet wide was revealed as the topsoil was stripped away. This feature on excavation proved to be a ditch that had originally been perhaps 12 feet wide at the top, and five feet wide at the bottom. At present it is six feet deep. The west half of the exposed ditch was excavated to the bottom, revealing a piece of slipware and a piece of redware in the upper level of fill, with an "EB" pipe of the seventeenth century and a musket ball near the bottom, along with nails and pottery. This evidence tended to support a seventeenth century date of origin for this feature. The lensing within the fill of this feature indicated that it was allowed to stand open and that it gradually filled up as wind and rains carried soil into the lens one-half inch thick along the south side of the ditch, representing perhaps, the first winter's leaf fall after the ditch was constructed.

In order to determine the extent of the ditch, slot trenches were cut to the east, and a ten foot wide trench (CHl-3) was cut at a diagonal angle toward the southwest. This trench showed that the ditch had narrowed considerably as it approached the west, and that it turned toward the northwest just before striking the marsh. At the angle of this ditch a twentieth century shallow well had been dug to obtain water for the operation of a whiskey still, and this hole was still standing open when the archeological work was done. Toward the east from trench CHl-2, slots were cut to locate the ditch position, and it was found to extend toward the southeast, forming an obtuse angle or chevron shaped feature.
This would allow for a cross fire against any enemy landing at the deep-water channel of Old Town Creek at the tip of Albemarle Point, if the ditch was indeed for fortification. The shape of the feature, ideally suited for defending the land behind the ditch, the fact that seventeenth century objects were found near the bottom of the fill, and the fact that the documents mention a platform and embrasure for artillery, all point to the fact that this ditch represents a defensive work designed to protect against a landing at the deep water point of the land. Since we know from the documents that fortification against the Spaniards was being carried out in the late summer and fall of 1670, it appears quite obvious that this ditch was indeed part of that fortification of the "castle" mentioned in the records. The fact that only a five foot wide section of the ditch was excavated, and that a pipe and musket ball were found in this small sample, provides a clue that the remainder of the ditch should produce a considerable number of seventeenth century artifacts thrown into it during the use of the site while the ditch stood open.

**The 1670 North Fortification and Property Line Ditch, and Palisade Trench**

In the control excavation area of CHI-1, in the neck to the north of the tip of Albemarle Point, a wide ditch was found to be running almost up the center of the neck, not across it as had been expected. This ditch had been found and followed toward the south by Miller, where it was found to end at the marsh. It had not been searched toward the north. Parallel ditches to the west of this large ditch were 33 feet apart, the distance of two poles, and the thought occurred that these parallel ditches may represent property line ditches in which the measurements would have been
33 by 99 feet, the size of the 12 pole lot used at Charles Towne. No evidence was ever developed for supporting this theory.

The wide ditch was followed toward the northwest by means of a series of slot trenches, and it was found that this ditch was parallel to the series of vineyard ditches reported by John Miller as having been found just to the north of this ditch (See the Exploratory Project Archeological Base Map). The parallelism of the vineyard ditches with this large ditch would tend to indicate a contemporary time period for the features.

The wide ditch was found to angle toward the north, extend another 270 feet, then angle again, producing a relationship between the projected lines of an angle of 123°, correlating with the 123° angle shown on the Culpeper Map of 1671 for the west end of the series of two and four acre lots adjoining Charles Towne. This west property line and the ditch under discussion are apparently the same line. The fact that the tip of the ditch does not point just as Culpeper shows it on his map apparently indicates that his scale was such that he failed to include this detail on his small scale map. The significant point is the 123° correlation between the two major lines. A reference of September 1670 indicates a palisade was in this neck at that time, fixing its construction between April and September 1670.

In areas CH1-6 and CH1-7, profiles were cut and small samples of the ditch were taken. In CH1-7 a large quantity of oyster shell midden was found thrown into the upper level of the ditch, indicating its use as a garbage disposal area by people living nearby. The lower level revealed the same type of lensing, characteristic of erosion fill by wind
and water that was seen in the large ditch found on the point, indicating that this ditch also stood open for many years. In association with this ditch, in area CH1-7, a series of postholes were found paralleling the ditch on the west side, in the position where a palisade line should have stood if the soil were thrown up from the ditch along the west to form an embankment or low parapet. This evidence would indicate that a palisade did indeed accompany this ditch. The fact that it narrows toward the south and toward the north from the angle at CH1-7 indicates that considerable erosion has apparently occurred here also; the ditch being seven feet wide here and narrowing to three feet in places.

In area CH1-8 an intrusive ditch is seen to cross the 1670 ditch, and the fact that this ditch parallels the row of fairly recent trees, and that it parallels the Jonathan Lucas Plantation House Ruin, known to have been standing in 1836, would point to a nineteenth century origin for the ditch. At the south end of this intrusive ditch, at CH1-9, a fragment of ironstone china was found, verifying the mid-nineteenth century origin for this feature.

The 38CH1-6 West Fortification Ditch

At the northern-most angle of the 1670 property line ditch (area CH1-6), a smaller ditch abuts this angle and continues toward the south-west until it ends at the edge of the high ground at the marsh along Old Town Creek. In one area of the ditch where a slot trench was cut, a large quantity of oyster shell midden was found, both in the ditch itself and in an area on both sides of it. Further work needs to be done in this area to determine whether the ditch stood open or was dug to contain a line of
palisade posts. An interesting fact is that the area of land between this
ditch on the west, the 1670 property line ditch on the east, and the marsh
and fortification ditch on the south, is ten acres, the same number of
acres mentioned as being the approximate size of Charles Towne early in
1671. A later palisade is known to have been surveyed and built around
the town in 1674, and if this ditch represents the 1670 palisade around
the town, then that of 1674 would, no doubt, lie further toward the north­
west.

The 38CH1-5 Post-Vineyard Ditch

In the area west of the pond site, and to the east of the 1670 prop­
erty line ditch, a series of parallel vineyard ditches was found. Cutting
across these was a later intrusive ditch that orients in a parallel manner
with the ruin of the 1836 Jonathan Lucas Plantation House, providing a clue
that this intrusive ditch is quite likely a nineteenth century feature.

The Horry-Lucas Plantation House Ruin (38CH1-11)

An exploratory trench was opened in a clump of bushes where recent
bricks were stored by the twentieth century owners of Old Town Plantation.
This trench revealed a walk made of oyster shells, mixed with objects of
nineteenth century origin. The walk ended at a set of brick steps, par­
tially standing above ground, which was shaped like a trapezoid, and
which is shown on the 1836 map of the Jonathan Lucas Plantation. This
house is said to have burned. It was owned in the 1780's by Elias Horry,
Jr., and for this reason, and the fact it was apparently built in the
1780's, it has been called "The Horry-Lucas House."
The Outbuildings for the Lucas Plantation House (38CH1-10)

Tabby foundation walls at the edge of the access road to the west of the Lucas Plantation House ruin were found, and represent nearby outbuildings for the plantation house and were shown on the 1836 map.

The Ditch Depression and Cattle Dip Ruin (38CH1-4)

To the east of the Horry-Lucas Plantation House Ruin, and south of the ruin of the outbuildings, a depression can still be seen in the surface of the ground where a ditch once stood open. A trench over this area revealed that the ditch once was several feet deep. Its parallel orientation to the Lucas Plantation house ruin would tend to indicate that this ditch was also of nineteenth century origin. This is very likely the ditch "still traceable" mentioned by Langdon Cheves as a footnote in "The Shaftsbury Papers" in 1897 (Cheves:1897,173). An edge of a twentieth century cement structure was found in this trench, and is said by local informants to be the remains of a twentieth century cattle dip.

Examination of the Area of the "Negro Settlement" of 1836

To the west of the Waring House, on the point of land extending into the marsh of Old Town Creek, some exploratory trenches were opened. These revealed the presence of foundations accompanied by nineteenth century china, glass, iron, etc., representing the "Negro Settlement" shown on the 1836 Map of the plantation. This settlement was occupied until the early years of the twentieth century. Excavation of the entire area of this settlement would reveal an interesting picture of such settlements as seen through archeology. Too little archeology on sites of this nature
has been done, emphasis usually being placed on the more affluent representatives of a culture. Also found in this area were parallel ditches, indicating that the vineyard on Albemarle Point also extended this far to the west.

The Ditch to the South of the Waring House

Between two marshes to the south of the house now occupied by Dr. and Mrs. J. I. Waring, a ditch was found that apparently had been dug between the two marshes. No objects were recovered from the ditch since its contents were not excavated. This could possibly represent a palisade ditch, or a ditch of much later date than Charles Towne. Further work should be done on this feature to determine its date and relationship to the Charles Towne Site. It may have served to protect the point of land, or even as a cattle compound palisade.

Summary

The exploratory project in historical archeology at the Charles Towne Site, designed to reveal specific clues to the location of the town site and to relate these to the background history known from the documents that have survived, was successful in accomplishing this goal. Through the discovery of the major fortification ditch at the south end of the site, and the 1670 fortification ditch and palisade along the north side of the town, plus the ditch for the west fortification, the bounds of the fortified area of Charles Towne from 1670 to 1672 are known. The area inside of this group of features comprises ten acres, the estimate for the size of the town made at the time of its earliest existence. Vineyard
ditches and pits and the fortification ditch have revealed objects of the seventeenth century from the colonists who occupied the fortification on the southern part of the settlement. More work should be done to locate possible remains of the few lodgings said to have been inside this fortified area.

From the documents and the archeology it appears that at the time of the April landing in 1670, and during the few months that followed, the fortified area served as the actual site of Charles Towne. By 1672, the village of Charles Towne was scattered some distance to the north and/or west of the fortified tip of Albemarle Point.

This is indicated by the fact that Camunas described the village and the fortification as being in separate areas in 1672, the same year that a new division of town lots was made. In 1674, a new palisade was surveyed around the town, indicating that it was located elsewhere than on the same site as the original palisade had been, probably around the primary settlement located outside the fortified area to the north. Relating to this is the fact that few artifacts of the seventeenth century have been found inside the fortified area in the archeological survey, more nearly reflecting an occupation of two years duration than ten. This, plus the fact that Camunas said there were only a few lodgings inside the fortified area, strongly support the validity of these interpretations. The mention by witnesses that parts of the fortification were practically demolished by 1674, and the fact that instead of repairing it they built a new one elsewhere "about Charles Towne," also point in this direction.
Introduction

With the completion of the six week archeological survey, a report was prepared summarizing the findings, and project goals were outlined for future archeological work on the Charles Towne Site. These were:

1. Open an area of the fortification ditch of 1670 along the land side of the fortified point, recovering artifacts and locating any related features.

2. The open ditch would then be stabilized and the accompanying embankment replaced to constitute an explanatory interpretive exhibit. Later, with the discovery of the accompanying palisade ditch, the replacement of palisade poles in the original ditch position was included in the interpretive exhibit plan.

3. Excavate the contents of the main fortification ditch of 1670 and stabilize the ditch and accompanying parapet as an interpretive exhibit, after locating any related features. With the subsequent discovery of the redoubt in front of the main fortification ditch, the stabilization and exhibition of this feature was included in the plan.

4. Explore selected areas between the fortification ditches in a search for evidence of house sites lying beneath the plowed soil zone.

5. Determine the relationship and significance of the fortification evidence in relation to the Charles Towne Settlement.

6. Establish the location of the 16 acre and four acre tracts set aside by Governor Sayle before 1671, which were mentioned on the Culpeper Map of that year as being "Behind the town," and in so doing, fix the town site in relation to this 20 acres. The four acre churchyard, once established, would be searched for evidence of a church and burials.

7. Determine something of the Indians and their relationship to the colonists as seen on the site and in the documents.
8. Correlate all documentary data with relative archeological data in a report summarizing the results of the research project.

Not all of these goals were achieved during subsequent excavations, but several were, and some of those were extended much beyond the anticipated goals set. Also several sub-projects not previously anticipated were undertaken and brought to relative completion.

The archeological excavations were begun again on a full scale project basis on April 1, 1969, and continued without interruption until November 1969. During this period, the features described below were among those excavated.

The North Fortification Ditch - Description and Method

The preliminary archeological study revealed that this ditch, extending from the marsh on the east (or Ashley River Marsh side of Albemarle Point) toward the northwest, was shown as a property line on the 1671 Culpeper Map. A reference in September 1670 clearly indicates that the neck was palisaded at that time (Cheves 1897:196-197). Answers as to the extent of this ditch, its relationship to the west fortification ditch, etc., had been indicated in the preliminary survey through slot-trenching and opening of certain test area. Several postholes on the south side of the ditch in area CH1-7 had appeared to be those of a palisade, and the question as to whether further evidence for a palisade could be found was of prime consideration as the plowed soil above this ditch was removed.

Several factors were to be considered in the examination of this ditch, one being the size of the area on each side of the ditch that should be examined. The archeologists desired to examine at least ten feet from
the ditch on both sides, but in the woods area at the southeast end of
ditch, trees forced the width to be considerably narrower than this,
due to the fact that it was necessary to save every tree possible at
the request of the landscaper and the sponsors of the project. In order
to remove the plowed soil from above the ditch area, a front-loader was
used. This machine was also useful in removing trees directly in the
path of the excavation. Once the topsoil was lifted away, the crew of
shovel men moved into the area to clean off the loose soil and reveal
the ditch and related features for transit plotting. The plowed soil
throughout the site was not sifted, since the preliminary survey had
revealed the fact that it contained almost no artifacts. A tractor type
front-loader was used in the woods area to the east of the access road
to the tip of Albemarle Point, with a large rubber-tired loader being
used in the grassy field to the west of the access road. It was in the
excavation of this grassy field that a problem arose which forced the
archeology to await a decision of the Tricentennial Commission.

The original plan for the grassy field on the high ground between
the north and west fortification ditch was to strip as much of the area
as possible so as to locate house foundations, footings, wells, pits,
garbage and trash dumps, etc., that might be revealed beneath the plowed
soil zone. However, the landscaper for the site strongly objected to
the grass being disturbed as detrimental to the beauty of the site and in­
sisted that the grass not be moved. However, permission for the archeolo­
gist to continue was given by a vote of the Commission, with the request
that as little grass as possible be disturbed. This resulted in only the
area above the fortification ditch being examined, in order to save the
most grass, with virtually none of the town site itself being investigated.

With this compromise reached, removal of a 20 foot wide strip centered over the ditch outline was carried out by machine from the woods at the access road to a point 40 feet north of the point where it joined the west fortification ditch. This broader area provided a good look at the ditch and related features, the most important of these being the small trench representing the position of the original palisade accompanying the fortification ditch. This one foot wide trench was seen only in four places, but individual postholes in the same relative position to the fortification ditch were also present in a few instances. The ditch as well as the accompanying postholes were very shallow, not being over two inches deep, and had been totally plowed out in most of its course. The position was five and one-half to six feet from the center of the fortification ditch, at a position which would place it directly in the center of an embankment accompanying the ditch along the south side, containing the same volume of soil as that removed from the ditch. Postholes and vineyard type ditches were occasionally seen, but none with a pattern that could be interpreted without opening a larger area for examination. Thus the entire opened area was limited to the fortification ditch.

At the Ashley River Marsh end of the ditch, at a distance of 100 and 150 feet from the marsh respectively, two angles were seen. It was here, too, that more artifacts were noticed than anywhere along this end of the ditch, possibly indicating the presence of an entrance through the palisade and across the fortification ditch at this point. One of the artifacts was a metal tube-shaped object one inch in diameter and three inches long,
with a threaded cap, possibly the remains of a bandolier cartridge, an object that might be expected to be seen on a seventeenth century site.

When the fortification ditch reached the level of the present marsh, it continued into the marsh parallel with the edge of the high ground until it was seen against the profile beneath a large live oak at present sitting on a point extending into the marsh. On the chance that the ditch originally continued into the marsh beyond the live oak position, a back hoe was brought to the site to reach into the marsh and cut profiles to reveal any ditch once located there. The first profile so cut revealed the ditch some six feet wide and four feet beneath the present marsh surface to its base. This ditch was filled with black humus, sticks, and muck, and had been cut into a pale blue clay, the same type blue clay with red veins mentioned by Nicholas Carteret as having been observed on the site in 1670, perhaps when these marsh ditches were being cut (Cheves 1897:168). Between this ditch and the toe of the high ground of Albemarle Point was a one foot wide trench or posthole that appeared to be in the correct position for a palisade, relative to the ditch. Three other slots were cut with the back hoe, all revealing the ditch. Two of these had the "palisade" type posthole or trench on the side of the ditch away from the bank. The conditions for recording this data were difficult in that the collapsing of the muck wall of the profile slot began almost immediately, requiring that two men jump into the slot and begin cleaning and recording the profile measurements at once. Within 30 minutes water would be standing in the hole. The collapsing profile was due to the pressure from the surrounding marsh and the fact that the bottom of the ditches were two feet below present sea level. In one of these slot
profiles, in the contents of the fortification ditch, a wooden peg was recovered, trimmed like a chisel. This peg is a reminder of the pickets used to hold blocks of sod together for facing the parapet walls of fortifications (Stotz 1958:81). Other objects of wood, leather, etc. would also likely be well preserved in the fill of this ditch and could be recovered if a project were undertaken to excavate the contents of the fortification ditch in the marsh.

The fact that the ditch had been dug in the marsh, and the fact that it paralleled the high ground for some 130 feet as a water filled moat, plus the fact that there appears to have been a palisade accompanying the ditch, all clearly indicate a fortification ditch. Until this was determined, here in the marsh, there was some room for speculation that the ditch we had been dealing with was, perhaps, only a property line ditch. This ditch protected against an attack across the marsh at low tide from the point of the mainland to the north. How far it extended along the edge of Albemarle Point is not known, but it is known that it did not closely parallel the high ground after the first point of land was reached, for slot trenches were cut here but no sign of the ditch could be seen. This indicates that the ditch either continued on a course parallel with the mainland shoreline of Albemarle Point (perhaps joining with the main fortification ditch at the tip), or that it stopped at the first point of land. This latter possibility is likely the correct alternative, for beyond this point the marsh itself would be sufficient defense against an attack, plus the flanking fire from the high ground and from behind the palisade accompanying the ditch. It is interesting that the profiles appear to indicate that when the ditch first appeared
in the marsh it was accompanied by a palisade between the ditch and the high ground, but two profiles indicate that the palisade apparently was in front of the ditch along part of its length.

The north fortification ditch, as revealed in plan, extends in the marsh parallel with the east side of Albemarle Point for a distance of some 130 feet at least. It angles to the west for 140 feet and then angles slightly to the north for 50 feet. In this 50 foot section it is suspected that a roadway came through the fortification. After leaving this point, the ditch extends for 350 feet until a major angle to the north is made. At this angle there was a rectangular disturbance measuring six feet along the ditch and extending from the ditch toward the inside for a distance of four feet. At first this angular feature was thought to relate to an entrance at the angle of the ditch, but upon excavation proved to be a tapering slope into the ditch, and likely represents an erosional gully formed from the trough created by the junction of the two fortification embankments paralleling the ditch. After leaving this angle the ditch continues for 260 feet until its junction with the west fortification ditch, making a total length of 955 feet for the north fortification ditch.

At its junction with the west fortification ditch it was found that a jog toward the west took place at a distance of five feet from the junction. The ditch became narrower at this point, and the bottom elevation sloped up rather abruptly until it matched the elevation of the bottom of the west fortification ditch. All this data points to the fact that the north fortification ditch was dug after the west fortification ditch was already in place. This is seen also in the plan of the junction.
of these ditches, where the west ditch is seen to extend past the junction with the north ditch a distance of six feet before making an angle toward the north. Since we know that the north fortification was built by September 1670 (Cheves 1897:196-197), we now know that the west fortification ditch was dug prior to that time, pre-dating the north ditch.

From the access road through the woods to the Ashley River Marsh, the contents of the north fortification ditch was removed by hand labor using shovels to skim the ditch contents in thin layers, but this was only done after sifting had revealed that the ditch contained almost no artifacts. With so few artifacts present, it was decided to use a different technique on the northern half of this ditch. A guide man was placed in the bottom of the fortification ditch at the edge of the unexcavated portion. A back hoe with a narrow bucket was guided by the man in the ditch into position against the profile of the fortification ditch so as to remove only the ditch contents. The back hoe load was dumped in a pile beside the ditch, where two crewmen with trowels quickly troweled through the bucket load of dirt. On the opposite side of the ditch two other crewmen did the same thing, thus allowing for a rapid removal and examination of the ditch contents for artifacts, while at the same time not spending an undue amount of time searching for the occasional artifact that did appear in the ditch. The horizontal provenience control was maintained by assigning a provenience number to each ten feet of ditch. The letter "A" was assigned to the fortification ditch in each "square" or ten foot section of the ditch, the letter "B" was reserved for all material in the ten foot area found in the yellow sand layer beneath the plowed soil zone, and other letter designations were used for
features, postholes, pits, etc. Thus provenience number 55A refers to the contents of a ten foot section of the fortification ditch.

Before the above technique of ditch excavations was begun, profile sections were taken at various places to determine the nature of the ditch fill. From these profiles it was seen that the ditch was characterized by having a depth from the present surface of from three to four feet, with a width at the bottom of from one to two feet. This bottom section was usually from six inches to one foot in depth, with side walls approaching vertical, with a more horizontal slope of the sides toward the top, resulting in a ditch outline below the plowed soil zone of from four to seven feet in width. We cannot assume, however, that the original ditch was this width, in fact, the broadly sloping sides are what we would expect to get from a ditch that had stood open for many years, gradually widening as erosion ate away at the top edges of the ditch. The bottom, therefore, would be the only part of the ditch that could be said to be original. In reconstructing the profile of such a ditch, the sides of the ditch at the bottom could be projected upward at the same angle seen in the bottom, and we can arrive at a conjectured width for the original ditch. This is assuming that no unusual angles and off-sets were built into the ditch originally, and such was not likely to have been in the case of a fortification ditch where a relatively steep side would be a protective advantage.

From the above we can see that the north fortification ditch, which appears to us today in plan at the bottom of the plowed soil zone as a ditch from four to seven feet wide, when projected to the present surface would produce a ditch from ten to 12 feet wide; whereas, if the bottom
sides of the ditch are used as a control for the projection, we arrive at a conjectural original ditch width of from five to six feet, a more likely width.

The North Ditch Strata

The cross-section profiles of the north fortification ditch reveal that the bottom one foot is water-laid yellow sand alternating with thin brown water-laid bands. This water-laid deposit, caused by water traveling along the bottom of the ditch carrying sand with it, represents the first erosional period of the history of the ditch after its construction between April and September 1670. The light color of the sand layers reflects fresh soil being washed into the ditch from the accompanying embankment as rains of the 1670's had their effect on the loose soil of the fortification embankment and ditch walls. After some time had passed, enough for the grass and weeds to have covered the embankment with a stabilizing cover, the usual summer rains did not carry so much sand into the ditch, and leaves, sticks, rotten vegetation, etc. could lie in the bottom of the ditch and become transformed into a dark humus filled layer, which is seen above the lighter water-laid sand layer in the ditch profiles. At times in the history of the filling of the ditch, the horizontally flowing water would cut into the side of the ditch, thus widening it, and occasionally undercutting, and subsequently refilling these undercuts with water carried sand. This situation is seen in several places and was a difficult one to interpret at first glance, for it gave the appearance in profile of horizontal slippage of the subsoil clay. The subsoil matrix into which the ditch was cut in 1670 consists of either white sand or orange clay. Horizontal flow of water along the ditch
would remove sand from these subsoil sand pockets with much greater ease than it could cut into the orange subsoil clay, thus producing an irregular eroded ditch wall line.

A characteristic of the ditch as seen in several profiles is the fact that the south or embankment side of the ditch was filled with lighter soil than was the north side. Relatively clean clay, almost indistinguishable from the subsoil clay, was washing into the ditch at times along the south side, clearly providing evidence for the placement of the embankment accompanying the ditch. This deposition of fresh clay apparently would occur at times of extremely heavy rains, when sections of the embankment mound would be exposed to the eroding force of the water, with actual slippage of masses of soil occurring in places along the embankment. These massive soil depositions would produce light colored lenses, or half lenses with the thick end lying against the south bank of the ditch, and the thin lens lying toward the center of the open ditch. As a result of this more rapid filling along the embankment side, the center of the ditch tended to constantly move toward the north, forcing more erosion from the north wall than from the south wall of the original ditch. In some profiles the attached lens were so clean of humus that they appeared to blend perfectly with the subsoil clay, with only a very slight difference being visible between the original subsoil and the displaced subsoil.

The top layer of the ditch was consistently dark brown, filled with humus, and containing some objects of the eighteenth century. This thick, dark top layer represents a long time of accumulation of winter's leaves and tangled summer's growth before the ditch was finally so full
that its presence was not seen on the surface. During this last period, occupants of the area dumped oyster shells at various places as they enjoyed their oyster roasts, but unfortunately for the archeologist, they failed to include with the shells many other objects from their households.

The plan of the north and west ditches reveals that the north ditch averages about five feet in width, and the west ditch is almost uniformly three feet in width along the entire length of the 425 foot excavated section. The only exception to this is the extreme northern end, beyond the point where the north fortification ditch joins the west ditch which then takes on the width of the north ditch. The clear implication here is that the north ditch, with that part of the west ditch to the north of the junction, received more erosion from the elements, thus making it wider than the west ditch. If it received more erosion, it must have remained open for a longer period of time. If this is the case, the question arises as to when the west fortification ditch was open in relation to the north ditch; a question that is answered through the artifacts recovered from these ditches.

The Artifacts from the North Fortification Ditch - Indian Pottery

The most abundant artifact type recovered from the north fortification ditch was Indian pottery. Half of this was a type made of sandy-clay containing organic fiber inclusions. The fiber temper varies considerably, being heavily present in some sherds, and virtually absent in others. The fiber is very fine, like hair in its character. The surface is plain, with parallel indentations the size of the fingers, as
though in the manufacture of the vessels a hand on the exterior of the vessels was pressing strongly against the side of the pot, leaving long parallel finger-width impressions. Small striations in these indentations appear to have been made as the fingers slipped over the surface of the damp clay. Some indentations are so smooth, however, that they appear to have been made with the edge of a smooth paddle.

Check Stamped pottery, primarily Deptford (Caldwell and Waring 1939: Vol. 1, No. 5-6) was present, representing 13.8 percent of the Indian pottery recovered from the north fortification ditch. 24.5 percent of the pottery was Complicated Stamped and Plain, which is here called Savannah-Pee Dee because the material recovered is typologically like that described by Coe (1952:309; Caldwell and McCann 1941). Four rim sherds of this pottery revealed the typical rows of reed punctations with stamped surface finish associated with Pee Dee Filfot Stamped pottery, with two having been applied to an added applique rim strip. This decorative motif, as well as one sherd with a large node, is also typical Savannah in characteristics (Caldwell and McCann 1941:40-52; Williams 1968:110-132).

Of particular interest in terms of the 1670 north fortification ditch is the pottery dating after the ditch was dug. A burnished, non-tempered type pottery apparently represents this post-1670 Indian contact period, with two rim fragments possibly representing copies of European forms. One of these appears to be a copy of a chamber pot or iron pot form, and the other has a thickened, folded rim identical to rims of North Devon Gravel-Tempered Ware, known to appear on sites from 1664 to 1695 (Watkins 1960:59). Making this parallel more dramatic is
the fact that two fragments of North Devon Gravel-Tempered Ware were found in the north fortification ditch, one having the same rim profile as the burnished rim fragment of Indian pottery.

Pottery made by Indians after contact with Europeans has been termed Colono-Indian by Noël Hume, and has been found in post-contact context from Delaware to Florida (Noël Hume 1962:1-16). A similar type in relation to the copying of European forms is Kasita Red Filmed, which is associated with the historic Kasita and Hitchiti sites of around 1675-1725 on the Macon Plateau (Haag 1940:9). Mission Red Filmed Ware has been found in forms imitating European prototypes by William Kelso at Fort King George, Georgia, in a 1650 to 1686 context (Kelso 1968). In short, considerable evidence is accumulating to demonstrate that whenever Europeans came into contact with Indian groups there was a reflection of this manifested in the ceramic forms. It is not surprising, therefore, to find burnished pottery made in imitation of European forms in the Charles Towne fortification ditches. This non-tempered ware was apparently made of local clays containing bits of organic matter which burned out in firing, producing dark areas around various shaped holes. The same type phenomenon is seen in bricks made during the colonial period of local clays, to be found in the Charleston Museum's brick collection.

The significance of the Indian pottery types represented in the north fortification ditch can best be understood by comparing the percentages of Indian pottery found there with those recovered from the plowed soil zone and the surface collection from the site. Only three sherds of European made pottery were recovered from the ditch, and the
same number was found in the plowed soil zone and the surface collection from the site. However, other seventeenth century objects were also found in the ditch, such as nails, bottle fragments, tobacco pipe stems, etc. A pottery type that was present in greater numbers in the ditch as compared to the plowed soil zone might be expected to have a temporal relationship to the European objects discarded there. Pottery lying on the ground prior to the time the ditch was dug, and thrown out with the soil to form the embankment accompanying the ditch, would be expected to find its way back into the ditch as fill along with the embankment soil. Such pottery would be expected to be present in relatively equal percentages in the plowed soil zone as in the fortification ditch fill. The following comparison will illustrate this point.

<table>
<thead>
<tr>
<th>POTTERY TYPE</th>
<th>NORTH DITCH</th>
<th>PLOWED SOIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandy Paste, Fiber Tempered</td>
<td>381</td>
<td>275</td>
</tr>
<tr>
<td>Check Stamped</td>
<td>112</td>
<td>121</td>
</tr>
<tr>
<td>Savannah-Pee Dee Plain</td>
<td>105</td>
<td>89</td>
</tr>
<tr>
<td>Savannah-Pee Dee Filfot Stamped</td>
<td>93</td>
<td>24</td>
</tr>
<tr>
<td>Burnished Plain</td>
<td>111</td>
<td>25</td>
</tr>
<tr>
<td>Incised</td>
<td>2</td>
<td>.25</td>
</tr>
<tr>
<td>Thom's Creek</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Hanover</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Fabric Impressed Cordmarked</td>
<td>.12</td>
<td>.18</td>
</tr>
<tr>
<td>Simple Stamped</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Cape Fear Fabric Impressed</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Corncob Impressed</td>
<td>1</td>
<td>.12</td>
</tr>
<tr>
<td>TOTALS</td>
<td>807</td>
<td>100.00</td>
</tr>
</tbody>
</table>


This comparison reveals a close relationship between the percentages of early pottery types present in the fortification ditch and in the plowed soil zone. The Burnished type, however, is present in greater numbers in the ditch than on the surface, as was the seventeenth century colonial material, indicating that this ware may have been discarded in the ditch along with the seventeenth century European objects.

The Burnished Plain type pottery was also found in other features wherever seventeenth century artifacts were present. If this is Colono-Indian ware being made by Indians in the area and finding its way into the midden deposits from the Charles Towne Settlement, who were the Indians making this type pottery and bringing it to the colonists at Charles Towne? It could have been brought by men like Dr. Henry Woodward who traveled extensively among the Indians and who arranged for daily goods to be brought to the settlement by friendly Indians in the time of shortage of food. The records indicate that among the friendly Indians with whom the Charles Towne settlers had traded by August 1671 were the Ashepoo, Wimbee, Edisto, Stono, Wando, Ettiwan, Sewee, Santee, Winyah, Cussoes, Sampa, Elasie, Esaw, Cotachicach [Cusitaws], as well as the enemy of the coastal Indians, the Westoes (Cheves 1897:334). It does not appear to be a simple matter, therefore, to attribute the burnished pottery to a particular group of Indians. We might assume, however, that it was brought into the settlement by one or more of these friendly groups, the Kiawah being the most often mentioned, probably because of their proximity to the settlement. There is also the possibility that some of these burnished sherds may represent an earlier burnished type Savannah Burnished Plain (Williams 1968:125).
European Ceramics from the North Fortification Ditch

Three fragments of European pottery were recovered from the north fortification ditch. One of these was a fragment of delft, and two were North Devon Gravel-Tempered Ware, known from historic sites in Virginia and elsewhere to predominate on sites dating from 1664 to 1695, and to extend into the eighteenth century to some degree until about 1760 (Watkins 1960:59). Finding this type ware in the north fortification ditch might be expected based on the dates of the sites on which it usually occurs.

Glass from the North Fortification Ditch

Wine Bottle

Two wine bottle bases were recovered from the ditch at the level of the bottom of the plowed soil, indicating that the feature was about half filled when the bottle fragments were discarded. From the shape of these compared with Noël Hume's bottle sequence, it appears they were manufactured during the second decade of the eighteenth century (Noël Hume 1969a:64). One bottle base (175B-2) is thought to have been French in origin due to the lighter color than those of English make (Noël Hume, personal communication).

Window Glass and Mirror

Two fragments of window glass were recovered from the ditch, as well as a fragment of a mirror. This fragment measured one and one-half by two and one-half inches, and was an edge fragment, the edge having been ground smooth and beveled. Paralleling the edge were two sets of wheel cut parallel lines, apparently applied as a decorative border. These lines were spaced one-sixteenth inch apart, with a distance of one-half
inch between the pairs of lines. On the opposite side of the glass in the center of this one-half inch space were wheel engraved circular depressions spaced one and one-eighth inch apart, to form, with the parallel engraved lines, a decorative border. The date of this fragment is not known, but it is interesting to note that among the goods of John Van Aerssen, inventoried in 1683, were four dozen looking glasses valued at five shillings (Baldwin 1970:291).

Musket Balls and Shot

One musket ball measuring eleven-sixteenths of an inch in diameter was found in the north fortification ditch, probably representing a .69 caliber musket. Also found here was a small swan shot measuring five-sixteenths of an inch in diameter (Hamilton 1960:127).

Gunflints

A single gunflint was recovered from the north fortification ditch. This is of gray chert and is made of a flake or spall having a wedge shape in cross-section. This type gunflint has been described by Witthoft (1966:26) as Dutch, and was the type used in America from about 1650 to 1750 (Hamilton 1960:73-79). Noël Hume indicates that gray chert gunspalls struck from nodules were being manufactured in England in the late seventeenth century, and apparently prefers the term gunspall rather than Dutch gunflints for this type (Noël Hume 1970:219). Woodward (1960:29) points out a strong English gunflint making industry in England from 1686, near the town of Brandon in Suffolk County, whereas Witthoft states that the archeological evidence is against the existence of any British gunflint industry prior to 1780 (Witthoft 1966:36). It is hoped that further
research by these experts cited here will reveal more details about the product being produced (if production there was) in the Brandon area between 1686 and 1780.

**Bandolier Cylinder**

Near the bottom level of the north fortification ditch at the first angle after leaving the marsh, in provenience Unit 18, a tinned, sheet iron, cylindrical container was found. This object, along with nails, glass fragments, North Devon Gravel-Tempered Ware, etc. constituted a concentration of objects at this angle in the fortification ditch, and likely may indicate the presence of an entranceway through the fortification at this point. The cylinder is one inch across and is two and five-eighths inches long. One end is closed and the other is open, revealing a turned under lip for a finished edge. One-third of the distance from the closed end are two depressions one-sixteenth inch wide and the same distance apart extending around the body of the cylinder. These depressions are slightly green in color, as though copper had been in contact with the object around these bands, and in one place a fragment of copper wire is still in place in one of these depressions. These copper rings or wires were probably designed to suspend the cylinder. It is thought that this object is a bandolier cylinder used for a short time from the middle to the latter part of the seventeenth century to hold enough powder for one charge for a musket or matchlock (Peterson 1956:61). About 12 of these were carried on a strap across the shoulder and were suspended by cords. They were made of wood, copper, tin, pewter, or leather (Peterson 1956:61). Illustrations of the seventeenth century musketeer wearing the bandolier provide a clue as to how cumbersome this
means of carrying powder apparently was (Peterson 1956:15, 58, 59).

From the records we know that among the supplies aboard the ship Carolina preparing to leave for the Carolina adventure in 1669, were "ten collars of Bandelears & one bundle of pistoll [bandoliers]" (Cheves 1897:138). For the entire expedition to Carolina, 13 pounds and six shillings was paid by the Lords Proprietor for "200 Collers Bandeleers" (Cheves 1897:147), so we know that bandoliers were present in Charles Towne in some quantity. However, they were not popular, as evidenced by the statement of the Grand Council at a meeting held in Charles Towne on June 18, 1672, where the following statement was made:

And forasmuchas Experience hath rendred the use of Bandelieres to be as well unsafe for keeping of Amunicon as alltogether inconvenient upon any Marsh in this Countrey and more slack upon any occasion of service it is also ordered by the Grand Councill that every person in this Province above the age of sixteen yeares under sixty doe forthwith furnish himselfe with One Catous Box conteyning twelve cartiarages at least before the last day of July next whereof all Masters of families are to take care to furnish his Servts with Catous boxes, or allow them sufficient time to make them... (Salley 1907:35).

As well as being ineffective in marshes, bandoliers were dangerous and were gradually replaced by paper cartridges, with this transition being virtually complete, and the bandolier obsolete by 1700 (Peterson 1956:65).

Roger Orrery in A Treatise of the Art of War, published in 1677, pointed out the problems involved in the use of the bandolier method of carrying powder charges.

Besides, I have often seen much prejudice in the use of bandeleers, which being worn in the belts for them, above the soldiers' coats, are often apt to take fire, especially if the matchlock musket be used; and when they take fire, they commonly wound and often kill him that wears them, and those near him: for likely if one bandeleer take fire, all the rest
do in that collar: they often tangle those which use them on service, when they have fired, and on falling off by the flanks of the files of the intervals, to get into the rear to charge again. To which I shall add, that in secret attempts in the night, their rattling often discovers the design, and enables the enemy to prevent it; and in the day time on service, especially if the weather be windy, their rattling also too frequently hinders the soldiers from hearing, and consequently obeying the officer's word of command, which must be fatal when it happens... (Peterson 1956:63).

Tobacco Pipes

A pipe bowl was found in the top level of the fill of the north fortification ditch after its junction with the west ditch (Sq. 82). It is marked with a raised circle on the side with what appears to be "R.TIP.PET", with an impressed "RT" facing the smoker. An identical pipe is illustrated by Adrian Oswald (1959:61) from excavations at a kiln site in Bristol, England. It was made by one of three Robert Tippets sometime between 1690 and 1740 (Oswald 1959:61). This type is somewhat unique in that it was characterized by a heelless form and was apparently made specifically for the American trade.

Twelve tobacco pipe stems were recovered from the north fortification ditch. These had the pipe stem bore diameters as follows: 7 - 5/64", 1 - 6/64", 4 - 7/64". Using the Hanson (1971:5) formula #5 for the determination of dating English pipe stem samples, $Y=1888.06 - 31.67X+(16.67)$, we arrive at a mean date of 1705.96 for the accumulation of the sample. This fits well within the range known for the Tippet pipes as reported by Oswald.

The West Fortification Ditch - Description

From the angle at which the north fortification ditch intersected with the west fortification ditch it is obvious that the west ditch is
older. This has been discussed in the introduction to the north fortification ditch. From the intersection with the north ditch the west ditch continues toward the south for 765 feet, and toward the north for six feet before angling toward the northwest. This ditch is narrower than the north ditch, being from three to four feet wide throughout its length. However, the six feet to the north of the junction is wider, matching that of the north ditch, indicating a different erosional history. This is supported by the fact that this portion of the west ditch is shown as a part of the north ditch on the Culpeper Map. Only 425 feet of this ditch was excavated so that damage to trees and shrubs could be avoided.

Machines were used to remove the plowed soil zone from an area 30 feet wide by 430 feet long, at which time a crew of shovel men schnitted the subsoil level revealing the ditch and related features. Of particular interest was a series of square postholes aligned in the same orientation as the Horry-Lucas Plantation House Ruin of the nineteenth century. These nineteenth century postholes are thought to represent a vineyard using arbors rather than the earlier "palisading" type trellis represented by the many ditches found on the site.

No other evidence for structures was found in this area. The early topography of the ground, however, was revealed by the fact that the fill over the central part of this excavated area much deeper than at either end of the west ditch, indicating filling had taken place to raise the ground level. The ground had originally sloped toward the Waring House and the head of a gulley once located just north of that house. Upon inquiry of Dr. and Mrs. Waring, it was learned that there had indeed been
a depression in the area that periodically filled with water, and which they had filled by scraping away some of the higher ground to the east into the low places to provide for better drainage and maintenance of this area.

This west ditch was not shown on Culpeper's Map of 1671, but we know the north ditch was dug by September 1670 (Cheves 1897:196-197), dating the west ditch prior to that time, perhaps as one of the first ditches dug on the site for defense against possible hostile Indians. We find that the west ditch profile is somewhat different from the north ditch in that the fill is more irregular and filled with what appears to be pockets of light and brown soil, indicating an intentional filling of the ditch in contrast to the gradual filling of the north ditch over a longer period of time accompanied by moving water. There was no evidence of a palisade accompanying this ditch. However, the erosion of the hilltop and the depth of the palisade trench along the west ditch may have been such that it was not revealed in the level of subsoil examined. It is thought that a palisade did accompany this ditch, just as was found to be the case for the north fortification ditch. In fact, a deed record of 1672 mentions the palisade on the west (SCA, Records of the Secretary 1671-1675:27).

Artifacts from the West Fortification Ditch

One hundred and twenty-four Indian pottery sherds were recovered from the west fortification ditch. One of these was a zig-zag stamped sherd with a sandy paste of unknown association at present. Seven sherds were sand tempered Savannah-Pee Dee type with one of these having an applied node surrounded by a ring of circular punctations such as those
recovered at the Irene site in Chatham County, Georgia (Caldwell and McCann 1941:41-42). Caldwell says these frequently occurred in the transition between the Savannah and Irene periods, gradually disappearing as the Irene period was under way (Caldwell and McCann 1941:42). Also present were seven sherds of Cape Fear Cordmarked pottery, a sand-tempered type frequently seen on sites of southeastern North Carolina (South 1960:38). With the exception of these fragments, the remainder of the Indian sherds consisted of a sandy paste ware with abundant to no fiber tempering, and a surface finish that appears to have been plain with parallel indentations made with the fingers or the edge of a smooth paddle. This was the major type found in the north fortification ditch, and certainly represents the predominate ware from the west fortification ditch.

Notably absent from this ditch were fragments of the burnished ware associated with the period of the ditch, such as that found in the north ditch. All the types mentioned above were present on the site before the ditch was dug and found their way into the ditch as it became filled. Absent too were fragments of Deptford pottery, which was found in the north ditch. The absence of pottery made by Indians at the time of the 1670 contact period in this ditch would imply either that the ditch did not stay open long enough to receive broken fragments of Indian pottery brought into the settlement by friendly Indians, whereas the north ditch remained open long enough to receive a considerable quantity of this ware, or that the burnished pottery from the north fortification ditch was not of the colonial period but earlier, probably Savannah Burnished Plain (Williams 1968:125).
Twenty-four wrought nails and an iron spike were found in the ditch, along with two small fragments of brick and two wine bottle fragments. If it were not for these artifacts, one would wonder whether the ditch had not been dug by Indians prior to European contact. Also found here were two fragments of baked clay objects thought to be from the Archaic period. With only these objects recovered from the west fortification ditch, it becomes clear archeologically that the west ditch remained open only a very short time before it was intentionally filled.

**Interpretive Summary of the West Fortification Ditch**

Since we know that the north fortification ditch and palisade was constructed by September 1670, as well as the west ditch, we may ask why Culpeper did not show the west fortification ditch as well as the north ditch on his 1671 Map. One reason is the fact that with the north ditch he was showing the relationship to two and four acre tracts of land lying just outside the town fortification, whereas on the west, "Behind the towne," he stated that Governor Sayle had set aside 16 acres for himself, and four acres for a churchyard (Cheves 1897:Frontispiece). From this we see that Governor Sayle's 16 acres joined the town, and since two and four acre lots were located on the town border on the north, Governor Sayle's property joined the town on the west. Since the governor's property and the churchyard were no doubt part of the town plan, the fortification ditch separating them may not have been shown by Culpeper for this reason.

Another reason Culpeper may not have shown the west fortification ditch line on his 1671 Map may relate to Governor Sayle's death and the subsequent building by Governor West of the plantation for the Lords.
Proprietor across Old Town Creek from Albemarle Point. Sayle died on March 4, 1671, and by the 21st, Governor West reported to Lord Ashley on the palisade enclosed area he was completing for the residence of the governor at this site (Cheves 1897:119, 297, 421; Gallardo:XVI, No. 2, 51). It may well have been that upon Sayle's death West knew that the 16 acres previously used by Sayle as a plantation could now be utilized as a part of the Charles Towne Settlement. We know that Culpeper's Map was being made prior to Sayle's death because of the mention of the 16 and four acre tracts set aside by him. Also, the map indicates land owned by Capt. Joseph West, and inserted above West's name is the note "our present governor." This note tends to indicate that the map was still being worked on when Governor Sayle died and West took over as governor. It may be that West knew that the settlement would be expanded to include the 16 acre tract previously held by Sayle, and may have instructed John Culpeper not to indicate the west fortification line on the map since it would no longer mark the boundary of the settlement. This then, may account for why this fortification line of 1670 was not shown on the Culpeper Map of 1671.

Archeology tends to support this interpretation through the virtual absence of artifacts in the west fortification ditch as compared to the east ditch. The width of the west ditch is narrow, with virtually no indication of erosion, whereas the east ditch is wider and shows signs of being left open for some time, as well as containing artifacts dating to the second decade of the eighteenth century. Archeologically then, there is evidence that the west ditch was open for a very short time after 1670.

Events later in the year point in this direction also. Lord Ashley instructed, in December 1671, that the town be made more orderly and
convenient (Cheves 1897:360), and within six months the Council passed an "Act for the uniforme building of Charles Towne" (Cheves 1897:393). And as a result, in July 1672, people owning lots in Charles Towne came before the Grand Council and turned them in and were issued new ones according to the new plan of the town (Cheves 1897:408). With 16 acres coming available in 1671 with the death of Governor Sayle and the completion of the governor's residence across from Albemarle Point, plus the urging of Lord Ashley to redesign the town layout, plus the archeological data indicating a short time period for the west fortification ditch standing open, there is strong evidence for the expansion of the settlement toward the northwest, outside the original fortification ditch limits. In such an event, the west fortification would only serve as an artificial barrier to free movement in this area and would have been allowed to fill up, or even encouraged to do so after 1672. By 1674 a witness stated that the palisades of the fort were practically demolished (Gallardo 1936: No. 3, 96), and in February of that year, the Grand Council requested that the surveyor bring his instruments to run the line of "a new fortification about Charles Towne" (Cheves 1897:462). This new fortification was undoubtedly further to the north than the original west fortification, and is yet to be located archeologically. It appears quite certain, therefore, that the west fortification ditch, as discovered in this project, represents the Charles Towne Fortification from 1670 to around 1672, and certainly no later than 1674. The north fortification ditch and palisade, however, were apparently still used as a part of the new 1674 fortification and were still standing open as late as the second decade of the eighteenth century, judging from wine bottle fragments, tobacco pipes,
and other objects dating from that period found in the upper part of the ditch fill. By following the fortification ditch in its continued extension toward the north, future archeology could very likely reveal the location of the fortification and palisade constructed in the new survey of 1674.

Interpretive Summary of the 1670 Land Face Fortification

In summary of the data revealed by the excavation of the ditch found along the land side of the tip of Albemarle Point, it appears that shortly after the colonists arrived at Albemarle Point in 1670, they began excavation of a ditch which would allow protection from possible Indian attack in this direction. Rather than placing a simple palisade across the 50 yard neck of land separating the tip of Albemarle Point from the mainland, they ran a fortification ditch with parapet and accompanying palisade in such a manner as to offer the maximum protection against attack by land. To have simply run a palisade across the 50 yard neck would have left the entire west side of the tip of Albemarle Point open to attack, for then a shallow marsh 20 to 30 feet wide would have been the only barrier against attack, and was hardly sufficient. The colonists were wise enough to recognize this obvious fact, and rather than palisade across the neck, they ditched and palisaded up the length of the neck, thus encompassing both of the tips of Albemarle Point and eliminating the possibility of attack on one point from the other. This seems a clear and obvious interpretation based on the archeological data and the military necessities presented by a defense of Albemarle Point against a land attack. However, it also vividly illustrated how misleading the written word can be when
used alone without corroborating archeological evidence. The reference to "a small neck not exceeding fifty yards which now is pallizadoed" would logically be, and has always been interpreted to mean, that a palisade extended across this neck. Only archeology could reveal that the reference was describing a palisade running up the length of the neck, which was found to have been the case. In such cases archeology provides an absolute check against continuing the historical bias resulting from a semantic trap. Some historians continue to argue for a palisade across the neck in the face of archeological evidence to the contrary, preferring the fickle word to the concrete reality.

The north fortification ditch was dug with two reentered angles so as to provide a crossfire cover in case of attack. This ditch also served as a property line for the area inside the fortification as well as for the two and four acre plots just outside this ditch. The west fortification ditch had no reentered angle, which is understandable in view of the fact that considerable protection from marshes was afforded along this side of the area. A deed record of May 20, 1672, mentions that a three pole lot was bordered "Westerly on the Towne fortificac'on or Palisadoes..." (SCA, Records of the Secretary:27), apparently a reference to the west fortification ditch found archeologically. This reference is the last we have to the west fortification until a new palisade was constructed in 1674. The fortification along the land face of Albemarle Point, as discovered archeologically and interpreted in an explanatory exhibit on the site consisting of ditch, parapet, and palisade, represents the first fortification of this area by the Charles Towne settlers between 1670 and 1674.
The Explanatory Exhibit of the 1670 Land Face Fortification

With the excavation of the north and west fortification ditch areas completed, the ditches were left open to form an explanatory exhibit for the interpretation of the historical-archeological feature to the visiting public. A low embrasure was placed in position to the south of the fortification ditch along the excavated length, with the soil in the embankment equivalent to that taken from the ditch. Back-hoes and front-loader type machines were used to position the major bulk of the embankment in position, then hand labor was used to shape the mound and compact it in position. When this was completed, sod was placed over the ditch and embankment by a landscaping crew, and irrigation pipe and sprayers were installed to supply water as needed for survival of the grass. As it happened, the irrigation system was used only one or two days when a month-long period of rains set in which completely set the sod and successfully stabilized it in position.

Pine poles treated with Penta preservative were sharpened and positioned in the original palisade ditch location in the center of the low embrasure accompanying the fortification ditch. These were placed in the area of the ditch extending from the Ashley River bank to just beyond the angle in the north fortification ditch. At this time a six inch rain in one afternoon caused considerable damage to the large fortification ditch embankment being rebuilt on the tip of Albemarle Point, and the funds for completion of the palisade had to be redirected to repair this damage. Eventually, however, this palisade reconstruction should be completed for the most effective presentation of this side of the fortification at Charles Towne.
Description and Method of Excavation of the Ditch

Near the tip of Albemarle Point where the deep water channel of Old Town Creek touched the high ground, a major fortification ditch was found forming a reentered, open "V" across the tip of the peninsula. The depression for this ditch could still be seen at the Ashley River edge of the high ground, and at the marsh on the Old Town Creek side of the point, but this could not be demonstrated as such until the entire ditch was revealed. Beginning at the Ashley River side of the point, the ditch extended for a distance of 205 feet at which point it made a 60° angle from a westward to a southwestward direction. It continued for 230 feet at which point it formed another reentered angle making another "V" with sides 40 feet long. From this point it proceeded to the Old Town Creek Marsh, a distance of 120 feet, making a total length of 635 feet.

The width at the subsoil level was found to vary from five to over 20 feet, with the width at the bottom of the ditch varying from two and one-half to five feet. The depth was from three to seven feet from the present surface. This impressive feature was obviously a major fortification protecting the tip of Albemarle Point from possible attack by way of the deep water channel. A feature so large could not be stripped of its plowed soil zone by hand as efficiently as with machine, so a frontend loader was employed. The first step in this direction was the cutting of the pine trees over the immediate area of the ditch, after which the stumps were removed by back-hoe and bulldozer. At this point
the front loader could be used to fill the pine tree holes and remove the plowed soil zone from the area to be excavated. A crew of some 30 to 50 men was then used to schnitt the area clean at the subsoil level to reveal the outline of the ditch and related features. A portable pump supplied water from Old Town Creek for wetting down the site and keeping the ground moist to best reveal the features being uncovered through the schnitting process.

Once the feature was revealed photographs were taken, and provenience designations were assigned for each ten foot length of the ditch. These were oriented at right angles to the axis of the ditch rather than to an arbitrary grid system superimposed over the feature. Alternating ten foot provenience units were excavated and the profiles plotted and photographed. In all squares on the east arm of the ditch a window screen was used to recover the smallest artifacts such as blue and white glass seed beads. The west arm contained very few artifacts compared with the east arm, so sifting of the entire contents of the ditch here was not carried out.

The profiles of the ditch revealed lateral movement of water along the length of the feature as had the land face ditch. For this reason the layering varied considerably from profile to profile. Alternate bands and lenses of yellow sand and brown humus layers revealed periods of flooding from hard rains when quantities of relatively clean sand were washed into the ditch, with humus layers representing periods of stabilization when leaves and other organic matter accumulated in the bottom of the ditch. Several squares revealed a thin black layer of very dark humus lying on snow white subsoil sand at the bottom of the ditch,
apparently representing the first fall of leaves from the winter of 1670.

The top of the ditch, as revealed in the profile, below the subsoil level was a dark brown humus-filled layer varying from a few inches to over a foot in thickness. This represented one of the final periods of stabilization when large quantities of humus were added to the ditch over a relatively long period of time. This dark humus-filled layer contained quantities of seventeenth century artifacts that were either deposited at the time the ditch had stabilized at this level or were re-deposited from the erosion of the surrounding area into the ditch. This brown to black, humus-filled, artifact-bearing level was designated as provenience layer A. Below this dark deposit was a lighter brown to gray sand layer with noticeably fewer artifacts. This layer was designated as provenience layer C (B having been reserved to designate all artifacts from the yellow "subsoil" level beneath the plowed soil from which Archaic materials were frequently found). Beneath provenience layer C was a slightly darker band of humus-bearing sand alternating with lenses of clean water-laid yellow and white sand washed from the embankment once accompanying the ditch. This layer was designated as provenience layer D. Beneath this layer, lying on the bottom of the ditch, was a humus layer representing the earliest accumulation of debris in the ditch. This layer was sometimes composed of lighter, less humus-impregnated soil, apparently representing water-laid deposits traveling horizontally along the bottom of the ditch. This bottom layer was designated as provenience layer E.

As can be seen in the profile drawings of this ditch accompanying this report, there was considerable variation as to where these various
provenience layers were found within any particular provenience unit. However, it was thought that this means of attempting to relate each unit within the ditch in relation to its appearance within the ditch fill was a better alternative than to arbitrarily assign a standard depth designation for the various provenience levels. In our provenience system, an artifact with the designation 38CH1-168A-27 can be immediately recognized as having come from South Carolina (38), Charleston County (CH), site number 1 within that county (1), provenience area 168 (in this case, a ten foot unit aligned within the ditch itself, layer A(A), and artifact number 27 within that layer. This can be determined without a need for reference to the catalog or provenience card file (except to determine the location of provenience area 168 and layer A on the site). This system allows the maximum facility and provenience control to be maintained at all times unencumbered by the need to adapt a grid system oriented in only one direction to linear features that may be oriented along an entirely different axis.

As the provenience units were being removed in alternate squares, the summer rains would frequently fill the excavation holes completely with water, necessitating the use of portable pumps for removing the flood waters from the excavation areas within the ditch. Another problem dictated by the sponsors of the project was to avoid cutting as many trees as possible. This resulted in a more narrow view of the area along each side of the ditch being examined than was desired by the archeologists, and also created something of a problem with space for disposing of dirt taken from the excavation of the ditch. The contents of the ditch were not excavated until all associated pits and features on each side of the
ditch were excavated and the resulting profiles plotted. Once this was done, the excavation of the main ditch could begin, allowing for the sifted soil to be placed beside the ditch at the position the rebuilt parapet would eventually occupy. This technique allowed for the minimum amount of moving of soil from the ditch to the position it would occupy in the rebuilt embankment accompanying the ditch.

The Artifacts from the Main Fortification Ditch

Indian Pottery

Since prehistoric Indian pottery fragments would be expected to be on the surface of the ground at the time the colonists arrived on Albemarle Point in 1670, and would find their way into the fortification ditch as it filled, there is hardly any point in an analysis of these by level within the ditch. A total of 486 sherds was recovered from the ditch, with 325 of these from layer A. Over half of the pottery from this layer was a burnished, plain type. There were no Colono-Indian forms represented, so this could represent a burnished type such as occurs with the Pee Dee Complex, or Savannah Burnished Plain. In the north fortification ditch, burnished sherds were also found, and we suspect that some of this burnished ware dates from the period of the colonial settlement. Deptford Bold Check-Stamped pottery was the second most prevalent type recovered, but this only indicates that a Deptford component was present on the site many centuries prior to 1670, and subsequently found its way into the ditch along with the fill dirt (Caldwell and Waring 1939:No. 5-6; Caldwell 1970; Williams 1968:117, 126). The third most prevalent type from the ditch was a sand-tempered, complicated stamped type, having a rectilinear motif
of parallel lands and grooves with a check-stamp occasionally added between two of the parallels, producing a linear check or "ladder" appearing design. This is not Deptford Linear Check-Stamped. No curvilinear fillet stamping is present, though one rim sherd has the applied rosettes typically found on Pee Dee and Savannah pottery (Coe 1952:309; Caldwell and McCann 1941:40-52). The percentages from the ditch fill are as follows: Burnished Plain 47%, Deptford Bold Check-Stamped 37%, Rectilinear Complicated Stamped 11%, and miscellaneous types 5%.

The miscellaneous types are Brewton Hill Zoned Punctuated, associated with the Deptford Complex (Williams 1968:141), Deptford Simple Stamped (Williams 1968:111), Brewton Hill Complicated Stamped, "a sand-tempered, stamped ware related to Swift Creek which characterizes the later Deptford levels" (Williams 1968:114, 179), a sherd incised with parallel lines similar to those found on Savannah Burnished Plain (Williams 1968:125), and a heavily sand-tempered Thorn's Creek sherd (Phelps 1968:17-30). With no evidence to the contrary, we might suggest that all these pottery types were lying on or near the surface at the time the Charles Towne settlers arrived in 1670. The possibility remains, however, that some of the burnished pottery may be contemporary with the settlement.

European Ceramics from the Main Fortification Ditch

Delft

Several pieces of thick British delft plates were found in the ditch fill in levels A and D (167A-1; 169D-28,25; 169A-33; 172A-37). These were decorated with cobalt blue parallel bands of various widths
around the inside of the plate. The area between was filled with a series of freely applied loops. The tin enamel glaze bubbled in firing, producing a sandy-feeling surface. This type of delftware is typical of the period from 1645 to 1675, and was probably made in London (Ivor Noël Hume, personal communication). Several other delftware fragments are free of any decoration, and have a pink, almost rose color, at various places over the glaze. One of these is a base of a delftware pharmaceutical-ointment pot (175D-1) of the period 1640 to 1690 (Noël Hume 1970:205), and the other is a plate form (166C-41; 167A-41; 168A-39; 168D-40; 169A-1), probably dating during the same time period (Noël Hume 1970:108). The fact that these pieces glue together and are from different provenience squares and levels, provides a clue to the re-deposition pattern within the ditch.

A particularly interesting piece is a polychrome delftware sherd (169D-27) that has been ground into a disc one and three-eights inches in diameter. It is decorated with three parallel bands of purple color on one-half of the disc, with the other half having three orange brush strokes. This is a fragment of a drug jar generally attributed to the period of the late sixteenth and early seventeenth centuries. Such jars are derived from the Italian albarelli of the fifteenth century which were being made by Antwerp potters in Belgium and in England, who were of Italian origin (Noël Hume, personal communication). Fragments of the type were recovered in a late sixteenth century context at the Fort Raleigh Site in North Carolina (Harrington 1962:23). At Mathews Manor, Noël Hume found the type dating no earlier than the 1640's (Noël Hume, personal communication). It is certainly interesting that this
polychrome type delftware is now seen to come from as late a context as a ditch post-dating 1670.

The function of these interesting discs is not known, but they are present on many historic sites. The one from the Charles Towne ditch may be one of the earliest yet known. South (1963:III, No. 2) has suggested that they may have been checkers, easily made from broken fragments of pottery. Pilling has reported finding majolica discs on California mission sites and suggests they may have been used as dice, and that they may be an African trait carried by slaves to the historic site contexts (Arnold Pilling, letter, May 9, 1967). Noël Hume has mentioned filed pottery discs used as whirligigs, in which case two holes would be necessary (Noël Hume 1970:321). Noël Hume recovered a similar rounded, two centimeter in diameter disc in the ruins of Oranjestad on St. Eustatius in the West Indies. This one is of pearlware, is transfer printed, and on the opposite side is a fragment of the mark of Enoch Wood & Sons used between 1818 and 1846, an interesting self-documenting specimen (Noël Hume, personal communication). As yet, no contemporary seventeenth century written reference to a possible function for these discs is known. An interesting parallel form is the many ground pottery discs found on Savannah, Pee Dee, Irene, and Lamar sites in a prehistoric context in the Southeast, such as the many discs found at the site of the Indian Ceremonial Center at Charles Towne, north of the 1670 Fortification Site. Similar discs made of wood, bone, ivory, and china were used as gaming dice by various Indian groups in the nineteenth century, and when found on historic sites they may well reflect the use by Indians, and perhaps colonists as well, of these discs as dice
or gaming discs (Culin 1907:170).

**Lead-Glazed Earthenware**

Several fragments of lead-glazed red earthenware were recovered from the ditch fill, and are apparently fragments of storage jars. One fragment has a high manganese content in the lead-glaze producing a rich, red-brown glaze. The time span for such ware is so great that it cannot be used as a means of dating an archeological context.

**Marbelized Slipware**

Fragments of a costrel or saddle bottle of redware covered with a marbelized lead-glazed slip were found in three layers of the ditch over an 85 foot area, again illustrating the scattered, mixed nature of the ditch fill (2X-28; 171C-1; 172A-38, 39, 40; 172D-29; 173A-32; 177A-26). This form is that of a tall, pear-shaped saddle bottle with a spread pedestal foot, with four lionesque masks or faces around the side with a hole behind each for the attachment of thongs for support. These are considered to be Italian or possibly French in origin and date from around 1610-1660 (Noël Hume 1970:77; personal communication). This type bottle is often seen in paintings of the mid-seventeenth century.

**Brown Salt-glazed Stoneware**

Several fragments of brown salt-glazed Rhenish stoneware, Bellarmine type jugs were recovered from the fortification ditch. Three of these have fragments of a medallion visible with splotches of cobalt blue glaze (171A-28; 173A-30; 174A-31) and date from the early seventeenth century (Noël Hume 1958:440; 1970:56). A neck fragment (177E-1) with an applied grotesque mask in relief is grey in color, dating from the period around
1650-1670 (Noël Hume 1970:56). Other fragments without the cobalt blue on the medallion date from the same period.

The dates provided by European ceramics for the accumulation of the material in the ditch can be summarized as follows:

<table>
<thead>
<tr>
<th>Material</th>
<th>c.</th>
<th>c.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delft Plate</td>
<td>1645</td>
<td>1675</td>
</tr>
<tr>
<td>Delft Ointment Pot</td>
<td>1640</td>
<td>1690</td>
</tr>
<tr>
<td>Delft Disc</td>
<td>1640</td>
<td>1690</td>
</tr>
<tr>
<td>Marbelized Slipware</td>
<td>1610</td>
<td>1660</td>
</tr>
<tr>
<td>Stoneware</td>
<td>1650</td>
<td>1670</td>
</tr>
</tbody>
</table>

From this we can see that the site must date between 1645 and 1690, and if we take a middle date for this period, we arrive at 1668, and if we take the upper date for four of the five brackets as a likely date for the sample, we arrive at 1670 which happens to be the known historical date for the establishment of the site. The ceramic evidence clearly falls within the time period of the 1670's when the fortified site was occupied.

**Tobacco Pipes - Stems**

The broken stems of clay tobacco pipes can be used to arrive at an approximate date for the accumulation of a sample of stems by measurement of the bore diameters, which have been found to decrease in size through time (Harrington 1954). A series of formulas have been devised with which to work in arriving at a mean date for the accumulation of the sample (Hanson 1971:5). Hanson's formula #5, based on a time range of 1650 to 1750 was used on the 206 tobacco pipe stems from the main fortification ditch at Charles Towne. This formula and the results are as follows: 
\[ Y \text{ (sample date)} = 1888.06 - 31.67X \pm (2s) \] (Average deviations
of 16.67).

<table>
<thead>
<tr>
<th>Bore Size</th>
<th>Sample</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/64&quot;</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>6/64&quot;</td>
<td>24</td>
<td>144</td>
</tr>
<tr>
<td>7/64&quot;</td>
<td>157</td>
<td>1099</td>
</tr>
<tr>
<td>8/64&quot;</td>
<td>19</td>
<td>152</td>
</tr>
<tr>
<td>9/64&quot;</td>
<td>3</td>
<td>27</td>
</tr>
<tr>
<td>Totals</td>
<td>206</td>
<td>1437</td>
</tr>
</tbody>
</table>

\[
1437 \div 206 = 6.98 = X \text{ (the mean bore diameter)}
\]

\[
31.67 \times 6.98 = 221.05
\]

\[
1888.06 - 221.05 = 1667.01 = Y \text{ (mean date for sample)}
\]

From this date of 1667, we can see that we are close to the known historic date of 1670 for the occupation of the site, and would not be far from wrong if we were forced to depend on pipe stems alone for the determination of a date for the Charles Towne Site.

**Tobacco Pipes - Bowls**

A total of 51 pipe bowl fragments were recovered from the main fort ditch, six of which were impressed on the heel with the initials "EB" in a double circle. Some fragments revealed that pipes with broad flat heels were present as well as some with spurs. The shapes are numbers 8 through 12 in Noël Hume's typological sequence, dating from 1645 to 1680 (Noël Hume 1970:303). All bowl rim fragments were rouletted. One bowl fragment with stem attached is impressed with the initials "ID" in a circle on the heel, and the stem has four individually stamped fleurs-de-lis in a diamond, forming a larger diamond panel enclosed within two rouletted lines extending around the stem (166D-25).

The "EB" marked pipes have been discussed previously in this report and may have been made by Edward Battle of Bristol, who received his freedom as a pipemaker in 1660 (Pritchard 1923:165-191) and operated until around 1685 (Iain Walker, personal communication). Walker reports
that the Dutch were also using this mark, but that there is difficulty in distinguishing the English from the Dutch forms in this period. Pipes marked "EB" have been found on a number of American Indian sites of the seventeenth century as well as at Jamestown, Virginia (Noël Hume, personal communication).

The pipe with the "ID" mark on the heel and the fleurs-de-lis on the stem is thought to be that of John Dove of London, who was making pipes around 1664 (Pawson 1969:129-30). Seven pipes so marked were found in a seventeenth century trash deposit in Virginia, and 40 stems with the identical fleurs-de-lis panel between rouletted lines were also found in the deposit (Pawson 1969:123-124). The "ID" marked examples from Virginia were surmounted with a crown, and although a crown cannot be seen on the example from the Charles Towne ditch due to a break and a poor impression, the spacing within the circle is such that ample room is left for a crown over the "ID". For this reason, it is thought that the Charles Towne example also had a crown as did the Virginia examples. Iain Walker has stated that pipestems with fleurs-de-lis on them are almost certainly Dutch, as are those with a crown over the initials of the pipemaker (Iain Walker, letter, July 9, 1969). If Walker is correct, it appears that the "ID" pipe may not be John Dove of London, but some unknown Dutch pipemaker. John Dove's associated date of 1664, however, certainly is the proper time period for his pipes to have found their way to the Charles Towne Site. It is interesting to note that the 40 fleurs-de-lis stems from Virginia, of the identical type found in the Charles Towne Ditch, produce a date of 1669.54 with Hanson formula #5 (Hanson 1971:5).

One small bowl fragment with a pattern of dempled bumps over the
surface was also recovered from the Charles Towne fort ditch (168A-46). This type is rare in England but is said to be quite common on Dutch pipes (Noël Hume, n.d.). This clue plus Walker's suggestion that the "ID" example is Dutch surely point to the presence of Dutch pipes at the Charles Towne Settlement.

**Tobacco Pipes - Red Clay**

Three stems and two bowl fragments of a red clay pipe were recovered from the Charles Towne ditch (166C-24; 168A-41-44). These seem to be of the same form as those of ball clay, with the bowl fragment having an incised rim-line where the European examples have a rouletted line. One stem fragment indicates that there was a heel similar to the ball clay examples. The stem bore diameter is 9/64". Robert Marx found a large quantity of red clay pipes at Port Royal, which Noël Hume has indicated probably date from 1680-1705 (Marx 1968:12). Noël Hume suggests these may have been made in Jamaica, while Adrian Oswald says they are English, possibly originating in North Ireland or Stamford, England, in the last half of the seventeenth century (Marx 1968:12). Marx reasons that they are not from Jamaica, and that no mention was made of pipemakers in the 1688 Taylor manuscript listing craftsmen in Port Royal at that time (Marx 1968:12). It appears that there is still considerable work to be done on red clay pipes to determine the source of origin and the dates involved. However, it does appear that the Charles Towne examples are well within the known period of manufacture and use of such pipes. There is the additional possibility that some red clay pipes of this type may have been made in America.

From the tobacco pipe evidence we again have a clustering of dates
and date brackets around the period of known settlement of Charles Towne in 1670.

**Glass - Bottles**

A few small badly pitted wine bottle glass fragments were recovered from the fort ditch. One of these (175B-2) was a base fragment large enough to make a comparison with the sequence of wine bottles illustrated by Noël Hume (1970:63). From this comparison, we can see that the Charles Towne example apparently matches the form of a bottle dated 1661. The pale grass-green color of the bottle glass with a heavy concentration of small bubbles in the metal indicates that this is likely a French wine bottle (Noël Hume 1970:70; personal communication).

**Glass - Pharmaceutical Bottles**

A few small, very thin fragments of pharmaceutical bottles were recovered in the main fort ditch, but these were completely non-diagnostic (Noël Hume 1970:72).

**Glass - Beads**

Window screens were used to sift the soil from the fort ditch in order to recover small seed beads. The soil remaining in the sifters was then washed to remove the maximum number of beads. A total of 241 beads was recovered, consisting of 157 opaque white beads. The size varied from medium to large, i.e., 2 to 3.5 mm. Other types represented were opaque black, opaque light blue, opaque yellow, transparent blue, and transparent green. These type names are those used by Richard Polhemus of the Institute of Archeology and Anthropology who is at
present conducting a typological analysis of glass beads. Beads are not easily dated, but research is presently being conducted by various individuals in an attempt to obtain definitive criteria of value. John Combes, Assistant Director of the Institute of Archeology and Anthropology, has worked on an X-ray technique which he feels has great promise in distinguishing a blue bead of the seventeenth century, for instance, from one of the eighteenth century, a difference that cannot be determined through visual observation.

The beads found in the fort ditch were almost all recovered from layer A. They are reminders of the request made by the governor and Council in 1671 of the Lords Proprietor for Indian trade items including "Indian trade hats and beads bleu and white some great ones..." (Cheves 1897:353). Unfortunately, no "great ones" were discovered.

**Small Metal Artifacts**

A lead bale seal was recovered from the fort ditch (168A-30) having the initials "WM" pressed in relief on the face. This is probably a merchant's seal "Noël Hume 1970:269).

Two brass wire hooks for hook and eye fastening of garments were found in the fort ditch (168A-29,49). Such hooks have been found to date from the second quarter of the seventeenth century onward (Noël Hume 1970:255). These from the fort ditch at Charles Towne remind us of the reference to "Huckes and eyes for men" found in the 1686 inventory of Paul Grimball some years after the abandonment of the site on Albemarle Point (Baldwin 1970:2).

A silver sleeve button, dome shaped, with a central nipple was found in the fort ditch (171A-22). There are two holes in the back of each
button, with eyes soldered in place, joined by a plain oval link. This may be one of the earliest examples of a sleeve button yet found in America, probably dating from the early seventeenth century (Noël Hume 1970:88; 1961:380; personal communication).

Fifteen brass straight pins were recovered from the ditch, all with the typical wire-wound heads to be expected on a site of the seventeenth century (Noël Hume 1970:254). They were once coated with tin, fragments of which still can be seen on some examples.

A triangular piece of flat copper sheeting one and three-eighths inches long was also recovered from this ditch (167A-28) and is similar to some copper arrowheads that have been recovered from historic contact sites elsewhere. This piece may, on the other hand, have been a blank from which a copper "tinkler" was made such as those found made of triangular fragments of copper on Indian contact sites at Fort Moore, in the Cherokee country, etc.

A fragment of a bone-handled table knife was found, but it was not large enough to be diagnostic (170C-23).

A very thin jetton, 11/16" in diameter, was recovered from the fort ditch (170A-18). On the obverse side is an almost totally obliterated portrait of Louis XIV, with the legend "LUD:XIII DG:FR:ET:N.REX" and on the reverse is a shield enclosing fleurs-de-lis and the legend "COS LAVFER RECHPF: IN:N". This is very similar to jettons reported by Noël Hume (1970:73) made by Wolf Laufer (c.1618-60) in Nuremberg specifically for export to France (Noël Hume 1970:171-73). Noël Hume says practically all archeologically recovered jettons date prior to the mid-seventeenth century. The Charles Towne example is an exception to this. These jettons were
originally intended as casting counters as mathematical aids, but were often traded to the Indians (Noël Hume 1970:171-174). Similar casting counters have been found at the eighteenth century town ruins of Brunswick in North Carolina.

A total of 266 lead balls and small buckshot were found in the ditch, with 260 of these coming from layer A. Two basic sizes appear to be represented with the shot, 1/8" and 3/16" in diameter. The mold-made bullets measure 5/16", 3/8", and 11/16" in size. Three fragments of casting sprues from bullet molds were also recovered. One large musket ball had been flattened on opposite sides, and a hole had been formed by driving a sharp nail through it, probably to form a sinker for a fish line (168A-59).

**Gunflints and Fire-flints**

Five gunflints (168A-25; 168E-20; 169A-36; 169D-20; 168C-24) and two broken fragments (168C-24/1; 168A-25/1) were recovered from the main fortification ditch at Charles Towne. They were made from gray to black flint pebbles and are probably from English beaches (Witthoft 1966:26, personal communication). They appear to have been either reshaped Dutch gunflints or made locally on the Charles Towne Site, judging from the unprofessional manner of their manufacture (Witthoft, personal communication; 1966:22-23; Hamilton, personal communication; 1971:62). The thick edges are battered more severely than is usually seen on later gunflints, and this is due to the high angle of the blow against the battery in seventeenth century guns (Witthoft 1966:24). No typical "D" shaped Dutch gunflints with the wedge-shaped profile section, usually associated with the Riss outwash flint, were found in this ditch (Hamilton 1971:62), however,
these locally made flints were fashioned from spalls, and crudely chipped to a rectangular shape. Two of the gunflints may have been reworked from Dutch type gunflints.

Found with the gunflints in this ditch were a surprising number of fire-flints made of the same material, as well as a quantity of chips from the manufacture on the site of the gunflints and fire-flints or strike-a-light flints. Four of the 14 fire-flints recovered are roughly rectangular, almost like the poorly made gunflints. Nine fire-flints were merely chips of flint that had been used to strike against a fire-steel. The largest example was a fist size nodule of flint with almost every exposed edge having been subjected to frequent contact with a fire-steel (180A-23). This mini-workshop for manufacture of flakes for gunflints and fire-flints probably results from using flint pebbles from English beaches being brought in probably as ballast and used for this purpose as needed. We know ballast stones of this material may have been used though such stones have not been found in quantity on the site. The presence of so many fire-flints and so few gunflints from the ditch may point to the need for fires to be constantly at hand, such as would be the case if matchlocks rather than flintlocks were being used to defend the Charles Towne Settlement. Matchlocks may indeed have been a familiar small arms weapon at Charles Towne since it was the standard for the British Army until 1690 (Noël Hume 1970:211). Also, among those goods brought with the colonists to Charles Towne were "100 of Match", as well as "1000 of Flints", and "30 barrells of small shott" (Cheves 1897:147), indicating that perhaps flintlocks were more important than the
matchlocks. In fact, the match referred to may well have been for the artillery pieces.

Iron Artifacts

No identifiable iron objects other than wrought nails and a few spikes came from the Charles Towne Fort Ditch. A total of 995 nails and five spikes were recovered, most in a poor state of preservation.

Brick Fragments

Small fragments of poorly fired bricks were recovered from the ditch. These were uniform in texture, being sandy and easily crumbled, red to orange and buff in color, with numerous holes where the organic matter had burned from the clay. These bricks contrasted vividly with the mottled, speckled red and orange clays used in bricks found in later contexts throughout the site. These uniform textured bricks came to represent an early type, for when an early context was involved, it is the only brick type present.

In a list of the costs of the tools and iron ware brought for the 1670 expedition, there were 1000 bricks and six grindstones costing one pound ten shillings (Cheves 1897:149). These bricks we have recovered from the earliest contexts at the Charles Towne Site may well be fragments of these 1000 bricks, or possibly from an early brick kiln set up shortly after their arrival to produce chimney bricks for the wooden structures in the village.

Midden Material

Animal bone from cattle, hogs, and other domestic animals as well as deer and other native animals have been recovered from the features on
the site, along with oyster shell, providing some idea of the diet of the colonists. However, the analysis of this material is still underway.

Baked Clay Objects

Ten fragments of baked clay objects made by the Indians long before the Charles Towne Settlement was begun were found in the fort ditch where they had made their way during the filling process. A number of these objects of some three to four thousand years ago were found during excavations on the site and are reported in more detail in another section of this report.

Interpretive Summary of the Main Fortification Ditch

This major ditch across Albemarle Point with its inverted angle to the point and its additional re-entered entranceway "V", provided a protective wall behind a wide ditch from which the colonists could defend against any attack by way of the main highway to the site, the deep water channel of the Ashley River and the stream now known as "Old Town Creek." The documents reveal that 12 pieces of artillery were positioned behind this fort wall and also reveal their being on ship carriages. The "V" shape of the ditch would provide for an enfilading crossfire against anyone attempting an aggressive landing on the tip of the peninsula. The position of the entranceway "V" near the west end of the ditch points to this area as that nearest the port where vessels were unloaded and their cargoes brought into the settlement under the protective guns of the fort.

The archeological evidence from the ditch itself points to the fact that the ditch was rapidly filled by washing sand after its original
construction following the Spanish scare of August 1670. At various periods the ditch would stabilize and humus would accumulate, resulting in brown lenses of soil in the ditch fill. Within a relatively short time, the bottom half of the ditch was full of sand, and a long period of stabilization occurred. It was during this period, represented by layer A in the ditch fill, that pins, musket balls, delft, gunflints, in fact, the majority of the artifacts recovered were discarded and thrown into the ditch. This occurred primarily in the east arm of the ditch in provenience areas 166 through 173.

A significant fact to emerge from any feature of this sort is the time period involved in the filling of the feature once it was opened. The artifacts themselves provide this information. We have seen in the preceding section on artifacts that some of these can be dated within rather narrow limits, thus allowing for the time to be fixed for the accumulation of the sample. The summary of this temporal data is as follows:

<table>
<thead>
<tr>
<th>Artifact Type</th>
<th>Date Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceramics</td>
<td>1670's</td>
</tr>
<tr>
<td>Tobacco Pipe Stems</td>
<td>1667.01</td>
</tr>
<tr>
<td>Tobacco Pipe Bowls - Form</td>
<td>1645-1680</td>
</tr>
<tr>
<td>Tobacco Pipe Bowls - EB Mark</td>
<td>1660-c.1685?</td>
</tr>
<tr>
<td>ID Mark</td>
<td>1664 - ?</td>
</tr>
<tr>
<td>ID Mark &amp; Fleur-de-lis</td>
<td>1669.54 (Virginia parallel)</td>
</tr>
<tr>
<td>Glass Wine Bottle</td>
<td>1660's - ?</td>
</tr>
<tr>
<td>Brass Jetton of Louis XIV</td>
<td>before 1660</td>
</tr>
</tbody>
</table>

From this accumulation of data, we can see that the ditch was likely filled prior to the 1680's, and from the documents we know that it was dug in 1670. If we did not know that the ditch was dug in 1670, we might conjecture that the data point to a mean date for the ditch from the 1660's to the 1670's, and in so doing, we would not be far wrong in that our mean
date would be the known date for the first settlement in 1670. The absence of artifacts that must date to the 1680's and 1690's would clearly point to an early closing of this ditch, either before such items were brought to the site, or that the site ceased to be occupied. From the documents, we know the latter case to be true, and that 20 of the guns were taken from the fort in 1682 (Sally 1959:186). We can safely say, therefore, that the contents of the fort ditch reveal an accumulation in the 1670's, with a strong likelihood that nothing was added after 1682 at the latest. These artifacts then, represent those discarded during the earliest years of the Charles Towne Settlement, probably by those men who were serving garrison duty at the fort.

The nature of the deposit and the objects recovered does not allow us to launch into an exhaustive analysis of the Charles Towne homes and cultural patterns of the settlers of the 1670's. The data does, however, point to the fact that the men were smoking tobacco in pipes brought from England, they were eating from delft bowls and drinking the contents of stoneware Bellarmine jugs and French wine bottles. They were building fires at the fort using flints they had chipped themselves from nodules from Belgium. Their clothing was fastened with hooks and eyes made of brass wire. They were defending themselves with flintlock muskets firing shot and ball, and they were eating the animals they brought over with them from England, as well as those shot and gathered on the land and the waters of their new home. If this seems a pitifully small enrichment of our knowledge of the Charles Towne settlers beyond the written historical documents, we should keep in mind the architectural data of the fort itself as well as the artifacts left on the site. The fort ditches, embankments,
and palisades are now known to the exact spot of their original position, and a new understanding of the relationship of this fort to the town further north is now glimpsed. With this understanding we no longer must depend on conjectural stylized visions of a seventeenth century town "of the period" on Albemarle Point. Through archeology we have the anchors to the reality of the original settlement fortification in detail that we could not have imagined in our most incautious dreams. Through a rebuilding of the parapet accompanying this ditch, the visitor is made aware of the scope of the fortification, and in his mind's eye can bridge the chasm between the luxury and abundance of the present and the hardships and fears experienced by the first settlers on Albemarle Point.

The Explanatory Exhibit of the Main Fortification Ditch

During the excavation of the contents of the fortification ditch, the soil was placed along the north edge of the ditch in preparation for its being used in the rebuilding of the embankment that once accompanied the ditch. Front loader machines and back hoes were used to move the dirt to position, and hand labor was used to shape the parapet walls. Openings for artillery pieces once mounted on wooden platforms behind the fort were left to provide the impression and implication of the artillery pieces. This was considered more accurate than to have eliminated such openings entirely. The size of the accompanying parapet was dictated by the size of the ditch, and an equivalent amount of soil was attempted to be placed in the embankment.

Within two days after completion of the sodding operation, a rain fall of six inches in one afternoon was such a strain on the embankment
and its blanket of sod, that quantities of it slid into the ditch, along with sections of the embankment. Funds for repairing of this damage were taken from those set aside for building the palisade along the land face fortification, and the embankments were rebuilt and sodded again. The landscaping firm of Micah Jenkins Nurseries of Charleston was contracted to do this job under the supervision of the archeologists, and they did an excellent job. They built a framework of two by eight inch timbers and countersunk these so that the top was flush with the remaining portions of the embankment. The spaces between this framework were then filled with soil and tamped into position. This was a much more efficient method of handling the dirt on the steep sloping sides of the wall than the previous method of placing it in position with shovels and tamping in place. Once the dirt was filled in between the framework of wood, a chicken wire cover was placed over the framework. The rolls of sod were then placed on this wire and pinned down with large wire "staples". This method was entirely successful in stabilizing the embankment and ditch walls.
EXCAVATION OF THE ARTILLERY REDOUBT IN FRONT OF THE MAIN FORT DITCH AT CHARLES TOWNE

Immediately in front of the main fort ditch, between the point of the reentered angle and the "V" of the entranceway, a circular ditch was found. This ditch was from ten to 12 feet wide and was in the shape of a fan, the center orienting at a 90° angle off the fort ditch and measuring 65 feet from one side to the other. Ten feet inside this large ditch was a smaller one measuring from six inches to one foot wide, also in the shape of a fan. In the center of the area inside this trench was a large posthole two and one-half feet across, and beside this hole was abundant evidence of the presence of many fires. These fires had baked the ground to a black and red brick-like hardness. In the ash and burned soil of this hearth area, lead casting sprues for swan shot were found, along with a large quantity of wrought nails, many bent, indicating that the wood for the fires was apparently being salvaged from some razed structure. Several small "L" shaped wire pins were also found in the ashes of this hearth. A brass drawer handle and fragments of an escutcheon plate were found in the dirt taken from the posthole. As excavation of this feature progressed, it became apparent that these features represented an artillery redoubt in front of the main body of the fort. The small trench represented the position of vertical timbers no more than six inches wide, and the outer ditch was a fortification ditch from which dirt was obtained for an embankment between the two ditches. The central posthole was apparently
designed for a post not larger than 18 inches in diameter and, since it was in the center of only a 20 foot span from one side of the small ditch to the other, it was obvious that the central post was designed to support a heavy weight, no doubt an artillery piece. The burned area represented a seventeenth century hearth around the central post, apparently used by those who were charged with the operation of the artillery piece on the platform above. The archeological evidence, therefore, clearly indicated enough architectural data to allow for a good idea of the appearance of this feature.

From the large dry redoubt ditch almost no artifacts were recovered within the top two-thirds of the ditch. The bottom layer, however, was rich with large pintles, hinges, fragments of Delft tiles, lead fragments, and many handfuls of casting sprues for lead swan shot, and musket balls. Such a quantity of discarded sprues would seem to be a waste of good lead, but apparently there was enough on hand so that the sprues could be discarded rather than being melted again to make more shot. One fragment of lead sheeting had the word "Gray" written in script, and likely was once owned by Thomas Gray, who was a Charles Towne leader from 1670 until 1673. He was a military leader, as well as a member of parliament and the council. He lead expeditions against the Kussoes, Westoes, and Stonos. He lead civil disturbances in 1673. His property was seized by the government, and he fled the Province (Cheves 1897:222,342). It appears then, that the lead sheet with the name "Gray" would date between 1670 and 1673. Other artifacts of interest and importance in dating and understanding this feature are presented in a later section.
The Method of Excavating the Redoubt Ditch

As the area over the west arm of the main fort ditch was cleaned and plotted, a junction with a feature extending toward the south was seen. Slot trenching of the area of this new feature revealed the fan-shaped ditch of the redoubt. More pine trees had to be cut and the tap roots removed by back-hoe before a front-loader could remove the plowed soil from the area over the redoubt. Once this was done, the shovel crew cleaned the subsoil surface revealing the ditch outlines and associated features. Provenience areas of the redoubt ditch were assigned as dictated by the ditch itself, and features were assigned numbers as they were revealed and plotted on the master plan of the site.

The profile of the redoubt ditch revealed a top layer of light sand containing virtually no artifacts. Beneath this was a darker humus layer also containing no artifacts. These two layers composed half of the two foot depth of the ditch below the topsoil zone and were designated as provenience layer "A". Below this dark layer was a layer of light sand, again containing virtually no artifacts. Beneath this light layer was an artifact bearing layer containing oyster shell, garbage bone, casting sprues for swan shot, delft tile fragments, and other objects of the late eighteenth century period. These layers were assigned provenience designation "C". Since the artifacts came primarily from this bottom six inch layer of the ditch, we know that they were thrown in not too long after the ditch was opened.
The Artifacts from the Redoubt Ditch

Indian Pottery

A varied sample of Indian ceramic types was found in the redoubt ditch, but only 25 sherds were recovered. These consisted of the sandy paste, fiber-tempered type found in such large numbers in the north fortification ditch; Deptford Bold Check-Stamped, Cape Fear Cordmarked and Fabric Impressed (South 1960), Savannah Check-Stamped (Williams 1968:130), and Brewton Hill Complicated Stamped types (Williams 1968:114).

European Ceramics

Fragments of seventeenth century delft tiles were recovered having the corners decorated with the "bug" or "Spider's-head" corner design (206C-61,63) with the face decorated with a human figure (207C-89) of the type dating from the third quarter of the seventeenth century (Noël Hume 1970:290-292; Type 12) and into the eighteenth century.

A corner of a blue transfer printed tile, similar to Noël Hume's type 20 (1970:291), was recovered from the redoubt ditch (205C-24). This particular fragment is English and is unique in that it represents a transfer printing process in which the design was carved on a wooden block, rolled with ink, and imprinted on the tile using the block printing technique. This technique was an experiment used only between 1756 and 1757, thus pinpointing very specifically this fragment and the layer from which it came in the ditch (Lane 1960). A tile of this type is also illustrated by Bernard Hughes (1956:141, Fig. 4).

A very finely etched transfer printed tile fragment printed in black was also found in the redoubt ditch (206C-67). This type of transfer printing was used by Sadler and Green of Liverpool in the third quarter.
of the eighteenth century using black or brick red ink. They applied for a patent for this process in 1756, clearly dating this piece after that time (Noël Hume 1970:291-292). A tile of this type is illustrated in Hughes (1956:145,Fig.5).

Three fragments of a gray Bellarmine type jug were also recovered from this redoubt ditch (204-30;204E-25;207A-37) and are of the type found in the main fort ditch found to date around 1650-1670 (Noël Hume 1970:56).

A brown salt-glazed stoneware bottle fragment was found in the top of the redoubt ditch at its junction with the plowed soil zone (205A-29). It clearly had been placed in the ditch prior to the ditch becoming filled completely with sand. This bottle is a Dutch gin or "bols" bottle of the period of the late eighteenth to twentieth century (Noël Hume, personal communication).

**Tobacco Pipes**

Three tobacco pipe stems were found in the redoubt ditch, along with one with a fragment of the bowl attached, with the initials "WQ" on each side of the heel (206C-11). The form of this pipe is that of Hume's (1970:303) Type 22, with dates of from 1700 to 1770. The three stems have a bore diameter of $\frac{5}{64}$", which used with the Hanson formula #8 produces a date of 1739.09 (Hanson 1971:5).

A very unusual pipe of red clay was found in the redoubt ditch (205C-12), measuring two and one-fourth inches high and one inch across. This pipe is made in a single tubular shape with a bowl at one end one inch deep, in the bottom of which are three small holes punched through to the stem hole located three-fourths inch below the base of the bowl.
The stem was apparently originally mounted onto the side of the bowl at the right angle with clay slip, but was broken away when found. However, the five-sixteenth inch stem hold extended into the body of the pipe one-half inch where it was intersected by the three holes coming from the bowl. Nothing like this pipe has been seen by several archeologists who have viewed it, and it certainly qualifies as a unique specimen.

A stem fragment of a red clay pipe that appears to be of Indian manufacture was also found in the redoubt ditch (208C-12). This fragment is slightly over one inch long and three-fourths inch wide, with a one-eighth inch hole through it to one side of the stem. It is made of the same sandy clay the early Indian pottery is made of on the site and could have been associated with several of the Indian cultures represented by the ceramics on the site.

Glass Bottles

Fragments of wine bottles from the ditch (205C-40, 41; 207C-58) are of the type dating from around 1770 to 1800 (Noël Hume 1970:67-68). A few pieces of clear flint glass were recovered from the ditch. None were diagnostic enough for dating, but it is assumed they are eighteenth century.

Small Metal Artifacts

A fragment of an oval shaped knee buckle was found (207C-31) in the redoubt ditch, but is not temporally diagnostic except to the eighteenth century (Noël Hume 1970:86).

Three fragments of stamped brass escutcheon plates for furniture drawer handles were found in the redoubt ditch (205C-36;206C-41;209A-30).
These are of the typical Chippendale type dating from around 1750 to 1775 (Noël Hume 1970:228-229).

A brass finial for a metal lid was also found in the redoubt ditch (206C-33) but is not diagnostic. It is similar to the knobs on the ornamental brass coach hinges found in Williamsburg in a mid-eighteenth century context (Noël Hume 1970:231).

A large brass button one and one-half inches across was also found in the redoubt ditch (208A-17). This is South's button Type 9 (1964:118; Noël Hume 1970:91) and is typical of contexts of the 1770's.

A Chippendale type brass drawer handle was found in the central posthole of the redoubt in the soil that had fallen into the hole when the post had rotted (204D-25). It has a scroll handle design with a typical spur on either side of the handle at the curve, typical of the scroll handle motifs being used on creamware forms of the third quarter of the eighteenth century (Towner 1957:67,75).

From the burned hearth area around the central posthole six "L" shaped pins of brass were found measuring three-fourths of an inch long. These may have been used on some stringed instrument since similar pins are seen used as guides for aligning the strings on modern musical instruments.

Iron Artifacts from the Artillery Redoubt

Large iron strap hinges (206C-68;206C-39;207C-44), an "HL" hinge (208C-29), and pintles (207C-26;207C-44/1) were found in the redoubt ditch. The design of some of these, particularly one pintle (207C-44/1), is such that it has two arms designed to straddle a wooden door, indicating
a door of extreme weight was involved. Such heavy door hardware would be expected from a fortification where massive protective doors were needed.

Three iron cabinet locks were found in the redoubt ditch (205C-26; 207C-26; 208C-25). These are of two types, the simple latch string type with a simple, long, triangular latch-bolt, and the all metal stock-lock for a chest or drawer, having a movable keyhole cover plate. These too are of typical eighteenth century form, often found on archeological sites of the period (Noël Hume 1970: 248).

An iron wood screw one and one-fourth inches long with the typical blunt point was found in the redoubt ditch. This screw is like those found at the ruin of Russellborough at Brunswick Town, North Carolina, which was burned in 1775.

A large number of wrought nails were recovered from the redoubt ditch as well as from the burned hearth area around the central post-hole. Here small lathing nails as well as flooring nails and rose headed types were recovered, indicating that wood from a raized building was being used, with the nails still attached, to build fires inside the redoubt.

A fragment of thin sheet iron with a pierced design of round holes and slots was found in the redoubt ditch (207C-38). This proved to be as flaky as pie crust and had to be carefully removed and preserved immediately to prevent its total disintegration. This proved to be a cone from a tin lantern of the type used during the seventeenth through the nineteenth century, and these lanterns are still being made and buried in the yard to rust by enterprising antique dealers. A similar pierced lantern is
seen in a painting of "Diogenes in Search of an Honest Man" by Salvator Rosa who died in 1673, thus dating the type prior to that time at least (Runes 1959:99). Excellent examples of the type are also seen in nineteenth century paintings (Miller and Dawnay 1966: Plate 397; South 1971:59,60).

Mortar and Stone from the Redoubt Ditch

Fragments of oyster shell mortar were found in the redoubt ditch, reflecting the fact that some structure in the area was made of this material. It is thought, because of the associated artifacts, that these date from a structure of the eighteenth century and not the Charles Towne Settlement of the seventeenth century.

Fragments of a badly fire damaged marble mantlepiece were recovered from the redoubt ditch (207A-26). These fragments, too, are very likely from the eighteenth century context of the other objects in the ditch.

Summary of the Artifacts from the Artillery Redoubt

The ceramics, tobacco pipes, glass bottles, and other artifacts from the redoubt and the redoubt ditch all point to an occupation of the site during the third quarter of the eighteenth century. The burned mantlepiece and delft fragments tend to point to a burned house somewhere in the area, with fragments from the ruin finding their way into the redoubt ditch. No artifacts that have to be seventeenth century, with the exception of the lead sheet inscribed with the name "Gray", were found in the ditch. This is a significant fact in relation to the contents of the main fort ditch, all of which pointed to a date centering on
the 1670's, some 100 years earlier than the artifacts from the redoubt ditch. A discussion of the implications of this discovery is made in a later section.

The presence of handfuls of the casting sprues and lead fragments from making swan shot is an interesting discovery, clearly indicating that there was no shortage of lead or these fragments would not have been so freely discarded in the bottom of the redoubt ditch.

**Interpretive Summary of the Artillery Redoubt**

The redoubt was built on a site where parallel humus filled ditches were located, and the inner redoubt trench clearly intruded into these earlier ditches. Some ditches paralleling these were also apparently in the area of the main fort ditch to the north. These may also be associated with those beneath the redoubt, but it was not possible to determine this fact due to the nature of the fill soil in both the ditches and the fort ditch. The question arises as to what these ditches represent. They surely appear to be the typical vineyard type ditches found throughout the site, but if they are then it was a vineyard predating the redoubt. The critical question, therefore, is when was the redoubt constructed? The artifacts, as we have seen, are mostly of the latter part of the eighteenth century. If the redoubt dates to this time, say the period of the American Revolution, then the intrusion onto the vineyard ditches is entirely understandable. If, however, the redoubt dates from the period of the main fort ditch, we must explain the parallel ditches having been dug on the site between April and August of 1670, when the fortification on the point was being constructed. We might conjecture that these ditches were those dug to transplant the tubs of plants brought by the first settlers to Charles
Towne and that a short time later, when the Spanish scare occurred in August 1670, they were moved to make room for the fort. This is reaching rather far for explanations it seems, especially with the artifacts pointing to a much later date for the redoubt construction. However, let us examine the redoubt evidence from both the view that it was an integral feature of the original Charles Towne fortification, and then look at it in terms of its being a redoubt of the period of the American Revolution, built by the British in their approach to and capture of Charleston.

The Redoubt as an Original Feature of the Charles Towne Fort of 1670

From the archeological evidence it would appear that what is represented is a redoubt constructed of vertical timbers placed in a trench, forming a chamber for the storage of equipment and supplies for the artillery piece above it. If a normal weight were placed over the top of this chamber there would be no necessity for a central supporting post for the 20 foot span from one wall to the other. However, if an artillery piece were placed overhead, a central supporting post would be necessary. The arc of the fan-shape of the ditches of the redoubt would indicate the arc of fire to be covered by the artillery piece. The fact that only 20 feet of space was available over the chamber in which to operate the artillery clearly indicates that only one piece was involved. The fact that the redoubt face was shaped in an arc would indicate that the artillery piece would not have been mounted on a ship carriage, which would have allowed only a limited range of fire, but would have been mounted on a trail type field carriage. This fact is apparent even though
there is reference only to ship carriages being brought into Charles Towne. The evidence of many fires around the central supporting post for the chamber, plus the presence of casting sprues for making swan shot, would indicate that the men who were manning the artillery piece were melting the lead and casting shot inside the chamber. The fires were likely kept fairly small to prevent setting fire to the central post. Access to this chamber beneath the artillery piece was likely by a ladder through a trap door in the floor of the gun chamber. The outside of the chamber wall was protected by earth thrown from the fan-shaped fortification ditch surrounding the chamber.

An important fact to remember in regard to the relationship between the fan-shaped redoubt ditch and the main fort ditch is that it orients at a 90° angle to the line of the main fort ditch, providing architectural evidence for their contemporaneity. It is unlikely that this orientation was sheer accident. The possibility remains, however, that the redoubt was oriented to a slight depression of the original main fort ditch that may have been visible on the site if and when the redoubt was constructed in 1780. But let us continue to look at the redoubt at present in the light of its having been an original feature of the Charles Towne Fort.

The artillery piece which sat in this redoubt was likely a demi-culverin, which was the longest range piece at Charles Towne. In 1669, when the Carolina expedition was being equipped, the following was loaded on the vessels:

...four iron demi-culverin and eight sacres, with ship carriages, ladles, sponges and linstocks and 12 rounds of shot for each... (Cheves 1897:93).
The barrel of a demi-culverin weighed 3600 pounds, and if one of these guns had been in use atop the redoubt, this would have been the reason for the necessity for the central supporting post in the redoubt (Peterson 1969:14). The demi-culverin on a trail carriage would have allowed a sweeping fire of the entire area of deep water in front of Albermarle Point. The ship carriage mounted guns behind the parapet of the main fort ditch would have provided protection only if the enemy came within the line of fire. A redoubt with a demi-culverin on a trail carriage in front of the main fort would have provided the flexibility of fire not possible with the fixed position ship carriage mounted guns.

This arrangement of the fort was not unique in that it employed methods for defense well known at the time; however, the utilization of only a reentered angle with no bastions, and a separate redoubt providing flexibility of fire in front of the fort, is a unique adaptation of fortification principles to fit the particular need at Charles Towne, and an exact parallel is unknown. The "V" shaped reentered angle at the entrance would have provided an excellent means of protecting the entrance into the fort with crossfire. A similar entrance through the re-entered "V" angle is seen in details from Clampe's Plan of the Newark siege during the First Civil War in England in 1646 (Newark on Trent 1964: Plate 9).

The consultant for the interpretive reconstruction of the redoubt was Harold L. Peterson of the National Park Service. The original interpretive drawing was based primarily on archeological data and revealed a central chamber with earth from the surrounding ditch thrown up against the vertical timber walls of the chamber for protection. After the
archeologist had executed this drawing, Harold Peterson found a drawing made by Thaddius Kosciuszko, in the latter part of the eighteenth century, showing Redoubt #4 at West Point ("McDougall Papers," The New York Historical Society). This drawing of two sections of the West Point Redoubt, though 100 years later than the Charles Towne Redoubt, is the closest known parallel to it. The West Point Redoubt was apparently much larger than the one at Charles Towne, and instead of a single supporting post for the gun platform, there were several. The outer wall of the redoubt was constructed of cribbed timbers placed horizontal to the ground, and the area between the outer cribbed wall and the inner chamber wall was filled with earth. The height of this cribbed wall was at least six feet above the level of the gun deck to provide protection for the gun and crew. The guns were fired through openings in this cribbed, earth-filled wall. Since 100 years had elapsed between the construction of the Charles Towne Redoubt and the West Point Redoubt drawing, it is unwise to draw identical parallels between the two features. However, horizontal cribbing would not reveal archeological evidence of its existence, and, therefore, the interpretation of such a feature must come from drawings rather than from archeology. Since we know that the chamber beneath the gun at Charles Towne was likely at least six feet high and since the protective wall for gun and gun crew above the chamber would have had to have been about six feet high to effectively offer protection, we can safely say that there had to be a protective wall at least 12 feet high around the redoubt chamber. An earthen wall this high on only a ten foot base could most effectively be kept in place by means of a cribbed log wall such as shown in the West Point Redoubt. It is thought, therefore,
that the Charles Towne Redoubt very likely had a cribbed log wall similar to that shown for the West Point Redoubt. Archeological evidence supporting this is the fact that from the redoubt ditch artifacts dating throughout the eighteenth century were recovered, indicating that the ditch was not filled until around 1800, whereas artifacts from the main fortification ditch do not date after the seventeenth century. One of the prime reasons why the smaller redoubt ditch should stay open 100 years longer than the deeper and broader main fortification ditch, would be the presence of a cribbed log wall supporting the sand thrown from the redoubt ditch. The main ditch, not being cribbed, would erode with every rain and stroke of the farmer's plow, whereas the cribbed redoubt would stand virtually untouched until rot finally released the burden of sand held within the cribbed logs allowing it to wash into the redoubt ditch, finally filling it about 1800. Thus we have archeological support for the cribbed log redoubt interpretation as well as the Kosciuszko drawing of the Redoubt at West Point.

The Redoubt as a Feature Built by the British During the Siege of Charleston in 1780

As we have seen, there are some seventeenth century Bellarmine jug fragments, along with some delft dating from the third quarter of the seventeenth century from the redoubt, but other objects clearly point to a period of occupation at the redoubt or nearby in the latter part of the eighteenth century. The intrusion of the redoubt onto what appear to be vineyard ditches also points in this direction. The scarcity of seventeenth century artifacts from the redoubt is perhaps not as significant as it may seem at first glance, for the entire west half of the main
fort ditch was virtually devoid of artifacts of any kind, and so could the redoubt have been. The few seventeenth century pieces we did recover may well be those already lying in the ditch at the time of the American Revolution. However, the late eighteenth century pieces were found lying virtually on the very bottom of the ditch, clearly indicating that not much fill soil had washed into the ditch before these objects were deposited. The seventeenth century objects, on the other hand, could well have gotten into the ditch from the surrounding area.

The Kosciuszko drawing of the West Point Redoubt made in the 1780's is clearly a parallel to the Charles Towne Redoubt, and if the Charles Towne Redoubt was built in 1780, we can easily understand the reason for this; they would have been contemporary.

Another point in favor of the 1780 interpretation is the fact that there is no exact parallel for this type fortification using a redoubt of this shape in front of a reentered angle of a fort curtain wall. Koehorn (Savery 1705) Vauban (1740; Rothrock 1968) and Muller (1746; Ottawa 1968) were searched without finding an exact parallel for this fort with detached fan-shaped redoubt in front of the reentered curtain wall. If these features were contemporary, then it was certainly a unique adaptation of fortification features to the particular need of the Charles Towne Site.

With the possibility existing that the redoubt is a feature of the period of the American Revolution, we look at the account of the siege of Charleston by the British in 1780 provided us by Lieutenant Colonel Bannister Tarleton (Tarleton 1787). In this description Tarleton states that:
...the advanced part of the King's army occupied the bank of Ashley river, opposite to Charles town: This position, for the present, was the most eligible that could be established...its situation equally covered the Wappo cut, through which the boats and gallies were to pass for the crossing the troops over Ashley river, and protected the corps which was to march under the command of Brigadier-general Patterson from Savannah (Tarleton 1787:6).

Wappo cut, which was being protected here, is located south of the redoubt on Albemarle Point. General Patterson soon joined Sir Henry Clinton on the south side of the Ashley River and found Clinton:

...occupied in establishing magazines, and erecting works to defend the communications, near the banks of Ashley river (Tarleton 1787:9).

This clearly indicates that the British built magazines and other works for the protection of their communications and supply lines on the south bank of the Ashley River. A more specific statement follows:

Works for the protection of the stores and shipping in Stono, others on the communication, and several redoubts and batteries on Ashley, were the labours necessary to give security in so important a point (Tarleton 1787:40).

We could hardly want a more specific reference to redoubts being built by the British on the south side of the Ashley River than this one, unless we had a map showing such redoubts. In this Tarleton did not let us down, for he included such a map in his book entitled "Plan of the Siege of Charleston in South Carolina" (Tarleton 1787). This map shows the fortifications thrown up during the siege by both the British and the Americans, and on the south side of the Ashley River, on the tip of Albemarle Point, a circular feature is shown. This is a double circle with a row of dots around the outer circle, located beside a road leading to the "Horry" Plantation House. Another such circular feature is shown for the
point just north of the Wappo cut. Both of these features are very likely the redoubts mentioned as being on the Ashley River in the Tarleton narrative. Thus we have what appears to be a conclusive identification of the redoubt on Albemarle Point as a work of the British siege of Charleston in 1780, with its relationship to the 1670 fort a fortuitous one, dictated by the need both in 1670 and again in 1780 to place artillery in a position so as to command vessels in the Ashley River from this advantageous point. However, the possibility still remains that upon arriving at Albemarle Point in 1780, the British found a redoubt mound in a state of disrepair and decay and promptly utilized it. This does not account for the fact that the objects from the late eighteenth century coming from the redoubt ditch did not come from the top half, but from the very bottom layer of the ditch, certainly implying that the redoubt was constructed new in 1780, with the artifacts of the period and the years following being thrown into the ditch. The preponderance of evidence now available to us certainly indicates that the redoubt may well have been superimposed on the site of the earlier 1670 Charles Towne Fort.

The Explanatory Exhibit of the Redoubt at Charles Towne

With the abundant architectural data from the redoubt and the drawing of the West Point Redoubt as a parallel example, the redoubt could have been built at an estimated cost of between $35,000 and $40,000, using broad ax and adz craftsmen to hew and fit the logs. However, such a rebuilding was not recommended. Instead, the earth parapet accompanying the redoubt, once held between the vertical palisade type retaining
wall and the horizontally laid cribbed log wall inside the ditch, was represented by an embankment of earth between the retaining wall and the redoubt ditch. This interpretive embankment gives the visitor an impression of the scope and scale of such artillery redoubts without becoming involved in details which cannot be known from the data at hand. Before the complete analysis of artifacts of the main fort and the later redoubt features was completed, the interpretation associated these features in time. It now appears that it would be wise to interpret the redoubt as a feature of the Revolutionary War, which will allow the story of the seige and fall of Charleston during this period to be told. The next of the two features is such that clear and concise interpretive signs should be placed near these explanatory exhibits to allow the visitor to visualize the two features at two periods in time. Through artifacts, photographs, drawings, and carefully constructed field exhibit cases, such interpretation can be carried out once a thorough program of site explanation is initiated at the Charles Towne Landing Site.

A Summary of the Fortification Features on Albemarle Point

In summary of the fortification evidence for the Charles Towne settlement of the 1670's, we know that a broad ditch was designed to protect against possible Spanish attack by water, and a small ditch with an accompanying breastworks and palisade was located along the land side of the tip of Albemarle Point, providing a fortified area from which the town could be protected. It is interesting to note that Lord Ashley in discussing the fortification necessary for a port town
said:

A Pallisado round the Towne with a small Ditch is a sufficient Fortification against the Indians (Cheves 1897:343). The palisade and small ditch found through archeology fits this description well, and the mound accompanying the "small Ditch" along the mainland side at Charles Towne was seen and described by Camunas in 1672 as a "low embrasure" (Childs).

The broad trench of the main fort facing the water entrance to Albemarle Point brings to mind the reference which stated that the town:

...may easily be strongly fortifyed with a broad trench, it contains about 10 acres of Land (Cheves 1897:309).

The land lying between the broad trench and the small ditch along the land side of the area is found to contain slightly over ten acres. The archeology at Charles Towne has clearly revealed, therefore, the location of the fortification constructed by the first colonists around a ten acre tract of land for the protection of the Charles Towne Settlement. Positive evidence for "some lodgings" inside and outside of this fortified area which "were built at first when they began to settle for fear of the Indians" (Childs) was not found archeologically. Evidence for the location of the major town itself, outside this fortified area to the northwest, will have to await further archeological exploration in the years to come.

During the American Revolution, the site of Albemarle Point again became the focus for military purposes when the British troops besieging Charleston occupied the area on the south bank of the Ashley River and built redoubts and magazines to insure that their supply lines and communications stayed open once the river was crossed. The Albemarle Point
Site offered an ideal place from which an artillery piece could command the river, and the redoubt found directly in front of the 1670 Fort was quite likely one of those constructed at that time and was shown on a map of the period. The artifacts, the intrusion of the redoubt onto vineyard ditches, the absence of such a redoubt in relation to a re-entered fort curtain wall in the literature of the military authorities, and other evidence point to this interpretation as being the most acceptable. The Charles Towne Landing Site is seen as not only a significant site from the fact that it was the landing point and fortified area of the first permanent settlement in South Carolina in 1670, but also for its use as a site for an artillery redoubt built by the British during the siege of Charleston in 1780. During this period, the site was on the plantation of Elias Horry, Jr., who probably built the house, the ruin of which is now known as the Horry-Lucas Plantation Ruin on the Charles Towne Site (Gallardo:XVI, No. 1, 7-8; Tarleton 1787, Map).
EXPLORATORY EXCAVATION AT THE SITE OF THE HORRY-LUCAS PLANTATION HOUSE RUIN

On the high ground 180 feet northeast of the junction of the north and west fortification ditches a house ruin was found during the exploratory archeology phase of the Chârles Towne Project. This ruin was called the Lucas Plantation House Ruin because it was shown as the home of Jonathan Lucas on an 1836 Map drawn by Robert Q. Pinckney. Old Town Plantation was owned in 1774 by Elizabeth Branford Horry and her husband, Elias Horry, Jr., having come to Elizabeth from her great grandfather, William Branford, who acquired the land in 1734 (Gallardo: XVI, No. 1, 7-8; Pinckney Map).

The Tarleton Map of the siege of Charleston published in 1787 indicates the plantation house site with a square dot, with roads leading to it, and the word "Horry", indicating that a house was on the site owned by Elias Horry, Jr. at that time (Tarleton 1787). For this reason, and the fact that artifacts from the house indicate that it was likely not built before the Revolution, we have referred to the ruin as that of the Horry-Lucas Plantation House.

A five foot wide trench 57 feet long was cut across the west edge of the ruin area in order to determine some details of the ruin for evaluation of its relationship to the history of the site. This trench and an exploratory cut at the northeast corner of the ruin revealed walls enclosing an area of 45 by 46 feet, with footing blocks attached to the outside implying an additional porch beyond this main block of the house. This
foundation wall was made of tabby blocks (oyster shell lime mortar) made in molds, similar to cement blocks in appearance. These blocks measured 2.0 by .9 by .4, and were held in place by oyster shell lime mortar. This foundation wall was set into a construction ditch 2.6 feet below the surface of the ground. The trench revealed that the house at the ground floor level (representing the cellar of the house) was divided into three areas along the west side, the central room measuring 20 feet wide, with a room on each side 11 feet wide. The central room was paved with bricks, with the south room having a floor of oyster shells. The north room apparently had an earth floor. Considerable brick rubble was found along the north side of the house, probably indicating chimneys in this area of the ruin.

The brick steps shaped like a trapezoid with circular newels was located on the south side of the ruin, in such a position as to indicate that there was an eight foot wide porch, at least on this south side of the house. This set of steps was shown on the view of the plantation house shown on the 1836 Pinckney Map. This map shows the house as a two story structure, flanked by four dependency buildings, with a "Negro Settlement" in the same line on the point of land 1000 feet to the west of the house.

At the northeast corner of the ruin a brick feature was found measuring three and one-half by seven and one-half feet with an inner opening two by five feet, oval in shape. This feature appeared to be a bathtub of brick, plastered on the inside with a smooth layer of cement. Only the outline of this feature was exposed and measured, with the view of returning later, when more thorough excavation was commissioned, and examine it in detail. However, the landscaper for the site undertook to "clean up" the ruin.
and exposed a large section of the brick floor, piling the artifacts in a pile inside the cleaned out bathtub feature. When the archeologist happened by and found this damage, and recovered the artifacts, a drain opening with a brass plug with chain attached was seen in the bottom of the south end of the tub. Clearly this was a brick bathtub made in place on the cellar floor of the plantation house, the only one of its kind known to have been discovered in America. Stabilization and protection of this ruin and its unique bathtub feature is urgently needed, as frost and weathering are taking a serious toll of the remains.

From the burned layer of charcoal, plaster, and rubble from the floor of the cellar it appears obvious that the house burned. Not enough material was recovered from the small section of the floor examined to indicate more than that the house probably burned in the mid-nineteenth century. From the fragments of pearlware in the trench, plus the absence of quantities of creamware from the 1770's, it was thought that the house was probably built around 1790. However, with the subsequent discovery of the china taken from the floor of the house by the landscaper, it was seen that a date somewhat earlier was warranted, but not as early as the 1770's. With the finding of the "Horry" citation on the Tarleton Map of 1787, it is clear that the house was standing at that time, and it is quite likely that it was built in the 1780's, probably just after the American Revolution. However, fragments of eighteenth century material dating to the 1770's were found around this ruin, clearly pointing to heirloom pieces or to an earlier period of occupation at the site than the 1780's period indicated by the mass of the material now available from the ruin. More detailed excavation is needed at the site to recover artifacts in good context associated with builders' trenches, etc. allowing for a more positive dating
of the construction of the house. The collection we have at this time certainly comes from the period of the 1780's to the mid-nineteenth century, with a few pieces of an earlier time. The earlier pieces may well be from the early use of the house, but a broader controlled collection of data will be necessary before a more positive date can be determined.

Summary of the Artifacts from the Horry-Lucas Ruin

Since the exploratory trench resulted in such a small sample of material from the house ruin and since the material gathered on the site by the archeologist after the landscaper's cleaning off of the brick floor is of unknown provenience other than it came from the inside of the ruin, no detailed analysis of the material recovered will be undertaken here. However, a listing of some of the items recovered will be of interest; and hopefully when more archeological work is done on the site, a more intensive study can be undertaken.

The ceramics consisted of transfer printed ironstone and white earthenware, blue and green edged ware, pale creamware, dark blue faded blue transfer printed ware, overglazed enamelled procelain, brown stoneware, and delft. A fragment of a delft pharmaceutical jar was apparently of French origin and was printed with an inscription. The inscription fragments are: "Moutarde MA...Vinaigrier de L...Rei d' Angles...ei... d' A..." (CH1-325-1). These date from the late eighteenth to the mid-nineteenth century.

From an earlier context, possibly representing a pre-1780 period were fragments of delft, Oriental procelain, white salt-glazed stoneware, and
North Devon Gravel-Tempered Ware.

Brown stoneware, blue and gray stoneware, feldspathic glazed ginger beer bottles from the early decades of the nineteenth century were also recovered, along with fragments of slip decorated olive-green alkaline glazed stoneware of the type made in South Carolina in the 1820's and later in the Edgefield District of South Carolina.

Architectural details of the structure are preserved in moulding fragments made of marble, some large ones six inches wide on the face and triangular in profile were found. Large "HL" and strap hinges, lock fragments, sliding bolt lock plates for cellar-type doors, wrought and cut nails and spikes, the cut nails indicating repairs made to the structure during the nineteenth century, are clues to the construction features and details of the house. These details along with brown-coat plaster with a white-coat surface will prove useful when excavation of this ruin is undertaken.

Glass wine bottle fragments, pale green bottle fragments, brown bottle fragments, some showing melting from the intense heat of the fire, were found in the ruin. One of the brown fragments is of a mid-nineteenth century schnapps bottle with fragments of writing which reveal that it was from a square bottle with raised letters on the four sides which said "UDOLPHO WOLFE'S SCHIDAMS AEROMATIC SCHNAPPS". Such bottles have been found on wrecks of blockade runners coming to the Confederacy in the 1860's. Milk glass of the nineteenth century type was also found in the collection from the ruin. Several fragments of eighteenth century type Dutch case bottles, often called gin bottles, were found in the ruin, again indicating either an heirloom piece or a possible pre-1780's occupation of the site.
Personal items such as porcelain doll's legs, marbles, porcelain buttons, shell buttons, a brass bell with three holes around the bottom as to suspend other bells beneath, such as those seen in gift and curio shops today, were found in the ruin, along with a bell clapper.

Of particular interest was a large wig curler (CHl-11-23) of the type illustrated by Noël Hume as type 6 (1970:322). These were known as "bilboquets" and were sometimes made of boxwood. They were used by periwig makers to set curls for sewing onto a wig. Hair was wound around these, and when a number of "sets" were completed, they were placed in rain water and boiled briskly for three hours then dried in an oven. When this is done they are placed in a stack in the form of a loaf.

Tie the package with string, and take it to the Gingerbread Maker or the Baker, who having received it surrounds it with a paste of rhy flower, puts it in a doderate oven and cooks it (Garsault 1767; Cox 1961:15).

When the curlers are thus baked, the loaf is broken open and the curls are removed from the curlers after a short drying in the oven. These curls or "tufts" are combed out and then sewn onto a wig form. A number of the smaller type curlers were found in the ruins at Brunswick Town, North Carolina (South 1963:III, No. 1).

The presence of wig curlers on the site, plus the fine quality of some of the fragments of china, plus the details of moulding in marble, etc. from the Horry-Lucas House Ruin, plus the architectural features of the building itself, all point to a structure occupied by a family of considerable means from the 1780's to the 1850's. The fact that the property changed hands in 1850 from Lucas to Parker may relate to the main plantation house having burned at that time (Gallardo:XVI, No. 1, 7-8).
The Waring House on the site today is built around the core of a house that apparently replaced the Horry-Lucas House, and it is thought that, from the archeological and documentary evidence presently at hand, that this new house was probably built in the 1850's, shortly after the Horry-Lucas House burned.

The Area of the "Negro Settlement" of 1836

The Pinckney Map reveals a row of houses on the Governor Sayle point west of the present Waring House. A few exploratory trenches were cut in this area revealing transfer printed ware, blue and green edged pearlware, banded pearlware, and Oriental porcelain from the mid-nineteenth century. White and printed ironstone types of the late nineteenth century were found, along with other objects of the late nineteenth and early twentieth centuries. Fragments of bricks and a brick footing were revealed, but time did not permit a further examination of this area. This area offers an excellent opportunity to examine a group of slave house ruins associated with the Horry-Lucas Plantation.
Prior to the involvement of the Institute of Archeology and Anthropology in archeology at the Charles Towne Site, the Tricentennial Commission contracted with John Miller of Charleston to carry out some exploratory trenching on the site in an attempt to locate any evidence of the 1670 settlement. John worked from December 1967 to February 1968 cutting exploratory slot trenches on the site. Trenches dug in the area south of the narrow neck of land in an attempt to locate a palisade ditch were designated as provenience area A by him, and as 38CH1-15-29 by South. These trenches revealed the north palisade ditch at various places in some 420 feet of trenches.

Artifacts from this area included blue, transfer-printed, white earthenware of the early nineteenth century, some eighteen century fragments of delft and slipware, a lump of oyster shell mortar, and a few prehistoric Indian sherds. These objects were interpreted as having come from a house site of the early 1800's (Miller 1968:1).

In the area of the neck of land between the low tip of Albemarle Point and the higher ground to the north, Miller dug some 475 feet of ditches in the area designated as CH1-1 by South. Here two vineyard ditches and the continuation of the north fortification ditch were discovered, as well as the double palisade ditches extending from the north fortification ditch toward the west. The north fortification ditch was interpreted as an irrigation ditch by Miller, as were the vineyard ditches here and to the north along the access road to the neck. A compacted area of humus containing artifacts from the seventeenth century at the junction of the ditches
(Area CHl-E,F,G,H,J) was interpreted by Miller as a house site of 1670 and was designated as Area B by him.

Artifacts from this area included tobacco pipe fragments, one with "EB" on the heel, earthenware fragments, prehistoric Indian rectilinear complicated stamped pottery, as well as burnished Indian pottery. Five fragments of a burnished red painted ware, very thin, with a red painted surface, filled with numerous holes from shell or other organic matter having burned out in firing were found. This type of pottery is identical to a sherd recovered by Noël Hume from the beach at Nevis in the West Indies (Noël Hume, personal communication). No comparable type can be identified from the Southeast, and it is quite likely that these fragments are from the West Indies, brought in by the Charles Towne settlers. A red clay tobacco pipe stem, probably of Indian origin, was also found in this area, having an incised cross-hatched and punctated design and an angular faceted stem.

The 19 pipe stems from this area had an average bore diameter of 7.05, which with Hanson formula #5, produces a mean date of 1664.79 for the accumulation of the sample (Hanson 1971:5), clearly indicating an early date for the sample. Miller estimated that this was material of the 1670 period, and in this we concur.

To the north of the north fortification ditch, on a high ground near the Ashley River Marsh, Miller discovered a house ruin consisting of a midden deposit and fragments of tabby mortar. This house ruin he designated as Area C. Fragments of brown and gray salt-glazed stoneware, some with cobalt blue glaze added, delft, North Devon Gravel-Tempered Ware, combed yellow slipware, and dotted yellow slipware posset pot fragments all
indicate a late seventeenth to early eighteenth century period. White salt-glazed stoneware and Oriental porcelain fragments could date to the mid-eighteenth century.

Six Dutch or "spall" type gunflints were found in this ruin, which indicates a later date than those from the main fort ditch, all of which were locally made (Witthoft, personal communication).

A total of 307 tobacco pipe stems were found in this ruin area, with a mean stem bore diameter of 5.08. When this is used with Hanson's formula #5 (1971:5), a mean date of 1727.18 is determined for the accumulation of the sample. A pipe with "RT" impressed on the back of the bowl, and one with a crown over "30" in relief on the heel were found.

Thirty-seven pounds of wine bottle fragments were recovered, with the bases having the appearance of being from examples known to date from the 1750's to the 1770's (Noel Hume 1970:67). A date range for the collection would appear to be from the 1690's to the mid-eighteenth century, with some glass bottle evidence extending beyond that for the ceramics. In such a case I would tend to favor the ceramics range since the bottle date range appears to be more loosely structured than the ceramics brackets. Miller estimated that the material from this ruin would date from around 1690 to the late 1750's, and this seems like a valid suggestion.

A pit was located 100 feet west of the house ruin area, on the edge of the sloping hill. This material has been designated Area F. Fragments of a coarse lead-glazed earthenware, blue and wine decorated delft fragments, blue and gray stoneware, fragments of a Bellarmine type jug, and Indian pottery fragments were present in the pit. The Indian pottery
was plain or burnished, with one large fragment of a flat-bottomed bowl having an added raised punctated bead around the vessel just above the base. The raised punctated bead is reminiscent of punctated strips seen to have been added to Cherokee pottery of the type Qualla Plain. This similar vessel may date from the late seventeenth or early eighteenth century (Gleeson 1970: Plate 73).

There were 64 tobacco pipe stems recovered from this pit, producing a mean date of 1695.51, with Hanson's formula #5 (1971:5). Three of the six bowl fragments have heels, and one has a spur; they date from the period of 1680 to 1710 according to Noël Hume's typology (1970:303). Two are marked with the impressed initials "WE" on the back of the bowl, and are without a heel or spur. These are also of a type (17) illustrated by Noël Hume as from the same time bracket. The initials may be those of William Evans who was admitted as a freeman and allowed to produce pipes with his mark after 1667 (Pritchard 1923:165-191).

One large wine bottle fragment is of the type dating from around 1713, with a base of the type made after the 1730's (Noël Hume 1970:63-68). A slate pencil with a hole drilled for suspension on a string, a blue glass bead, and a brass button of South's button Type 8 (1964: in Noël Hume 1970:90-91), from the eighteenth century, were all found in this pit. A French-type gunflint of beeswax chalcedony of the eighteenth century was recovered (Hamilton 1971:62,65), and an unidentifiable fragment of a pewter object, as well as window glass and a sandstone whetstone.

Of particular interest is a fragment of sheet iron with a rolled edge, with copper rivets (CHL-F-36) that is a fragment of English armour (Harold Peterson, personal communication). We are reminded of the fact
that among the items brought on the first expedition to the site in 1670 were "12 suits of Armour" (Cheves 1897:147).

John Miller has estimated the date of the ruin (C) from 1690 to the 1730's, at which time he suggests that the structure was turned into a tavern (from the fragments of some 40 bottles); then it was torn down and bricks salvaged in the 1750's (Miller 1968:2). He suggests an earlier date for the trash pit (F) based on the pipe stem date of 1695.51 (Miller 1968:4).

From the ceramic and pipe stem dates we can clearly see that a date for the construction of the house sometime in the late part of the seventeenth century is warranted. From the documentary record that between 1694 and 1697 James Le Sade purchased Old Town Plantation, we are led to agree with John Miller that this ruin likely represents the home of James Le Sade built between 1694 and 1697, and that the trash pit (F) is of this early period. The end date for the structure in the late 1750's also agrees with John's evaluation.

Time did not permit any work to be done on the James Le Sade House Ruin during the 1968-69 excavations because the archeology was designed, not to reveal house ruins of the 1690's, but any evidence possible of the 1670's settlement. Because of this priority, the Le Sade Ruin was saved for future work when an excavation program not under the pressure of Tricentennial opening dates can be undertaken on this potentially important site of the late seventeenth century.

Summary of the Work of John Miller at Charles Towne

John Miller's work in the neck of land between the tip of Albemarle Point and the high ground to the north was of considerable value in that
it saved time from our later project. John was knowledgable enough to know that once the ditches are located one does not immediately dig them out looking for artifacts. Because of this, we were able to come along behind him and reclean his trenches and reveal the evidence to our own satisfaction and understanding. His contribution in locating and obtaining a sample of artifacts from the James Le Sade House Ruin was also of value in that we knew from the artifacts that the house was of a time period later than that of particular concern to our project and could avoid taking time to explore it, thus concentrating on our search for the earlier evidence. Unlike many untrained individuals, John's work was not destructive. For this we were extremely grateful, and his contribution is seen as a most useful one.
The Tar Kiln to the North of the Charles Towne Fort (38CH1-203)

Six hundred feet west by northwest from the junction of the north with the west fortification ditches of the Charles Towne Fort, exploratory trenches were cut. These were designed to reveal evidence of prior occupation on this point that might be damaged when a proposed reconstructed village "of the seventeenth century" was built here. The archaeologists had suggested this point of land for this reconstruction since it was outside the known area for the earliest Charles Towne Settlement. The exploratory trench revealed two wide ditches which were followed by cutting slot trenches at various intervals around the perimeter. The ditch proved to be a large circular feature measuring 57 feet across (CH1-203). With this discovery, a front-loader was brought to the site to remove the topsoil so that a more detailed examination of the feature could be undertaken. Some delay was encountered here, during which time a house standing over a part of this feature was torn down and removed. All artifacts from the plowed soil zone in the area appeared to date from the period of this house, during the late nineteenth and twentieth centuries. The ditch was from eight to nine feet wide, and when entirely revealed, proved to form almost a complete circle with a 16 foot wide opening where the ditch had not been dug. This feature was at first thought to be a redoubt similar to that found on the tip of Albemarle Point, the similar size and shape being a factor in this interpretation. At this point, it was recommended that the proposed construction of this
site be held off until a further look could be taken at this feature. The
taking of the house then began, and the archeologist turned to other
projects, among which was an examination of the site proposed for the
Exhibit Pavilion. Here the exploratory trenches again revealed a circular
ditch, this one six feet wide and 56 feet across. This ditch had an
opening of 12 feet, with a ditch 32 feet long running from the center to
the outer edge of the circle through the center of the opening. When
this was excavated, it was found to contain quantities of pine tar. This
discovery revealed that these features were tar kilns.

By this time, the house had been removed from the first circular tar
kiln site, and a further cleaning of this area was undertaken. This
revealed a central ditch 32 feet long from the center to the outer edge
of the circular ditch, the same length as that in the redoubt at the
Pavilion Site. A few cut nails and other objects of the nineteenth
century were taken from an intrusive feature in one area of the ditch,
but no nineteenth century objects were recovered from the cleaning of
the undisturbed area of the ditch. Since it was clear that this feature
represented a tar kiln site, clearance was given by the archeologist for
the construction of the replica seventeenth century town "of the period"
on the site. However, by this time the Tricentennial Commission had
made the decision not to erect this tourist trapping on the site, based
on the recommendation of the archeologists as well as the recommendations
of seventeenth century architectural specialists and archeologists and
colonial specialists working on other historic sites.
The Tar Kiln on the Exhibit Pavilion Site (38CH1-232)

Once the exploratory trenches at the Pavilion Site had revealed the 56 foot circular ditch, the entire area was stripped of topsoil by a shovel crew in the belief that this feature was also a military redoubt such as that on the tip of Albemarle Point. With the entire outline of the circular feature revealed, photographs were taken and measurements of the feature and associated post holes were made. The central ditch was excavated and found to be composed of four parts rather than being a single, irregular ditch as it appeared to be at the level of the subsoil just beneath the plowed soil zone. These parts were (1) a central fireburned area, (2) a shallow ditch from it to (3) a central, deeper pit from which (4) an inclined ditch ran to end just beyond the outer edge of the circular ditch.

The central, fire-burned area was four feet across with a more intense charcoal concentration centered in a two foot wide area. The charcoal depth in the central fire area was only one-tenth of a foot deep, joining the end of the shallow ditch which was only two-tenths of a foot deep at the junction with the fire-burned area. The shallow ditch extended away from the center a distance of 12 feet, gradually increasing in depth until it reached that point at which time it was one foot deep. At this point the ditch joined a large circular pit, the bottom of which was 2.7 feet from the subsoil surface, almost four feet from the surface of the ground. This deeper pit was four feet across and was coated in the bottom with a thick coating of a tar-like substance. The subsoil sand on all sides of this feature and the ditch leading into it was impregnated with a brown stain, with the whole area smelling of creosote.
From the bottom of the pit, a sloping ramp tapered upward a distance of 12 feet, surfacing at a point just beyond the line of the circular ditch. The bottom of this ramp was also coated with tar. From the slope of the shallow ditch away from the central, fire-burned area to a junction with the large, deep pit, it became apparent that a tar substance flowed along the ditch and emptied into the pit, quantities of which were still on the surfaces and impregnated in the subsoil sand and clay. Scorched subsoil along the entire route of the ditch, pit, and ramp indicated the extreme heat of the liquid as it flowed to the large catch basin. The sloping ramp from the basin to outside the circular ditch was apparently a means for removing the tar from the pit, probably by means of long handled dippers. With this evidence revealed, it became obvious that this feature represented a tar kiln from which tar was extracted from pine trees.

Trees were apparently cut into eight foot lengths and placed around the central opening in a radiating manner after the surface of the ground had been sloped toward a central shallow pit from which a ditch led to the catch basin. After this stack of logs had reached sufficient height, the opening in the center of the circle of logs was used to light the end of the pile of logs. However, this was not done until sufficient sod and dirt had been thrown on the pile to aid in keeping it smothered and burning under a low oxygen condition so that a smothering effect rather than a burning of the logs was effected. By this means, the ditch around the outside of the pile of logs was created. The tars in the pine logs were thus forced out of the trees whereupon they ran down until they flowed onto the centrally tapered floor, picking up abundant carbon in
the process and taking on the familiar black appearance associated with tar. From the sloping floor the tar flowed into the central shallow basin and out of it into the sloping ditch, and then into the deeper catch basin pit some four feet in diameter. Here the hot tar could be ladled out into barrels using long handled dippers to reach beneath the smouldering pile of sappy pine lightwood logs. These barrels of tar were an important naval stores product during the eighteenth century, with the Carolina ports furnishing a major portion of this commodity to the British Empire (Lee 1952:235; Crittenden 1936:70,80).

From the circular ditch, 175 fragments of Indian pottery were recovered, along with one pottery disc. The pottery types are Deptford Bold Check-Stamped (Williams 1968:139), Hanover Fabric-Impressed (South 1960:37), the bullseye stamp of Savannah Complicated Stamped (Caldwell and McCann 1941:45), Cape Fear Cordmarked (South 1960:40), a rectilinear complicated stamped type with narrow bands and grooves, similar to Pee Dee Complicated Stamped without the curves (Coe 1952:Fig. 165) (the pottery disc was of this type), folded rims with reed punctations in a row along the edge of the fold such as is seen on Irene Fiflot Stamped (Caldwell and McCann 1941:47), a sherd of Irene Incised (Williams 1968:123), and a plain burnished ware. These types all were apparently present on the site when the tar kiln was being used and became part of the fill of the kiln ditch after it was abandoned. Only one clue from this ditch indicated that it may have been of the eighteenth century, and this was a small fragment of creamware which was found in the bottom of the ditch after a shower, and so could possibly have washed into the ditch during excavation.
However, evidence from the central tar collection ditch provides a little more evidence for the dating of this kiln.

From the central tar drain ditch (CH1-232F) fragments of charcoal and burned pine wood were recovered, as was the case with the main circular ditch. Indian pottery again was present, representing several of the types just described for the main ditch, and a small fragment of an Indian tobacco pipe was also found here. Four wrought nails in the area of the central burned area reveal that wood scraps with wrought nails may have been used to start the central fire of the kiln stack. The absence of cut nails post-dating 1800 would tend to point to a date prior to that time for the use of this kiln. The one fragment of creamware would also be from the late eighteenth century period. We might conjecture, then, that the tar kiln here and the one on the point of land north of the Charles Towne Fortification Site were being used in the late eighteenth century, based on the meager evidence recovered from this kiln site.

One point of particular interest in this feature is the fact that there was very little charcoal associated with the ditch fill and surrounding area compared to what one might expect from a site where a tar kiln had been fired. Ruins of such kilns are to be seen in the woods in numerous areas of coastal North and South Carolina, usually having a characteristic donut-shaped mound filled with charcoal as a diagnostic criterion. Since the charcoal had apparently been removed from the area of this kiln site, we might suspect that the charcoal resulting from the making of tar may have been carried away for use as fuel. This would explain the virtual absence of any quantity of charcoal remaining on a site where it might be expected to be present.
Interpretive Description of the Operation of a Tar Kiln

An excellent summary article on the process of firing a tar kiln has been compiled by C. B. Berry (1968:11) from research he has done on this subject. We can do no better than to quote here from his article to provide an understanding of the operation of a tar kiln such as the ones found at Charles Towne.

Tar is one of the products included in the term "Naval Stores". As originally used the term included all raw materials used in the construction and maintenance of sailing vessels, i.e., tar, pitch, turpentine, rosin, flax, cordage, masts and timber. Flax, cordage and lumber are no longer considered as naval stores. The term now includes only pine tar, turpentine and related products.

Until recently, some seventy per cent of the world supply of naval stores was manufactured in the Southeastern United States, mainly Georgia, Florida and Alabama. The basis of this fifty-million-dollar industry is the most prolific resin tree in North America, the Pinus palustris or long leaf pine, native to the sandy coastal plains of the South Atlantic and Gulf States. Large scale production dates from 1705 when the English Parliament passed a law providing bounties on naval stores and other shipbuilding articles imported from the American colonies. Soon the Carolinas were leading the world in the manufacture of turpentine, tar and pitch and continued to do so until near the close of the nineteenth century. The naval stores industry thus established was 'the foundation of the economy of colonial North Carolina and an important feature of the economy of colonial South Carolina (Williams 1935).

An early description of the manufacture of tar is given in a lengthy letter from one of the Carolina Indian Commissioners (Nairn 1718): 'Tar is made thus: First they prepare a circular floor of clay declining a little toward the center, from which is laid a pipe of wood, whose upper part is even with the floor, and reaches two foot without the circumference; under this end the earth is dug away and barrels placed to receive the tar as it runs. Upon the floor is built up a large pile of dry pine-wood, split in pieces, and surrounded with a wall of earth, which covers it all over, only a little at the top, where the fire is first kindled. After the fire begins to burn, they cover that likewise with earth, to the end there may be no flame, but only heat sufficient to force the tar downward into the floor.
They temper the heat as they please by thrusting a stick through the earth and letting the air in at as many places as they feel convenient.

'Pitch is made either by boiling tar in iron kettles set in furnaces or by burning it in round clay holes made in the earth.

Another interesting account similar to the above but in greater detail, was found in a beautiful old volume in the Richland County Library, Columbia, S. C. (Catesby 1771). It is as follows:

'The PITCH-PINE is that from which Tar and Pitch is made, it yielding much more Rosin than any of the other kinds. These Trees grow usually by themselves, with very few of any other inter-mixed. The dead Trees are only converted to this use; of which there are infinite numbers standing and lying along, being killed by age, lightning, burning the woods, etc. The dead trucks and limbs of these Trees, by virtue of the Rosin they contain, remain sound many years after the sap is rotted off, and is the only part from which the Tar is drawn. Some trees are rejected for having too little heart. These are first tried with a chop of an ax, whether it be lightwood, which is the name by which wood that is fit to make tar of is called; this lightwood is cut in pieces about four feet long, and as big as one's leg, which, with the knots and limbs, are pick'd up, and thrown in heaps. After a quantity sufficient to make a kiln is thus gathered in heaps, they are collected in one heap near their centre, on a rising ground, that the water may not impede the work; the lightwood being thus brought into one heap, is split again into smaller pieces; then the floor of the Tar-Kiln is made in bigness proportionable to the quantity of the wood. In this manner a circle is drawn thirty feet diameter, more or less, the ground between it being laid declining, from the edges to the centre all round, about sixteen inches, more or less, according to the extent of the circle. Then a trench is dug from the centre of the circle to the edge or rim, and continued about five or six feet beyond it; at the end of which a hole is dug to receive a barrel; in this trench a wooden pipe is let in of about three inches diameter, one end thereof being laid so as to appear at the centre of the circle, the other end declining about two feet; after which the earth is thrown in, and the pipe buried, and so remains till the kiln is built. Then clay is spread all over the circle about three inches thick, and the surface made very smooth. Great care is taken to leave the hole of the wooden pipe open at the centre, that nothing may obstruct the Tar running down from all sides into it. This done, they proceed to set the kiln as follows: Beginning at the centre, they pile up long pieces of lightwood, as close as they can
be set end-ways round the hole of the pipe, in a pyramidal form, six feet in diameter, and eight or ten feet high; then they lay rows of the four feet split billets; from the pyramid all round the floor to the edge, very close, one by one, and the little spaces between are filled up with the split knots before mentioned. In this manner all the wood is laid on the floor, which being made declining to the centre, the wood lies so also. Thus they proceed, laying the wood higher and higher, quite round, till it is raised to thirteen or fourteen feet, projecting out; so that when finished, the kiln is about four or five feet broader at the top than at the bottom, and is in form of an hay-stack before the roof is made. Then the short split limbs and knots are thrown into the middle, so as to raise it there about two feet higher than the sides; then the kiln is walled round with square earthen turfs, about three feet thick, the top being also covered with them, and earth thrown over that; the turfs are supported without by long poles put cross, one end binding on the other in an octagonal form, from the bottom to the top; and then the kiln is fit to be set on fire to draw off the Tar, which is done in the following manner:

'A hole is opened at the top, and lighted wood put therein; which, so soon as the fire is well kindled, the whole is closed up again, and other holes are made through the turfs on every side of the kiln, near the top at first, which draws the fire downward; and so by degrees those holes are closed, and more opened lower down, and the long poles taken down gradually, to get at the turfs to open the holes. Great care is taken in burning to open more holes on the side the wind blows on, than on the other, in order to drive the fire down gradually on all sides. In managing this, great skill is required, as well as in not letting it burn too quick, which wastes the Tar: and if there is not air enough let in, it will blow (as they call it) and often hurts the workmen: they are likewise frequently throwing earth on the top to prevent the fire from blazing out, which also wastes the Tar. The second day after firing, the Tar begins to run out at the pipe, where a barrel is set to receive it; and so soon as it is full, another is put in its place, and so on till the kiln runs no more, which is usually in about four or five days; after which all the holes in the sides are stop'd up, and earth thrown on the top, which puts out the fire, and preserves the wood from being quite consumed, and what remains is CHARCOAL. A kiln of thirty feet diameter, if the wood proves good, and is skilfully worked off, will run about 160 to 180 barrels of Tar, each barrel containing 32 gallons. The full barrels are rolled about, every three or four days, for about twenty days, to make the water rise to the top; which being drawn off, the barrels are filled again, bunged up, and fit for use.
'In making Pitch, round holes are dug in the earth near the Tar-kiln, five or six feet over, and about three feet deep; these holes are plastered with clay, which, when dry, are filled with Tar, and set on fire. While it is burning it is kept continually stirring; when it is burnt enough (which they often try by dropping it into water) they then cover the hole, which extinguishes the fire, and before it cools it is put into barrels. It wastes in burning about a third part; so that three barrels of Tar make about two of Pitch.

'No Tar is made of green Pine-trees in CAROLINA, as is done in DENMARK and Sweden.'
TWO TYPES OF TAR KILN

CROSS SECTION FROM SIDE
UPLAND TAR KILN

GROUND LAYOUT
UPLAND TAR KILN

CROSS SECTION FROM END

GROUND LAYOUT
FLATLAND TAR KILN

CROSS SECTION
FLATLAND TAR KILN
When the plowed soil was removed from the various areas of Albemarle Point, a yellow sand, noticeably distinctive from the humus-filled, brown plowed soil zone, was seen to form the subsoil. No humus was visible in this yellow sand layer, but frequently sherds of Indian pottery were found from one to three inches deep in this supposedly "sterile subsoil" layer. The presence of early Indian material in this yellow sand clearly indicates that it is not undisturbed subsoil, but represents a very old layer that has lost its humus through the hundreds and thousands of years since the Indians were using this level as a disturbed occupation zone. All material seen to come from this level was given the provenience letter "B" attached to the square or feature number, with this letter always being reserved for objects from this yellow subsoil sand layer. This explains why in the fort ditches layer A lies directly over layer C, with no layer B being shown. By this method it is easy to separate all the yellow sand material from the entire site by selecting those artifacts with the "B" designation, and they will be from this provenience.

By far the most prevalent pottery present was the sandy paste, nontempered or fiber-tempered types mentioned in a previous section. Deptford Linear Check-Stamped and Bold Check-Stamped types were also present in considerable quantity (Williams 1968:135-144; 147-155). Also present was Thom's Creek Punctated, and fragments of steatite pottery or discs with drilled perforations, and fragments of mineralized animal bone.

A study of the clay of these types, comparing the presence of fine sand with the relationship of sand to clay found in the Ashley River, clay
used in firing bricks for a number of early plantation houses in the Charleston area, and bricks found in the fortification ditches at Charles Towne indicated that the sand seen in these Indian types is present as natural inclusions in the clay found in the area. Also present in the local clay, and seen in both the early Indian types and bricks made locally, are organic inclusions which, when fired, leave black pockets or holes in the Indian sherd or colonial brick. The percentages of sand to clay existing in some Indian sherd types may not be the result of intentional sand tempering formulas utilized by the Indians, but merely a mixture found in natural clay deposits available to them. An examination by archeologists of locally made, nontempered bricks may reveal surprisingly similar "sand temper" to that seen in Indian sherds of the area under study. Caution would therefore seem to be warranted before a sherd is identified as sand-tempered or nontempered.

The nontempered, sandy-clay sherds and the fiber-tempered sandy-clay sherds are apparently made from the same clay source as the Deptford Linear Check-Stamped sandy-clay sherds, i.e., water deposited sandy-clay. Other Deptford stamped sherds have a greater quantity of slightly larger sand in the mixture, but this too may be present in the local clays, and caution as to the "sand tempered" character of these types is necessary before type descriptions are written.

A polished hematite atlatl weight fragment was also recovered from the yellow sand layer having an incised decoration on one surface of zig-zag lines between a series of parallel lines (20OB-23). Four chipped stone objects of Briar Creek flint, outcroppings of which occur in South
Carolina and Georgia near Augusta, were found in the yellow sand layer (Williams 1968:241,253). One of these was a stemmed bifacially chipped blade with a thick stem, apparently a blade designed for hafting and cutting since there is no point, but rather a rounded curving blade. The base of a Morrow Mountain II projectile point (177B-24) was also found in this yellow sand layer (Coe 1964:39). A diamond-shaped projectile point similar to the Morrow Mountain II type, but typologically related to the "Lake Mohave" type (Coe 1964:37), was also recovered from the yellow sand layer (204B-26). A large Savannah River type projectile point four inches long was found in the plowed soil zone (CH1-83-23) having the Briar Creek-type stem (Williams 1968:253). Also found in the yellow sand layer were baked clay objects related, it is thought, to those found in the Mississippi Valley at Jaketown, Mississippi (Ford, Phillips, and Haag 1955), and Poverty Point, Louisiana (Ford and Webb 1956).

The earliest component representing Indian occupation on the site is seen in the Morrow Mountain projectile points. These are virtually identical to the Gypsum Cave, Nevada type dating from 6,000 to 8,000 B.C., but Coe (1964:123) suggests a date of 4,500 B.C. for those in this area. Recent reexamination of material from the Gypsum Cave Site by Heizer and others at the University of California has cast some doubts on the dates assigned to that site and suggest that they may be somewhat younger than previously thought. The dates suggested by Coe thus may be much more appropriate in this context (R. L. Stephenson, personal communication). The Savannah River projectile point found on the surface, along with the steatite pot or "net sinker" fragments (Williams 1968:177) and the atlatl
weight represent the later Savannah River Archaic period on the site, dating from 2,000 B.C. (Coe 1964:121; Williams 1968:253). The baked clay objects are also thought to be of this period (Williams 1968:235). These will be discussed in some detail later.

A sandy, fiber-tempered, plain type pottery, often impressed with smooth parallel grooves as though with the edge of a smooth paddle, was found in large quantities in the yellow sand layer at Charles Towne. None of this fiber-tempered ware is ornamented, and Waring has pointed out that this ware is associated with baked clay objects (Williams 1968:254), which is certainly true for the Charles Towne Site. The radiocarbon dates for fiber-tempered pottery cluster between 1,500 and 2,000 B.C. (Williams 1968:316,320). Waring has indicated that fiber-tempered sites are virtually unknown as far north in coastal South Carolina as the area of Port Royal, with only a minor amount seen on sites near Bluffton, South Carolina. The large quantity of fiber-tempered pottery from the yellow sand layer at Charles Towne is therefore significant in that it indicates that this type does occur as far north as Charleston in some quantity. An important point here is that the ware is buried on a site that does not contain oyster shell midden deposits or a shell ring, and the material was buried beneath the plowed soil zone in a matrix apparently undisturbed for thousands of years.

The Thom's Creek Punctated pottery (Griffin 1945; Waddell 1963), a few sherds of which have the typical linear drag-and-jab technique associated with Stallings Island pottery, is seen to overlie the fiber-tempered wares (Williams 1968:321).
The Deptford Linear Check-Stamped and Bold Check-Stamped types are present in the yellow sand layer, with the Bold Check-Stamped type representing the major body of the ware. This phase dates from the period from around 600 B.C. to A.D. 1 (Williams 1968:322).

Baked Clay Objects from Charles Towne - The Perforated, Grooved Melon-Shaped Type

As was mentioned above, baked clay objects relate to those found on the Jaketown and Poverty Point sites in Mississippi and Louisiana (Ford, Phillips, and Haag 1955; Ford and Webb 1956). However, the Charles Towne examples are unusual in that they are almost invariably perforated, either longitudinally or laterally. The holes are sometimes made with the finger, sometimes with a smooth round cane or stick, and sometimes with a small tapered stick, in which case there are numerous holes either going completely through the object or stopping before reaching the opposite side. The form is massive in comparison with the typical Poverty Point objects, some of the barrel-shaped, or cylindrical forms being four inches long and three inches thick. There are two basic forms represented at Charles Towne; the perforated grooved melon-shaped, and the perforated biscuit. Forty melon-shaped fragments and 53 biscuit fragments were found. The perforated grooved melon-shaped form is related to Poverty Point Type F, melon-shaped (Ford and Webb 1956:40-41), but is longer, more cylindrical, and fatter, and more massive in appearance, but can perhaps, still fall within the basic Type F of Poverty Point, except for perforation through the end or the side. Another example, from Jaketown, included in the Cross-grooved type from that site, is seen from the illustration (Ford,
Phillips, and Haag 1955:Fig. 12B-d) to be closely related to the Charles Towne melon-shaped type. The finger-impressed grooves at various angles over the surface of the Charles Towne objects are deeply impressed by small fingers in many cases, and only slightly indented in others. The holes through these melon-shaped baked clay objects were made by small fingers, usually one-half inch across. One exception is a smooth-sided hole apparently made with a reed or cane, or smooth stick, as though it were intended to be used on a shaft. Another exception, but included in the melon-shaped type is shorter than it is wide, being three inches wide and only half that in length, the finger grooves giving the appearance of a cog-wheel. Such an example is illustrated in the Jaketown Report (Ford, Phillips, and Haag 1955:44, Fig.12d). The hole in this example is different in that it is cut from opposite sides using a flat cutting tool, such as a flat sliver from a cane.

The clay from which the objects are made is not tempered, though in some examples there are a number of holes made by fiberous material that seems to have been incidentally included with the clay. Some examples of the perforated, grooved, melon-shaped type are flattened on the end, and two such examples are incised with a series of parallel and zig-zag lines as a decorative treatment.

The Perforated Biscuit Form of Baked Clay Object from Charles Towne

The biscuit form from Charles Towne resembles a hand shaped biscuit, thicker in the middle, and round to irregularly round approaching triangular in shape. A biscuit form is described from Poverty Point as coming from only one fire pit, where 45 examples were present (Ford and Webb 1956:42,44). The biscuit form was not illustrated in the Poverty Point
Report, but it is assumed that the Charles Towne examples are perhaps quite similar, with the exception of the holes in the Charles Towne examples, of course. One example from Charles Towne did not have either a central hole or the smaller holes, and may be close in form to the biscuit type from the Poverty Point pit.

The perforated biscuit form from Charles Towne most frequently has a central hole made with a small tapered dowel one-quarter inch in diameter. One example had a central finger hole, similar to the perforated melon-shaped type. Some fragments reveal a number of one-quarter inch holes, some of which barely break through the surface on the opposite side of the biscuit, and some that do not extend through at all. Only one example was not perforated. One fragment has numerous small punctations apparently applied as a design motif. Several examples are incised with parallel or cross-hatched lines, similar to an example from the Poverty Point Site (Ford and Webb 1956:42-43, Fig. 14j). Two fragments are of particular interest in that they are simple stamped, apparently with a carved paddle.

Some decorated examples of baked clay objects were found at Poverty Point, and in terms of the artificial cooking stone interpretation, the decorations do not neatly fit, and may, as Ford, Phillips, and Haag have pointed out, represent objects with a different function than cooking stones (Ford, Phillips, and Haag 1955:55). The zig-zag, cross-hatched, parallel incised, decorative lines, and punctations on the Charles Towne examples would also imply a function other than cooking stones, unless these were repeatedly reused without damage. The authors of the Jaketown Report state that: "...we have problems of our own, but apparently decoration is not one of them" (Ford, Phillips, and Haag 1955:55). The decorated
baked clay objects from Charles Towne present a problem not encountered at Jaketown.

Function of the Baked Clay Objects from Charles Towne

The interpretation for the classic Poverty Point baked clay objects is generally considered to be as substitute, or artificial, cooking stones (Ford and Webb 1956:39). However, the Charles Towne perforated melon-shaped type, and the perforated biscuit type introduce an additional feature to be interpreted, that may or may not be satisfactorily explained by the artificial cooking stone interpretation. Perhaps the hole aided in handling the hot objects, but with the deeply impressed finger grooves on many examples, a hole through the side or end of the object would seem to offer but little additional advantage in this regard. One example had a very smooth, parallel-sided hole that would appear to be designed to take a shaft, and the thought occurs that perhaps this particular example was designed as an artificial atlatl weight. One of the perforated biscuit forms is very much like the perforated steatite objects found at Stallings Island (Claflin 1931: Plate 52) that have variously been suggested to have been net weights or steatite cooking stones (Williams 1968:254,177). If the Stallings Island steatite objects were cooking stones, the Charles Towne example of similar form may be an artificial cooking stone of the Stallings Island type. Dr. Joseph Caldwell at the Department of Anthropology at the University of Georgia has conducted experiments using steatite discs, and has found that such discs when hot produce instant boiling when placed in water (personal communication). This does not take care of the other objects with irregular finger formed holes, or
those with small holes in the center and randomly over the body, and the only interpretation that might seem valid is that with the hole there may have been less fracturing of the clay during firing through better heat distribution. Admittedly this is a shaky suggestion, but one emphasizing that variation in form such as we see represented in these Charles Towne baked clay objects, requires an interpretation extending beyond that necessary at the Jaketown Site. In comparing the Poverty Point objects with similar examples from California, Ford, Phillips, and Haag state in regard to the many stone forms imitated in clay in that area:

These included earplugs, labrets, cup stones, sinkers bolas, charm stones, etc. Whether these had the same function as their prototypes in stone or are simply clay "balls" of specialized form is for the California archeologists to decide. It is as though we found bannerstones, boatstones, and plummets of baked clay in the Lower Mississippi similar in form to their stone counterparts in surrounding areas but similar to Poverty Point objects in composition and finish. Fortunately we do not, so are not obliged to have an opinion on the question (Ford, Phillips, and Haag 1955:54-55).

The variation in form between the Mississippi Valley baked clay objects and those found at Charles Towne (possibly pointing toward stone parallels) requires a special interpretation. Perhaps we will never be able to better the cautious conclusion of Ford, Phillips, and Haag when they said:

A judicious conclusion, on a continental basis, would be that only one explanation seems to answer most of the facts; that baked clay objects represent an invention, probably made more than once, in response to the household needs of a pottery-less people in a stone-less land (Ford, Phillips, and Haag 1955:56).
From a comparison of the Charles Towne baked clay objects with those from Poverty Point and Jaketown, it appears that some of the "uncommon types" at Jaketown (Ford, Phillips, and Haag 1955:44, Fig. 12) are close in form to the melon-shaped type from Charles Towne. The melon-shaped type from Poverty Point (Type F) and a biscuit-shaped form from one pit (Type I) are apparently equivalent parallels to the perforated melon and biscuit forms from Charles Towne. Incised designs are also present at both sites (Ford and Webb 1956:40-44, Fig. 13-14). It should be remembered, however, that the Charles Towne examples are perforated, an interesting difference from the Poverty Point and Jaketown examples.

One cylindrical shaped form from Jaketown was illustrated as having a hole (or perhaps a finger impression), but no mention is made in the text of perforated forms (Ford, Phillips, and Haag 1955:44, Fig. 12a). C. B. Moore does not indicate that perforated forms were present at Poverty Point (Moore 1913:66-73), but in a recent study Clarence Webb has reported that five percent of the objects from the Poverty Point Site were atypical or unusual, including perforated, miniature, and decorated forms (Webb 1968:308-309, Figs. 2k- gg). This indicates the presence of perforated forms at Poverty Point, but apparently not like those from Charles Towne. Gagliano and Saucier have reported perforated forms from the Linsley Site in southeastern Louisiana, and have illustrated one that appears to be a biscuit form with a central perforation, similar to some of the Charles Towne examples, which they refer to as an "unusual variety" (Gagliano and Saucier 1963:322, Fig. 21).

One of the most interesting parallels with the Charles Towne baked
clay objects is reported by Webb from the Pearl River coastal Archaic shell midden sites examined by Gagliano (Webb 1968:298, citing Gagliano 1963), located north of Lake Pontchartrain. Here were found "A few sandy baked clay objects, biscuit-shaped or pierced and grooved, and differing from the forms of Poverty Point objects..." (Webb 1968:298). This combination of pierced and grooved, and biscuit-shaped forms is that seen at Charles Towne.

Closer to the Charles Towne Site, on the Georgia coast, Antonio Waring, Jr., found a number of Poverty Point objects in the lower level of the Sapelo Island Shell Ring in association with plain fiber-tempered pottery having a radiocarbon date of 1848 ± 250 B.C. (Ford, Phillips, and Haag 1955:53; Williams 1968:329; Griffin 1952:366). At the Dulany Site in Chatham County, Georgia, baked clay objects were also found associated with fiber-tempered pottery, with a radiocarbon date of 1820 ± 200 B.C. (Williams 1968:329). One cylindrical baked clay object was reported by Waring from the bottom of the shell deposit at the Bilbo Site in Chatham County, Georgia, and the radiocarbon dates are 1780 and 1870 ± 125 B.C. (Williams 1968:330). The illustrated baked clay objects from the Sapelo Island Shell Ring are very similar in surface irregularities to the ones from Charles Towne, but apparently they were not perforated (Williams 1968:276, Figs. 92c, 92d).

Closer yet to Charles Towne, on Daws Island, across the Broad River from Beaufort, South Carolina, a small shell mound or ring fragment can be seen (38BU9) washing away, and inundated at high tide. A collection from the area and the shell deposit was made by Tom Hemmings and Jim Michie (Hemmings 1969:6). This included a number of baked clay objects
with a sandy-clay paste, but fashioned in the spherical and melon-shaped forms more typical of Poverty Point than the Charles Towne examples. Baked clay objects and plain fiber-tempered pottery were the only artifacts actually pulled from the eroding surface of the shell deposit. However, other artifacts were scattered along the beach, some of which, no doubt, came from the shell mound originally. Of particular interest in this latter group of objects is a small winged atlatl weight, a fragment of a smooth barrel-shaped atlatl weight, projectile points, a fragment of a steatite "net sinker" (or cooking stone), and a fragment of a finely engraved bone pin. All of these objects are identical with those illustrated from the Bilbo Site by Waring, promising an interesting parallel when the surviving remnant of the Daws Island Mound is archeologically examined (Williams 1968:168-178, Figs. 62-69).

A number of radiocarbon dates provide a good indication as to the likely dates for the Charles Towne baked clay objects. Gagliano's and Saucier's date of 1740 ± 120 B.C. for the Linsley Site (Gagliano and Saucier 1963:326), the Sapelo Island Shell Ring date of 1848 ± 250 B.C. (Ford, Phillips, and Haag 1955:53; Williams 1968:329; Griffin 1952:366), the Bilbo dates of 1780 and 1870 ± 125 B.C. (Williams 1968:330), and the Dulany Site date of 1820 ± 125 B.C. (Williams 1968:330), all of which contained baked clay objects, clearly place a date approaching 2000 B.C. for the use of these objects. The association at the Bilbo Site, the Sapelo Island Shell Ring, and at the Dulany Site of clay objects with fiber-tempered pottery clearly points to the relationship of the fiber-tempered pottery from Charles Towne with the Charles Towne baked clay objects.
In his summary paper on the Poverty Point Culture, Webb has said:

The picture emerges, therefore, of coastal peoples from Georgia [now South Carolina] to Louisiana, between 2000 and 1000 B.C., who used baked clay balls, with or without stone or pottery vessels, in their cooking process (Webb 1968:300).

Summary of the Baked Clay Objects from the Charles Towne Site

From a typological comparison with baked clay objects recovered from Louisiana to South Carolina in association with fiber-tempered pottery at a time period approaching 2000 B.C., we can see the Charles Towne baked clay objects are very likely closely related in time and space to the Poverty Point objects. The fact that the majority of those at the Charles Towne Site are perforated presents an additional interpretive problem relating to function. With the exploration of early sites on the South Carolina coast still in the infant stages, we can look forward to a time of more abundant data bearing on the baked clay objects as more sites are examined. Perhaps then a more definite explanation for the differences between the typical Poverty Point baked clay objects and the perforated forms from Charles Towne can be advanced.

Summarizing the evidence for early Indian occupation on Albemarle Point, we see that there was some occupation from around 4,500 B.C., with a major use of the site between 2000 B.C. and A.D. 1 during the fiber-tempered, baked clay object period to Deptford times.
VI

ARCHEOLOGY ON ALBEMARLE POINT - THE INDIAN CEREMONIAL CENTER

EXCAVATION OF THE INDIAN CEREMONIAL CENTER AT THE CHARLES TOWNE SITE

By June 1969 the Tricentennial Commission had made plans to place the Exhibit Pavilion some seven hundred feet north of the fortified area of the Charles Towne Settlement. Archeological work on the Pavilion Site was requested to determine whether any features of interest were once on the construction site. This project was planned for two days of exploratory work beginning on July 7, but the discovery of an Indian Ceremonial Center on the site resulted in work being continued until September 30, 1969, when the ruin was destroyed by the construction of the pavilion.

The first exploratory trenching revealed an Indian burial, an Indian urn, and a row of palisade posts. Slot trenching was used to follow this palisade, and within a few days it became apparent that a two hundred foot, square area was enclosed by the palisade. At this point an attempt was made by the archeologists to have the pavilion moved to allow for the excavation and interpretive development including possible rebuilding of the Ceremonial Compound. This failed, but additional funds were provided for excavation in the period remaining before the site was destroyed by the pavilion construction. Machines were then used to strip the topsoil from most of the area of the palisaded compound. A crew of over 50 men was then brought onto the machine-cleared site and the ground was schnitted clean at the subsoil level to reveal any posthole or pit ever dug on the site.
The Architectural Features on the Site of the Ceremonial Center

The Main Ceremonial Compound

The palisade postholes were found to be 1655 in number, forming a square compound 200 by 208 feet. At the east corner and along the southeast wall three distinct palisades were seen, the two inside rows of postholes filled with brown soil, with the outer row filled with red clay, apparently indicating that this third palisade wall was plastered with a protective coating of wattle and daub. At the south corner, on the southwest wall, two of the rows of the compound could be clearly seen, and an entranceway was discovered in both walls. This entrance was found to be five feet wide on the outer wall, and three feet wide on the inner wall, and was represented by a gap in the palisade, with an additional post set inside the palisade line on each side of the opening. Along the east wall beneath the plowed soil zone, a concentration of Indian midden was found to have been deposited against the inside of the palisade wall when it was standing. This garbage consisted of animal bone, oyster shells, broken pottery, pottery discs and other objects discarded during the time the area was being used by the Indians.

The compound was oriented on a diagonal axis to magnetic north. The north corner and northeast wall throughout most of its length, as well as the northwest wall for half its distance revealed that the three palisades overlapped. As each palisade was replaced with a new one the new posts were placed in virtually the same line as the original had been. At the west corner and along the southwest wall two basic rows could be determined, the third row of posts having overlapped onto one of the previous palisade
walls. As was mentioned above, along the southeast wall three distinct rows could be seen, representing the three periods of construction of the compound.

Just outside the northeast palisade wall a large oval pit was found measuring ten by 12 feet, with a depth of four feet below the surface. The bottom half of this pit (CH1-263) had been dug into red subsoil clay and was belled out along the south and west walls as though the red clay had been mined from the pit, providing a possible clue to its function. It is thought that this pit, and possibly others in the area beyond the limits of the excavated area, were used to obtain clay for plastering the third palisade wall. The pit was filled with layers of brown, humus-filled soil, alternating with layers of oyster shells and bones from Indian meals, along with pottery and other debris.

The Indian Temple in the Center of the Ceremonial Compound

At a point 82 feet from the southeast, southwest, and northwest walls of the compound and 106 feet from the northeast wall, postholes were found representing a structure 26 feet square, not quite parallel with the walls of the palisaded compound. An entrance at the west corner of the structure, on the northwest wall, was represented by two parallel ditches five feet long and 18 inches apart, typical of the entranceways seen on Indian structures in the southeast and elsewhere. These ditches extended from the outer wall of the structure, and originally held a solid row of posts which formed the wall on each side of the entranceway.

No clay daub was found in the postholes remaining from this structure,
but the spacing, plus what we know from other structures of this type, indicated that it was undoubtedly furnished with a wattle and daub wall. The absence of clay here can possibly be explained by the fact that only the bottom of the postholes was being seen at this level. In fact special care was necessary, during the revealing of the structure, in order to avoid the complete removal of the post impressions by troweling. As can be seen in the drawing of this structure, there are a number of postholes missing due to the excavated level being so near the bottom of the postholes.

The fact that this structure is so near the center of the palisaded compound would point to the fact that it was likely the reason for the construction of the protective palisade. This emphasis would imply not a dwelling house, but a ceremonial temple, such as is seen to accompany ceremonial centers elsewhere in the Southeast, often however, in association with truncated temple mounds (Coe 1952; Caldwell and McCann 1941).

John Lawson provides us with a description of a temple or ceremonial building probably similar to the one represented by the posthole pattern ruin at the Charles Towne Site. In 1701 Lawson visited the Statehouse of the Waxhaw Indians in central South Carolina and describes a corn harvest feast given on the occasion of a visit from the King of Sapona (an Eastern Siouan group located on the Yadkin River near the present town of Spencer, North Carolina).

At Night the Revels began, where this Foreign Indian was admitted; the King and War-Captain inviting us to see their Masquerade. This Feast was held in Commemoration of the plentiful Harvest of Corn they had reaped the Summer before, with an united Supplication for the like plentiful Produce the Year ensuing. These Revels are carried on in a House made for that purpose, it being done round with white
Benches of fine Canes, joining along the Wall; and a place
for the Door being left, which is so low that a Man must
stoop very much to enter therein. This Edifice resembles
a large Hay-Rick, its Top being Pyramidal, and much bigger
than their other Dwellings, and at the Building whereof,
every one assists till it is finished. All their Dwelling-
Houses are covered with Bark, but this differs very much;
for it is very artificially thatched with Sedge and Rushes.
As soon as finished, they place some one of their chiefeest
Men to dwell therein, charging him with the diligent
Preservation thereof, as a Prince commits the Charge and
Government of a Fort or Castle, to some Subject he thinks
worthy of that Trust. In these State-Houses is transacted
all Public and Private Business relating to the Affairs of
the Government, as the Audience of Foreign Ambassadors from
other Indian Rulers, Consultation of waging and making War,
Proposals of their Trade with neighboring Indians, or the
English who happen to come amongst them. In this Theatre,
the most Aged and Wisest meet, determining what to Act, and
what may be most convenient to Omit. Old Age being held in
as great Veneration amongst these Heathens, as amongst any
People you shall meet withal in any Part of the World.
(Lawson 1714, in Harriss 1952:33, hereinafter cited Harriss
1952).

...Now, to return to our State-House, whither we were
invited by the Grandees. As soon as we came into it, they
placed our English men near the King, it being my Fortune
to sit next him, having his great General or War-Captain on
my other Hand. The House is as dark as a Dungeon, and as
hot as one of the Dutch-Stoves in Holland. They had made a
circular Fire of split Canes in the middle of the House.
It was one Man's Employment to add more split Reeds to the
one end as it consumed at the other, there being a small
Vacancy left to supply it with Fewel. They brought in great
store of Lobolloy and other Medleys, made of Indian Grain,
Stewed Peaches, Bear-Venison, &c., every one bringing some
Offering to enlarge the Banquet, according to his Degree and
Quality. When all the Viands were brought in, the first
Figure began with kicking out the Dogs, which are seemingly
Wolves, made tame with starving and beating, they being the
worst Dog-Masters in the World; so that it is an infallible
Cure for Sore-Eyes, ever to see an Indian's Dog fat. They
are of a quite contrary Disposition to Horses, some of
their Kings having gotten by great chance, a Jade, stolen
by some neighboring Indian, and transported farther into
the Country and sold, or bought sometimes of a Christian
that trades amongst them. These Creatures they continually cram and feed with Maiz, and what the Horse will eat, till he is as fat as a Hog; never making any farther use of him than to fetch a Deer home, that is killed somewhere near the Indian's Plantation.

After the Dogs had fled the Room, the Company was summoned by Beat of Drum; the Music being made of a dressed Deer's-Skin, tied hard upon an Earthen Porridge-Pot. Presently in came fine Men dressed up with Feathers, their Faces being covered with Vizards made of Gourds; round their Ancles and Knees were hung Bells of several sorts; having Wooden Falchions in their Hands, (such as Stage-Fencers commonly use); in this Dress they danced about an Hour, showing many strange Gestures, and brandishing their Wooden Weapons as if they were going to fight each other; oftentimes walking very nimbly round the Room, without making the least Noise with their Bells, (a thing I much admired at); again turning their Bodies, Arms and Legs, into such frightful Postures, that you would have guessed they had been quite raving mad: At last, they cut two or three high Capers and left the Room. In their stead came in a parcel of Women and Girls, to the number of Thirty odd, everyone taking place according to her Degree of Stature, the tallest leading the Dance, and the least of all being placed last; with these they made a circular Dance, like a Ring, representing the Shape of the Fire they danced about. Many of these had great Horse Bells about their Legs and small Hawk Bells about their Necks. They had Musicians, who were two Old Men, one of whom beat a Drum, while the other rattled with a Gourd that had Corn in it to make a Noise withal. To these Instruments they both sung a mournful Ditty; the Burthen of their Song was, in Remembrance of their former Greatness, and Numbers of their Nation, the famous Exploits of their Renowned Ancestors...(Harriss 1952:34-35).

Ceremonial Sheds Inside the Palisaded Compound

Three sets of postholes having heavy red clay concentrations apparently represent three sheds measuring ten by 12, ten by 20, and 14 by 14 feet. The postholes representing the 14 foot square structure were filled with large masses of burned daub, revealing the cane and wattle impressions of the wall of which it was once a part, and clearly revealing that this particular structure burned, firing the clay wall into
burned daub. Similar sheds have been found at Town Creek Indian Mound Ceremonial Center at Mt. Gilead, North Carolina, and are seen in the modern ceremonial square grounds of the Creek Indians (Swanton 1931). Excavations at the eighteenth century Cherokee town of Chota in Tennessee revealed several ten-post and some eight-post sheds (Gleeson 1970:Fig. 8).

John Lawson mentions an interesting description that would also fit these rectangular sheds. In 1701 during his visit to the Santee Indians, only a few miles from Charleston, he reported that:

They make themselves Cribs after a very curious Manner, wherein they secure their Corn from Vermin, which are more frequent in these warm Climates than Countries more distant from the Sun. These pretty Fabrics are commonly supported with eight Feet or Posts about seven Foot high from the Ground, well daubed within and without upon Laths, with Loom or Clay, which makes them tight and fit to keep out the smallest Insect, there being a small Door at the gable End, which is made of the same Composition, and to be removed at Pleasure, being no bigger than that a slender Man may creep in at, cementing the Door up with the same Earth when they take Corn out of the Crib, and are going from Home, always finding their Granaries in the same Posture they left them (Lawson 1714, in Harriss 1952:13).

From this account we can see that the posthole pattern of rectangular sheds found at the Ceremonial Center would fit well the description provided by Lawson, with the clay from the plastered walls of the corn crib falling into the postholes when they rotted. However, due to the central location of the sheds inside the compound we suspect that the sheds represent ceremonial structures related to the square grounds seen among Southeastern Indians.

As the drawing of the features at the Ceremonial Center indicates, the ten by 12 foot shed was built directly on the site of the temple or Statehouse. The fact that the third, or outer, palisade shows evidence
of wattle and daub construction, and the sheds do also, makes us suspect that the sheds and the third palisade around the area are contemporary. If this is the case, the temple structure is of the period of one or both of the earlier palisade walls around the compound, with the temple being replaced by sheds that were likely plastered on three sides, with the fourth side remaining open to allow viewing of the ceremonies by those seated on the raised seats (Swanton 1931:10).

The posthole evidence indicates that there was probably another shed to the east of the tenby 20 foot shed, but a positive pattern was not determined among the many postholes seen in that area. The fact that the three sheds found are oriented along the same axis would point to their being contemporary.

The Secondary Palisaded Enclosure

Approximately in the center of the northwest wall of the Ceremonial Enclosure, a double row of postholes was seen to extend toward the northwest. One of these appeared to be a row of individual holes which resolved into a dark ditch-like stain apparently resulting from the joining of a number of palisade postholes set close together. This palisade adjoining the main compound was revealed during the last week of excavation on the site in an attempt to determine its size. The inner palisade enclosed an area 85 by 105 feet, and was composed of obtuse and acute angles rather than angles approximating 90°. An entrance opening four and one-half feet wide was seen on the west wall of the compound, and at the west corner the posts of this wall formed a symmetrical circle 32 feet in diameter. This circle apparently represents a bastion tower designed to provide protective fire.
against anyone attempting to gain entry through the entrance gate or by way of the northwest wall. Charcoal in some quantity in the postholes indicates that this bastion was burned.

The outer of the two palisade walls for this compound was made of postholes set in what appeared to be a ditch, though it may represent a depression caused when a closely set row of palisade posts rotted, causing a ditch-appearing depression. The enclosure inside this larger compound measured 105 by 130 feet, with an entrance on both the west and east walls. The west entranceway opening was opposite the smaller compound entrance, and was 7.0 feet wide. There was no corner bastion as in the smaller compound, and the west corner of this compound went directly through the center of the 32 foot wide bastion. The north entrance opening was 4.5 feet wide. This entire ditch and posthole area was filled with fragments of red clay, indicating that it was obviously of wattle and daub construction. A large pit (6 by 8.5 feet) was found between the palisade walls on the east side of the compound, with a six foot circular pit located just inside the entrance to the inner compound on the west wall. These pits may well have been used for obtaining clay with which to plaster the palisade walls. They contained bone, oyster shell, broken pottery and other refuse of the Indians.

These walls apparently represent an additional palisade added to the main compound enclosure probably at the time the first enclosure posts rotted and had to be replaced. The inner palisade with circular bastion was apparently the earliest, with the outer clay-plastered palisade very likely contemporary with the last of the three main compound walls.
The area inside this enclosure had been used to place the soil taken from the main ceremonial area, and once the limits of the palisades was determined there was no time left to move this dirt and determine what features were inside this smaller area before the bulldozers began destruction of the site. It is conjectured, however, that the first main ceremonial compound was built around the central temple structure. This was used perhaps until the first palisade posts rotted, at which time the new palisade and the additional adjoining enclosure was added to the north corner of the larger compound. At this time a new temple building may have been placed inside the smaller enclosure thus allowing the ceremonial sheds to replace the temple in the central compound. When the final palisade was constructed around the central area, a new one was also built around the smaller adjoining compound, with both being clay plastered. By the time the final palisade was built the circular bastion was no longer considered necessary and it was not rebuilt. Perhaps it was noticed that a defensive fire for the west entrance to the smaller enclosure could be maintained from the northwest wall of the main compound.

Burials from Inside the Ceremonial Center

Twenty-one Indian burials were recovered from inside the palisaded compound. All but four of these were flexed and placed in individual, oval pits. All but two were lying on the right side. The orientation varied, with the head toward all four points of the compass and northeast, northwest and southwest. No grave goods were found with any of the flexed burials, though some seem to have been buried in much larger pits than would be needed for the body (230K and 240).
One burial (230K) was in a longer pit than the others, and the body was only slightly flexed. This burial was discovered during the first exploratory work on the site, and because of this the skull and other bones were recovered in much better condition than those that were exposed to the weight of the machine removing the plowed soil zone from the site. This burial was of an adult male over 40 years old having a sloping forehead, as though some cradleboard flattening had taken place.

The skeletal material from the site was examined by Dr. William M. Bass of the Department of Anthropology at the University of Kansas. Only a few of the skulls were in such a condition that the age and sex could be determined. Burial 230K\textsuperscript{4} was a flexed burial also located during the exploratory phase of the project before machines were brought onto the site. This was an adult female from 21 to 28 years old, lying on the right side, with the head toward the northwest.

One burial was a bundle type, with the long bones placed in a bundle with the foot and finger bones at one end and the skull at the other (239). Beside this bundle was a smooth pot with flaring rim which contained the body of an infant that had died at the time of birth or shortly thereafter. This burial apparently represents a mother who died in childbirth and her child. The fact that this is a bundle burial whereas the others on the site (with one other exception) are flexed, might indicate that the mother died away from home, and for easier transportation the body was stripped of flesh and the bones transported here for burial, along with the unborn fetus. Between the bundle burial and the pot containing the infant, a group of seven small polished pebbles were found
lying together. These are thought to have been the pebbles placed in a gourd rattle that was buried with the bundle and the pot. Lawson (Harriss 1952:35) mentions such a gourd rattle among the Waxhaw Indians in 1701. A single shell bead was found with the bundle. The ends of the long bones showed charring, as though fire roasting was used to aid in removing the flesh from the bones, and in the process the ends of the long bones were somewhat burned. A considerable number of small burned bone fragments indicates that burning, almost to the state of cremation was carried out on these bones before they were buried. One cremation (297) was found in a small pit .7 feet across just outside the west wall of the central temple structure. This burial certainly indicates that cremation was among the types of burial used here.

Burial 255 was a large pit 4.8 feet wide and 6.0 feet long containing four bundle burials and cremation remains. These bundles also contained long bones with burned ends, as well as fragments of charred wood in association with the bones. A polished stone discoidal or "chunkey stone" was found beside one of the bundles. Pieces of mica were placed in contact with the bundles at the time of burial, but none showed signs of having been worked into shapes. Once cleaned to the stage where the bundles could be clearly seen in the field, the bundles were removed from the ground on blocks of soil lying on sheets of plywood, and taken to the laboratory for further excavation. During this laboratory excavation process Burial 255B was found to have 211 disc and barrel type conch shell beads beneath a bundle of bones, apparently having been placed in the pit and the bundle put on top. Also found with the bundle were minute fragments of an infant, apparently also included in the bundle burial. Burial 255D was found to
have been placed over a cremation.

This pit with its bundle burials and the bundled female with her infant could, as was mentioned above, be interpreted as individuals who died away from home and whose bodies had been transported some distance to be buried here, the flesh having been removed and the bones tied into bundles for more convenient transportation. However, it is thought that, whereas the bundle with the infant probably represents a woman who died in childbirth, and may have had to be transported some distance, the large multiple Bundle Burial #255 may have been a result of a custom of ceremonially preparing the bones of the dead and keeping these around for some time, and then perhaps burying several at one time in a common grave during a special ceremony designed for this purpose. The fact that they were found inside a ceremonial center would certainly point to this interpretation. John Lawson's description of the Indians' burial practice as reported by him from the Santee Indians on the Santee River in 1701 is of interest to us here:

The manner of their Interment is thus: A Mole or Pyramid of Earth is raised, the Mould thereof being worked very smooth and even, sometimes higher or lower, according to the Dignity of the Person whose Monument it is. On the Top thereof is an Umbrella, made Ridgeways, like the Roof of an House, this is supported by nine Stakes, or small Posts, the Grave being about six or eight Foot in Length and four foot in Breadth; about it is hung Gourds, Feathers, and other such like Trophies, placed there by the dead Man's Relations, in respect to him in the Grave. The other Part of the Funeral-Rites are thus: As soon as the Party is dead, they lay the Corps upon a Piece of Bark in the Sun, seasoning or embalming it with a small Root beaten to Powder, which looks as red as Vermillion; the same is mixed with Bear's Oil to beautify the hair, and preserve their Heads from being lousy, it growing plentifully in these Parts of America. After the Carcass has laid a Day or two in the Sun, they remove and lay it upon Crotches cut on purpose, for the Support thereof from the Earth, then they annoint it all over with the forementioned ingredients of the Powder of this Root
and Bear's Oil. When it is so done, they cover it very exactly over with Bark of the Pine, or Cuprus Tree to prevent any Rain to fall upon it, sweeping the Ground very clean all about it. Some of his nearest of Kin brings all the temporal Estate he was possessed of at his Death, as Guns, Bows and Arrows, Beads, Feathers, Match-Coat, &c. This Relation is the chief Mourner, being clad in Moss and a Stick in his Hand, keeping a mournful Ditty for three or four Days, his Face being black with Smoak of Pitch Pine mingled with Bear's Oil. All the while he tells the dead Man's Relations, and the rest of the Spectators, who that dead Person was, and of the great Feats performed in his Lifetime; all what he speaks, tending to the praise of the Defunct. As soon as the Flesh grows mellow and will cleave from the Bone, they get it off and burn it, making all the Bones very clean, then annoint them with the Ingredients aforesaid, wrapping up the Skull (very carefully) in a Cloath artificially woven of Possom's Hair. (These Indians make Girdles, Sashes, Garters, &c., after the same Manner.) The Bones they carefully preserve in a wooden Box, every Year oiling and cleansing them. By these Means preserve them for many Ages, that you may see an Indian Possession of the Bones of his Grand-father, or some of his Relations of a larger Antiquity (Harriss 1952:17-18).

When the Indians abandoned the site in favor of a new one they very well may have left these polished bones of their ancestors buried in Pit 255, to allow them to remain on familiar ground. These bones may also have been periodically buried in ceremonies specifically designed for this purpose.

Features from the Ceremonial Center at Charles Towne

A large number of pits and postholes besides those represented by the burials were found in association with the palisaded compound. A particularly large pit (263) was found outside the northeast palisade. This pit is thought to have been dug by the Indians to obtain clay for plastering the palisade wall with daub. The hole had been filled with oyster shells, bones, and broken pottery, the bones being from meals made on deer, turtle and other animals. The pottery will be discussed in a
Another large feature six feet across (296) may also have been a borrow pit for clay. This pit also contained pottery fragments, along with bone and oyster shell from Indian meals. A similar midden-filled pit was found inside the small compound a few feet from the northwest wall of the large enclosure (CH1-238).

One area containing large amounts of animal bone, oyster shell, and other discarded midden from the period of the use of the area by the Indians came from the southeast wall of the palisaded area, just inside the wall (257). Here, beneath the plowed soil zone, a large deposit of Indian midden was found in a layer from .3 to .6 inches thick lying over the subsoil. A dog was found buried in this midden deposit (CH1-258).

In an area to the east of the center of the northwest palisade wall a similar deposit of material was found beneath the plowed soil during the exploratory phase of the project. This layer was between the plowed soil and the subsoil, was rich brown in color, and measured from .1 to .2 feet in depth (230E). This deposit was found to center around a shallow depression measuring five by nine feet (230J).

Several pits filled with burned corncobs were found on the site (CH1-242, 243, 322, etc.). One of these (322) was removed intact and taken to the laboratory for closer examination and excavation. A burned hickory nut pit was also found (323) and removed for closer examination in the laboratory.

Among the most significant features were the pits containing Indian pots. The first of these was found in the center of a two-foot wide slot trench cut during the first day of the exploratory phase of the
project. This urn had the rim taken off by the plow, but a large portion still remained (CH1-230C). This pot was located just outside the east wall of the ceremonial temple, near the foot end of burial (230K). It is of particular interest in that the upper half is decorated with impressions from a carved paddle with a rectilinear pattern of parallel lines intersecting at right angles, with the bottom being impressed with a paddle having concentric circles in a swirl or loop. These motifs are the two used to form a filfot cross, but here we see them as separate units from different paddles, or perhaps the opposite sides of the same paddle.

Fragments of a whole broken pot, later glued together, were found just inside the northeast wall of the palisaded compound near the east corner (CH1-233). This was a smooth vessel with an inward angled rim, with a row of incised marks or linear punctations around the shoulder. Just beneath the shoulder was a decorative design made with three parallel incised lines forming loops at intervals. A particularly interesting feature of this vessel was the fact that on the rim or neck area above the shoulder a poorly executed imitation of the pattern below was incised, as though a child had been attempting to copy the more expert incising of a more practiced hand.

In the area of midden concentration just inside the southeast wall of the palisaded area a cord-marked pot was found (CH1-261). Another pot with the top removed by the plow was found in a pit just east of Burial 292 (CH1-293). The base of a smooth pot was found in a pit in the east corner of the palisaded compound, near a pit filled with corncobs (CH1-256).

The most interesting of the pots recovered was that found in Pit
#252, in the east corner of the compound, near three burned hearth areas. A large urn was found upside-down in this pit. It was covered with a stamped design made with a filfot-like paddle, in some areas appearing to have been made with two separate paddles over stamped, perhaps the two motifs found on the pot in pit (CH1-230C). Beneath this urn was found a bowl with a similar filfot curvilinear stamped surface finish, inside of which was a smooth, burnished, constricted neck water jar. The humus layer in the bottom of this jar was examined to try to determine what the vessel had contained, but no evidence could be found of identifiable organic matter. It is thought that this collection of three pots represents an attempt to protect something stored in the inner bottle or jar. This material may have been the leaves of the yaupon, used by Southeastern Indians to make the sacred black drink used in their ceremonies.

In a straight line with the northwest wall of the main compound toward the northeast, a distance of 270 feet, exploratory trenches revealed a large midden pit (CH1-234), and 40 feet away and toward the east another large midden-filled pit was found (CH1-235), and one-foot beyond this another (CH1-237). These pits are of particular interest in that they contained pottery with a sharply everted rim, pointing toward a later time period for this material than that found in the ceremonial center, almost all of which was a straight rimmed to slightly flaring form. The presence of this different material could also be interpreted to represent domestic ceramic forms as opposed to those primarily used for ceremonial purposes inside the palisaded compound. These possibilities are discussed in a later section.
Artifacts from the Ceremonial Center

With the exception of fragments of broken pots, pottery discs ground from sherds of pottery vessels comprise the most abundant artifact type from the Ceremonial Center. Sherds were also found, being sherds having V-grooves or U-grooves having been used as sanding blocks, probably in sharpening bone tools. Two bone awls (CH1-257-23, 23/1) and a bone tool from the leg bone of a Puma (CH1-238-29) were bone tools recovered. Shell beads made from discs cut from the conch shell were found in only two burials, but fragments of conch shells were found in a number of features. A polished stone disc (CH1-255B-23), flat on one side and convex on the other, measuring 1 9/16" thick, by 3 7/8" across, with a beveled edge was found in burial (CH1-255). Fragments of two clay discs were also found (CH1-296-25, 25/1) that may represent clay versions of the stone disc or chunkey stones. This is the total artifact assemblage from the Ceremonial Center.

An interesting fact regarding these artifacts is that they all are among those types present at the Irene Site at the mouth of the Savannah River in Georgia (Caldwell and McCann 1941:53-54). Several of these types are also present at Town Creek in North Carolina (Coe 1952:Fig. 165). The polished stone disc is of particular interest, with duplicate examples from Town Creek and Irene, as well as from the McDowell Mounds in Kershaw County, South Carolina (Coe 1952:Fig. 165; Caldwell 1952:Fig. 173,175). This is identified as a chunkey stone used in the Indian game of chunkey, and was described by Lt. Henry Timberlake at the Cherokee town of Chota. Timberlake said it was "...a round stone, with
one side flat and the other convex...(Gleeson 1970:76).

Many sources cite the importance of the game of chunkey, chenco, chungke, or tchung-kee to the Southeastern Indians, and point out the fact that the Indians were apparently addicted to the sport (Culin 1907:485-88, 510).

The ground pottery discs may well have been a form of dice widely used by American Indians in gaming. Dice made of beans, corn, butter beans, peach pits, prune pits, bone discs, stone discs, persimmon pits, with winning or losing depending on how the dice land, one side being painted black, red or white (Culin 1907:44-225). Some dice were made from pottery discs of china by Indians in the late nineteenth century (Culin 1907:170), and the pottery discs found on the Ceremonial Center may well reflect an obsession of the Indians at this place with a game played with these discs. The obsession of the Indians of the historic period with such dice games would certainly point to this as a likely possibility, and a reasonable interpretation of these ground pottery discs.

Pottery from the Ceremonial Center

The artifact found most frequently in the Ceremonial Center was broken pottery, some restorable to form whole vessels. Most of the fragments appear to be from urns covered with a carved stamped paddle design. Some filfot stamping is present, but is not the major type. Curvilinear motifs occur predominately on some sherds with rectilinear motifs only appearing on others. One vessel (CH1-230C-1) had the rectilinear design element on the upper half of the vessel, with a con-
centric circle or "figure 9" or possibly "8" motif over the bottom of the pot, perhaps made with the same paddle having curvilinear and rectilinear motifs on opposite sides. Some sherds appear to have been overstamped with these paddles, giving the appearance of the filfot cross motif. Many fragments of Savannah Complicated Stamped pots were present, as well as a few of the more narrow and less bold curvilinear stamps typical of Pee Dee Complicated Stamped vessels (Caldwell and McCann 1941:45; Coe 1952:308). The Savannah (concentric circle) Complicated Stamped and Pee Dee Complicated Stamped types are also found at Town Creek (Ferguson 1971:120, after Reid 1967).

Incised pottery was quite rare, but a whole vessel of this type was recovered from a pit (CH1-233-1) just inside the palisaded compound. No incised pottery occurs during the Savannah period, being present only with Irene (Caldwell and McCann 1941:41), and virtually absent at Town Creek (Coe 1952:309). An almost identical design element of three parallel lines forming a horizontal band with loops is seen on Irene Incised vessels from the Irene Site (Caldwell and McCann 1941:48). However, this hemispherical bowl with inwardly angled rim is unique in that an amateurish attempt to imitate the design element appearing below the shoulder was made by an inexperienced hand around the inward turned rim. A significant difference seen on this vessel as compared to the Irene Incised examples from the Irene Site is a row of ticks or tooling marks on the shoulder of this vessel. These did not occur on Irene pottery from the Irene Site. Caldwell says that only during the Savannah period did they find:
...closely spaced, parallel, vertical tooling marks on the shoulders and rims of bowls (Caldwell and McCann 1941:42).

The angle at the shoulder is also typical of Savannah and not Irene (Caldwell 1952:Fig. 172). From this it would appear that this incised Irene-like vessel represents a transition between the Savannah period when shoulder tooling and this vessel form was used, and the Irene period when it was not used.

The urn covering the jar or water bottle (38CH1-252-24) with constricted neck in Feature CH1-252 was like Pee Dee Complicated Stamped, as was the bowl (38CH1-252-25) in which the water bottle was lying. The water bottle itself is completely plain and undecorated, with a burnished surface. The form is like that of the bottles of Irene Plain from the Irene Site (Caldwell and McCann 1941:49). The small burnished pot (38CH1-239-1) in which the infant was placed in Burial CH1-239, was not decorated, and has the form of Savannah Burnished Plain rather than one illustrated for Irene Plain (Caldwell and McCann 1941:46,49).

There were a very few fragments of cord-marked pottery seen on the site of the Ceremonial Center, with one virtually whole pot (38CH1-261-1) being restored from Feature CH1-261 being the major representation of this type on the site. The form of this vessel is that of a round base jar with a straight rim, typical of Savannah Cord-Marked (Caldwell 1952: Fig. 172), and the temper is sand, a characteristic of Savannah Fine Cord-Marked (Caldwell and McCann 1941:43-44), though the cord-marking on this particular vessel is somewhat coarse, similar to that seen on Wilmington Heavy Cord-Marked examples (Caldwell 1952:Fig. 172; Williams
Rim Treatment on the Pottery from the Ceremonial Center

Typical of the rims from the Ceremonial Center are those with hollow reed punctation in a single or double row around the rim, with this row of punctations sometimes making a circle around large round reed impressed nodes widely spaced around the rim. These punctations are applied around the rim over the complicated stamped surface finish of the vessel. Also typical of the rims from the Ceremonial Center are those with a single row of "rosettes" made of pellets of clay applied to the rim and then impressed with a hollow reed. These "rosettes" are frequently alternated with reed punctations on the exterior rim of the vessel. An added rim strip is a characteristic feature of the rims also, with a closely spaced row of hollow reed punctations in the center of the strip. The rim strip is usually added slightly below the lip of the vessel, clearly revealing that it is an added rim strip and not a folded rim. Many of the added rim strips are impressed with a narrow tool, perhaps a sliver of cane, sometimes well-rounded, as though a small round dowel were used. These impressions are linear, closely spaced, parallel, vertical tooling marks, usually deeply impressed into the strip, sometimes completely to the stamped wall of the straight to slightly flaring rim.

One rim sherd (CH1-303-1) was of particular interest. This example had the characteristic filfot, curvilinear-stamped motif, with a row of hollow reed punctations around the rim, but also had two very small loops, one inch long and one-half inch apart, extending from just below
the lip. These were crudely modeled and finger-flattened in the attempt
to fasten them to the exterior wall of the vessel.

Incised plain sherds were quite rare on the site, with the whole
vessel mentioned previously being an exception rather than representative
of the site. One incised sherd has the rectilinear parallel line motif
sometimes seen on Irene Incised sherds (Caldwell and McCann 1941:48).
Another example of incising was curvilinear, poorly executed, and was from
a vessel having a flaring rim. The unique feature of this incised sherd
was the fact that a weak rim strip had been added to the rim, and had
been punctated with a row of overlapping hollow reed punctations. One
plain rim, with no incising, also had a single row of neatly spaced and
carefully executed hollow reed punctations. However, this punctation on
a plain vessel was also an exceptional example. Plain bowl fragments, a
jar fragment, and a bowl with what appears to be an attachment for a
strap handle or appendage on the rim was also found in the Ceremonial
Center. One fragment revealed the ovoid nodes characteristic of Irene
Plain (Caldwell and McCann 1941:49).

Only a few Savannah Check-Stamped and Savannah Fine Cord-Marked
sherds were found on the site (Caldwell and McCann 1941:44), the latter
type being also represented by a virtually whole restored vessel from
one of the features, but like the Savannah-Irene hybred incised vessel
mentioned above, this was more of an exception on the site than a rule.

Another exception to the rule was a sand-tempered, hand-smoothed
exterior, tool-smoothed interior sherd with an added rim strip with stick
punctations around the strip found in the ditch of the small Ceremonial
Compound. This sherd is not like the added rim strip sherds found
elsewhere in the Ceremonial Center area, and has every appearance of being identical to Qualla Plain pottery found at the Cherokee site of Chota in Tennessee (Gleeson 1970:Plate 73).

Artifacts from Features 234 and 237, North of the Ceremonial Center

The pottery from these two features was so distinctive from that found in the Ceremonial Center that these pits are treated as a separate unit in the belief that these distinctions reflect a temporal or functional contrast with the material from the Ceremonial Center.

Feature 234

In the effort of the archeologists to have the site of the exhibit pavilion moved to preserve the site of the Ceremonial Center, an alternative site for the pavilion was desired. The area 270 feet northeast of the Pavilion Site was chosen by the archeologists as a possible alternative site, and exploratory trenches were cut to determine if the site would be suitable for building the pavilion without damage to significant Indian architectural features. These slots revealed Features 234, 235, and 237. Feature 234 was a large pentagonal pit nine feet wide and two feet deep beneath the plowed soil zone, with the top one foot layer being a thick deposit of oyster and conch shells, deer bone, and other midden. Of particular interest from this feature was the pottery, which was a large, bold, complicated stamped type, appearing to be an exaggeration of the bold figure "9" stamp seen on Savannah Complicated Stamped and on vessels of the transitional period from Savannah to Irene (Caldwell and McCann 1941:41,43,45). The rim of this type vessel is flaring, with a row of finger jabs or punctations at three-fourths of an inch intervals just
under the lip, where the added rim strip is usually placed. Also in this pit along with the transitional Savannah-Irene Complicated Stamped sherds were fragments of a corncob-impressed vessel.

Features 235 and 237

Forty feet northeast of Feature 234 a circular pit six feet across was found (CHl-235). This pit also contained large quantities of oyster shells, box turtle, conch shells and fragments, and deer bone. A few fragments of the Savannah transitional to Irene type pottery were found, along with a few pieces of cord-marked, and a fragment of the Pee Dee type filfot-stamped ware. The finger punctations around the exterior of the rim of the transitional Savannah Complicated Stamped sherd were similar to those seen on fragments from Feature 234. This feature at first examination appeared to join Feature 237 one foot to the north because of the midden scattered between the pits at the subsoil level, but upon excavation the two features appeared as separate pits.

Feature 237 was of primary interest because of the larger collection of artifacts recovered from it, and because of the distinctive pottery found among the oyster shell, conch shell, box turtle, deer bone, and fish midden discarded in the pit as fill. This pit was five feet wide and eight feet long, being oval in outline. The bottom was only one foot below the bottom of the plow zone. The pit contained relatively little oyster shell compared to the large quantity of box turtle bone recovered.

The worked tips of two antlers were found here (CHl-237A-31,32), and would be conjectured to have been arrowhead flaking tools were it not for the fact that no arrowheads were found on the site. A bone sliver awl
(CHl-237A-29) was also found in this pit as well as a larger deer ulna awl (CHl-237A-30).

Clay Pipes from Feature 237

Pottery tobacco pipes were found in this feature. One whole bowl (CHl-237A-12/1) shaped like a cone with a two-inch opening at the mouth was recovered, but lacked a stem. Another pipe with a conical bowl and short stem forming an elbow with the bowl was also recovered from this feature (CHl-237-12/2). This pipe had a sharp molded elbow that was not centrally located, but was pulled to the right so that the point of the elbow was in line with the right side of the pipe. This produced what appears to be an intentional assymetrical form to the bowl. Three fragments of a similar pointed elbow pipe (with the point in the center) were also recovered, having come from a conical shaped bowl (CHl-237A-12). These fragments were decorated with a series of incised circles and an incised line below the flat-tooled lip. These circles and the conical form are also seen on pipes from the Town Creek Site (Coe 1952:Fig. 165), and from the McDowell Mound in Camden (Caldwell 1952:Fig. 175), both of which show a similar group of traits to the Charles Towne Site. One small fragment of an incised, squared, burnished pipe stem was also found in this feature (CHl-237A-1).

Pottery from Feature 237

The majority of the pottery fragments from Feature 237 were the large, bold, curvilinear Savannah Complicated Stamped, so bold that the grooves between the lands were one-fourth of an inch wide. One large urn fragment had a central cross motif made of three parallel lines inside three
concentric circles (CH1-237A-1). This vessel was a straight-sided cylindrical form with a sharply everted rim identical to those described by Caldwell (1941:43) as characterizing the transitional period between the Savannah and Irene periods. This bold Savannah Complicated Stamped type pottery was poorly stamped and overstamped, appearing to have been more carelessly applied than most of the stamped ware from the Ceremonial Center. The sharply everted rim, almost at a right angle to the body, was furnished with an applied rim strip which was carelessly punctated with a cane or stick. One vessel had a flared rim with no rim strip, but was punctated with a single row of hollow reed punctations into the complicated stamped surface finish which extended to the lip. These reed punctations were not all the neatly applied rows seen on the examples from the Ceremonial Center, but were applied at an angle and in a hurry, so that mis-licks and smears were more common, and carelessness was more apparent. A few of the sherds revealed the concentric diamond and square motif seen on Savannah Complicated Stamped pottery from the Irene Site (Caldwell and McCann 1941:45).

Smooth and burnished sherds were from flaring rim vessels, with one example having a row of finger punched vertical gouges or punctations forming a line around the rim. Three sherds revealed incised designs, one with two widely spaced curvilinear lines such as seen on Irene Incised pottery (Caldwell and McCann 1941:48). Two sherds had concentric curvilinear lines closely spaced and oriented around a central dot, and appeared to be from an incised zone rather than a separate motif such as seen on Irene Incised. These incised sherds appear to be closer in design motif to Lamar Bold Incised pottery from the Lamar Mound and Village Site in
Georgia (Kelly 1938:Plate 12; Jennings and Fairbanks 1939) than it is to
the Irene Incised type. A large round urn or bowl bottom was found having
a smoothly tooled to burnished surface finish, that may have been the
base of an incised vessel. One straight rimmed vessel with an added rim
strip had a series of finger punctations around the strip.

Ashley Simple Stamped Pottery

One large jar fragment from this feature was so unique that no
reference to a similar type can be found in the Pee Dee, Irene, or
Savannah contexts. This straight-sided cylindrical form has the sharply
everted rim characteristic of the transitional type from Savannah to
Irene, with a row of fingernail punctations around the rim. The temper
is water worn sand. The surface finish is a carved-paddle, simple
stamped impression with the impressions carefully applied so as to
produce the effect of a series of continuous lines running around the
vessel at a slight angle from horizontal. The impressions are deeply
made, with the distance between the paddle grooves being one-fourth of
an inch in width. This bold, wide, paddle motif is the same as seen on
the other sherds from this pit, and the sharply everted rim is also seen
on the complicated stamped examples from this feature, as well as the
fingernail punctations. This simple stamped type is clearly related to
the other vessels in the feature in form, temper, and rim treatment. In
this association, this vessel assumes considerable significance in that
it indicates the use of simple stamping in association with vessels
clearly representing the transition period between Savannah and Irene in
the Ashley River area. This transitional simple stamped type has been
assigned the name Ashley Simple Stamped.
One large fragment of a corncob impressed vessel was also found in this pit. The form is of a flattened bottom conical jar six inches deep and seven and one-half inches across the rim, with only a slight hint of flaring of the rim. This form is one of those found on Savannah Burnished Plain vessels (Caldwell and McCann 1941:46). The base of this corncob rolled vessel is smoothed and contains parallel lines similar to those characterizing Irene sherds which Caldwell (1941:51) has compared to Walnut Roughened. In this case, however, with corncob impressions on the body of the vessel, the roughening is likely from the corncobs being used to create the surface finish of the vessel.

One sherd appears to have the surface finish created by punctations made with a group of straws or slivers held almost parallel with the wall of the vessel and repeatedly punched into the damp clay wall. A very small sherd appears to be from a toy. It has a flaring rim, a plain surface finish, and a row of miniature fingernail-like punctations around the rim. A very few cord-marked sherds were present, representing a very minor type.

**Interpretive Summary of the Ceramic Periods Represented at the Charles Towne Indian Site**

We have seen from the description of the ceramics from the Charles Towne Site that the Ceremonial Center ceramics are characterized by the presence of straight-sided urns with curvilinear and rectilinear stamped motifs. The stamp motifs are the single terminal element of the figure eight, resembling the number nine and the curvilinear element of the filfot cross; a pattern of right angle intersecting parallel lines resembling the central rectilinear element from a filfot cross; and an occasional stamp
that appears to be from a filfot cross stamp. Plain and burnished plain as well as incised examples occur with flaring and inward angled rims, with cord-marking being represented by a single pot. All the ware is sand-tempered. The rims are specialized, with hollow reed punctations, borders of spaced rosettes, nodes; applied rim strips are frequent, with reed punctations or closely spaced vertical tooling marks.

All of these ceramic elements occur on ware described by Caldwell and McCann (1941) as characteristic of Savannah II period ceramics on the Georgia Coast. The urn shape, the stamped motifs, and the rosettes are motifs that also occur on Pee Dee vessels at Town Creek in North Carolina (Coe 1952; Ferguson 1971:120). Ferguson cites Reid (1967), and points out that Pee Dee ceramic forms are comparable to Savannah II forms more so than with Irene, and equates the Savannah-Irene continuum with Pee Dee (Ferguson 1971:120). From the incised vessel from the Charles Towne Ceremonial Center we have seen that there are elements present characteristic of both Savannah II and Irene ceramics, and would, therefore, represent a transition type. Caldwell and McCann (1941:42) point out that only during Savannah II times are "closely spaced, parallel, vertical tooling marks on the shoulders and rims of bowls." At Charles Towne this type rim treatment is frequently seen, illustrating the close relationship of the ceramics with Savannah II characteristics. Rim specialization did not occur at all on Savannah Complicated Stamped vessels at the Irene Site, yet at Charles Towne applied rim strips, hollow reed punctations, and rosettes all are found on vessels covered to the lip with the Savannah II-Pee Dee type curvilinear-rectilinear stamped surface. This demonstrates an interesting contrast with the
Savannah II ceramics. At Town Creek, the rosettes on Pee Dee ceramics occur almost entirely on plain surfaced vessels (Coe 1952:309).

There are, as we have seen, clear cut relationships between the Charles Towne ceramics and Savannah II and Pee Dee elements to the south in Georgia and north into North Carolina. Later, Irene motifs are also present. The incised vessel from Charles Towne has an incised motif almost identical to the Irene Incised vessels from the Irene Site, but as we have seen, it also has ties with Savannah II elements. The water bottle or jar with constricted neck is a characteristic Irene Plain form (Caldwell and McCann 1941:49), but is not duplicated at Town Creek (Ferguson 1971:120, after Reid 1967), though Coe (1952:Fig. 165) illustrates a related form. Oval pellets or nodes below the rim are seen to be present at Charles Towne on plain vessels, and this type treatment is characteristic on Irene Plain bowls (Caldwell and McCann 1941:49).

We see, then, that urns are the primary type vessel recovered from the Charles Towne Site, with incised, stamped, and plain bowls present as minor types. The ceramics from the Ceremonial Center reveal a clear relationship to Savannah II-Pee Dee types, with emphasis on complicated stamping, with Savannah Check-Stamped and Savannah Fine Cord-marked types being virtually absent from the site. The emphasis on urns would imply that at the Ceremonial Center, we may well be getting a sample that is oriented toward a specific function, with more utilitarian forms not present in quantity.

The pits to the northeast of the Ceremonial Center exhibited straight-sided vessels with sharply everted rims characteristic of the transitional Savannah-Irene period (Caldwell and McCann 1941:43). The stamped motifs
are very large versions of the curvilinear concentric circles and figure nine elements seen on the pottery from the Ceremonial Center, having widely spaced lands and grooves, resembling exploded, expanded versions of Savannah II motifs. The rim strips are more carelessly and poorly applied than the neat ones seen on the sherds from the Ceremonial Center. Instead of the neat rows of hollow reed punctations and applied rosettes, there are carelessly punctated, irregular rows of punctations, and the rim strips are punctated, not with a reed, but with a sliver or stick, and sometimes the finger or fingernail alone. Fingernail punctation also is found on the rim of vessels without a rim strip. An unusual type present here is a large bold carved paddle, simple stamped design with the stamp applied so as to give the impression that a continuous series of parallel lines extends around the body of the vessel. This type has been assigned the name Ashley Simple Stamped. It has the sharply everted rim of the transitional Savannah-Irene period, a rim form not seen on the Ceremonial Center ceramics. Also present here and not in the Ceremonial Center was corncob impressed pottery. The incised pottery is more like the zone incising seen on Lamar Incised pottery than like the Irene Incised type.

From the comparison of the ceramics from the Ceremonial Center with that from the pits northeast of it, we see that whereas there are some elements of the Irene period present, the form of the vessels and other elements indicate a relationship for the Ceremonial Center ceramics with the Savannah II-Pee Dee period. The pottery from the pits to the north-east of the center are typical of the transition from Savannah II-Pee Dee to Irene.
The emphasis here has been on the better known Savannah-Irene and Pee Dee assemblages, anchored in the studies of Reid and Ferguson which notes the generic similarity of Pee Dee with the Savannah-Irene-Lamaroid wares (Ferguson 1971:119, after Reid 1967). Closer relationships exist in the pottery from Fort Watson on the Santee, where similar motifs are found to those seen on the Charles Towne ceramics. A very similar comparison is seen with the pottery from the McDowell (Mulberry) Mound at Camden (Stuart 1967:Fig. 7; Caldwell 1952:Fig. 175). The pottery from the premound level at the McDowell Mound was compared with that from the village site by Caldwell (n.d.), and with Fort Watson material, revealing that the use of rosettes and nodes characteristic of the premound were replaced at a later time by applied and fluted rim strips which were most common in the village sample. Caldwell regards the Fort Watson material with characteristic hollow reed punctations, double lines of punctations, rosettes, and large inserted nodes, as earlier than the premound level of the McDowell Mound, and later than the transitional Savannah-Irene period (Caldwell n.d.:7-8). The Charles Towne pottery certainly has its closest parallel with the McDowell Mound material, with the absence of rosettes and nodes in the pits northeast of the Ceremonial Center paralleling their absence in the McDowell village area (Caldwell n.d.:6). Stuart (1970) indicates that material from the Adamson Mound at Camden is related to the upper McDowell Mound in its Lamar style pottery.

It appears, then, that the Charles Towne Ceremonial Center was occupied at a time during the transitional period from Savannah II-Pee Dee to Irene-Lamar. The close relationship with the McDowell Mound
ceramics in terms of incising and the use of applied rim strips places it more distinctly and therefore later (Caldwell n.d.:6-8) than the Fort Watson Site. After the Ceremonial Center at Charles Towne ceased to be used, the site was still occupied in the area northeast of the abandoned center. Pottery from this period had no applied rosettes or nodes, and the care taken with applying rim strips during the occupation of the Ceremonial Center had given way to a careless, hurried technique, with the fingers and sticks being substituted for the hollow reed. The rims were abruptly everted, and the stamped designs carved on the paddles were larger versions of the more neatly done earlier versions. A new surface finish was introduced in the use of Ashley Simple Stamped pottery with bold parallel lines, with corncobs being used to produce a surface finish on some vessels. The presence of Irene-Lamar incising, but in small amounts, indicates that the two periods at Charles Towne were on the threshold of the Irene-Lamar style period.

Interpretive Summary of the Artifacts Represented at the Charles Towne Indian Site

The sherd hones, bone awls, conch shell beads, polished stone disc, clay discs, and pottery discs are all traits seen at the Irene Site (Caldwell and McCann 1941:53-56), the Town Creek Site (Coe 1952:Figure 165), and at the McDowell Mound Site (Caldwell 1952:Figure 175). The clay pipes from Feature 237 are of the elbow type with a conical bowl, one with a circular design motif, and are also seen on the Irene-Pee Dee-McDowell Sites. These objects all fit within the transitional Savannah-Irene period determined by the pottery to be that represented at the Charles Towne Site.
The most significant features from the Charles Towne Site, besides the pottery, are the architectural data. The 200 foot palisaded compound with its central ceremonial structure and later ceremonial sheds and burials, the attached 100 foot palisaded compound to the north of this large area, with its defensive corner bastion is one of the most unique discoveries yet found in the Southeast. This is true because of the fact that this architectural data reveals a Ceremonial Center without an accompanying ceremonial platform mound. The Irene Site on the Savannah, the Pee Dee Site at Town Creek, the Fort Watson Site on the Santee, and the McDowell Mound and the Adamson Mound at Camden are all Ceremonial Centers with temple mounds. The Charles Towne Site, however, is a Ceremonial Center without an accompanying temple mound, archeologically unique perhaps, but possibly representing other such centers not yet excavated due to their unimpressive nature, and the techniques employed by archeologists to examine archeological sites.

Large palisaded enclosures such as the one around the central building at the Charles Towne Site have been found at the Irene Site and at Town Creek, but these are rounded in outline whereas the Charles Towne compound is square (Caldwell and McCann 1941:34; Coe 1952:309). The earliest structures at the Irene Site are almost identical in size to the 26 foot square central building at Charles Towne (Caldwell and McCann 1941:8-9), and the entrance wall trenches were also the same, being off-center (Caldwell and McCann 1941:17,26,35). The Town Creek Site revealed circular towers or bastions in the center of the palisade wall surrounding the ceremonial area, with a tower on opposite sides of the compound. These towers were about eight feet across, and were made of larger posts than
the palisade wall, implying thereby a taller, tower-type structure. The 32 foot wide corner bastion at Charles Towne may also have been higher than the palisade wall, but the posthole pattern did not reveal, through a larger size, that this may have been the case. The corner bastion on a smaller compound attached to a larger ceremonial compound with a central temple, not in association with a temple mound, is a most unique combination of features, one never having been seen before on an archeological site in the Southeast.

The fact that the ceramics indicate a time transitional between the Savannah II-Pee Dee and Irene-Lamar periods for the use of the Charles Towne Center would clearly reveal that at this time some ceremonial centers were being built without an accompanying mound. The site may represent the beginning period of a never-built mound since temple mounds usually have a premound structure at ground level. However, the late time of the site, during the transition from the Savannah-Pee Dee to Irene-Lamar periods, would point to the conclusion that at this time a ceremonial center could be operated without the necessity of building a mound prior to building a temple. As was mentioned earlier, this site may be only one of many such ceremonial centers that have yet to be discovered, since archeologists have traditionally been attracted to sites with mounds rather than to the insignificant-appearing sites where only a few Pee Dee or Savannah sherds are all that survive to provide a clue to the Ceremonial Center that once stood on the spot. If the archeologist decided to excavate such an insignificant-appearing site, he would traditionally put in a few five foot squares to test the site, and from this his report would be written and ceramic comparisons made. Such
a technique does not lend itself to the discovery of ceremonial centers. Fortunately, techniques are changing and a broader perspective is used by some archeologists in examining archeological sites, a technique of rapid exploratory slot trenching to locate features against the subsoil matrix, and machine stripping of plowed soil in large areas to reveal the architectural features such as ditches, palisades, and house patterns. With the expanded use of this technique (used at Charles Towne), more ceremonial centers may well be located throughout the Southeast that are not accompanied by temple mounds.

Studies of distributions and relationships of ceremonial centers are done on the basis of presence of temple mounds, providing a limited type of ceremonial center for our study. What of a Savannah Site used as a ceremonial center that was abandoned before time enough had elapsed for the temple mound to rise above a low level, which was soon destroyed by the plow? Such sites, and those like that at Charles Towne should provide us with a much fuller picture of the phenomena of Southern Mississippian ceremonial centers than we now have at our disposal. The fact that urns seem to represent the major form on ceremonial centers may well be the clue for use in attempting to discover other such moundless ceremonial areas. Surface collections from an area could be studied for such concentrations of urn sherds, and pilot excavations conducted to test this hypothesis.

The absence of a mound at this site may also reflect the fact that the temple mound concept had been abandoned by this time in this area. Ferguson (1971:240) has pointed out that:
The true temple mound structures from this area, such as those at Hollywood, Irene, Town Creek, and probably Adamson and Ft. Watson, appear to be earlier than the introduction of Lamar style ceramics into the area.

In view of this hypothesis we might see the Charles Towne Ceremonial Center as representing the abandonment of the temple mound concept at a time just after the introduction of the Irene-Lamar ceramic concepts to the site.

Ferguson also hypothesizes that:

...the Lamar-like material of the coastal plain is later than the peak portion of mound construction in the area and that the Lamar expression of this area is later than the "classic" Lamar sites of the central Georgia region (Ferguson 1971:240).

The moundless Ceremonial Center at Charles Towne with just a touch of Irene-Lamar ceramics would certainly tend to support this hypothesis. We may well discover that on sites having the transitional Savannah-Pee Dee to Irene-Lamar ceramics, such as those at Charles Towne, there will be found a greater frequency of moundless ceremonial centers.

From the fact that only three palisades were used for the main compound at the Ceremonial Center, the fact that the ceramics reveal no great time depth, and the fact that only 21 burials were found inside the Ceremonial Area (though more may have been present and not excavated), we arrive at the conclusion that the Ceremonial Center had a relatively short time span. Some idea of this may be reached by looking at the length of time it takes a pine post to rot in this coastal area or to be destroyed by termites. We could place a time of no more than four to five years for the life of a palisade. However, if the butt ends of the poles were charred by fire as a protection against rot and termites, the life might be extended. The charcoal flecks in the bastion postholes may
reflect this charring of posts. If we assume a maximum of ten years per palisade, we arrive at a date of around 30 years for the use of the Ceremonial Center. If we add 20 years for the sake of conservatism, we have no more than a 50 year span at the most for the use of the Ceremonial Center. The position of this 30 to 50 year period on a temporal scale will be discussed in the next section.

Ferguson has discussed the dependence of large ceremonial centers upon corn production, upon which the technological, organizational, and ideological patterns of the group was based (Ferguson 1971:259). He points out the virtual absence of evidence at the Irene Site for the presence of corn and suggests utilization of river and ocean products as an alternative source of food. The Charles Towne Site, however, has revealed abundant evidence for the production of corn in the corncob pits in the Ceremonial Center and the use of corncobs in decorating pottery during the later use of the site in the area northeast of the center.

We have seen that in the last occupation represented at the Charles Towne Center by the pits northeast of the center itself, incised pottery of the "classic" Georgia Lamar type was found. This might suggest a closer relationship at this later transitional period to the west than from the Irene direction to the south. Ferguson has suggested:

...that since agriculture seems to have been related to the developments in northern Georgia, a search for new agricultural lands or the effects of a rising population or both were the primary causal factors for the increase in Mississippian characteristics on the coastal plain (Ferguson 1971:258).
The presence of the small amount of Lamar type pottery in the later features at the Charles Towne Site would surely tend to point in this direction rather than to the Irene area for these incised patterns. Ferguson has viewed the expansion of the Lamar style ceramics into the coastal area as an indication of the close associations that had developed between the area and that further west. The presence of Ashley Simple Stamped pottery may also reflect ideas coming from outside the area, perhaps from the north, for simple stamped pottery is not present in cultural assemblages in the area, not having been seen since Deptford times as a surface treatment for vessels (Williams 1968:Fig. 46). However, it could easily have developed from the bold rectilinear and curvilinear stamps of the exaggerated type found in the late pits at the Charles Towne Site.

An interesting parallel type, utilizing a bold simple stamped pattern applied at a slight angle to horizontal in a careful manner so as to give the appearance of a series of continuous lines, was found by J. C. Harrington (1962:42, 24) in the fort ditch at Fort Raleigh National Historic Site in a context of the late sixteenth century. The pot he found was shell-tempered, and did not have as flaring a rim form, but it has a definite appearance as a parallel form to Ashley Simple Stamped. A date of the late sixteenth century for the Ashley Simple Stamped form is postulated, based on the Charles Towne evidence.

**Temporal Position of the Charles Towne Indian Site**

We have equated the Savannah-Irene characteristics seen on the ceramics from Charles Towne with the Pee Dee pottery from Town Creek. The original estimate by Coe (1952:308) for Pee Dee was from around 1550 to
1650, but he has revised his estimate back one hundred years to ca. A.D. 1450 as a beginning date (Ferguson 1971:116). However, the actual radiocarbon dates cluster around A.D. 1300 (Ferguson 1971:153), with a pre-mound date of A.D. 1205, and an end date of A.D. 1350 (Ferguson 1971:222). Pisgah ceramics and Pee Dee ceramics have been found in association (Ferguson 1971:222, after Dickens 1970), and radiocarbon dates for Pisgah sites range from A.D. 830 at the Chauga Site in northwestern South Carolina, to A.D. ± 70 years (Ferguson 1971:222). The Pee Dee-Pisgah association, as well as the later Pisgah dates tend to support the radiocarbon dates of ca. 1300 for Pee Dee.

From these and other dates Ferguson places the beginning of the Georgia Lamar style as between 1400 and 1550 (Ferguson 1971:230). As we have seen the Irene-Lamar style is only slightly represented in the assemblage from the Charles Towne Site, representing as it does a transition to Irene-Lamar. From this the earlier date of A.D. 1400 might be indicated for the site. We have equated Savannah and Pee Dee typologically, and if the Pee Dee dates are ca. A.D. 1300 (as the radiocarbon dates indicate) and A.D. 1450 (as estimated by Coe), we see a date between A.D. 1400 and A.D. 1500 for the occupation of the Ceremonial Center at Charles Towne. If, on the other hand, Ferguson is correct in his hypothesis that the Irene-Lamar material of the coastal plain is later than the Georgia Lamar sites, a date of from some time between A.D. 1450 to A.D. 1600 could well be postulated for the Charles Towne Ceremonial Center.

If the end date of 1600 postulated here proves correct for the Ceremonial Center, we will have an interesting early date for the Qualla type sherd found in the ditch fill of the last palisade of the smaller
ceremonial compound (38CH1-274-1). If, on the other hand, the radiocarbon dates for Qualla of the latter part of the seventeenth century are an indication of what we might expect for the last palisade in the Ceremonial Center, our estimate of 1600 A.D. is somewhat early, and the guess estimate would perhaps more correctly be placed at around 1650, or just prior to the contact with the Kiawah on Albemarle Point. If this proves to be the case, then the hypothesis of Ferguson that the coastal Lamar style material is later than that found further inland would indeed be correct (Ferguson 1971:153, 230-232). Qualla pottery is a Lamar style ware extending as late as the Cherokee removal in 1838, and is also found as late as 1880 (Ferguson 1971:231-232). Radiocarbon dates for Qualla are from the late seventeenth century onward (Ferguson 1971:153). This sherd was found in the red clay fill of the last palisade trench just north of the west entrance to the smaller ceremonial compound. It is unlike any other sherd from the Ceremonial Center or from the pits to the northeast of the Center, clearly being a vessel brought in from elsewhere, perhaps by way of the Cooper, the Congaree, and Saluda Rivers from the heart of the Cherokee country, many miles to the west. The same type was found in the Miller excavated house ruin of James Le Sade dating from the 1690's to the early years of the eighteenth century. This sherd is certainly of singular interest in interpreting the Ceremonial Center.

Radiocarbon Dates from the Ceremonial Center

Four carbon samples from the excavation at the Ceremonial Center have been sent for age determination through Radiocarbon 14 analysis. Charcoal wood was collected from the circular posthole pattern of the bastion for
the small compound at the Ceremonial Center. The charcoal here presented a consistent pattern in the bastion postholes, as though the tower had burned. However, there were no burned posts in situ in the postholes, and the small quantity noticed in each of the holes could have come from charring of the posts once placed in these holes. In the latter case the date should provide a date for the construction of the bastion, and if the charcoal represents the burning of the bastion, the date of its destruction would result from the charcoal. This sample (38CH1-311) is thought to date the destruction of the bastion by fire, probably around 1450 to 1600 A.D.

From the midden deposit (38CH1-230J-30) burned hickory nuts were found along with the oyster shell, deer bone, and pottery discs and fragments of Savannah-Pee Dee type, rosette decorated pottery, typical of that found throughout the Ceremonial Center. This five by nine foot midden-filled pit represents a deposit made during the use of the Ceremonial Center by those Indians occupying the site at that time. The burned hickory nuts should produce a date for the use of the Ceremonial Center that should not be far from that from the bastion, probably between 1450 and 1600 A.D.

The multiple bundle burial sample (38CH1-255D-21) is a collection of cremated human bone fragments found among the partially cremated bundle burials in this feature, and should date the period of deposition of these bundles. In the pit was a polished chunkey stone. This date should also date the use of the area for ceremonially burying the dead, probably between 1450 and 1600 A.D.
From the large midden pit north of the Ceremonial Center (38CH1-237A-23) from which the transitional pottery with sharply everted rims, corn-cob impressed surface finish, Ashley Simple Stamped, and bold curvilinear stamped pottery, representing the transitional period from Savannah-Pee Dee to Irene-Lamar was recovered. The sample includes both charcoal hickory nuts and wood found in association with the pottery, oyster shell, animal bone, and bone tools. This charcoal should date this pit and its contents, and the date should be somewhat later than those for the Ceremonial Center, probably nearer 1600 A.D. It is suspected that these dates will all fall within a 50 year bracket within the 1450 to 1600 A.D. period. However, as has been mentioned previously, if the Qualla type sherd from the small compound ditch is an indication of the time of the last palisade, the end date should perhaps be moved forward to around 1650.

Summary

The moundless Ceremonial Center at the Charles Towne Site represents a transitional occupation between the Savannah-Pee Dee and Irene-Lamar periods. It probably served a relatively small agricultural group of individuals for a period of no longer than three decades between A.D. 1450 and A.D. 1600. Its archeological significance lies in the fact that it is a moundless ceremonial center, a unique phenomena in the Southeast, and as such opens the door for various conjectures regarding future excavations designed to locate and identify other such centers. It is also of importance in its revealing of architectural details of the transition period not previously encountered. The ceramic sequence representing two time periods within the transitional period from Savannah-Pee Dee to Irene-Lamar
should prove of value in the interpretation of other sites in the area of the Ashley and Cooper Rivers. The positive association of a simple stamped pottery type, Ashley Simple Stamped, at this transitional period should aid in the correct temporal placement of this type when found on sites where good contextual association is not so well defined as at the Charles Towne Site.

Although the Ceremonial Center at Charles Towne could not be restored through the replacing of new posts in the palisaded compound and bastion tower as the archeologists had suggested, the site was examined as extensively as was possible in the 11 weeks before its destruction, with positive results. For some time archeologists have needed more data on ceremonial centers and ceramic types from the coastal area to go with the work done over 30 years ago at Irene, and continuously for over 30 years at Town Creek. The work at the Charles Towne Ceremonial Center is a step in this direction, but as is usually the case, it presents as many questions as it answers.

The Barn Complex on the Site of the Ceremonial Center – A Nineteenth Century Postscript

During the excavation and recording of the data from the Ceremonial Center Site several types of fill soil were recorded for the features and postholes found on the site. Old features showing many worm holes, cicada holes, etc., producing a blending of the pit outline with the subsoil matrix were designated on the site map by a shading of dots within the outline of the feature. Those features having red clay as part of the fill soil (probably representing wattle-and-daub construction above) were shaded solid black. Those pits whose outlines were the typical vague
discoloration with many root holes characteristic of tree or bush root holes were shaded with parallel lines. Those pits having a clean, sharp edge, with soil the same gray-brown color as the plowed soil zone were left clear and unshaded on the Master Map of the Ceremonial Center (jacket pocket).

When the clear, often square, features were plotted on the Master Map of the Ceremonial Center evidence for a series of structures and fence lines was revealed. These postholes often had the butt end of the post still in place in the hole, and were obviously of no great age. Cut nails in some of these revealed the late nature of these features. A group of six structures in an area 80 by 90 feet, with an attached fenced lot, was discovered through these features. A row of posts to the northeast of this complex of structures revealed where a fence had been that paralleled these buildings. To the west of these structures two other fence lines were located, but these were oriented to a more recent road, and are later than those parallel with the structures.

Feature 301, located near the west corner of the Ceremonial Center, was a horse burial, containing nails and other recent objects in the fill. Feature 262 was a pit containing a piglet burial, also containing nails. Feature 269 was a poorly preserved remain of an animal, also having nails in the fill soil. These animals are probably from the same period as the series of structures represented by the postholes.

From the fact that virtually no artifacts of the nineteenth and twentieth century were found in a concentration of the type representing a house, and the fact that no architectural information indicating a dwelling house was recovered, it appears that this series of structures
was a barn complex. The nails and other objects would indicate a late
nineteenth century period for the use of these barns, probably by one of
Mrs. Waring's ancestors of the late nineteenth century.

The discovery of this barn group dating at a completely different
time period than the previous Indian structures on the site illustrates
the value in recording not just the fact that postholes are present, but
separating these according to the type of fill, and plotting them on maps
accordingly to reveal structures of varying dates. Even the use of the
palisades in the Indian Compound could be dated relative to each other by
the presence or absence of red clay in the posthole fill. Through this
technique, well illustrated in the ceremonial center excavation, more
meaningful data can be forthcoming from a series of revealed postholes
than is possible when all postholes are recorded in the same manner, a
common practice among archaeologists.
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