UNIVERSITY OF NORTH CAROLINA
SEA GRANT COLLEGE
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Coastal archaeology

A look at human history

David Phelps has spent countless hours during the last 10 years sifting through garbage dumps and graveyards in coastal North Carolina.

The fruits of his labors line tables and shelves in the archaeology lab at East Carolina University: bone fragments, snake vertebrae, human skulls and pottery sherds. Each scrap is marked with a series of tiny identifying numbers which make it possible for Phelps to tell exactly where—to the square meter of earth—the piece was found.

To the uninitiated these little bits of the past are baffling. But for Phelps each is a key to understanding the early cultures of coastal North Carolina.

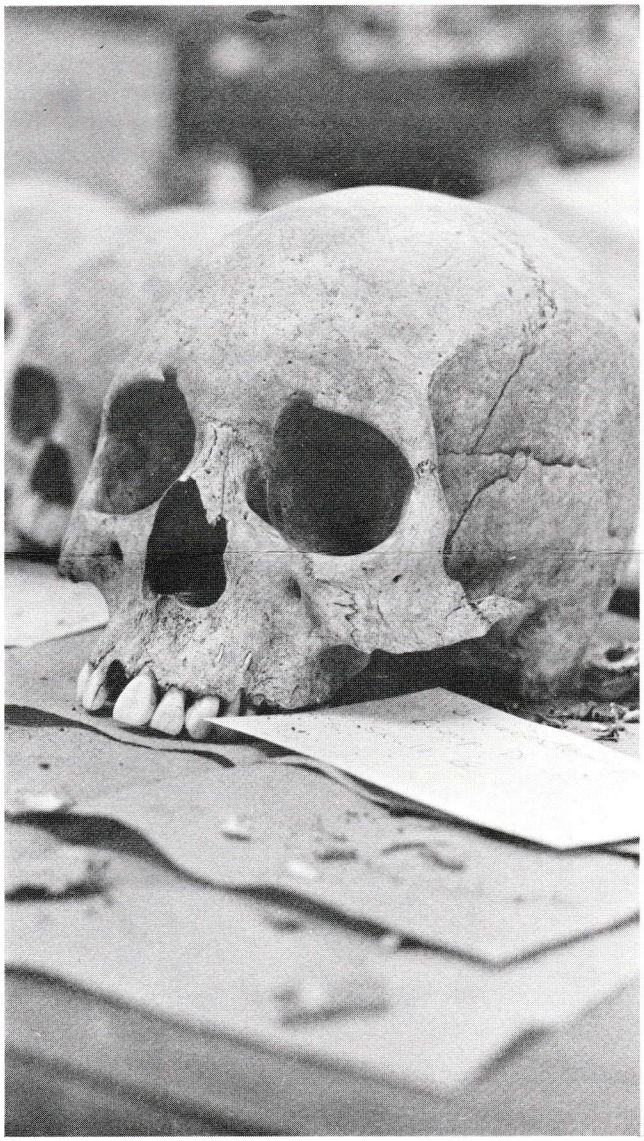
Thanks to Phelps and ten other archaeologists now working in North Carolina, the once fragmented picture of prehistoric Indian life in this state is slowly being completed. But Phelps' concerns run deeper than setting the academic records straight. He prefers to say that he is "attempting to organize the lessons of human history." He's convinced that what he digs up in coastal North Carolina is relevant to contemporary residents of the area.

Phelps believes that the link between current residents of coastal North Carolina and the Indians who lived there 10,000 years ago is the area's wealth of natural resources. It's the one constant in a world that has changed radically. And he thinks it's crucial for contemporary man to understand how the Indians used these resources and adapted their lifestyles to the land.

The ancient garbage pits that Phelps excavates often tell at least part of that story. A list of their contents reads like an Indian menu: mollusk, possum, terrapin, fish, bear and deer remains.

"While many people look at archaeology as a sort of esoteric field, we like to think that eventually with the understanding of how man has used particular

(See "Understanding," page 2)



Understanding the roots of modern culture

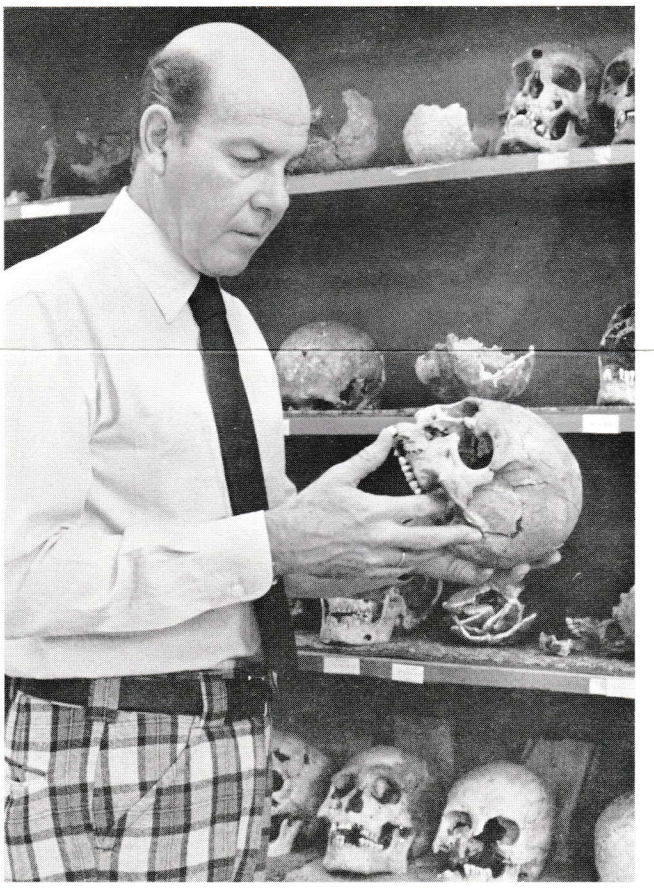
(Continued from page 1)

environments and how he's adapted to both climate and natural changes, we can learn some lessons about our own future," says Phelps.

Much of Phelps' work points to a startling similarity in the ways that different coastal people have adapted to the land. Take Collington Island, for instance. Excavations on the site have turned up evidence that 2,000 years ago Algonkian Indians established fishing camps there during the season of the year when food was scarce elsewhere. The early colonists built temporary fishing villages there. And today it is largely a resort area, catering to seasonal tourists. There are a few fishing villages on the island, located in the same protected spots where the early colonists lived. But for the most part, few have found the island suitable for permanent occupation.

But there are major exceptions to the Collington Island case. The arrival of modern technology meant a radical break in man's relationship to the land and its resources. The most noticeable changes have occurred on the mainland since about 1850 and on the Outer Banks since about 1930.

The Outer Banks, Phelps points out, have existed in their present state for only 3,000 years. Until the 1930s all the settlers there chose the same sites for locating their homes and villages. They built in the relative shelter of scrub oak forests on the sound side of the islands—never on the ocean side. This settlement pattern remained virtually unchanged until paved highways came to the banks in the 1930s. With roads running right up to the dunes, oceanfront construction seemed less formidable. Since then, man has consistently built on valuable oceanfront property, often destroying the only natural protection from the storms and erosion—the dunes and maritime forests.



Phelps: organizing the lessons of human history

In addition to endangering his physical safety modern man has begun to seriously pollute his environment. Phelps calls this trend "technological override of the ecosystem" and he thinks it's extremely dangerous. "The real emergency is that human technological systems have become so efficient that most people in a highly complex culture (such as the United States today) have no contact with or knowledge of the natural environment. They can't see the fact that the destruction of food producing environments, pollution of stream systems or surplus human populations will ultimately affect the culture's subsistence base," he says.

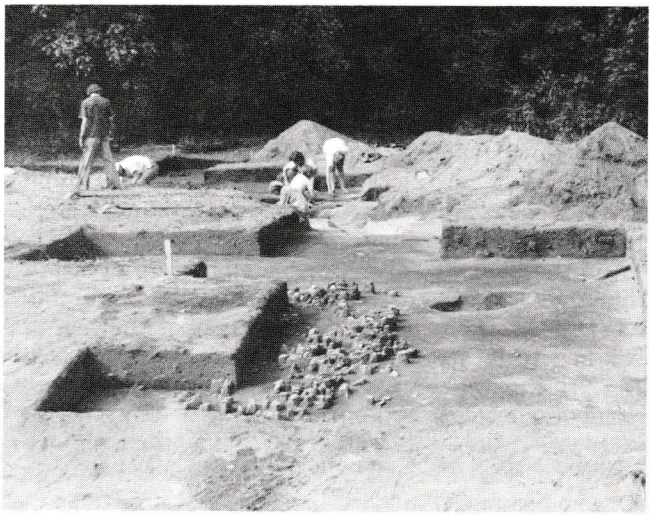
In the final analysis any culture, no matter how advanced, is dependent upon its ability to produce food.

During the centuries before modern technology, Phelps points out, the bond between man and culture was more obvious. The Algonkian Indians who settled most of coastal North Carolina were especially adapted to that area. They lived in villages located on high areas or bottom lands beside streams and rivers. Unlike many of the settlements in inland areas, these were permanent. At that time inland Indians had to move seasonally in order to stay close to game and other food supplies. But the coastal people had ready access to fish and shellfish all year.

Tom Loftfield, an archaeologist teaching at the University of North Carolina at Wilmington, notes that the natural environment in turn affected the Indian's culture. With a stable food supply, the coastal Indians had less incentive to change. Agriculture, for instance, is thought to have come to the coastal area several hundred years after it was established inland.

And because of their relative isolation from other Indian groups, the coastal Indians tended to retain traditional culture longer. English records indicate that Indians during John White's time (late 1500s) retained the old shaman religion which was based on the worship of gods of the hunt even though they were a fully agricultural society. At that time the culture had a formal priesthood and a group of shamans, an unlikely combination.

Even today on the Outer Banks tradition seems to have a strong hold. Ocracoke residents still celebrate Old Christmas in the tradition of the early English colonists. More importantly, notes Phelps, they observe the Old Buck ceremony at Christmas, which has its origins in the 30,000 year old European tradition of bull worship.



Digging—patience is the prime ingredient

David Phelps has one word for what it takes to put together an archaeological dig. Patience. Digging up a quarter-acre site with masons' pointing trowels, paint brushes and grapefruit knives is no picnic.

Whether the work is done on the shores of the Euphrates or in coastal North Carolina, the archaeologist's concerns are the same: to find artifacts and to find them just as they were left by the culture he's interested in.

"The primary object is to find things in their context. If you were using a bulldozer, you'd never get that context. There's just no mechanical way to do this," says Phelps.

Consequently, one dig can take anywhere from a month to twenty years to complete. But the archaeologist's job begins long before the actual digging gets underway. Selecting a potential site requires extensive knowledge of the environment and the people he's studying . . . plus a little bit of luck. A ground search of the chosen area and a couple of test digs will usually reveal whether there is actually anything to be found there. If so, the real nitty-gritty work begins.

The crew first digs a set of sample pits to get an idea of the distribution of artifacts in the area. Once that's done, there are two ways to go with the major excavation. If the goal is to reclaim as many artifacts as possible, the archaeologist will plan to dig up a large area. But he may be interested in only one aspect of the culture, such as the use of food resources. In that case, the field crew will zero in on specific sections of the site, such as the garbage dump (euphemistically known as the midden) and food preparation areas.

The site is then divided into a grid of two meter squares. Laborers set to work, digging one square at a time. Within each square there may be several vertical layers corresponding to the different time periods the area was used. Each layer may be from six inches to several feet deep. Workers peel back one layer at a time, photographing and drawing to scale all artifacts before they are removed.

The squares link together to form a trench, which can be enlarged at any section if the archaeologist finds something particularly interesting.

The actual digging is a painstaking process, usually done with tiny hand tools such as grapefruit knives so that nothing will be damaged. Nearly everything, including fish scales, can be used to tell something about a culture. After being numbered, materials are taken to a lab for analysis.

No archaeologist would attempt a dig alone. According to Phelps, the ultimate in an excavation crew includes a director, ceramics expert, photographer, draftsman, metallurgical expert, ethno-botanist, archaeological zoologist, geologist, assistant directors, a number of junior archaeologists and lab and field workers. Phelps, like most of his colleagues, operates on a more down to earth scale. During the summers, he usually works with a skeleton crew of a draftsman, lab supervisor, two assistants, two crew chiefs and six laborers.

Just in case you're tempted to begin excavating in your own back yard, Phelps adds another caution. No archaeological work should ever be done without the proper know-how and facilities. "If the work is to be worth anything, it must go to a laboratory to be catalogued and preserved," he says.

And that's another lengthy process. The analysis of one month's work in the field takes an average of three months. Patience. Patience.

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Of burial grounds, back yard digs

Mark Ramsing spent most of the last year poking around New Hanover County, occasionally digging in people's back yards. Thanks to Ramsing, Jean and Ernest Puskas have discovered that they may have an Indian burial ground on their property.

And the Puskases aren't alone. Under a pilot grant from the Comprehensive Employment and Training Act (CETA), Ramsing headed a survey of the county designed to locate potential sites for archaeological digs. By the time it was all over this summer, two teams of workers combing the county had discovered 530 historic and prehistoric sites. Their most significant find was a burial ground which Ramsing believes belonged to the Cape Fear Indians.

The data from the New Hanover County survey will be fed into a new computer mapping system which has been set up by the state Archaeological Branch in Raleigh. Along with information from all other known sites in North Carolina, it will help archaeologists determine what types of terrain were most often inhabited by prehistoric and historic groups.

Coastal archaeology takes hold

The CETA survey is one sign that archaeology is coming into its own in coastal North Carolina. Until David Phelps began teaching anthropology at ECU, most of the archaeological research in the state was centered in the piedmont and mountains.

That was seven years and many excavations ago. Since then Phelps and his students have made some important archaeological finds, mostly in the northern coastal area. They've conducted surveys of major estuarine systems and paid special attention to ossuaries or mass burial sites. In fact, they've uncovered four ossuaries, each containing about 35 skeletons.

Phelps and his students have excavated several sites which had been continuously occupied for about 10,000 years. In general, they've gotten a good picture of the lives of Algonkian Indians who originally inhabited most of the northern coastal region.

Archaeological work in the southeastern section of the state got underway about three years ago when Tom Loftfield joined the faculty of UNC at Wilmington. Like Phelps, Loftfield offers a summer excavation school for his students. The school has been located at a site on Core Sound near Swansboro, where Loftfield has found evidence of prehistoric Indian pole houses. Though little is known about the Indians of southeastern North Carolina, Phelps believes that they were part of a loose political organization of Souian language groups.

Uncovering a matriarch

Though Phelps has worked mostly on Algonkian Indian sites, his prime training site is a Tuscarora Village at Jordan's Landing near Williamston. One find of special interest to Phelps is a 10,000-year-old skeleton he fondly refers to as "the matriarch." She was uncovered several summers ago, lying in a single pit with a strand of beads around her neck. Her relatively advanced age and the fact that she was buried alone indicate to Phelps that she was held in high esteem in that matrilineal community. Two similar skeletons were found there this summer.

But not all archaeological digs are conceived in university laboratories. Government regulations now require that archaeological surveys be done prior to construction of new federal highways, parks, wastewater facilities and subdivisions. That has meant a lot of "running before the bulldozer" for coastal archaeologists. Phelps emphasizes that construction has rarely been stopped because of archaeological finds. Except in rare cases, all artifacts are lifted from the spot and taken to a lab. Then the site is usually closed up again. Phelps is now working on a similar excavation on property that will eventually be affected by the Wanchese Harbor development.

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