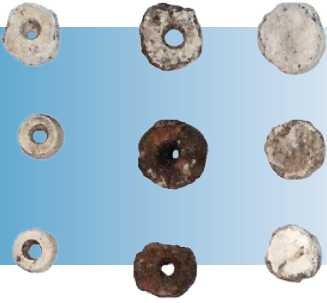


SHELL BEADS, RINGS, AND EXCHANGE



The author excavates a feature within one of the seven test units on Raleigh Island. Several features like this one have been documented during excavations. Photo courtesy of Ken Sassaman



Raleigh Island and the Mississippian in Florida

Terry Barbour

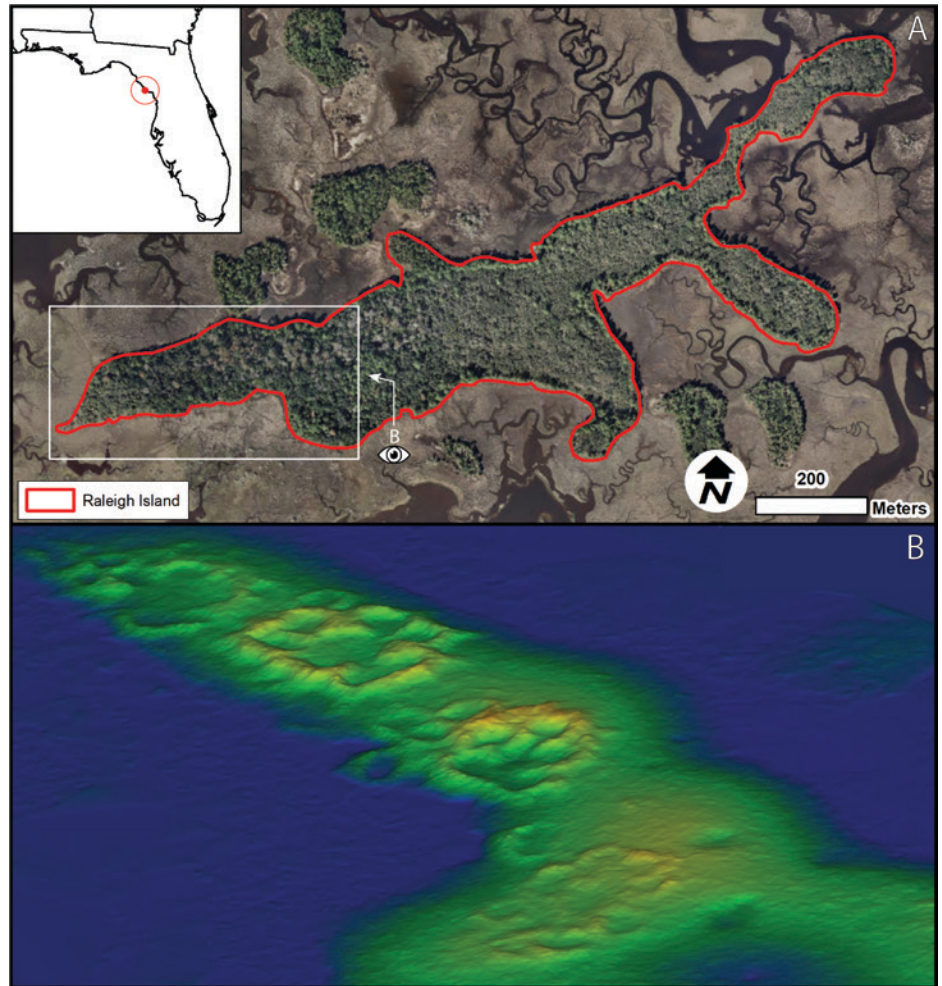
Believe it or not, there are still places to be discovered in our modern age. Located north of Cedar Key, Florida, within the Lower Suwannee National Wildlife Refuge, Raleigh Island is a remarkable place that was largely unknown until recently.

Originally found in the 1990s, the full extent of archaeological deposits on Raleigh Island was not realized until 2010, largely because the site is inaccessible by land and difficult to reach by boat. A complex of shell rings dating from the 10th through 12th centuries is distributed across the western part of the island. Additionally, shell beads were made in abundance, immediately preceding an increased demand for beads among Mississippian societies of the Southeast during the 11th century. Located far away from population centers in Florida, Raleigh Island provides a glimpse into the lives of a coastal community and its interactions with Mississippian chiefdoms that consumed large quantities of shell beads. After several field expeditions, hard fought through mud, winds, and tides, this remarkable place and the people who lived here are beginning to reveal themselves.

As fate would have it, Raleigh's story would have remained untold were it not for an environmental tragedy. During an assessment of impacts of the Deepwater Horizon oil spill on cultural resources in the Gulf of Mexico, a crew from the University of Florida Laboratory of Southeastern Archaeology (LSA) became stranded at low tide en route to Raleigh Island. Luckily, they were close enough to reach the island and wait out the tide. After hopping out of the boat and

walking through the sawgrass marsh, they began their assessment and were met with quite a surprise. What they found was one of the most unusual archaeological sites in Florida.

The western portion of the island contains at least thirty-seven shell rings clustered together into four groups. With some reaching more than 4 m high, 30 m wide, and constructed largely from oyster shell, the rings on



Map A (top) indicates the general location of Raleigh Island and its shell rings (8LV293). Map B (bottom) is a three-dimensional rendering of Raleigh Island shell rings. Rings range in height from one to more than four meters above the forest floor. Images courtesy of the author



Profile of Test Unit 2 shows the midden present within all the rings tested to date. Photo courtesy of Ken Sassaman

Raleigh Island are impressive by any measure. Ramps and pathways wind their ways through each group of rings, and it is easy to get disoriented when exploring the enclosed spaces. Several rings have openings that likely served as points of entrance and exit. As to what these spaces meant, we can only speculate at this point. The working hypothesis is that they represent households, or groups of individual households, where immediate or extended families lived and worked together.

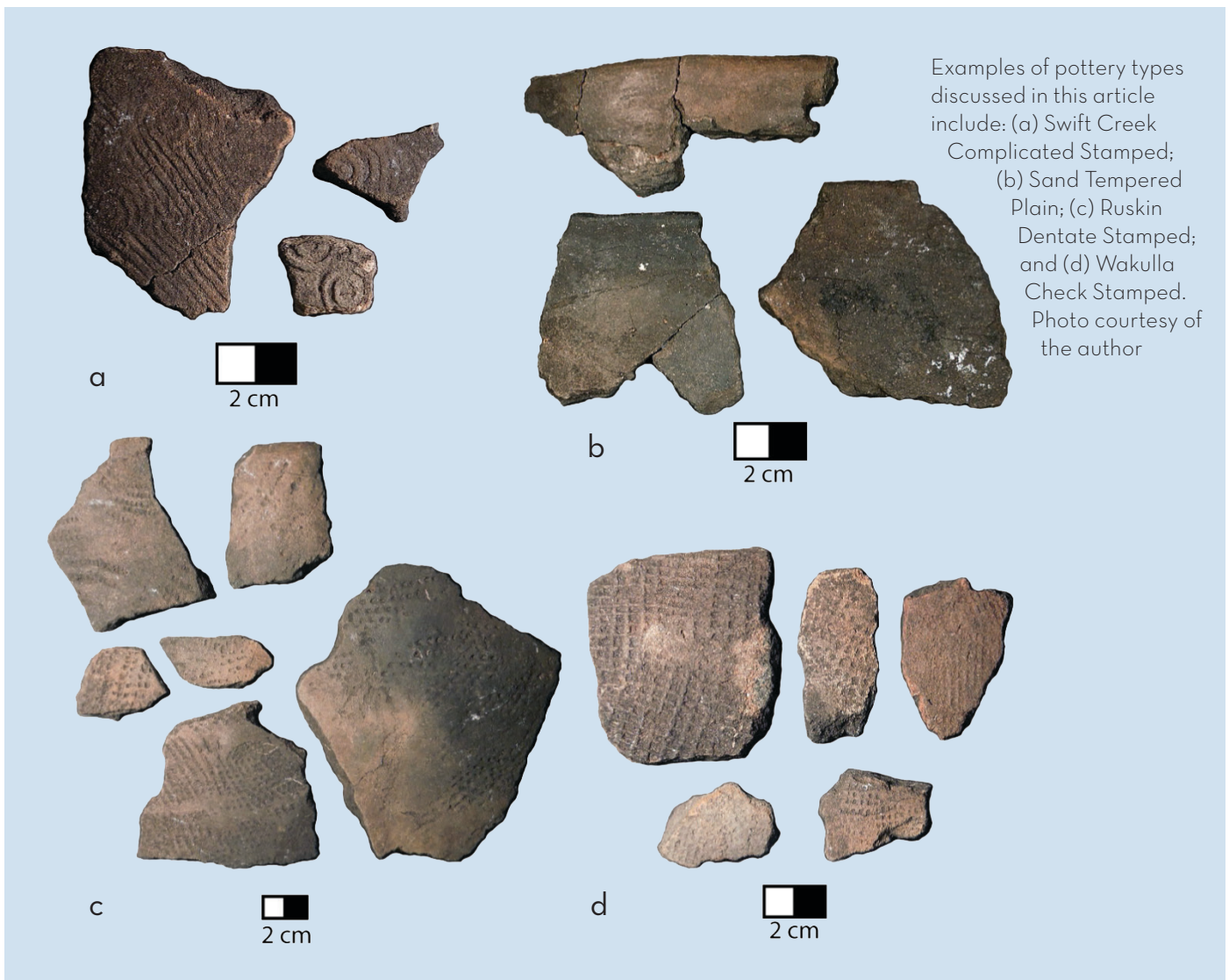
Whatever the case may be, this amalgam of rings is unusual and surprising in many respects. While shell rings are prevalent in some regions of the Southeastern US, construction of these features largely ceased after the end of the Late Archaic period in Florida, about 3,200 years ago. In fact, when LSA staff located the ring complex in 2010, it generally was thought the rings dated to the Late Archaic period. However, after the first round of archaeological testing, it was clear this site did not have Archaic material. Radiocarbon dates on charcoal taken from each ring group indicate that most activity on Raleigh Island took place between AD 900 and AD 1150. Based on these age estimates, we know that Ring Groups 1-3 were occupied by AD 900. Then, around AD 1000, Ring Group 4 came online, and Group 1 appears to have waned in use while the other groups persisted. However, we have only one date from Group 1, and it is possible that more dates will change our current narrative. However, it should be noted that most of the earliest pottery type, Swift Creek Complicated Stamped, occurred most frequently in Group 1. This line of evidence supports our initial hypothesis that Group 1 was the first to be occupied, because Swift

Creek Complicated Stamped pottery typically does not postdate AD 900.

What we know about Raleigh is the result of several expeditions focused on mapping the shell rings and subsurface testing in the rings themselves. When investigations of the island first began, the available maps were inaccurate. In response, a team of researchers from the University of Florida mapped the rings and ridges using the latest in drone-mounted LiDAR technology (Barbour et al. 2019). As a result, current maps of the island are accurate to within a centimeter. Subsurface testing consisted of twenty-five shovel tests and seven 1 x 2-meter excavation units strategically placed among ring groups to determine what these clusters represent.

Results of testing to date indicate that each ring encloses dense organic midden and an assemblage of features, including postholes and pits. Pottery, flaked stone, animal bone, and shell are abundant. In the areas we have tested, features are so dense that it is difficult to distinguish individual pits or postholes until reaching the base of the midden deposits. Dense organic midden that developed over 250 years suggests an intensive occupation.

The shape and size of reconstructed pots from Raleigh indicate they were used in day-to-day activities, especially when compared to pottery from earlier civic-ceremonial centers in the region, where large cooking vessels and nonlocal serving vessels accumulated in the context of large-scale feasts. Based on analysis



Examples of pottery types discussed in this article include: (a) Swift Creek Complicated Stamped; (b) Sand Tempered Plain; (c) Ruskin Dentate Stamped; and (d) Wakulla Check Stamped. Photo courtesy of the author

to date, most reconstructed vessels from Raleigh are small, open bowls or medium-sized cooking pots. Some of these small, plain pots and modest cooking vessels are decorated with surface treatments such as dentate and check stamping, but the most common surface treatment is a plain finish. These styles and decorations are common in the study area. However, the most impressive characteristic of the artifact assemblage are the remnants of a substantial shell bead industry.

The scope of shell bead making on Raleigh Island is impressive for several reasons. First and foremost, the turn of the 12th century saw the Mississippian cultural movement spread out of sites such as Cahokia, Moundville, and Etowah. Many communities adopted parts, or all, of this new way of life. Archaeologically, we see this cultural shift in such things as pottery tempered with shell, new construction techniques for mounds and buildings, nonlocal metal and stone, and new rituals and religious iconography. Some of these attributes have been identified among communities in Florida such as the Mill Cove Complex on the St. Johns River, Fort Walton and Lake Jackson complexes in the Panhandle, and among the Safety Harbor population of Tampa Bay. Interestingly, Raleigh is located away from these

large population centers, and the community there was making beads roughly a hundred years before the increased demand for marine shell. This precedence of bead making might indicate that Raleigh’s people were aware of the social movements growing in the interior, or were already making beads for their own purposes and were able to supply beads, and possibly unworked shell, to the emerging population centers after the spread of Mississippian culture.

While several exotic artifacts and raw materials from across the Southeast and beyond were in high demand during this time, marine shell beads were particularly important, especially those made from the lightning whelk (*Sinistrofulgur sinistrum*). Lightning whelk shells were important among several Native American cultures for ritual and spiritual reasons, and they have been throughout history. In fact, this shell is one of the most enduring ritually and spiritually important materials in the Southeast. More lightning whelk shells moved across the region during the Mississippian period than any other time. Today, Raleigh Island is about ten kilometers from sandy-bottomed seagrass beds that are prime habitat for lightning whelk.



Selected artifacts associated with the shell bead industry on Raleigh Island (8LV293) include: (a) lightning whelk fragments; (b) abrader; (c) chert hammerstones, which also likely served as raw material; (d) anvil; (e) shell beads in various stages of manufacture; and (f) chert drills. Photo courtesy of the author

Lightning whelk beads and fragments in the shell assemblage on Raleigh are one part of the bead-making toolkit. Flaked stone debris from tool manufacture occurs in relatively large quantities. Small stone drills are among the most numerous formal tools found during the excavations. These small tools were used to bore holes in shell beads, and several have patterns of wear consistent with the rotary action of drilling. Many are snapped from the repeated strain of use, or are worn down to the nub. In addition, similar tools that show use-

wear patterns that indicate other uses, such as scoring or etching, have been found.

The numerous small stone tools appear to have been made by a stone tool reduction technique known as hammer-and-anvil, or bipolar reduction. Essentially, the piece of stone to be shaped was positioned on an anvil and struck with a hammerstone. This method of core reduction resulted in rectangular pieces of stone that are ideal for making small drills. In addition to stone drills/

microtools, a handful of abraders—tools used to shape beads into their final form, have been found in test units along the interiors of two ring groups. Taken together, these artifacts provide evidence of a shell bead industry that was already in place when demand for whelk shell reached its peak in pre-Columbian history.

Across the Southeast, evidence of shell bead making at the source of raw material is uncommon or poorly defined. This is especially puzzling because the Gulf of Mexico is prime habitat for lightning whelk and supports large numbers of this species. While it is reasonable to assume that people all along the Gulf were capitalizing on this boom in marine shell, for the most part, archaeological evidence of this has been lacking. We know that whole whelk shell was imported to large centers in the interior and that beads were made by their respective local populations. The best evidence of this process comes from the Native American city of Cahokia in present-day Illinois. Aside from Raleigh Island, sites where bead making occurred at a source of marine shell are on Ossabaw Island, Georgia, and locations in Tampa Bay. However, they are in close proximity to coastal Mississippian political centers and, in the case of Ossabaw Island, date to the 14th century. Raleigh is far removed from Mississippian centers, and the absence of completed beads indicates they were not being consumed locally. This begs the question: where and to whom did the shell beads from Raleigh Island go?

Perhaps the greatest potential Raleigh offers is in providing a glimpse into the way shell bead making was integrated into the lives of the island's population. Much of the literature on making shell beads during the Mississippian period is centered on the popular, well-known sites of the interior like Cahokia, Moundville in Alabama, and Etowah in Georgia. We know comparatively little about the regions of the Southeast not typically associated with these centers. Research on places away from the aforementioned sites will address gaps in our knowledge and help refine the narrative of how local populations influenced, and were influenced by, the Mississippian sociocultural movement. Raleigh Island and its localized shell bead-making community are now at the center of that discussion.

My dissertation work is designed to address the organization of shell bead manufacturing on Raleigh Island, and to place this community within the larger context of 10th- to 12th-century Florida. Two groups of shell rings, Group 2 and 3, were selected for additional archaeological testing to understand how individual rings and ring groups were being used, and what they represented socially. By documenting things such as techniques used for making stone tools, the source of the

stone used to make tools, and the design and decoration of pottery vessels, we will be able understand how the community on Raleigh Island was organized to make sizable quantities of shell beads.

It is incredible that a place like Raleigh Island remained unknown to archaeologists until 2010. While the island appears on a map to be a short boat ride from shore, it is what some might call a logistical nightmare to undertake an archaeological expedition there. High tide brings only 2.5–3 feet of water in the small inlet of the sawgrass bed surrounding the island. Only after carrying everything needed for life and work through forty meters of mud can excavation begin. Furthermore, recent projections of sea level rise over the next fifty years indicate the ocean will endanger the westernmost group of rings in our lifetime, making work on Raleigh an imperative. Fortunately, the site is on federal land and regulated by the US Fish and Wildlife Service, providing some protection to this now relatively unknown location. However, the time has come to put Raleigh Island on the proverbial map.

Terry E. Barbour is a doctoral student in anthropology at the University of Florida. His dissertation research focuses on Raleigh Island and the early Mississippian period along Florida's Gulf Coast. He also is a staff member at the UF Laboratory of Southeastern Archaeology.

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Bibliography

Barbour, Terry E., Kenneth E. Sassaman, Angelica M. Almeyda Zambrano, Eben N. Broadbent, Ben Wilkinson, and Richard Kanaski. 2019. Rare pre-Columbian Settlement on the Florida Gulf Coast Revealed through High-Resolution Drone LiDAR. *Proceedings of the National Academy of Sciences* 116 (47):23493–23498.