

Fort Raleigh

National Historic Site
National Park Service
U.S. Department of the Interior

ARCHEOLOGY:

Using today's technology to search for yesterday

The quotation above is from the journal of John White, governor of Sir Walter Raleigh's 1587 colony. This is how he described the deserted site of the English settlement on Roanoke Island nearly four hundred years ago. During the past hundred years, archeologists and historians have attempted to relocate this site. Today National Park Service archeologists are using modern technology to find answers to questions that have been unanswerable since the sixteenth century.

As early as the 1650's, contemporary accounts mention the site of Raleigh's fort on Roanoke Island. However, the first serious research and preservation of the area did not begin until the late 1800's when Talcott Williams, an amateur archeologist, carried out tests. His work was done in the area known traditionally as the fort site and included nearby Indian burials. Soon after Williams completed his excavations and subsequent report, the area was purchased for preservation purposes by a newly formed memorial association. This group had a survey done and the barely discernible mounds at the traditional fort site outlined with granite markers. Still, there was little known about the placement of the dwelling places or the palisade that enclosed them.

The historic area was protected and preserved for approximately forty-five years by various local and state agencies, with virtually no further archeology taking place until after Congress authorized the National Park Service to begin caring for the site on April 5, 1941.

Soon after the end of World War II, NPS archeologist Jean Carl Harrington began the most thorough investigations yet to be performed in the area. Based on his research, the earthworks fort, built in 1585 by the first colony, was reconstructed on the original site and many indications of sixteenth century European occupation were discovered. Harrington also made extensive efforts to locate the site of the houses that the soldiers of the 1585 colony had constructed and occupied in conjunction with the earthworks. The actual location of these structures was of particular interest as they were also the homes of the later, and today more famous, "lost" colony of 1587.

One key feature that Harrington hoped to find in his search was the outline of the palisade which

" .. we passed toward the place where they were left in sundry houses, but we found the houses taken downe, and the place very strongly enclosed with a high palisado of great trees, with cortynes and flankers very Fort-like ... "

John White
August 18, 1590

Governor White described surrounding the housing area in 1590 when the colonists were first discovered missing or "lost." It was hoped that the palisade outline could be located by identifying stains left in the soil from where rows of closely placed posts had been set in trenches. Unfortunately, the anticipated pattern was not found and the question as to the site of the housing area was left unanswered. The picture of the English colonization site on Roanoke Island was beginning to resemble a large puzzle with many missing pieces.

Then in 1965 another piece to the puzzle was found when maintenance workers happened upon bricks and roofing tiles while digging a utility trench near the earthworks. Again, Harrington was called in to see how the new evidence related to what was already known. This research revealed a nine foot square feature, with a vertical post or tree trunk at each corner. (See illustration.) This feature, known as Feature 65, was carefully excavated but the use of the structure from which it originated could not be determined. Its proximity to the earthworks and the dating of artifacts found near it clearly showed a relationship to the colonies, but it was unclear as to how this new piece should fit into the whole picture.

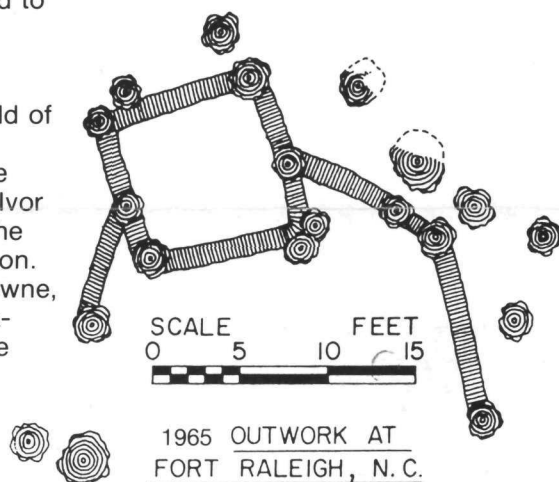
For the next twenty years the fragments of information remained, for the most part, unconnected. During this period some researchers and historians speculated that perhaps the site of the settlement may have been lost to erosion or had never existed in the vicinity of the earthworks. The best archeological techniques and interpretations of the day had been used with little conclusive results. However, as time passed and the science of archeology continued to develop, new ideas and interpretations were applied.

The use of these new ideas resulted in quite a stir in the field of colonial archeology during the 1970's with research being done near Williamsburg, Virginia, by Ivor Noël Hume and his staff from the Colonial Williamsburg Foundation. Their work at Wolstenholme Towne, a settlement established approximately thirty-five years after the Roanoke colonies, revealed the

Virginia town's palisade and housing area by soil stains left from their posts and postholes. The positioning of the posts used in this palisade was of particular interest as it differed from the most widely accepted concepts as to how such structures were built in the sixteenth and seventeenth centuries.

The excavations at Wolstenholme indicated a palisade much like a fence you might build today, using posts placed in the earth at regularly spaced intervals with horizontal rails used to connect them. Once the supporting posts and rails were in place, vertical boards could be attached to cover the open spaces. The same factors that make this the most practical way to build a fence today probably applied at Wolstenholme. The new "Wolstenholme" concept in construction has created renewed interest in search for the palisade and accompanying houses of the Roanoke settlement site.

Adding to this interest are the intriguing similarities between the placement of the posts at the corners of the Wolstenholme palisades and the 1965 excavation at Fort Raleigh. Like Feature 65 found near the earthworks, those at Wolstenholme are nine foot squares with postholes in the corners and additional ones continuing away from the feature on two opposite sides. Conjecture, with good supporting evidence, is that the features served as gun platforms at the Wolstenholme settlement. If the feature excavated by Harrington in 1965 served a similar function, a corner to the elusive Roanoke palisade may already have been found. If further research and findings support this idea, an important piece might find its place in the puzzling story of Sir Walter Raleigh's ill-fated colonies.



THE SEARCH CONTINUES

During the summer and fall of 1982, National Park Service archeologists prepared a research plan and began limited investigations at Fort Raleigh National Historic Site. Working near the reconstructed earthworks, this team from the Southeast Archeological Center in Tallahassee, Florida, used modern technology as they began to search again for the settlement site of the Roanoke colonies of 1585 and 1587.

Technical advantages used commonly today were not available forty years ago when the first extensive efforts were made to

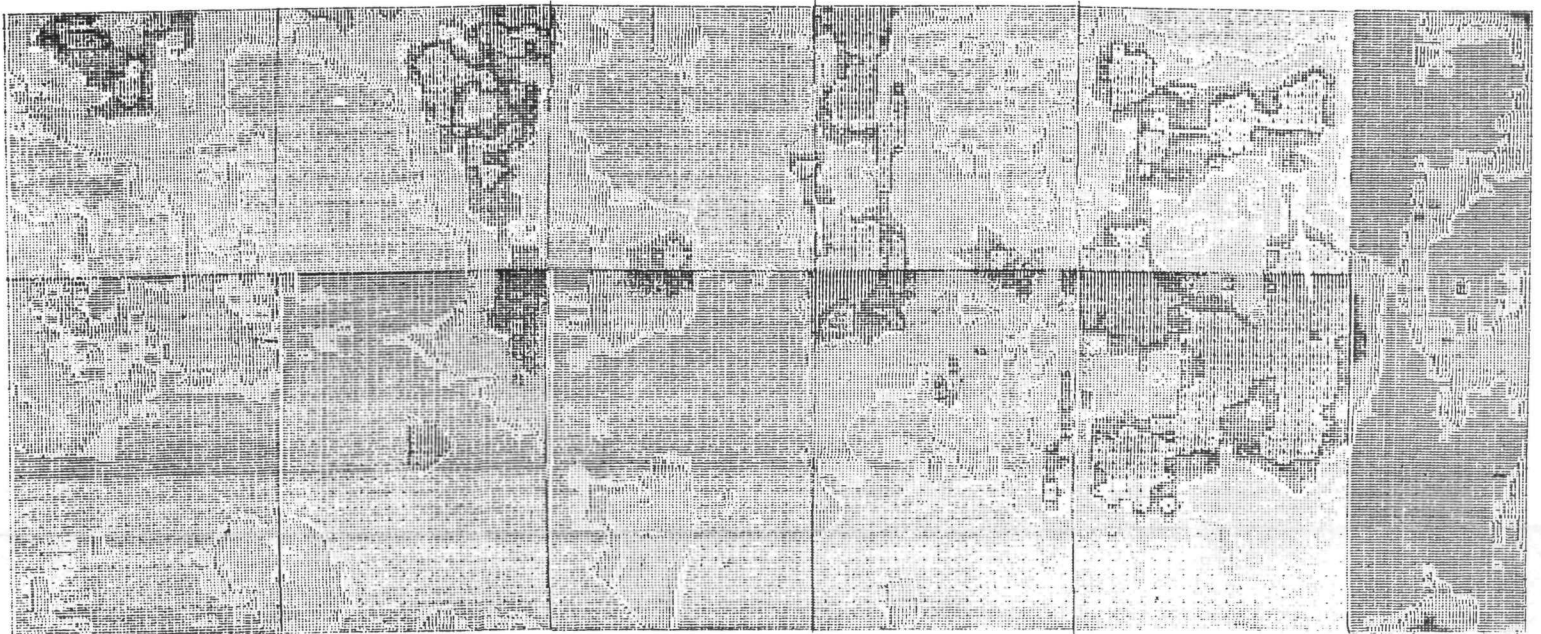
locate the site of the palisade and houses used by Sir Walter Raleigh's colonists. Now nondestructive research can be done through *remote sensing*. This relatively new approach to archeology includes the use of instruments such as the proton magnetometer and the soil resistivity meter.

The proton magnetometer, an ultra-sensitive distant cousin to the metal detector, is capable of identifying sub-surface features such as the remains of cannon, armor, and concentrations of bricks. The soil resistivity meter is likewise

useful in defining the research area. By charting the flow of electricity through the soil, this instrument records variances in the electrical resistance of sub-surface materials. For example, decaying matter in an underground rubbish pit would record less resistance than the drier soil around it.

Results from the remote sensing are interpreted by a computer which prints out the readings in the form of a map of the research area. (See illustration). Variances in the readings are represented by different symbols which may form

A computer printed map of a portion of the research area.



recognizable patterns on the maps. When interpreted by archeologists skilled in the field of remote sensing, these patterns, or *anomalies*, may indicate features worth excavating. The use of these sophisticated tests can help identify areas most likely to yield evidence, but they cannot tell an archeologist what lies below the surface. In order to reveal that, excavations are necessary.

During November of 1982, limited archeological test excavations were begun to explore a portion of one of the anomalies found through

resistivity mapping done of the area near the earthworks and Feature 65. The excavations were to determine, if possible, the nature, origin, date, and function of the anomaly. To date, it is possible to say only that an activity area of undetermined time, origin, and extent has been located. Several features that appear to be posts and postmolds were recorded and excavated. A number of rectilinear soil stains were also recorded, but no artifacts were discovered which could relate this activity area to the Raleigh colonists.

Further study, based on findings from earlier work, requires expanded archeological testing of the anomaly investigated in 1982 and limited testing of similar and dissimilar anomalies also recorded in the research area.

The fate of the lost colony may never be determined, but through the use of bits and pieces of information from the past combined with today's technology, the picture puzzle of life on Roanoke Island four hundred years ago may be more nearly complete.

“It would appear, therefore, that the search must go on.”

J. C. Harrington
Search for the Cittie of Raleigh, 1962

Funding from America's Four Hundredth Anniversary Committee and the American Quadricentennial Corporation, made possible by a grant from The Z. Smith Reynolds Foundation, and from the National Park Service, with assistance from Eastern National Park & Monument Association, has made it possible to continue the search for the site of the first English settlement in the New World.

Fort Raleigh National Historic Site, Manteo-on-Roanoke Island, North Carolina.