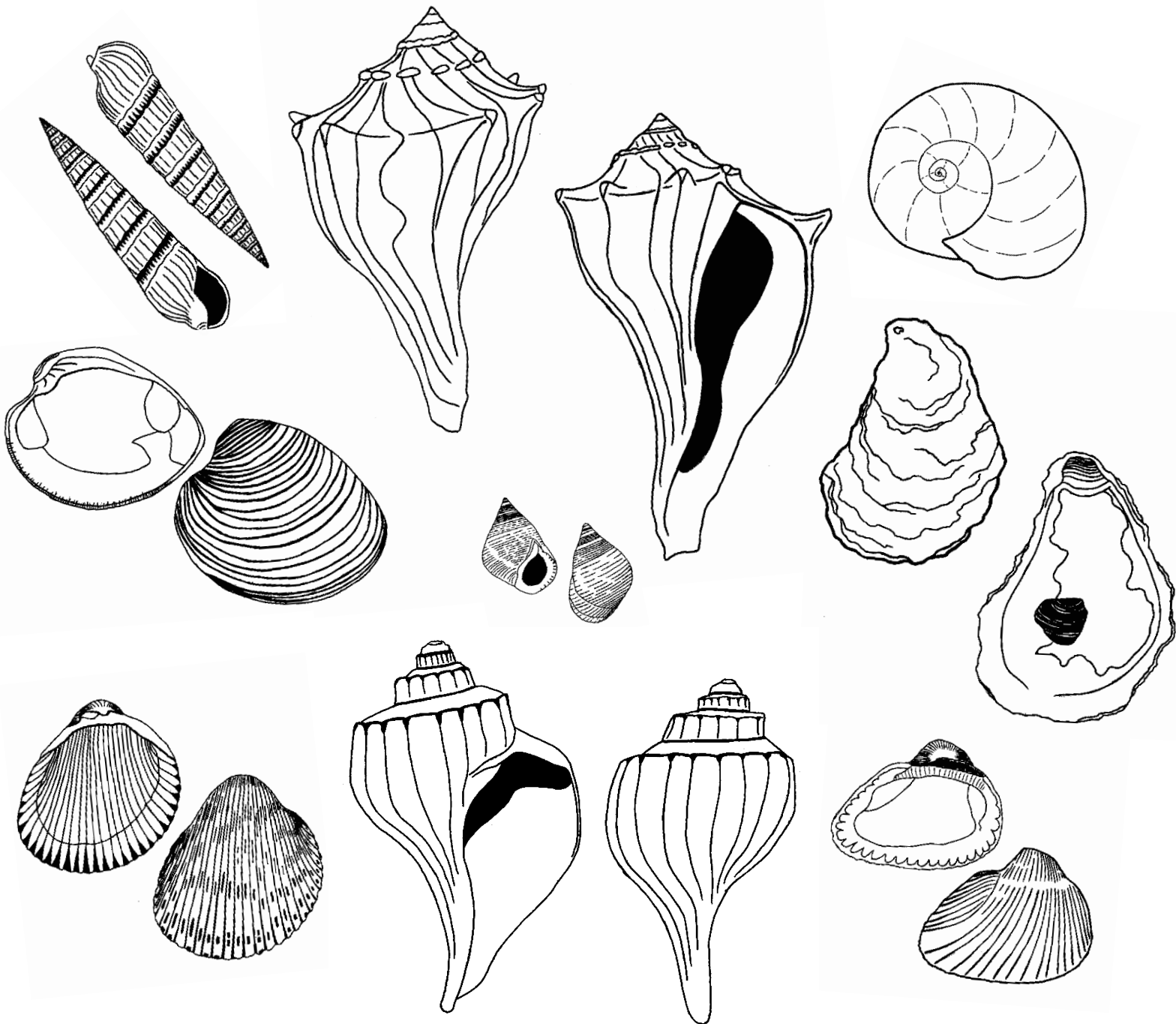


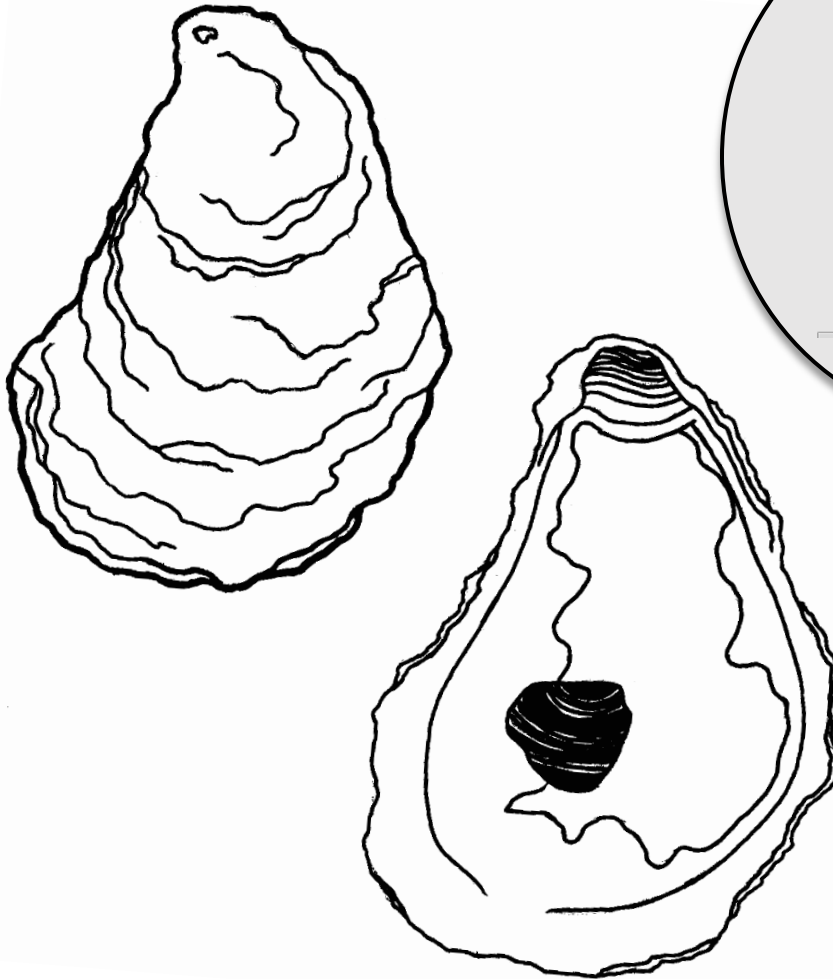
Mollusk Identification & Coloring Activity

Instructions

For this activity, use the words in the **Word Bank** on each page to complete the description for each shell. Then use the information from the description to imagine how the prehistoric people at Pockoy Island used the shellfish in their everyday lives. Some mollusk shells had similar or general uses, while other shells were used for specific purposes. When you are finished writing your answers, use the provided coloring utensils to color each shell.



Eastern Oyster (*Crassostrea virginica*)



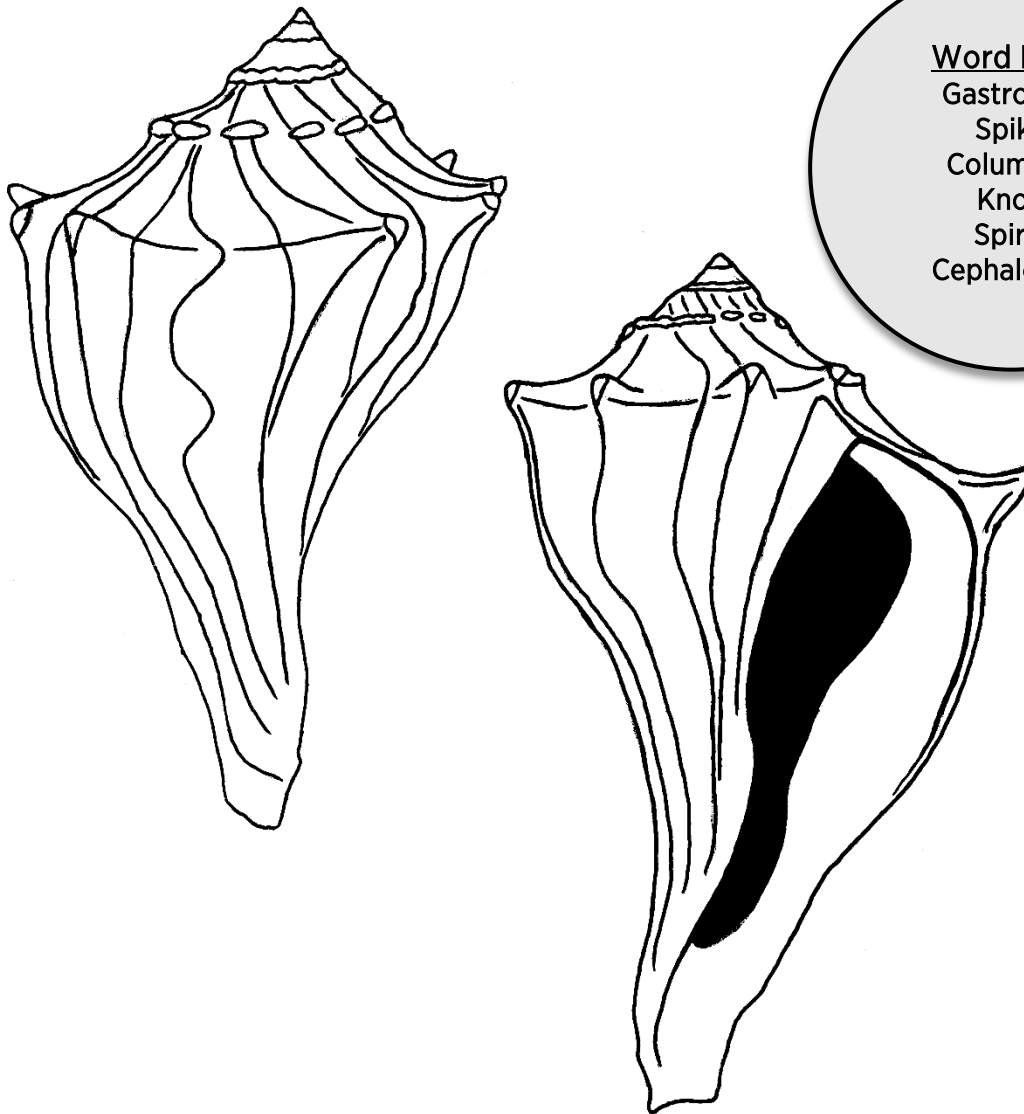
Word Bank
Salt Marsh
Keystone Species
Gastropod
Apex Predator
Filter Feeder
Bivalve
Pile
Freshwater Lake
Reef

Also called the American Oyster or the Atlantic Oyster, the Eastern Oyster is a _____ because it has a two-halved, hinged shell. An oyster's shell is oval shaped and ranges in color from white to gray to brown. The inside of the shell has a purple muscle scar. Oysters are a _____ of the _____ ecosystem. As _____, oysters improve the water quality by filtering and removing various particles, bacteria, and sediments. Oysters can grow together in large groups called _____, which protect shorelines from erosion and provide a habitat for crabs, worms, and fish.

The shell ring at Pockoy is mostly made of oyster shell. There is so much oyster shell at Pockoy that it would be impossible to take all the oysters back to the lab for analysis. Instead, archaeologists weigh and discard the oyster shell in the field.

How do you think the oyster was used by the prehistoric inhabitants of Pockoy?

Knobbed Whelk (*Busycon carica*)



Word Bank

Gastropod

Spike

Columella

Knob

Spiral

Cephalopod

The Knobbed Whelk is the most common species of whelk found in South Carolina. Often mistaken for conchs, whelks are carnivorous _____ (snails) that feed on bivalves, like clams, oysters, and arks. The Knobbed Whelk can be easily identified by the pointy _____ on its whorl. The aperture, or the opening, of the shell is on the right-hand side. Adult Knobbed Whelks grow to about 5-9 inches in length, and range in color from light orange-yellow to brick red. Whelks grow by extending their shell around a central axis, called a _____ (tiny pillar), creating the whelk's whorls.

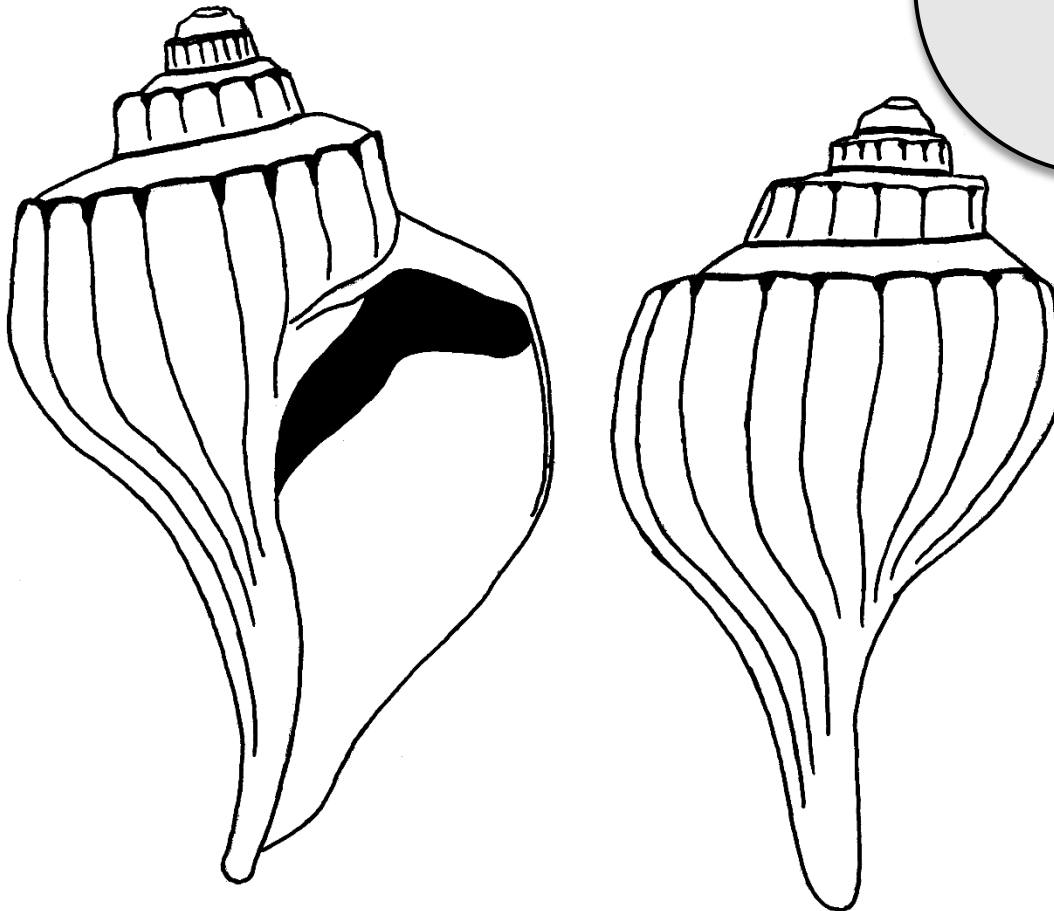
Archaeologists found a lot of Knobbed Whelks at Pockoy. Some whelk shells were completely whole, but archaeologists also found broken pieces of whelk shell. Long ago, people modified the whelk shells for different reasons. For example, some of the whole whelk shells had holes drilled into the whorl.

How do you think the Knobbed Whelk was used by the prehistoric people who lived at Pockoy?

Channel Whelk (*Busycotypus canaliculatus*)

Word Bank

Aperture
Gastropod
Foot
Channel
Bivalve
Fissures

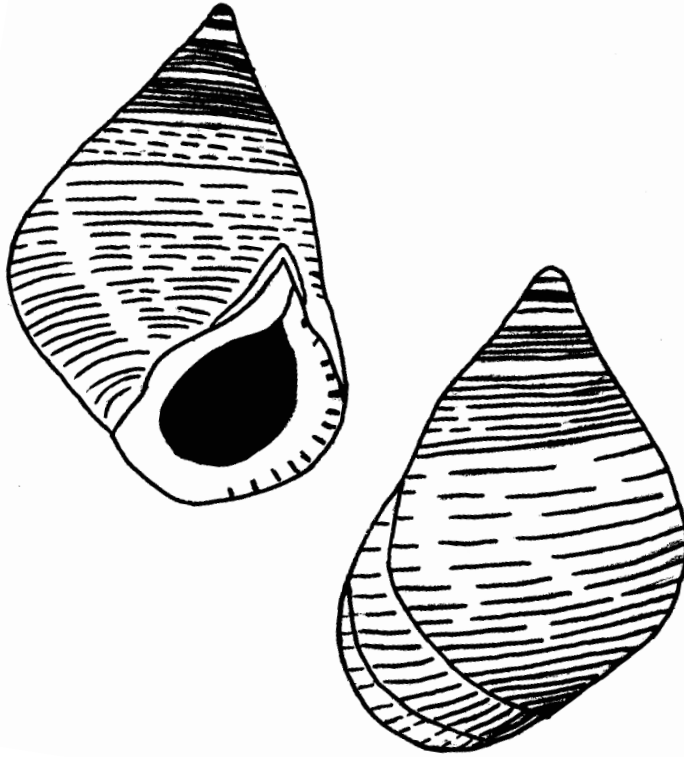


The Channel Whelk is a close relative of the Knobbed Whelk. Like its cousin, the Channel Whelk is also a predatory marine snail or _____ that feeds on other marine mollusks. Channel Whelks grow to a similar size as Knobbed Whelks. Their shells are gray to brown with darker brown or red bands, and, like the Knobbed Whelk, the shell's _____ (opening) is on the right-hand side. Unlike the Knobbed Whelk, the Channel Whelk does not have any knobs, and instead has deep _____ (or grooves) between its the whorls.

Channel Whelks were found alongside Knobbed Whelks at Pockoy, but in far fewer numbers compared to the Knobbed Whelk.

What do you think the Channel Whelk was used for? Do you think the Channel Whelk had a different use than the knobbed whelk, or the same?

Marsh Periwinkle (*Littorina irrorata*)



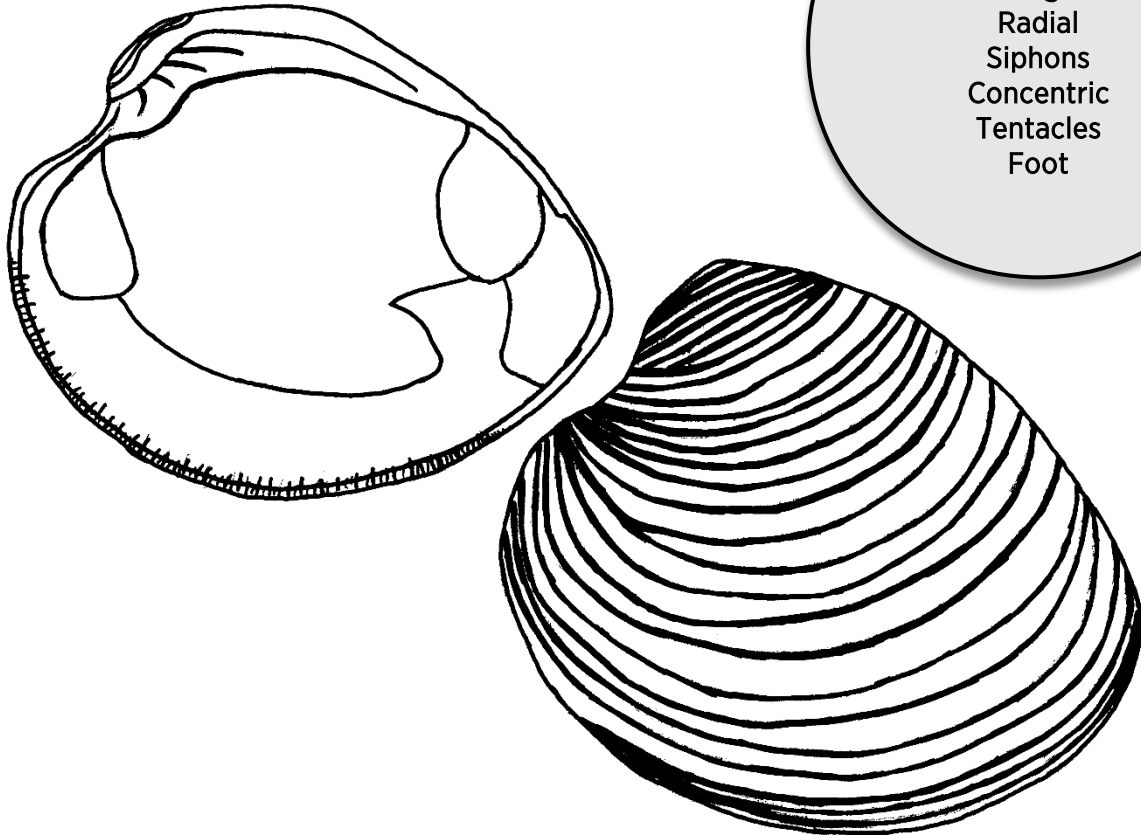
Word Bank
Bivalve Gastropod
Detritus
Decomposers
Herbivores

As its name implies, the marsh periwinkle is a tiny _____ (snail) found in salt marshes along the Gulf Coast and the Atlantic Coast of the United States. The Marsh Periwinkle can grow up to 1.25 inches in length, and the color of its shell ranges from dark brown to bleached white. The Marsh Periwinkle is an important species of the salt marsh ecosystem. Periwinkles are _____ who feed on algae and the _____ (dead and decomposing material) of smooth cordgrass (*Spartina alterniflora*). Periwinkles are easy prey for other salt marsh animals, like the blue crab, who regulate the periwinkle population.

Thousands of periwinkle shells were found at the Pockoy Island Shell Ring, meaning these tiny snails were collected in large numbers by the people who once lived there.

How do you think the periwinkle was used by the prehistoric people at Pockoy?

Quahog Clam (*Mercenaria mercenaria*)

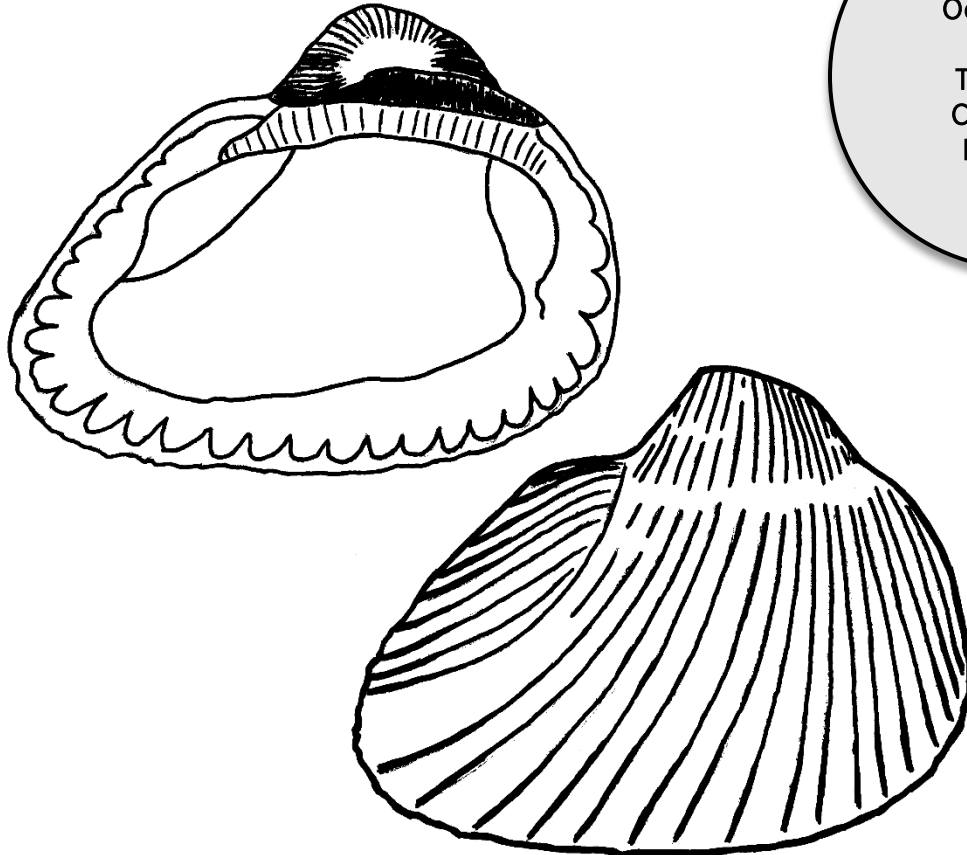


The Quahog Clam, also called a Hard Clam, is a bivalve with two thick, equal-sized shells joined together by a _____. The outside of the shell is marked with _____ (circular) growth rings and is tan to off-white in color with reddish markings. The inside of the shell is white to light yellow in color with dark purple around the edges. There can also be a dark purple muscle scar. The Quahog Clam is a filter feeder and uses a pair of _____ to trap microscopic organisms from the surrounding water. The Quahog Clam also uses its strong _____ to bury itself in the ocean sediment to hide from predators.

A lot of Quahog Clams have been found at Pockoy. Some are whole, but many are in pieces. Archaeologists have also found circular beads made from Quahog Clam shell.

What do you think the Quahog Clam was used for at Pockoy?

Ark Clam (*Arcidae*)



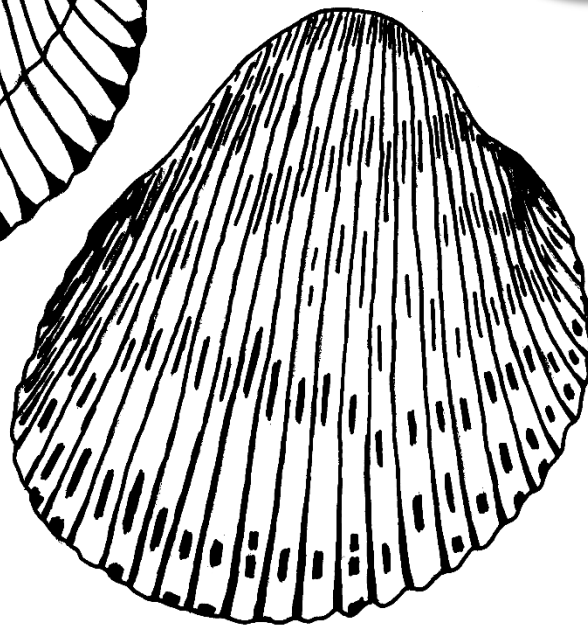
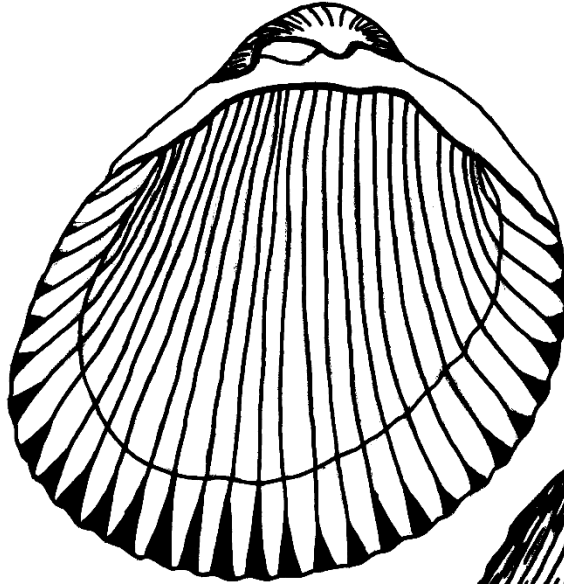
Word Bank
Ocean Floor
Radial
Terrestrial
Concentric
Riverbed
Marine

The ark clam is a large family of _____ bivalves with nearly 200 different species. With that many members, ark clams come in all kinds of sizes, shapes, and colors, but all ark clams have thick, heavy, squarish shells with _____ (ray-like) grooves. Most ark clams like to live on the muddy _____ in the low intertidal zone. In South Carolina, some common species of ark clams are the Ponderous Ark (*Noetia ponderosa*), the Blood Ark (*Lunarca ovalis*), and the Incongruous Ark (*Scapharca brasiliiana*). The Blood Ark gets its name because of the hemoglobin in its blood, giving the mollusk a bloody red color.

Many ark clams were found in the shell ring at Pockoy. Some ark clams were still articulated, meaning the two halves to their shell were still joined together.

What do you think the ark clam was used for at Pockoy?

Cockle Clam (Cardiidae)



Word Bank

Bivalves
Radial
Square
Gastropods
Concentric
Oval

Like the ark clam family, the cockle family is a large group of marine _____ with around 200 different species. Like ark clams, cockles can be quickly identified by their _____ grooves, but cockle shells are more _____ shaped than the shells of ark clams. Cockles like to live on the muddy, sandy ocean floor just off the coast, where the water protects them from predators, like the seagull. Their shells are strong and compact, which helps cockles survive getting tumbled around in the surf. In South Carolina, a common species of cockle is the Atlantic Giant Cockle (*Dinocardium robustum*).

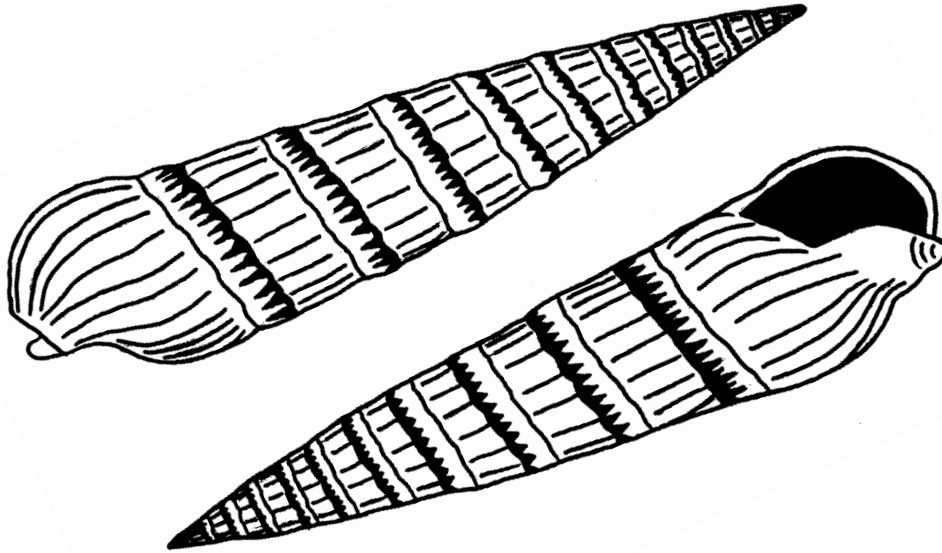
Cockles were found at Pockoy alongside ark clams, but in far fewer numbers. Like the ark clam, some cockles were also found still articulated.

What do you think cockles were used for by the people who made the shell ring on Pockoy Island?

Common Atlantic Auger (*Terebra dislocata*)

Word Bank

Radula
Tentacle
Shallow
Deep
Whorl
Groove
Knob



Augers are carnivorous gastropods with long, slender, pointy shells. Their shells range in color from off-white to different shades of gray and brown. An auger's shell grows to about 1 ½ to 2 inches in length with nearly fifteen _____ (spirals or turns of the shell). Augers like to live in _____ water around the intertidal zone and on sandy beaches. In South Carolina, a local species of auger is the Common Atlantic Auger. The Common Atlantic Auger is a carnivore, but it does not have a _____ (harpoon-like tooth) like most other augers. Instead, the Common Atlantic Auger buries itself under the sandy ocean floor where it preys on marine worms.

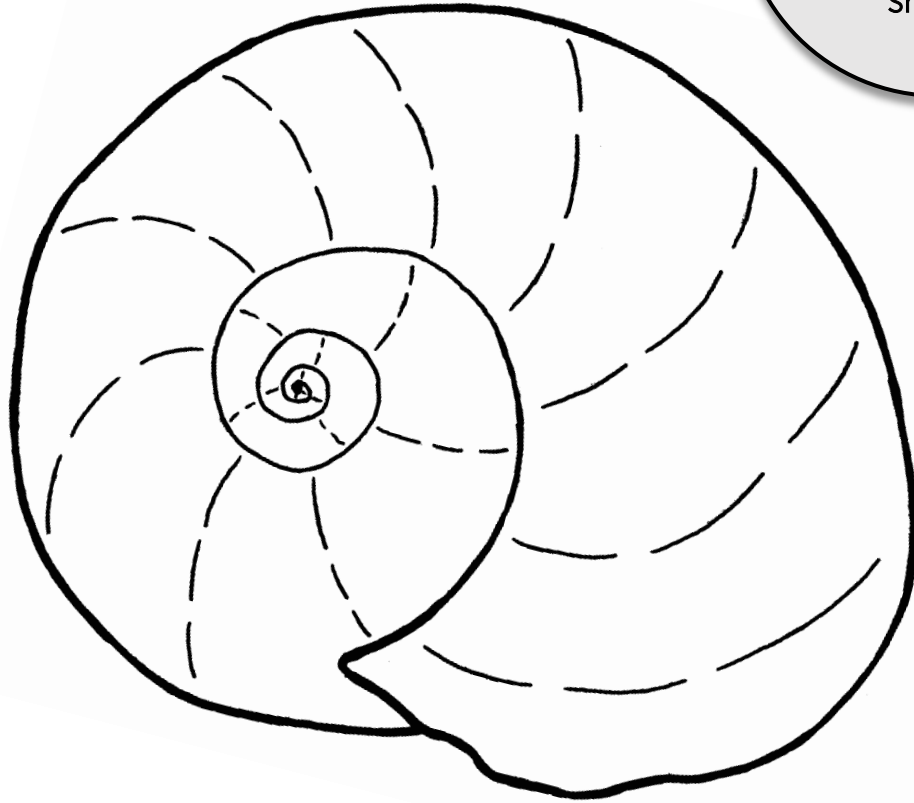
Occasionally, auger shells were found in the shell ring on Pockoy Island, but in far fewer numbers compared to clams, whelks, arks, and oysters.

How do you think augers and their pointy shells were used at Pockoy?

Atlantic Moon Snail (*Neverita duplicata*)

Word Bank

Aperture
Carnivorous
Deep
Herbivorous
Apex
Shallow



Also called a “shark eye”, the Atlantic Moon Snail is a _____ gastropod that eats bivalves by drilling small holes into the bivalve’s shell. The moon snail’s shell has about four to five whorls and is gray to tan in color with blue tinges. The blue color around the shell’s _____ (pointed tip) causes the shell to resemble an eye, earning the snail its nickname. Moon snails like to live on sand in _____ water, around the low tide line. Empty shark eye shells are popular homes for hermit crabs and their shells also provide a hard surface for other marine organisms to attach to, like barnacles.

Occasionally moon snail shells were found in the shell ring at Pockoy, but in far fewer numbers compared to whelks, clams, arks, and oysters.

What do you think moon snails were used for at Pockoy?