

Pockoy Shell Ring Background Information

- Pockoy Island (pronounced Pock-ee) is a remote South Carolina sea island and a part of the SC Department of Natural Resource's Botany Bay Heritage Preserve and Wildlife Management Area. The property is located on the northeastern corner of Edisto Island in Charleston County.
- Botany Bay is one of the largest relatively undeveloped wetland ecosystems on the Atlantic Coast, providing a critical habitat for numerous wildlife species.
- The cultural resources of Botany Bay are equally important, with sites dating from approximately 4,000 years ago to the nineteenth century. Several sites are listed on the National Register of Historic Places, including the outbuildings from Bleak Hall Plantation, granite markers from the 1850 Alexander Bache U.S. Coast Survey, and the Fig Island Shell Rings.
- The shell ring on Pockoy Island was first identified in early 2017 by analysts studying Hurricane Matthew's effect on South Carolina's coastline. When studying maps produced by aerial light detection and ranging, or LiDAR, analysts noticed strange circular features on the coast of Pockoy Island, indicating the presence of a shell ring. Shovel testing began in the summer of 2017, which confirmed the ring's existence. Radiocarbon dating conducted on recovered animal bone revealed that the site was approximately 4,300 years old, making it the oldest known shell ring in South Carolina.
- Testing continued in late 2017, and large-scale excavations were conducted in May and December of 2018, and May of 2019.
- Shell rings are structures found along the coasts of South Carolina, Georgia, and Florida, dating to the Late Archaic period (roughly 5,000 – 3,000 years ago). Dating suggests that the shell ring on Pockoy Island was built over a relatively short period of time, around 20 – 30 years.
- As the name indicates, shell rings are large circular or semi-circular structures made from piled shell. Some are C-shaped and U-shaped, while others are irregularly shaped or made up of multiple shapes. Pockoy's shell ring is doughnut shaped. Shell rings are primarily composed of oyster shell, but cockles, periwinkles, clams, and whelk shells are also commonly found. Shell rings range in size from 30 to 250 meters in diameter and are between 1 and 6 meters high. The Pockoy shell ring is approximately 60 meters in diameter.
- Another key feature of a shell ring is a central area called a plaza, which is devoid of shell. Archaeologists speculate that this area was maintained for ceremonial purposes or contained a structure.
- Archaeologists have been studying shell rings for decades but there is still a lot we do not know about them.
- Archaeologists are unsure if shell rings were intentionally built or not. Some argue that shell rings were inadvertently created from piles of discarded shell following meals over a long period of time. Others believe shell rings were planned structures built from leftover shells from ceremonial feasts and other quarried shell.
- Archaeologists are also unsure what shell rings were used for. Some believe shell rings were sites of general human occupation, while others theorize shell rings were ceremonial structures only used for specific purposes at specific times.
- Archaeologists have recovered thousands of artifacts from Pockoy and other shell ring

sites. The most common artifacts are pottery, shell, and animal bone.

- o The pottery found at Pockoy belongs to the earliest types of ceramics found in South Carolina. Many of the potsherds found at Pockoy are decorated with punctations, incised lines, or stamped designs. The people who created this pottery used shells, reeds, and other natural materials to produce these effects.

- o Shells were not only used to build the ring, they were also used as tools and for decoration. The Late Archaic inhabitants of Pockoy modified whelk shells and other shells to create hammers, awls, adzes, hoes, and other necessary tools for everyday life. They also turned shells into jewelry by shaping them into beads.

- o Animal bone is normally not well preserved because of the acidity of South Carolina's soil. However, bone is plentiful at Pockoy because the calcium from the shell raises the soil's pH level, preserving the bone. Worked bone is frequently found at Pockoy and archaeologists have recovered numerous finely decorated bone pins.

- What archaeologists do not find at a site can also tell them a lot about the people that lived there. Very little stone has been found at Pockoy, telling archaeologists that the people that once lived there did not rely primarily on stone tools. Some archaeologists interpret this as evidence that the shell ring was not a site of human occupation, but others propose that this is reflective of the environment – good stone is hard to find on the coast so the people living there relied on tools made out of shell and bone.

- Due to Pockoy's location on the coast, the site is vulnerable to coastal erosion and rising sea levels. With a rate of 9.5 meters of coastline lost per year, Pockoy is expected to be completely engulfed by the ocean by 2024.

- Climate change, or "heritage at risk", poses a serious challenge to archaeologists, and Pockoy is not the only site facing destruction. According to a report by DINAA (The Digital Index of North American Archaeology), a one-meter rise in sea level would result in the loss of 13,583 archaeological sites across the Southeastern United States. It is imperative to salvage, protect, and study these vulnerable sites before they are gone.

Vocabulary

- **Archaeological Site:** A place where human activity occurred and material remains were deposited.
- **Archaeologist:** An Anthropologist (social scientist) who studies the material remains of past human activity.
- **Archaeology:** The scientific study of past human cultures by analyzing the material remains (sites and artifacts) that people left behind.
- **Artifact:** Any object made, modified, or used by people.
- **Context:** The relationship of artifacts and other cultural remains to each other and the situation in which they are found.
- **Cultural Resources:** Evidence of past human activity. They include archaeological sites, historic homes, battlefields, burial grounds, shipwrecks, historic and prehistoric artifacts.
- **Data:** Information collected.
- **Excavation:** The systematic digging and recording of an archaeological site.
- **Feature:** Material remains that cannot be removed from a site such as roasting pits, fire hearths, house floors or post molds.
- **Field Notes:** Records, forms, notes, maps, photographs, and drawings made by archaeologists to record their work.
- **Grid:** A network of uniformly spaced squares that divides a site into units.
- **Level:** An excavation layer, which may correspond to natural strata. Levels are numbered from the top to bottom of the excavation unit, with the uppermost level being Level 1.
- **Material Culture:** Items that people make and use.
- **Photogrammetry:** The art and science of obtaining precise mathematical measurements and three-dimensional data from two or more photographs.
- **Postmolds:** Small, circular, dark stains in the soil that are the remains of wooden posts placed in the ground.
- **Provenience:** The geographic location from which the artifact was found. The three-dimensional location of an artifact or feature within an archaeological site, measured by two horizontal dimensions, and a vertical elevation.
- **Site Report:** A paper written by archaeologists that describes an excavation, analyzes the artifacts found, and tells the story of the site and the people who lived there.
- **Strata:** A layer of soil.
- **Stratigraphy:** The layering of deposits in archaeological sites. Cultural remains and natural sediments become buried over time, forming strata. General principle is that more recent artifacts are on the top, and the oldest artifacts are on the bottom.
- **Unit:** A defined area within an excavation. Dividing a site into units helps archaeologists with spatial relationships between artifacts.