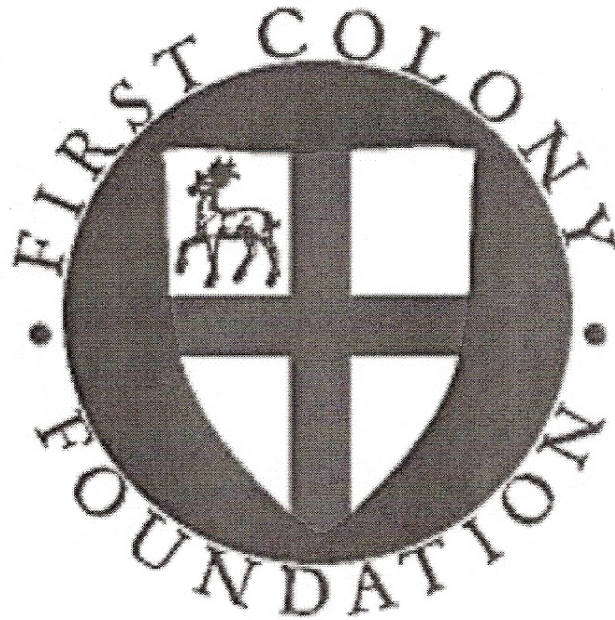


**ELIZABETHAN LANDSCAPES:
CONJECTURAL RECONSTRUCTION OF SIXTEENTH-
CENTURY TOPOGRAPHY AT PRINCE HOUSE WOODS,
FORT RALEIGH NATIONAL HISTORIC SITE**

First Colony Foundation Research Project 2008

Eric Klingelhofer



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ELIZABETHAN LANDSCAPE: PRINCE HOUSE WOODS

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Introduction

The First Colony Foundation in partnership with the National Park Service is mandated to investigate Sir Walter Raleigh's colony on Roanoke Island, North Carolina, a significant achievement of the English in the proto-colonial period (see Fig. 1). With colonists led in 1585 by Sir Ralph Lane and in 1587 by Master John White, who returned in 1590 to find only a "Lost Colony," the Roanoke ventures represent the first chapter in the story of the Thirteen Colonies and the American nation. Past archaeological fieldwork at Fort Raleigh National Historic Site revealed several components: the 30m wide earthwork defenses traditionally known as Fort Raleigh; a nearby structure identified as the 1585-6 workshop or "science center" of the noted scientist Thomas Harriot; and a charcoal-filled claypit associated with the workshop (Harrington 1962, 1966; Noël Hume 1994a, 1994b). Although Elizabethan artifacts have come to light near the Harriot Nature Trail, 240m northwest of Fort Raleigh, and an in an eroding bluff 240m northeast of the fort, no evidence has been found for the town of settlers' cottages, Captain Ralph Lane's "new fort in Virginia," a cemetery, or a landing place. To be able to explain where these sites might have been and the choices behind their locations, the Elizabethan landscape of Fort Raleigh must be better understood. Fieldwork in 1982 and 2006 in Prince House Woods in the park recorded subsurface soil elevations reliable enough to attempt a first-effort paper reconstruction of the sixteenth-century topography at Fort Raleigh. Using hydrographic modeling and excavated ecological material drawn from seeds, pollen, and other sources – as well as details from the written accounts – future studies may be able to produce with some accuracy a fully recreated geography of the heart of Elizabethan America.



Fig. 1. Fort Raleigh National Historic Site

Previous findings

The area under investigation lies between the Lost Colony Theater parking lot and Roanoke Sound (see Fig. 2). It measured 50m north-south and 100m east-west. The 2006 excavation there referred to it as Prince House Woods; the tract was bisected by a pathway from the parking lot to Prince House, a seasonal residence for theater staff. This research project concerns the western portion of the woods, where the shoreline has eroded into a 15m wide east-west line of sand dunes that are thought to have formed in the nineteenth century.

Shoreline erosion at Prince House Woods had been slowed by the construction in the late 1950s of a concrete breakwater, but increased since then because of rising sea levels and currents deflected by the construction in the 1970s of a granite stone “rip-rap” west of the site. Artifacts soon appeared. A park visitor retrieved a broad-axe near the west end of the bluff, and NPS personnel removed from shallow water the remains of a barrel and a hollow log, with C14 dates of the late sixteenth century.

In 1982 an East Carolina University team under the direction of D. Phelps examined Prince House Woods for the Roanoke Island Historical Association, which was considering building an arts center there (Phelps 1984). Phelps’s team dug test pits on both sides of the path in the woods. Because sixteenth-century artifacts had recently been discovered at the eroding shoreline and in the water, Phelps dug lines of test holes toward the breakwater and recovered a few sherds of sixteenth-century Iberian olive jar on the beach and in the sands. He also took the opportunity to draw a measured profile of the shoreline and bluff face, which revealed strata and features that could date to the proto-colonial period.

The erosion process exposed additional artifacts – including another sherd of olive jar, this time found *in situ* in the bluff face in early 2006. This concerned archaeologists of First Colony Foundation and National Park Service, who feared that remaining evidence of the Elizabethan colony was being lost to erosion. Text excavations by FCF directed by E. Klingelhofer and N. Lucchetti in October 2006 comprised twenty-three test pits, most sited behind the sand dune ridge (Lucchetti 2007). They revealed that the eastern portion of the site, near the pathway, had lost all early evidence through the Dough family’s nineteenth- and twentieth-century farming and fishing operations. The excavation did not locate any identifiable feature or artifact directly relating to the colony, although a buried topsoil layer and an associated Indian pot were ascribed to the late sixteenth-century. Klingelhofer returned in 2008 to carry out a brief magnetometer survey of the sand dunes: only modern metal objects were located.

In 2006, FCF archaeologists examined the bluff face and recorded elevations of a buried soil layer exposed there. This layer, containing sixteenth-century artifacts in the vicinity of Fort Raleigh, was first recognized during the 1895 archaeological investigations by Talcott Williams (Harrington 1962: 9). The soil, a charcoal-bearing sandy loam, ca. 0.1m thick, is exposed nearly continuously on the park shoreline. Inland, it is black where covered by later sand dunes and is leached to grey where not so covered. Its characteristic charcoal is attributed to burned timber, but it is unlikely to have been caused by a single conflagration. Rather, the layer's thickness and homogeneity suggests that it was probably a repeated event; Indian slash-and-burn agriculture is more likely than eighteenth-century settlers' land clearance.

Reconstruction

The procedure for reconstructing the proto-colonial topography combined the 1982 and 2006 shoreline profiles with the 2006 test pit elevations of the black layer or, where not present, its projection from the natural subsoil. Surface contours were then configured from the elevations of these three base lines. The results of the paper reconstruction show that, as now, the proto-colonial land surface sloped from the south to the north with a lesser slope from the west to the east. Because the 1903 shoreline is known, we can be sure that the sixteenth-century shoreline lay beyond it. The reconstruction also informs us that the slope of the site was noticeable, though not dramatic, a 1.5m decline in 30-40m. Farther north it became more gradual, a change that is suggested by old photographs of the area. The ground surface in the area of the two "barrel wells" may be reasonably estimated at around 1.0m above modern mean sea level. Because sea level is thought to have risen in eastern North Carolina approximately one foot (0.3m) a century (Harrington 1962: 53), the wells may have been dug into ground that stood about 2.0m above sea level then. Their bases were approximately 0.3m below the water level of the 1980s, which would have made them draw water perhaps 0.5m above the proto-colonial sea level. This is not to suggest that the water was contaminated. The Jamestown Rediscovery excavations emptied a much deeper early seventeenth-century well close to the tidal James River and found that it still drew fresh water through natural clay deposits (Kelso 2006: 123-24). Alternative explanations need to be considered, though. At least

thirteen barrels of 45 gallon capacity (200 liters) were used to create a shoreline wharf ca. 1622 in Newfoundland (Tuck 2003), and the contemporary military term *barricado* was defined as “a warlike defense of empty barrels and such like vessels fill’d with earth against an enemies [sic] shot or assault” (Blount 1656). Also, Elizabeth’s soldiers used barrels and planks to make a raft in northern Ireland (Hayes-McCoy 1969: 113).

The site micro-topography contains two features. The more definite feature is a 10.0m wide “draw” or gully, the upper end of which extended south of the sand dunes. In the nineteenth century, it most likely became a depression that was used as the Dough Farm dump. (The farm road to the beach and fishing boats was on the line of the present path.) The draw appears to shift from a magnetic north-south line to a northeast-southwest orientation, curving in the general direction of Fort Raleigh and Harriot’s workshop. It is of interest to note that the *in situ* olive jar sherd lay on the edge of this feature. It should be noted that “numerous sherds of large Spanish olive jars suggested water for the men stationed in the fort was kept in these vessels” (Harrington 1984: 10). The evidence also suggests a second feature, another draw just to the west of the survey area. Alternately, this appearance may be due to a past land surface that was less regular and more undulating than the present surface, excluding sand dunes.

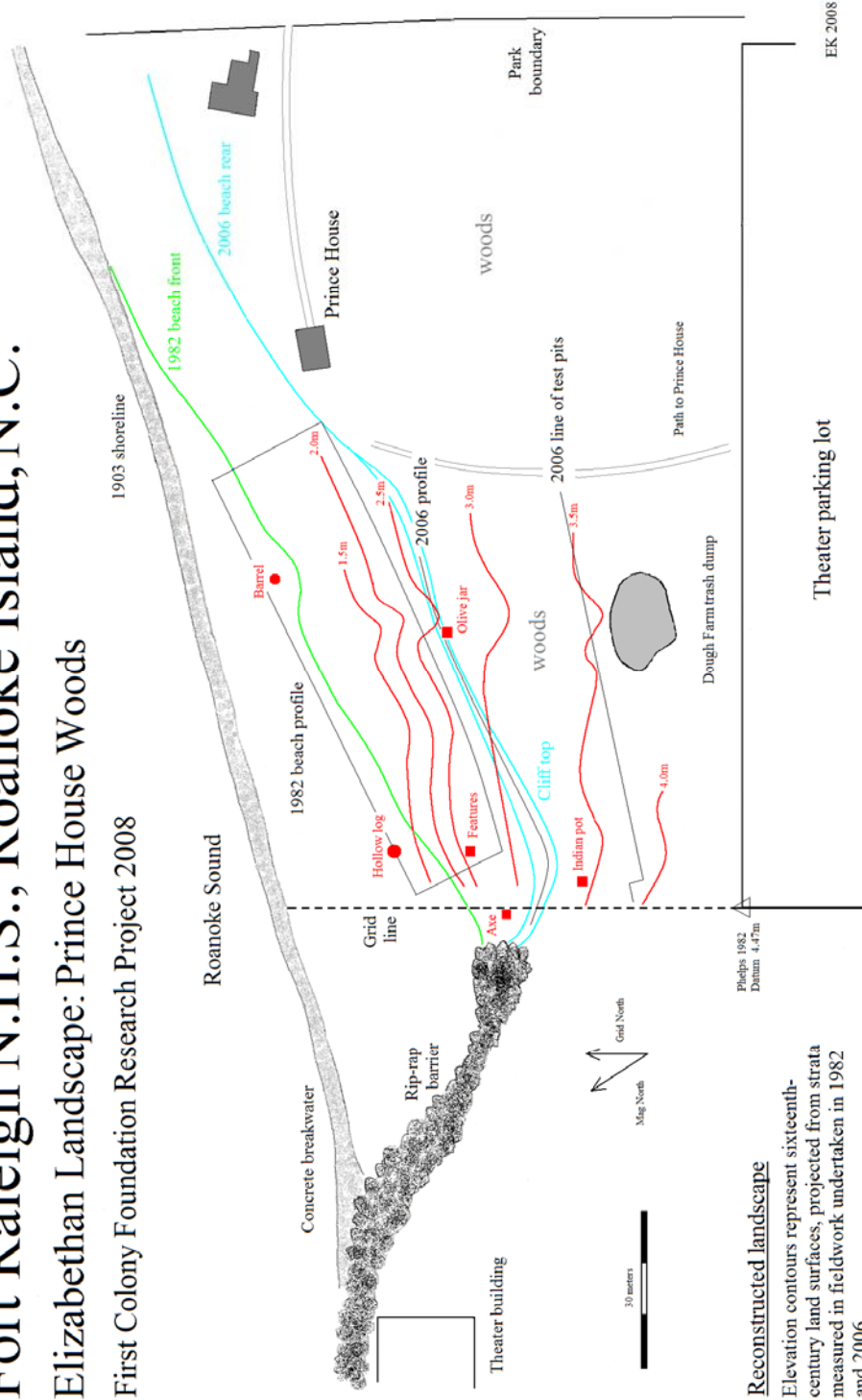
Conclusions and Recommendations

The slope in the constructed survey area down to the proto-colonial shoreline was a gradual one and could be readily ascended, especially via a draw or gully. Harrington, working from maps and surveys, estimated that Etheridge Point had eroded 700 feet in 140 years (1820-1960), but that the shore opposite Fort Raleigh only 200 feet (Harrington 1962: 6). Phelps agreed, considering it is unlikely that the shoreline erosion since 1590 has been as extreme as some have claimed (Phelps 1984: 19), and it is in fact more likely to have been fairly stable (though still eroding) until the closure of Old Nag’s Head Inlet around 1820 (Harrington 1962: 8). This gives only 80 years of increased erosion before the property survey of 1903, upon which line the breakwater was later built. Importantly, in the past centuries no evidence of Elizabethan settlement was reported along the shoreline, neither in the early visits to Fort Raleigh, nor in the Civil War period, nor even

Fort Raleigh N.H.S., Roanoke Island, N.C.

Elizabethan Landscape: Prince House Woods

First Colony Foundation Research Project 2008



Reconstructed landscape

Elevation contours represent sixteenth-century land surfaces, projected from strata measured in fieldwork undertaken in 1982 and 2006.

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during the construction of the theatre and later breakwater. Consequently, there is no reason to assume that Lane's fort or the "Cittie of Raleigh" has been lost in this area to Roanoke Sound. This view is corroborated by the 2005 and 2006 underwater anomaly identification and assessment projects that G. Watts carried out offshore for FCF; he found nothing that could be dated to the Elizabethan period (Watts 2006).

Although Prince House Woods cannot be claimed to have been inland from the town site, its erosion in the past thirty years has produced limited but undeniable evidence of Elizabethan activity. This activity most likely relate to the proximity of a deeper channel here and a possible landing site. Not far to the east is David Quinn's location for the "poynt of the Creek" searched by John White in 1590 for "any of their botes [sic] or Pinnisse;" this Quinn described as a cove and proposed that Raleigh's men made a landing stage there and may have erected a "rough slipway" (Quinn 1991: 614-14, 903). What Quinn failed to note was that the term "Creek" did not then mean a stream, but was defined in dictionaries as "part of a Haven, where any thing is landed or disburthened from the Sea. So that when you are out of the main Sea within the Haven, look how many landing places you have. So many creeks may be said to belong to the haven" (Blount 1565).

The barrel wells may have been sited to serve Harriot's workshop (and the earthwork fort, which lacked a well) and to restock water casks on the boats and pinnace that White hoped to find. Repeated documentary references to searching for fresh water testify to its importance to Elizabethan sailors, explorers, and settlers. Though unlikely from appearances, it is possible that a small stream created the gully in Prince House Woods. It is recommended that a geologist examine the gully soil at the bluff face to determine if it has been deposited by stream action rather than storm run-off. It is also recommended that the now submerged ground at and around the find-spots of the barrel and the hollow log be thoroughly examined for additional evidence of Elizabethan activity, and that if necessary, a coffer dam be constructed for that purpose.

A further conclusion may be drawn from the reconstructed topography and estimated erosion rates. The land northeast of the Fort Raleigh earthwork, though initially fairly flat, sloped down toward a proto-colonial shoreline perhaps 50m beyond the modern breakwater. Recent excavation at the Harriot Nature Trail indicates a low sixteenth-century elevation there, too. The area between the two locales thus formed a ridge or plateau running roughly north-south, and it was on this ridge that the English, presumably directed by Lane, built the earthwork fort. The views from its parapet would have been uninterrupted in both directions, and its cannons would have protected the water approaches as well as those activities that have left behind artifacts. Two factors that helped determine the site of Fort Raleigh, then, were local topography and Elizabethan ordnance. Evidence indicates, moreover, that the earthwork construction followed activities related to the adjacent workshop, which seems to have had its own enclosure, possibly defensive. It is not improbable that the workshop site had been chosen for the same reasons and that the earthwork replaced on a larger scale earlier, less formal defenses. The uncertain relationship between the workshop complex and the earthwork calls for a review of the excavation record and if possible additional fieldwork at specific unexcavated locations.

The conclusions and recommendations of this report signal a new approach to what J. C. Harrington called “the enigma of Fort Raleigh.” Rather than simply continuing “the search for the Cittie of Raleigh” by looking for artifacts and features assignable to the sixteenth century, this approach treats Fort Raleigh Historical Site as a single archaeological unit composed of various elements, both structures and findspots that indicate colonial activities. By examining relationships between them, this functional approach seeks to use the knowledge of what the landscape was like to understand how it was used and why choices were made about its use. Although we do not yet know where Raleigh’s settlers lived, we can begin to learn how they lived and what they did during their short time on Roanoke.

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