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ARCHEOLOGICAL INVESTIGATION OF A
PROPOSED PIPELINE DITCH AT
CHARLES TOWNE SITE (38CH1)
DECEMBER 7 – DECEMBER 10, 1971

By
Richard Polhemus

Prepared by the
INSTITUTE OF ARCHEOLOGY AND ANTHROPOLOGY
UNIVERSITY OF SOUTH CAROLINA
DECEMBER 1971
INTRODUCTION

In accordance with South Carolina state regulations, the Institute of Archeology and Anthropology was notified by the South Carolina Department of Parks, Recreation, and Tourism of earth moving construction at the Charles Towne Site (38CH1) in August 1971. The Institute was asked for an opinion concerning potential damage to archeological values that might be incurred in this construction. The planned construction was to consist of excavation of a drainage field for a septic tank near the small house at the edge of the marsh on the southwest side of the Avenue of Oaks, and a 5" wide ditch for electric and water pipelines from that house to the area of the Horry-Lucas Plantation House ruin. The third phase of the work, described in the present report, was to be the excavation of a similar pipeline ditch through portions of the Animal Forest.

Extensive archeological excavations were carried out at the Charles Towne Site (38CH1) by the Institute, under the direction of Mr. Stanley South, in 1968 and 1969. Those excavations included only specific portions of this extensive archeological site, however, and much of the site area remains unexplored. In order to avoid unnecessary destruction of archeological values in this important site, the present notification arrangements have been agreed upon between the Department and the Institute.

Dr. Robert L. Stephenson, Director of the Institute and State Archeologist, recommended that an archeologist be provided by the Institute to be present during the excavation of the pipeline ditches and the drainage field and that he be required to record any archeological values that would be revealed by these excavations. This archeologist would also be charged with the responsibility for salvaging whatever archeological values would be
threatened by the excavations and would do so with the least possible
disruption to the work of the excavation crew. These recommendations
were agreed to and the Department provided funds for the archeologist
to carry out his responsibilities.

Richard Polhemus, assistant archeologist on the regular staff of
the Institute, was assigned as the archeologist to carry out this pro­
ject. The archeological work in the Animal Forest required four days
and was done on December 7, 8, 9 and 10.

THE EXCAVATION

On Tuesday, December 7, I met Mr. Lloyd King, operator of the
ditchdigger, at the Charles Towne Site and began work at 10:30 a.m.
after much deliberation concerning the route of the pipeline in the
Animal Forest. The ditchdigger cut a 5" wide, 30" deep ditch with
relatively clean walls making examination of profiles possible. The
route excavated with the ditchdigger for the 1½" pipeline is shown
on the map provided by The Department of Parks, Recreation and Tourism.
The pipeline route was divided into three areas, designated A, B and C
on the map.

Excavation area A extended from the point marked "Information
Rest Area" near the exit to a proposed rest area at the end of a small
point. Excavation area B extended from the center of the Bison Habitat
to the existing water line in front of the barn. Excavation area C
extended from the rest area east of the Large Water Bird Aviary to the
north entry to the Aviary, following the path. At various points exten­
tions were made from the main ditch to provide water in the animal habitats.
The excavation of Area A provided the most extensive evidence of occupation located in the Animal Forest. A thin oyster shell midden, ranging from 0.1" to 0.4" thick, extended from the center of the Elk Habitat to the end of the point. Very little material other than oyster shell was present although the shell deposit was thicker near the river side of the point. Six pottery sherds were found in the vicinity of the Snake Pit around a large concentration of calcined oyster shells.

The concentration of calcined oyster shells was located near the north east corner of the Elk Habitat and was found when the waterline to the Snake Pit was dug. A two feet wide, fifteen feet long section across the center of the feature was cleared of the humus layer to expose the upper surface of the shell lime deposit. The ditch digger trench provided a vertical profile through one-half of the feature. The feature was found to consist of a circular mass of consolidated calcined oyster shells and oyster shell lime twelve feet in diameter surrounded by partially burned oyster shell and overlying the heavily fired floor or surface of the sand subsoil.

The central mass of consolidated shell and lime was 0.6' thick and the underlying subsoil fire reddened to a depth of 0.4'.

The aboriginal ceramics recovered in the surrounding oyster shell deposit are of two types. A single body sherd with a scraped surface similar to those excavated by Stanley South near the main fortification ditch is sand tempered with a small amount of fibre. The five remaining
This feature appears to be the product of burning the aboriginal oyster shell midden for lime at some point during the historic period. The absence of historic material associated with the feature makes determination of the period of use impossible. Stanley South had the same difficulty with the tar kiln excavated near the ceremonial center. The form of the lime kiln could not be determined by the present limited examination and can only be determined by complete excavation at some later date.

This feature provides another opportunity for an interpretive exhibit on early industry in coastal South Carolina. Lime was produced from oyster shells during the 17th and 18th centuries by two methods. The first method utilized wood for fuel and oyster shells stacked in a form to accomplish the reduction of the shell to lime. No permanent kiln structure was built and little evidence remained other than a burned area and a shell lime concentration such as that found in AREA A. The second method which utilized a permanent kiln structure built of stone or brick has been excavated at Jamestown, Virginia in a 17th century context and is described and illustrated in Agricola's De Re Metallica published in 1543. The second method was most prevalent in producing lime from limestone rather than oyster shells.

The shell lime thus produced is frequently mentioned in connection with mortar for stonework and as a plastering material for houses during the 17th and 18th centuries. Mortar used with brick foundations at the Cornwallis House in Camden, South Carolina was manufactured from oyster
shell. Fragments of mortar from the fill of the main fortification
ditch at Charles Towne also contain oyster shell lime. This lime kiln
may have provided building material for the initial settlement at
Charles Towne prior to the availability of brick for construction of
permanent kilns but only complete excavation may provide additional data
concerning the form and age of the feature.

AREA B

The section of pipeline trench excavated from the center of the
Bison Habitat to the existing waterline in front of the barn contained
very little evidence of occupation. Two small concentrations of oyster
shell and a single grit tempered rectilinear complicated stamped pottery
sherd were located in the Bison Habitat.

AREA C

The section of pipeline trench excavated from the rest area east
of the Large Water Bird Aviary to the north entry to the aviary produced
no evidence of occupation.

Recommendations

The pipeline project in the Animal Forest area has provided an oppor-
tunity to detect features of historic and archeological interest without
extensive damage to the main feature located during the project. The
immediate area of the lime kiln should be protected from further damage
by construction or other disturbances until the kiln area is excavated.
This feature as well as the tar kiln located by Stanley South could be
utilized to provide insight for the visitor concerning early industry in
South Carolina through interpretive exhibits.
SKETCH MAP OF ANIMAL FOREST SHOWING WATER LINE AND ARCHAEOLOGICAL FEATURES