

Little Salt Spring Activity Book



FLORIDA PUBLIC
ARCHAEOLOGY
NETWORK

A PROGRAM OF THE UNIVERSITY OF WEST FLORIDA



Plants at Little Salt Spring

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At the Spring, many of the same plants used by the early people of this region are present. Below is a list of plants and their uses that are found all around Little Salt Spring. See if you can identify any of these the next time you are outside!

The **Cabbage Palm** is the state tree of Florida. Native peoples used the fronds for thatch houses, mats, and cordage. Roots were used for making baskets, berries as medicine. The new growth center of the palm can be eaten.



The **Hickory** tree nuts can be eaten and the wood can be used to make tools like bows, arrows, and tool handles.

Archaeologists found wooden stakes made from the **Red Mulberry** tree inside Little Salt Spring. Native peoples used these stakes as tools. Plus, the berries make a yummy snack!



Live Oak tree acorns provided food. The wood was used for fuel and in tool making. Found at Little Salt Spring, Native peoples fashioned a piece of oak wood into a throwing stick for hunting. Dyes were made from the leaves, bark, and roots (gray and red).

Hey Friends!

My name is Tommy, I'm a gopher tortoise and I dig archaeology. Follow me through these activities and learn all about Little Salt Spring and the people who lived here!

THIS BOOK BELONGS TO:

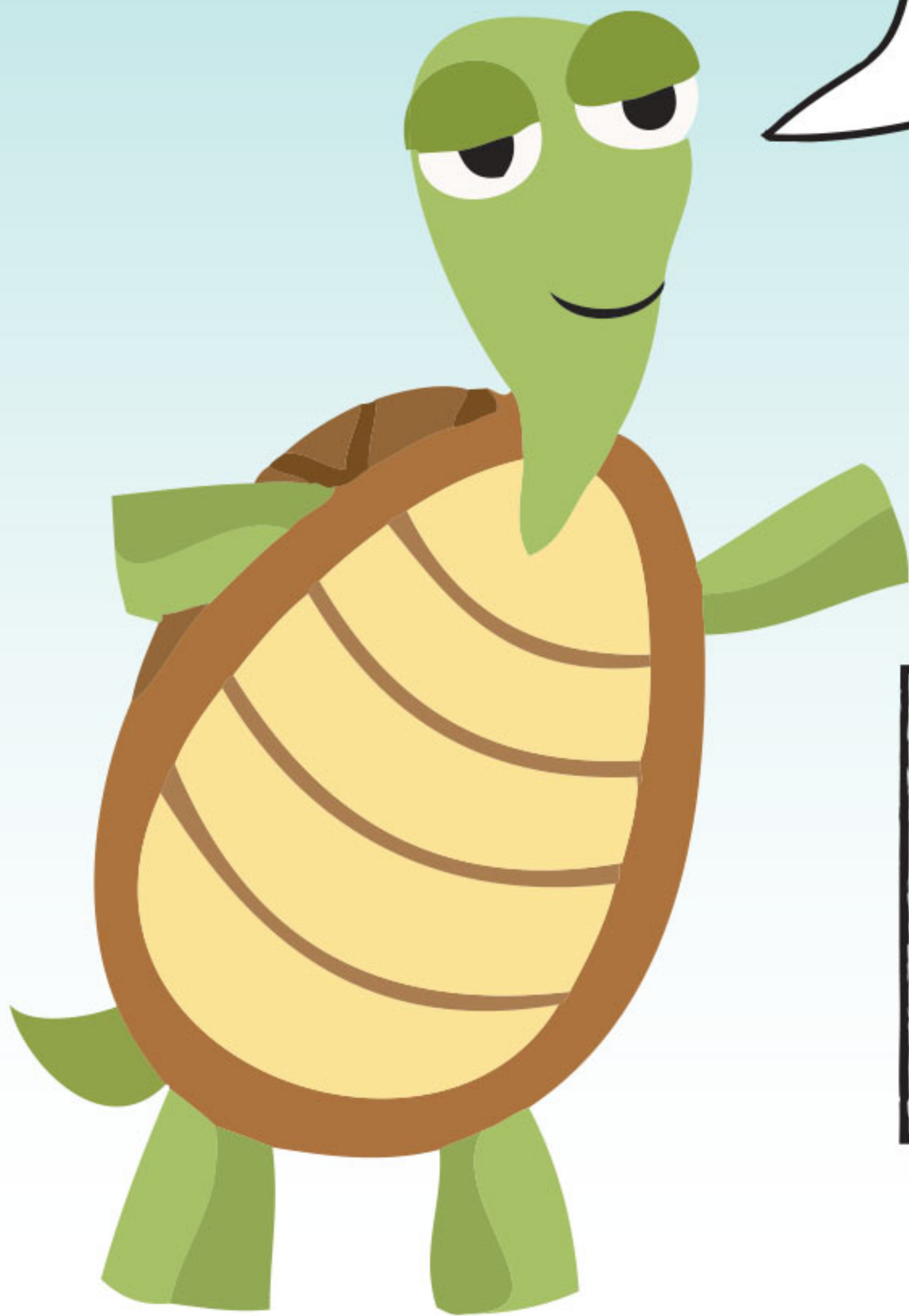


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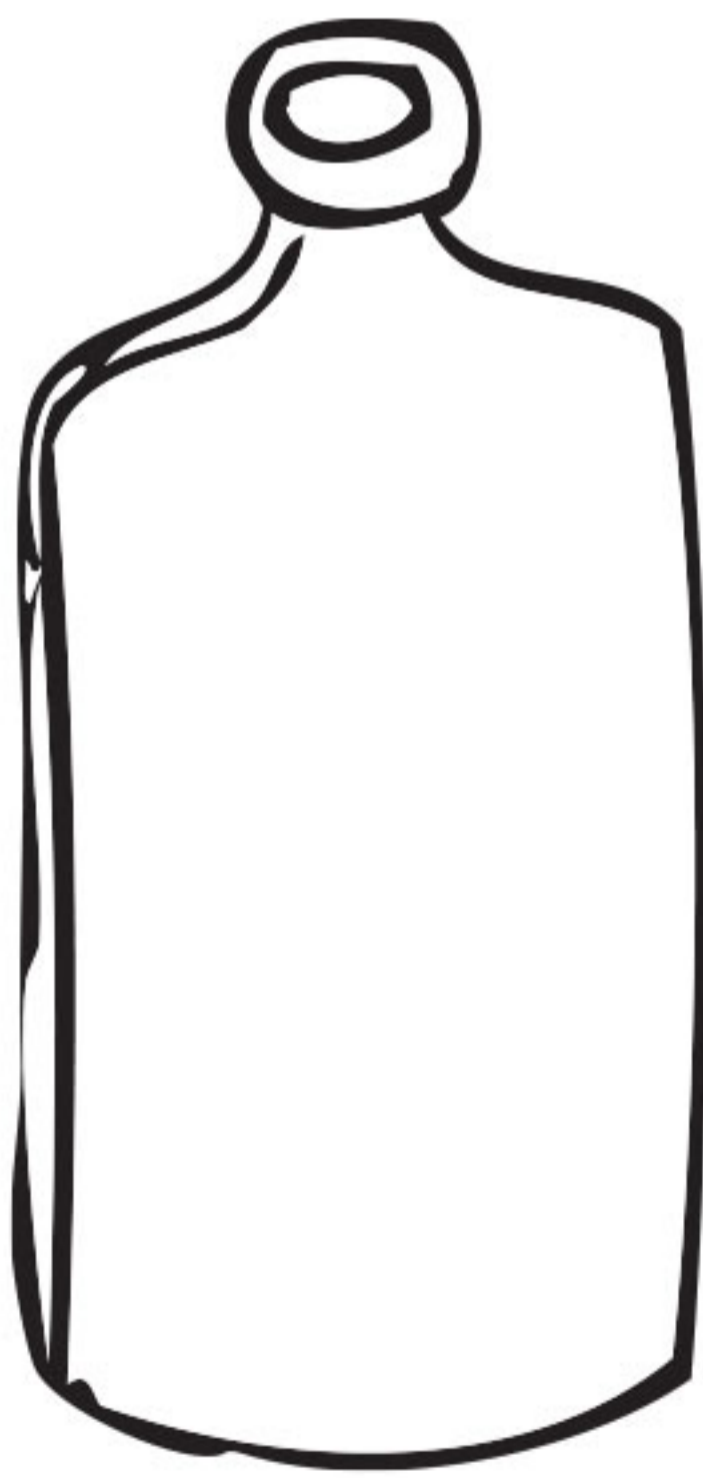


What is Archaeology?

Archaeology is a science and helps us learn about people who lived in the past based on the things they left behind. These things are called **artifacts**. An artifact is anything a person has used, made, or eaten. Many times, archaeologists only find a small piece of an artifact. But whatever it looks like, each artifact is an important clue to what people were doing in the past!

IS IT AN ARTIFACT?

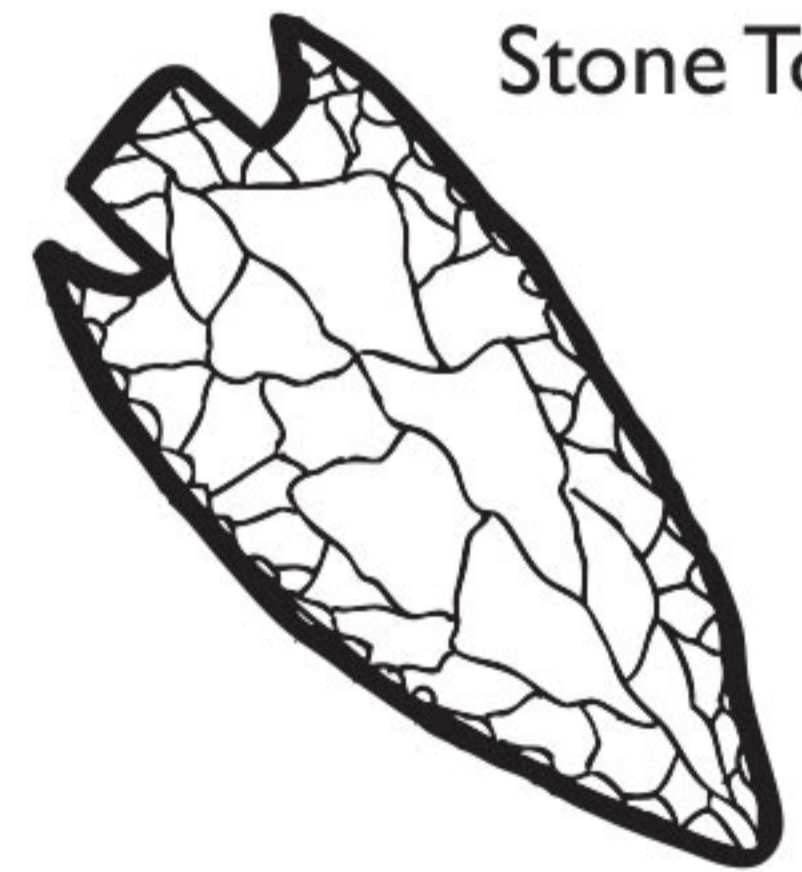
DIRECTIONS: Color in the items below. Which ones do you think could be an artifact? Circle all the items you think archaeologists could find as an artifact.



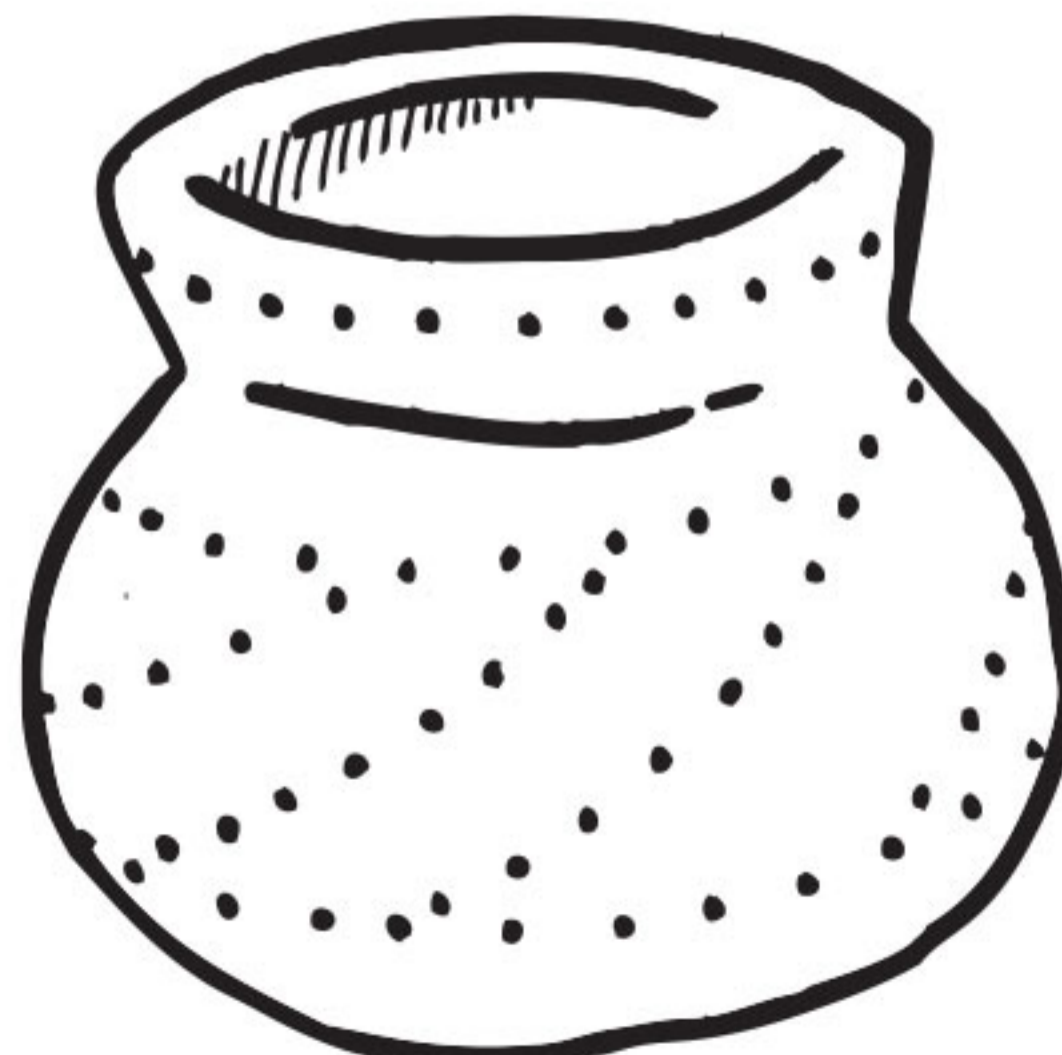
Glass Bottle



Shell Tool



Stone Tool



Clay Pot



Seeds

Little Salt Spring Timeline

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RECENT HISTORY: (1900 - Present)

Prehistoric remains in the Spring discovered by avid diver and explorer, Col. William Royal, in the 1950s. Archaeologists begin the documentation of the Spring as an archaeological site in 1971.

HISTORIC: (1500 - 1900)

Spanish explorers arrive in the 1500s and document the lives of many Native groups

MISSISSIPPIAN: (AD 800 - 1500)

Most of the Native people in Florida lived along the coasts, estuaries, and other bodies of water where large villages developed in some places.

WOODLAND: (500 BC - AD 800)

Native American lifeways began to change as people started to live in one place for longer periods of time.

ARCHAIC: (7,500 BC - 500 BC)

Native people during the Early Archaic period (7,800 - 6,600 BC) lived near the Spring. After the flooding of the Spring's 40 foot basin during the Middle Archaic Period (5,500 - 3,800 BC), Native people buried their dead in its watery depths.

On the next pages Tommy will guide you through these cultural time periods on an exploration of Little Salt Spring! A cultural time period is a span of time when people developed traits, customs, and traditions that were different from what came before or after. Sometimes these differences are reflected in the objects that people left behind or the landscapes they chose to live in.

Archaeologists use **PREHISTORY** to describe the time before written records. Any time after written records is called **HISTORY!**

PALEOINDIAN: (10,000 BC - 7,500 BC)

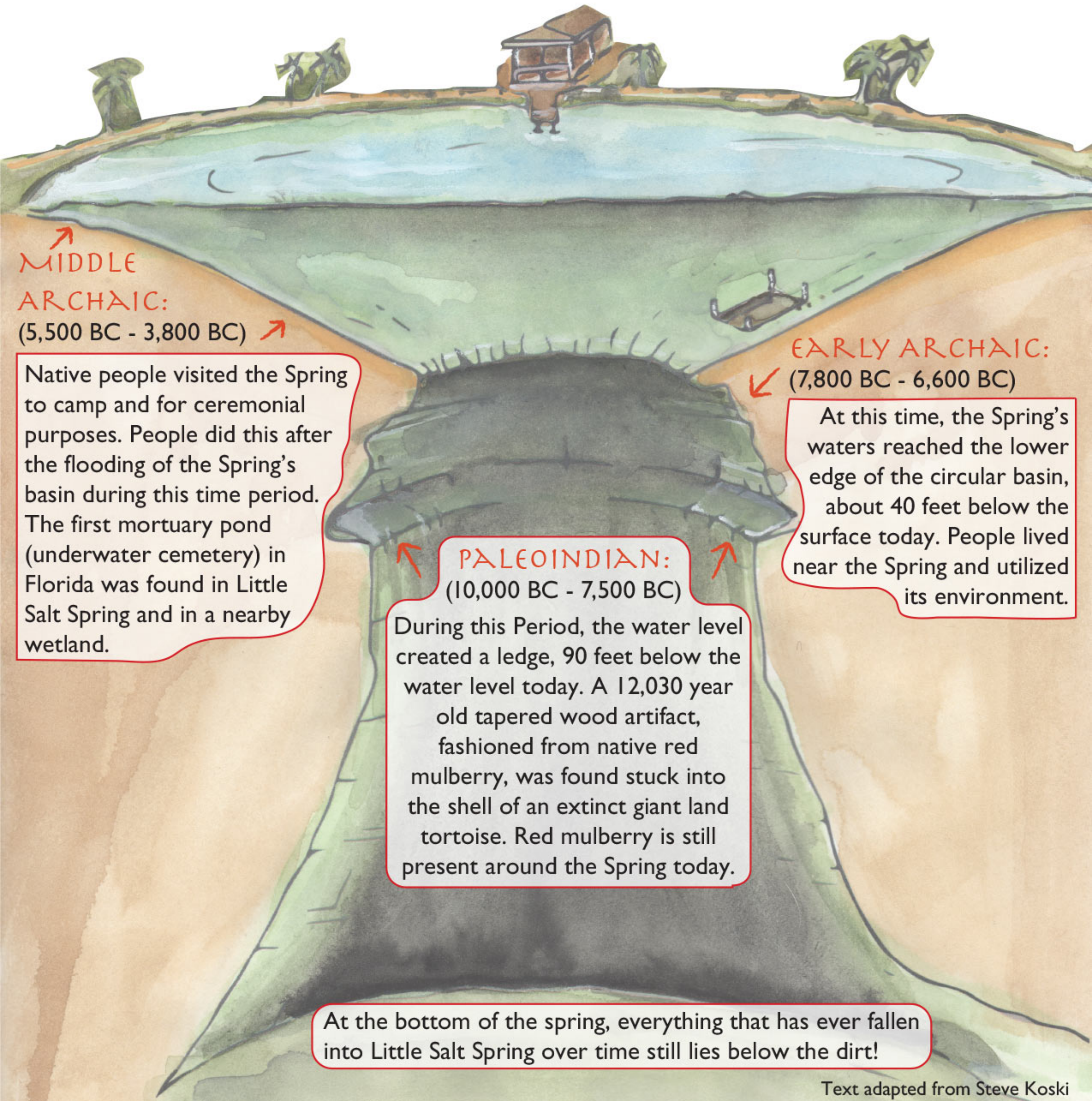
Earliest evidence of humans in Florida. At Little Salt Spring, archaeologists recovered a tapered wood artifact from the 27 meter (90 foot) ledge. It has been radiocarbon dated to around 10,000 BC.



Little Salt Spring

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Little Salt Spring and its surrounding land represents a mostly pristine oasis that has served as an ecological refuge for more than 15,000 years.



**MIDDLE
ARCHAIC:**
(5,500 BC - 3,800 BC)

Native people visited the Spring to camp and for ceremonial purposes. People did this after the flooding of the Spring's basin during this time period. The first mortuary pond (underwater cemetery) in Florida was found in Little Salt Spring and in a nearby wetland.

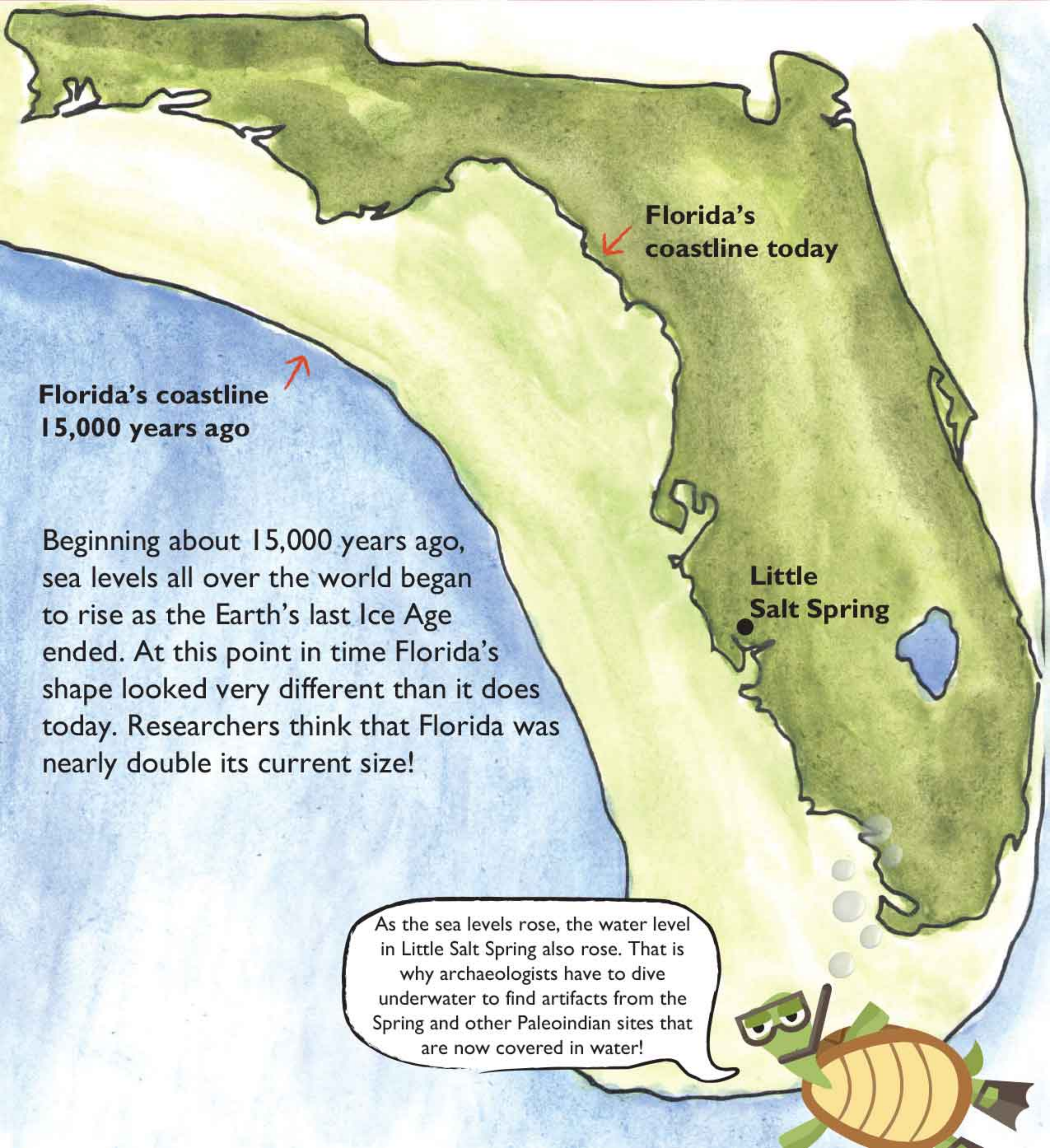
EARLY ARCHAIC:
(7,800 BC - 6,600 BC)

At this time, the Spring's waters reached the lower edge of the circular basin, about 40 feet below the surface today. People lived near the Spring and utilized its environment.

PALEOINDIAN:
(10,000 BC - 7,500 BC)

During this Period, the water level created a ledge, 90 feet below the water level today. A 12,030 year old tapered wood artifact, fashioned from native red mulberry, was found stuck into the shell of an extinct giant land tortoise. Red mulberry is still present around the Spring today.

At the bottom of the spring, everything that has ever fallen into Little Salt Spring over time still lies below the dirt!



Florida's coastline today

Florida's coastline 15,000 years ago

Beginning about 15,000 years ago, sea levels all over the world began to rise as the Earth's last Ice Age ended. At this point in time Florida's shape looked very different than it does today. Researchers think that Florida was nearly double its current size!

Little Salt Spring

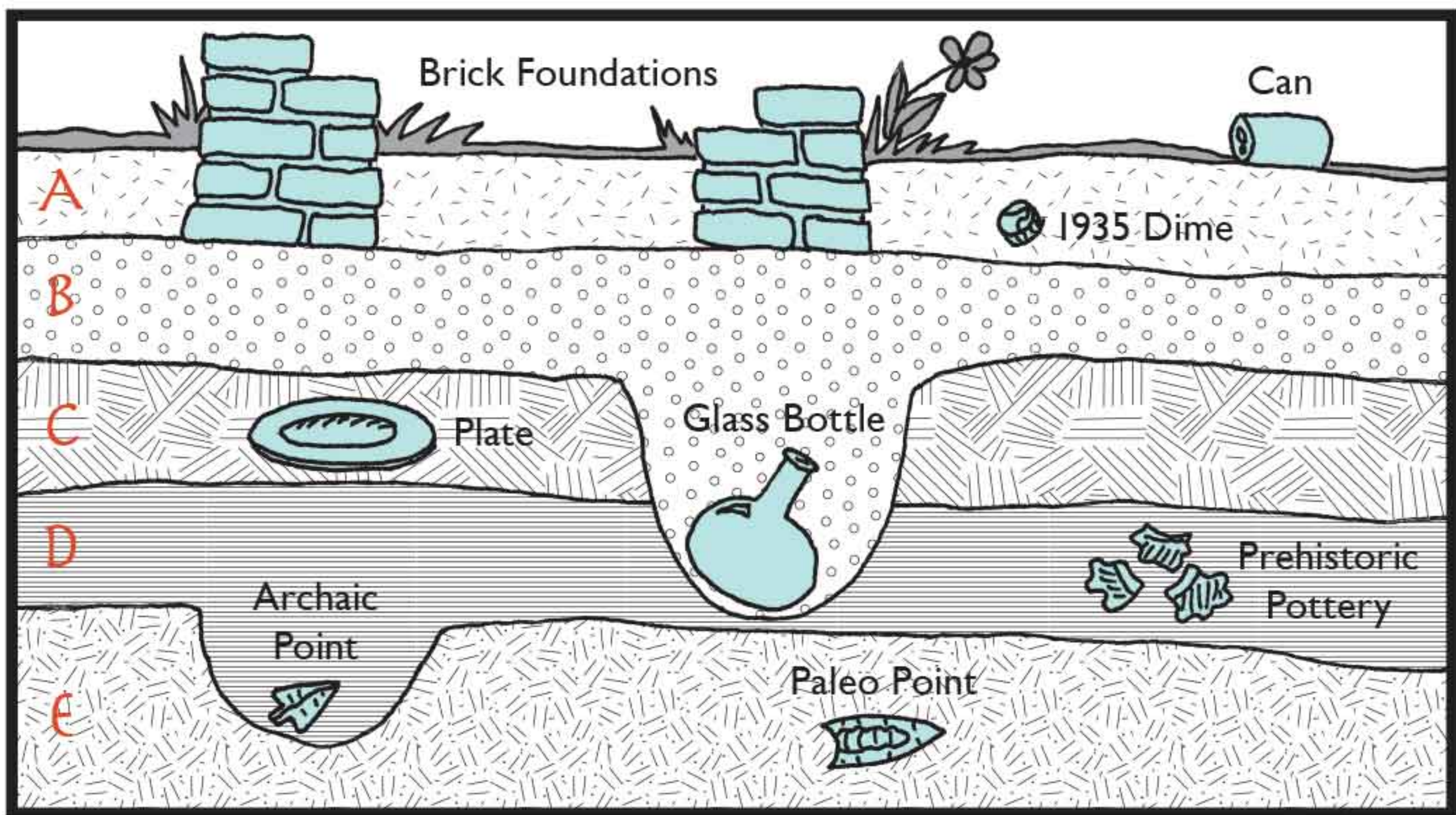
As the sea levels rose, the water level in Little Salt Spring also rose. That is why archaeologists have to dive underwater to find artifacts from the Spring and other Paleoindian sites that are now covered in water!



Which is Oldest?

Below is a diagram of **stratigraphy**, or layers of soil, where each layer represents a different time period. One way that archaeologists are able to tell how old an artifact might be is by looking at what layer of soil it came from. In general, the lower down a layer of soil is, and the artifacts it contains, the older it will be. Each soil layer above it will be younger than the one below it.

DIRECTIONS: In the diagram below is an example of stratigraphy and artifacts that an archaeologist might find. Each soil layer is labeled with a letter from A to E. Look at the diagram and then answer the questions below.



1. Put the soil layers in order from oldest to youngest. _____, _____, _____, _____, _____
2. What artifact is the oldest? Based on what you read do you have any idea how old it could be?

3. Is the glass bottle older or younger than the artifacts in layer D? _____
4. Which is older, the brick foundations or the can? How could the coin help you figure out the age of the brick foundations? _____

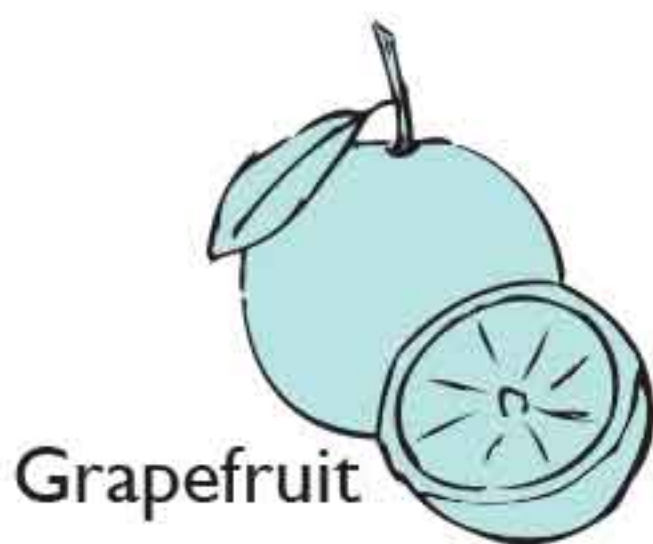
5. In what layers could you find evidence of Little Salt Spring? _____

Little Salt Spring Unearthed 8

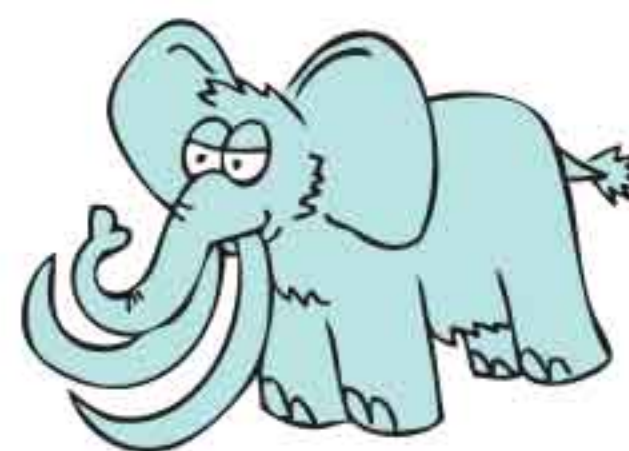
DIRECTIONS: Read about Little Salt Spring's archaeological time periods on the previous pages. Below are some questions about the types of foods and tools that might come from each specific time period. Based on what you read, answer the questions by circling which object you think came from each time period.



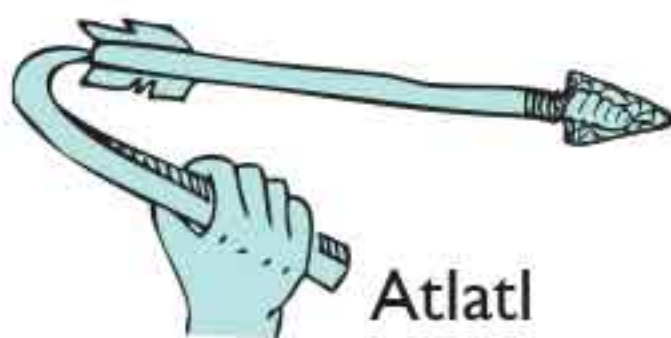
In the **PALEOINDIAN** period, people saw:



OR

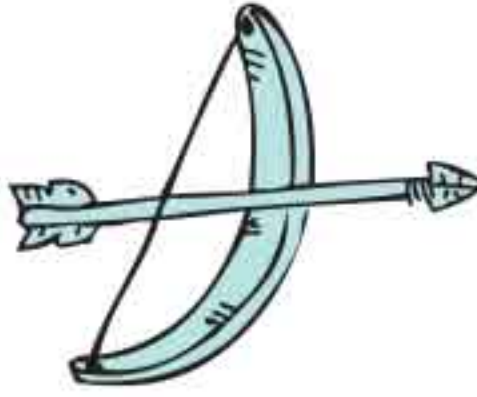


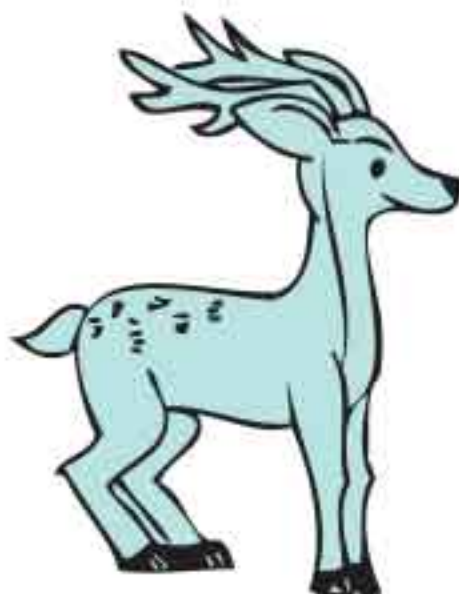
What tool would you expect to find in the **ARCHAIC** soil layer?



OR



In the **WOODLAND** period, people used the  to hunt:



OR



Which tool could you find in the **MISSISSIPPIAN** soil layer?



OR



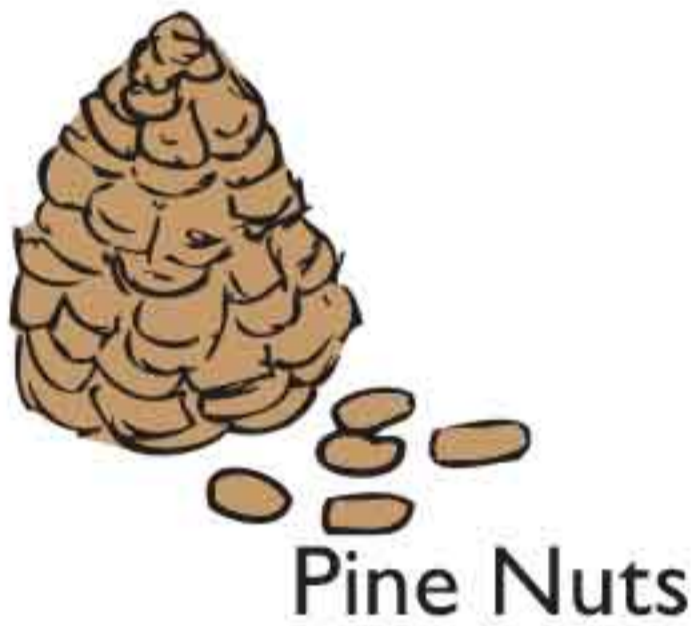
Don't forget Stratigraphy!
The lower down the soil layer, the older the layer and its artifacts will be!



People and Plants

Ethnobotany is the study of the use of plants by people. Some archaeologists study plants to learn about the different ways past peoples used plants in their everyday lives. People have been learning about plants and their many uses for thousands of years. Different parts of the plants are used in different ways including for:

Food



Shelter



Tools



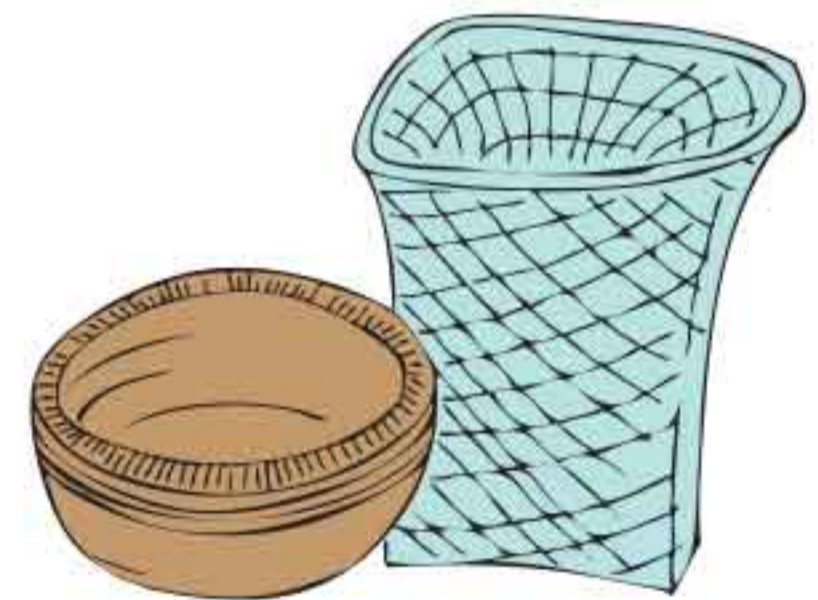
Medicine



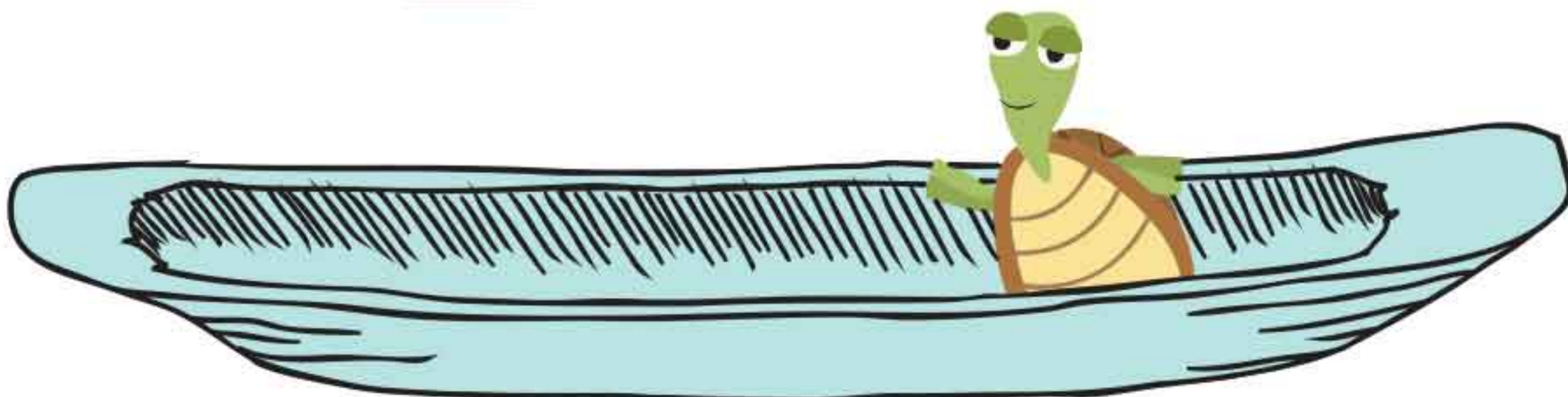
Dyes & Paints



Storage



Transportation



Native peoples used wood from the **Slash Pine** and **Longleaf Pine** trees for buildings and dugout canoes. These trees also provided medicine. Dye was made from the pine cones (brown).



Crushed **Wax Myrtle** leaves make mosquito repellent when rubbed on skin.

Native peoples sought the **Saw Palmetto** shrub berries for food and medicine. The fronds provided fiber for baskets and ropes.



Dried **Red Bay** leaves were used in cooking and for making tea.

Coontie is a poisonous plant but Native Americans made it into a safe-to-eat soup, later known as sofkee!



NEVER eat wild plants! They must be specially prepared for use as food and medicine.



Little Salt Spring's Natural Paints and Dyes

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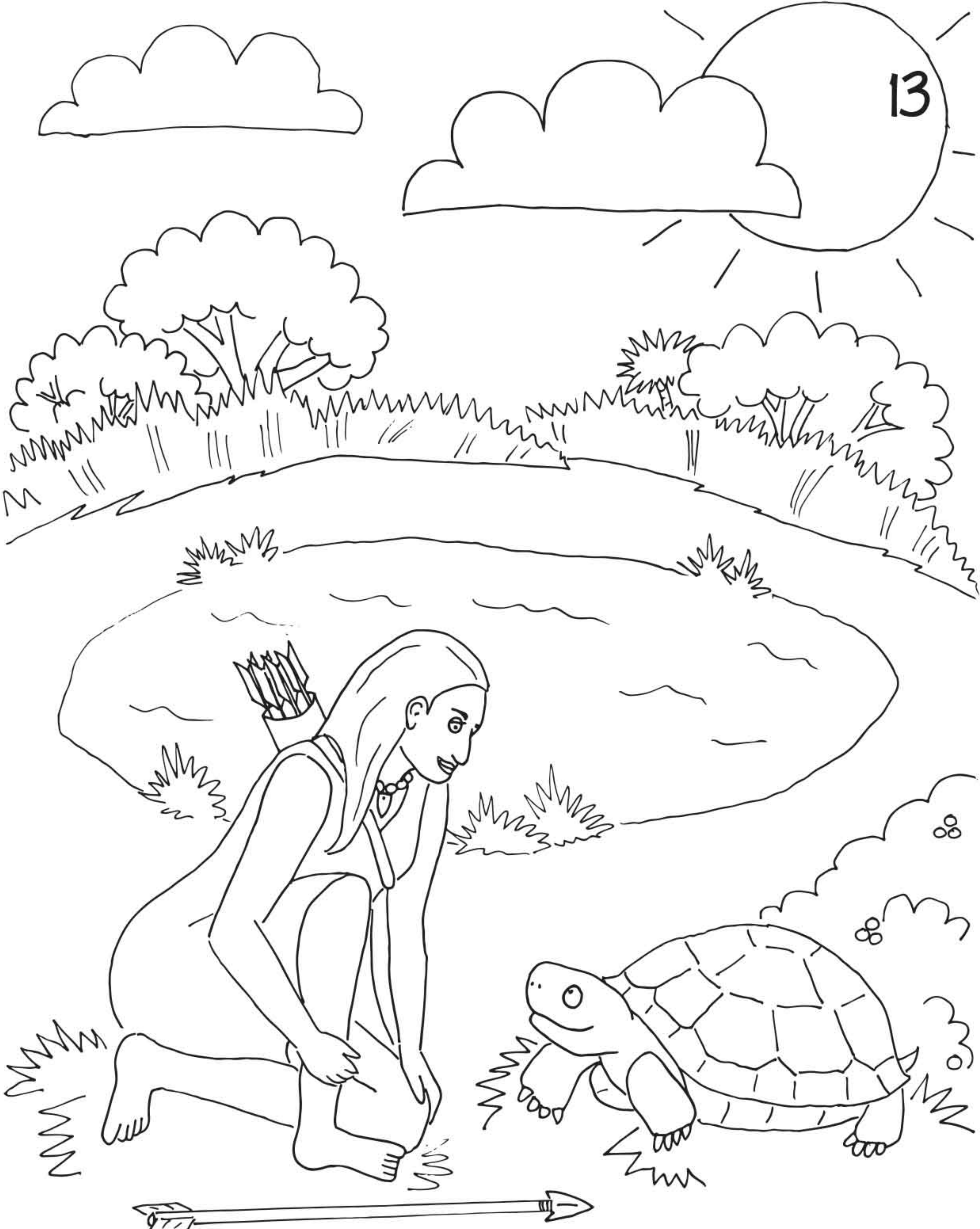
Before modern paints and dyes were invented, the Native people who lived around Little Salt Spring used the plants that grew around them to add color to the items they made. Check out the chart below to see a list of native Florida plants and the colors they can create!

PLANT & PART USED	COLOR
Pine Tree, Cones	Brown
Prickly Pear, Fruit	Peach, Orange
Red Maple, Leaf	Tan
Wax Myrtle, Leaf	Yellow
Live Oak, Roots and Bark	Red
Elderberry, Leaves	Green
Beach Sunflower, Seeds	Purple
Charcoal (Burned Wood)	Black

Information from "50 Common Native Plants Important in Florida's Ethnobotanical History" by Ginger Allen, Michael Bond, and Martin Main. Online: <http://edis.ifas.ufl.edu/uw152>

Coloring a Prehistoric Scene from Little Salt Spring

Directions: On the next page, color your very own scene of what a day at the Spring might have looked like in prehistoric times. Once your scene is colored, look at the chart above. What colors did you use? Would they have been available to the early peoples at Little Salt Spring? Circle all of the plants in the chart that you used!



Environmental Zones and Resources

Not all parts of Florida have the same types of plants and animals. With changes in elevation and the amount of freshwater, different natural communities develop, each with their own unique character. The Native peoples living near Little Salt Spring would have taken advantage of these differences by traveling to different areas throughout the year to collect the resources they needed to survive. Below are natural communities found at the Spring along with some important resources that each contains.

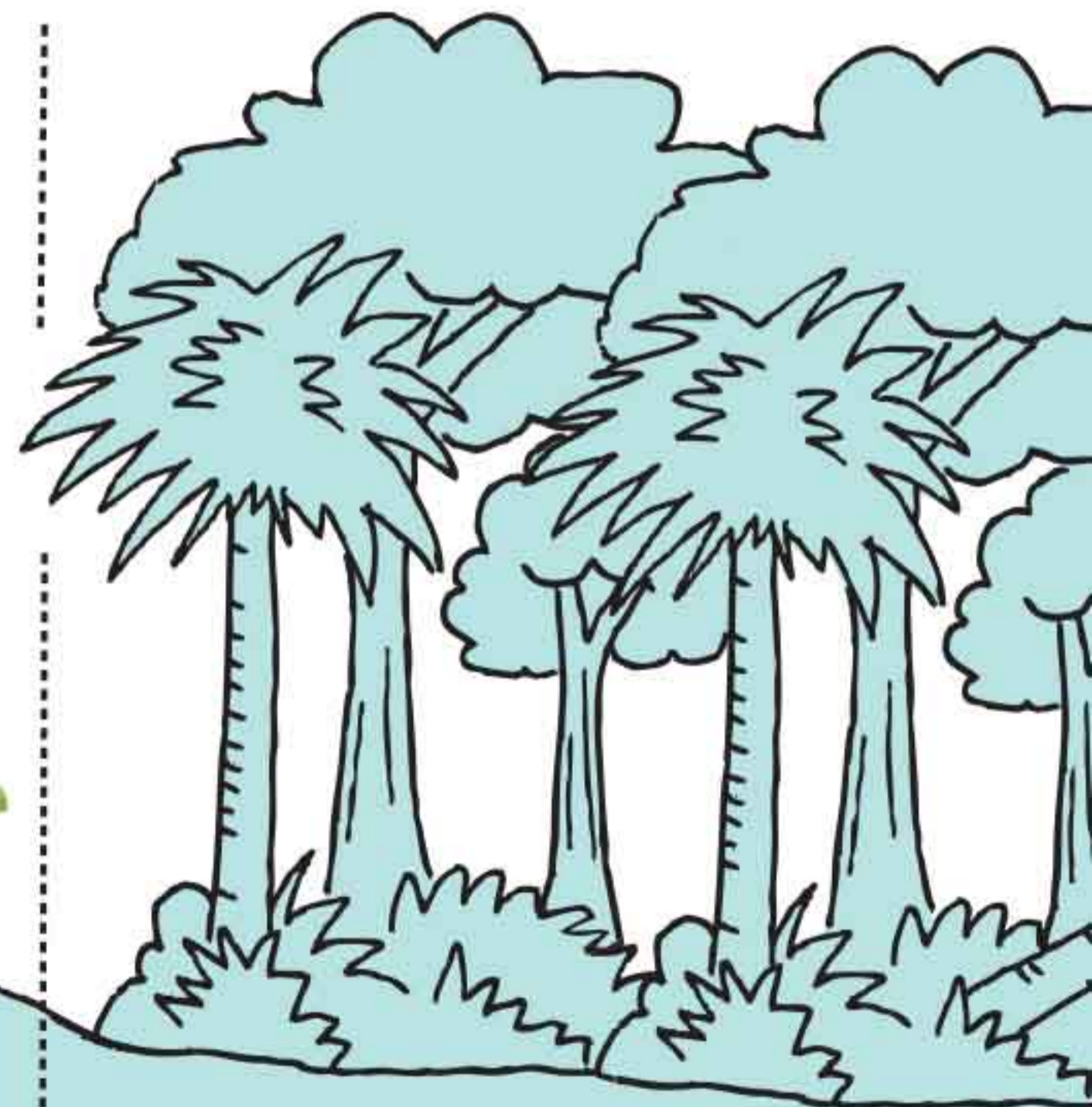
Have you ever seen any of these natural communities before? Can you identify any plants or animals in these communities? _____

Dry Prairie



- Saw Palmetto (Housing, Food)
- Wiregrass (Baskets)
- Dwarf Wax Myrtle (Leaf-Dyes, Medicine)
- Dwarf Live Oak (Acorn-Food)
- St. John's Wort (Leaf, Flower-Dyes)
- Gallberry (Fruit-Food)

Mesic/Hydric Hammock



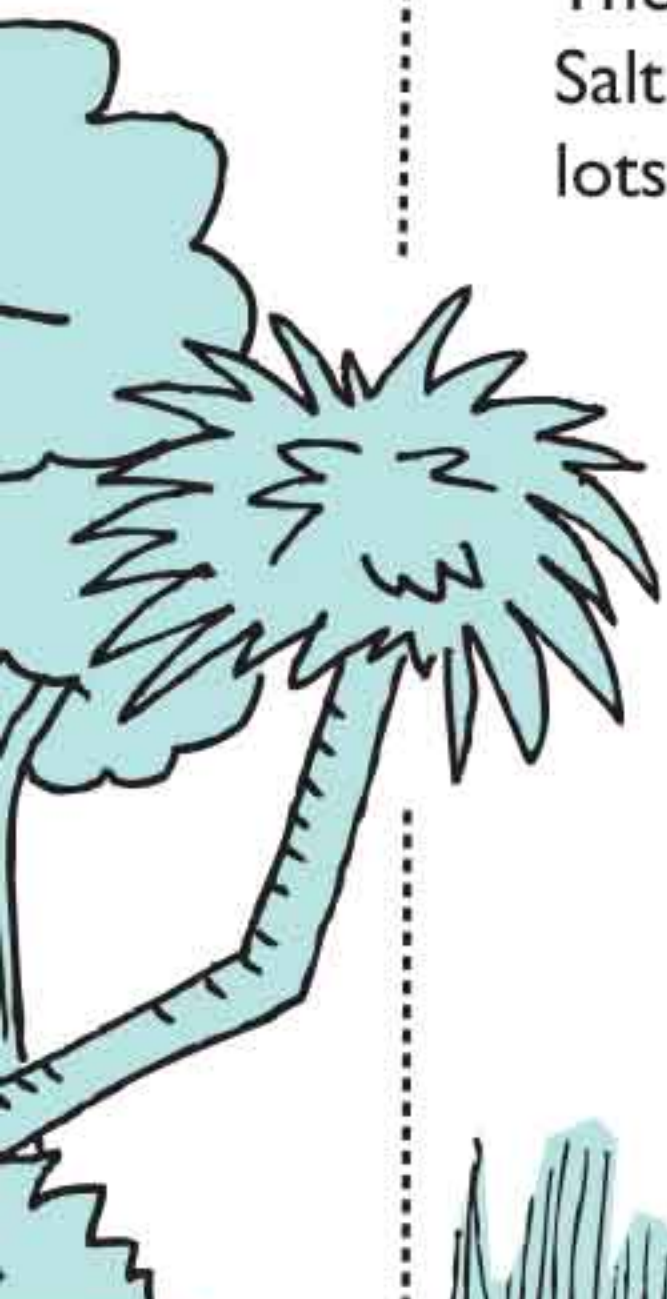
- Sabal Palm (Housing, Food)
- Oak (Bark-Dyes; Acorn-Food)
- Sweetgum (Food, Medicine)
- Red Bay (Food, Tools, Medicine)
- Beauty Berry (Ritual)
- Dahoon Holly (Tea, Medicine)

Major Natural Communities

Dry Prairies occur on poorly drained sandy soils. This community is a wide area of low shrubs, like saw palmetto, and grasses. At Little Salt Spring, this community can be wet in certain seasons and easily flooded.

Mesic/Hydric Hammocks develop on low, flat, wet areas with poorly drained soils. This zone is formed by a closed canopy of oak and palm trees, an open understory, and grasses and ferns on the ground. This community can be affected by flooding and fire.

The **Marsh** community occurs in low areas that can be very wet. At Little Salt Spring, the marsh occurs right around the shore of the Spring and has lots of leather fern and black rush.



Marsh

**Spring
(Lacustrine)**

Sawgrass (Food, Tools)
Wax Myrtle (Food, Tools)
Cordgrass (Baskets)
Pickerelweed (Food)



Surviving Little Salt Spring

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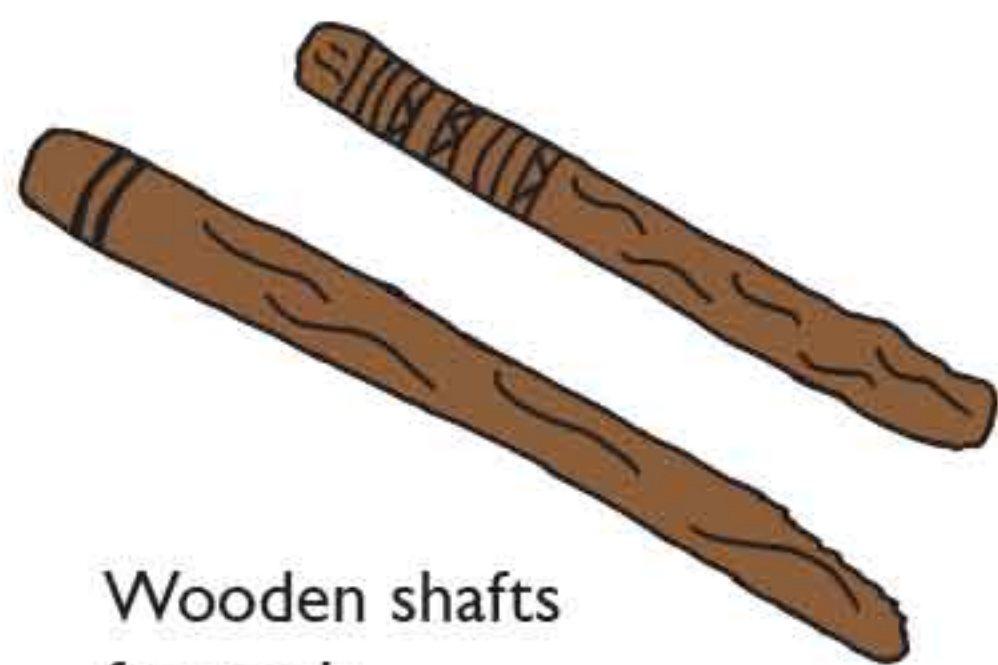
Imagine that you have traveled back in time 10,000 years to Prehistoric Little Salt Spring. How would you survive? Prehistoric Native Americans couldn't go to the store to get the things they needed, they had to use the plants and other resources around them to fulfill their basic needs.

Directions: Below are six things that you need to survive, and six problems you might encounter if you lived at the Spring in prehistoric times. Read about the Spring's environmental zones and how people used the resources around them on the previous pages and write down where you would look to find the resources you need.

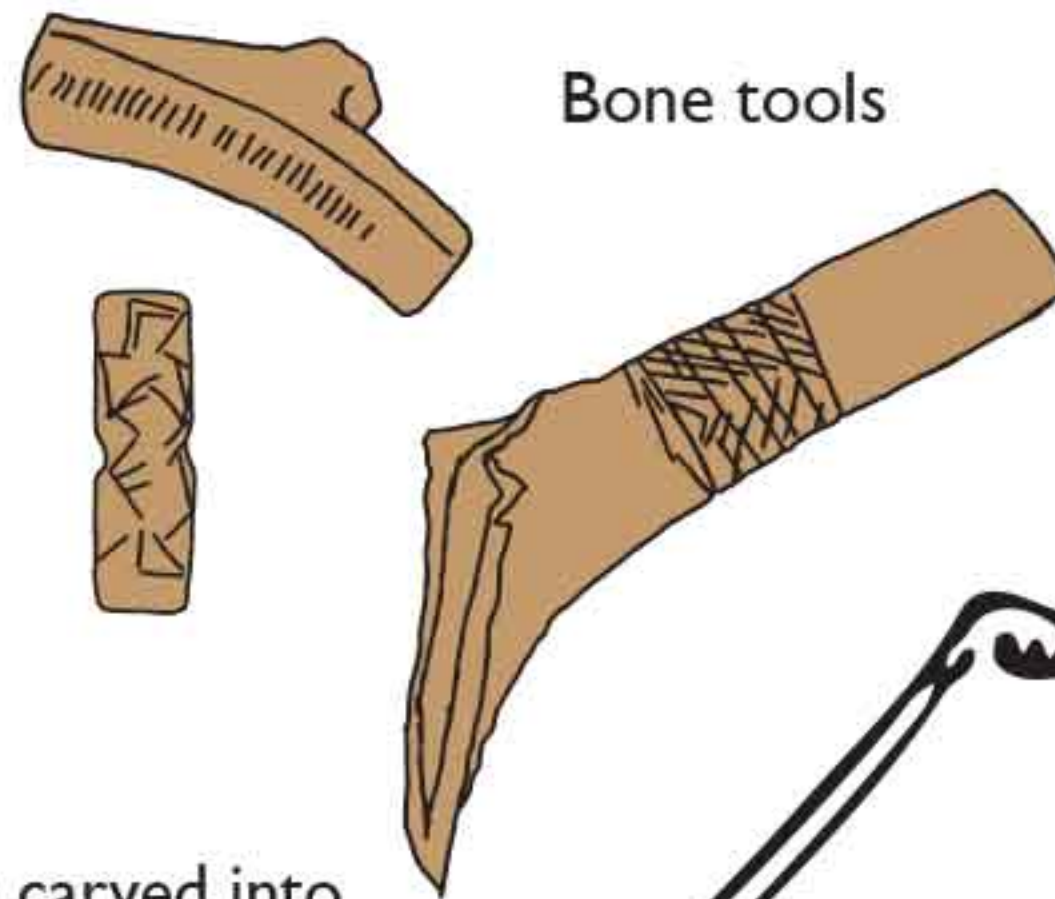
NEED	PROBLEM	RESOURCE & NATURAL COMMUNITY
Food	You are hungry! What would make a good dinner? Where would you find it?	
Shelter	Night is falling, what would you need to make a chickee or hut?	
Transport	In order to cross a river you need to make a dugout canoe. Where would you find the right materials?	
Tools	You need to do some hunting, what would you need to make some arrows?	
Storage	You have a lot of stuff to carry, what could you use to make a container like a basket or pot?	
Ornament	You want to make a piece of jewelry for someone in your family, what could you make it from? What would you decorate it with?	

Artwork of Little Salt Spring

Some of the bone and wood artifacts found at Little Salt Spring are carved with lines and other designs. These designs could have been important to the use of the artifact, been just decoration, or even been a way to keep track of the date as a calendar. Below are some examples of these artifacts found at the Spring.

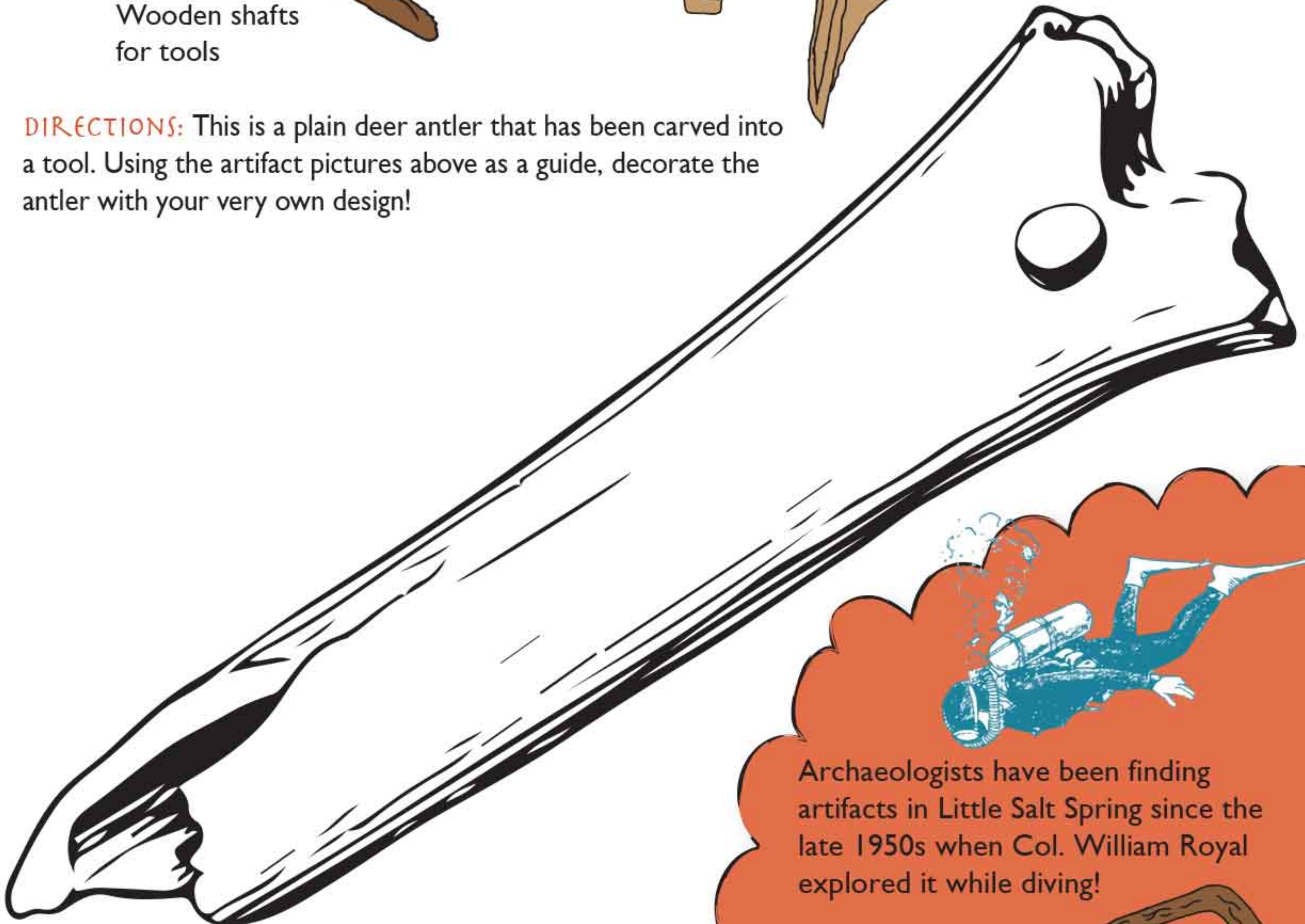


Wooden shafts for tools



Bone tools

DIRECTIONS: This is a plain deer antler that has been carved into a tool. Using the artifact pictures above as a guide, decorate the antler with your very own design!



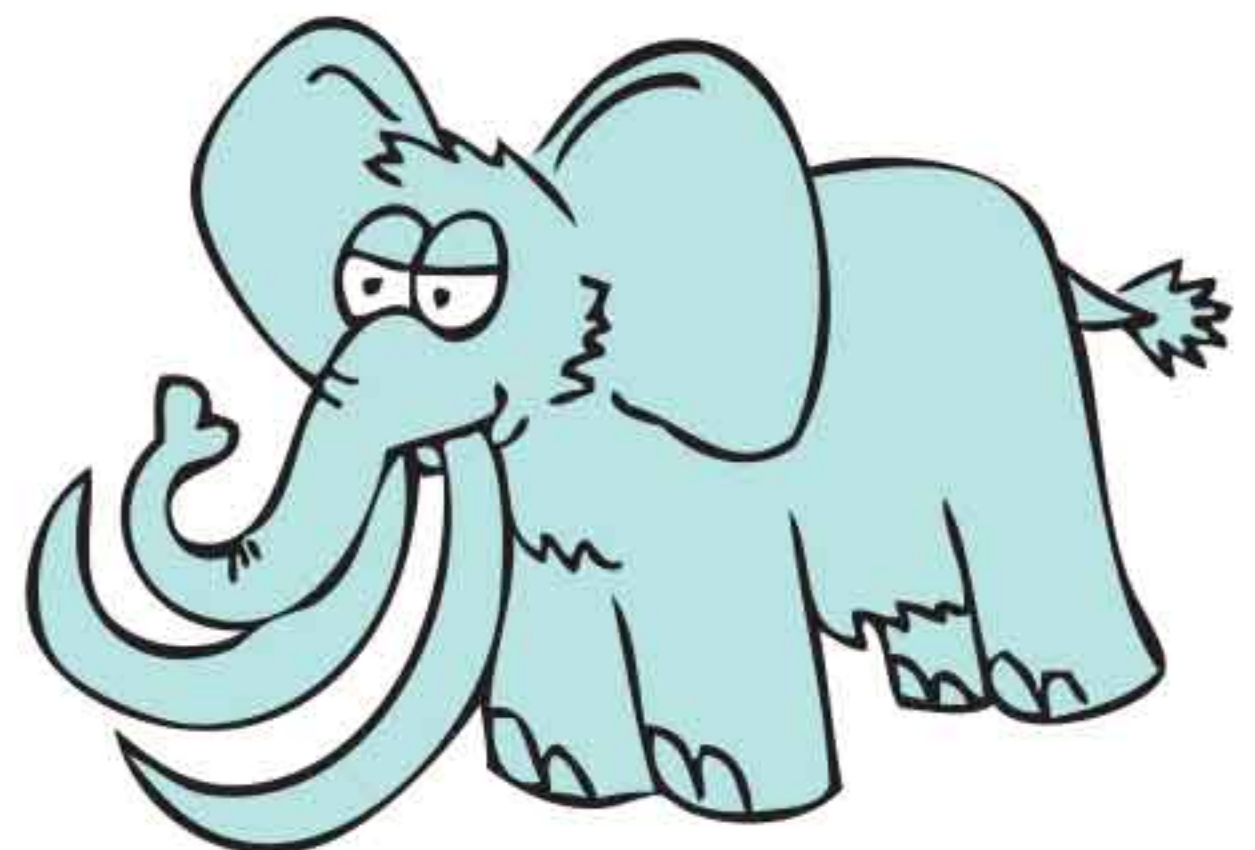
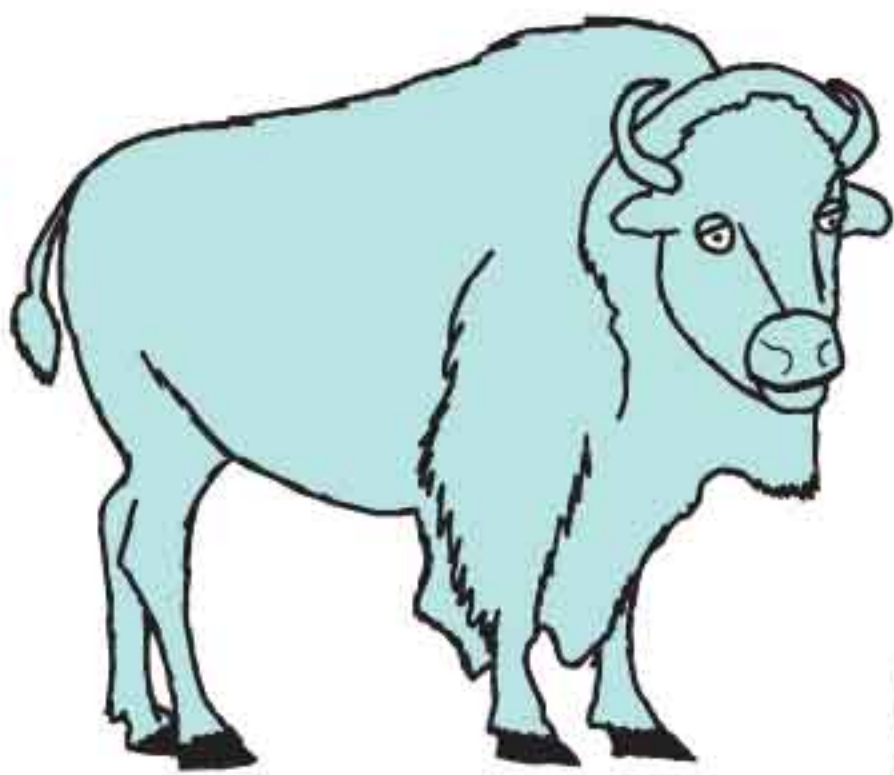
Archaeologists have been finding artifacts in Little Salt Spring since the late 1950s when Col. William Royal explored it while diving!

Throwing Stick



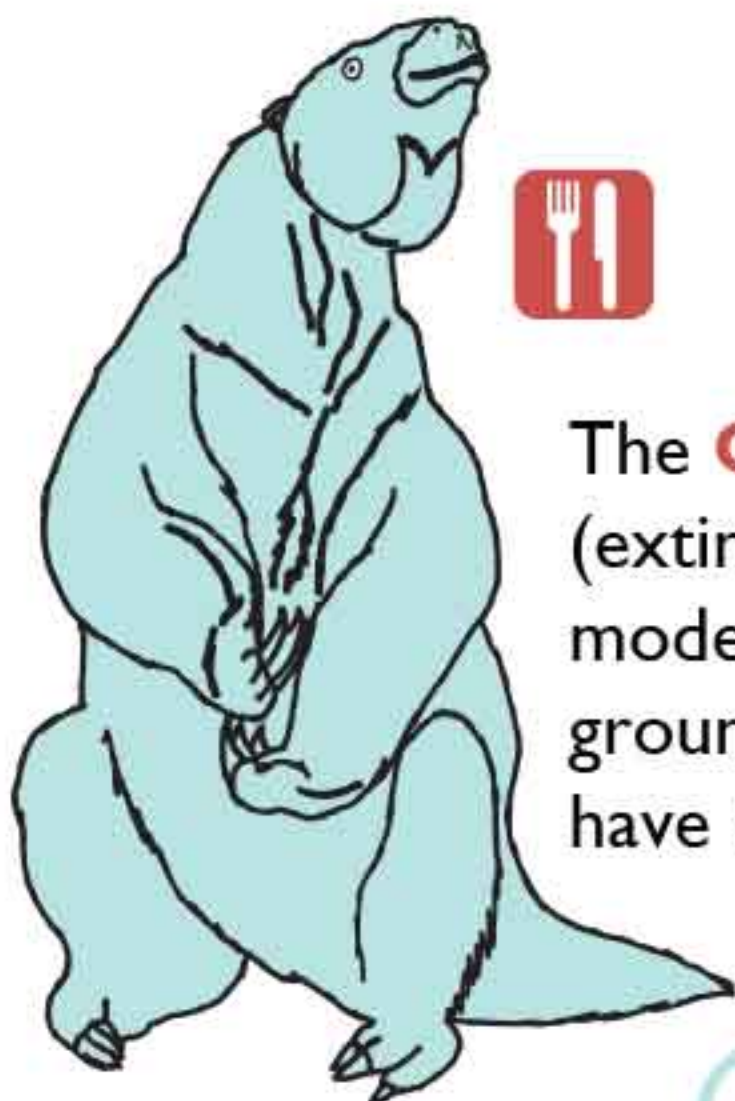
Native Americans relied heavily on the animals that lived near Little Salt Spring. These animals were not only important for food but also for tools and so much more! Below is a list of animals that live, or used to live, around Little Salt Spring and the ways that Native Americans could have used them. How many of these would you like to make a yummy meal out of?

An extinct species of **Bison** was found at Little Salt Spring. Native peoples ate them, used their bones for tools, and even made clothes and blankets out of their hides!



The now extinct **Mammoth** roamed Florida thousands of years ago and was an important food for Native Americans.

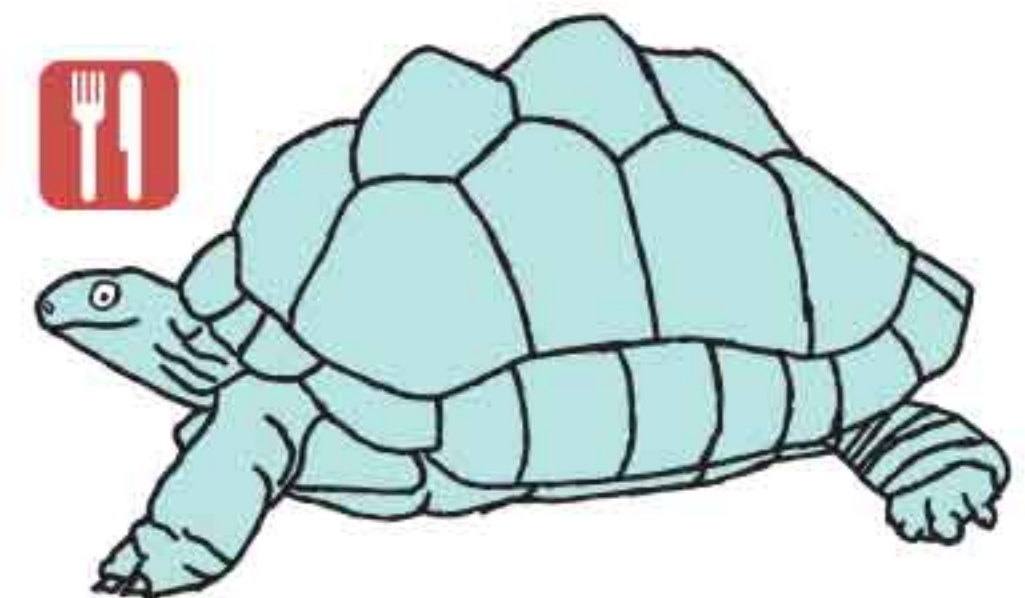
The animals on this page, known as megafauna, lived around Little Salt Spring until about 10,000 years ago.



The **Giant ground sloth** (extinct) was much larger than modern sloths and lived on the ground. Native Americans may have hunted them for food.



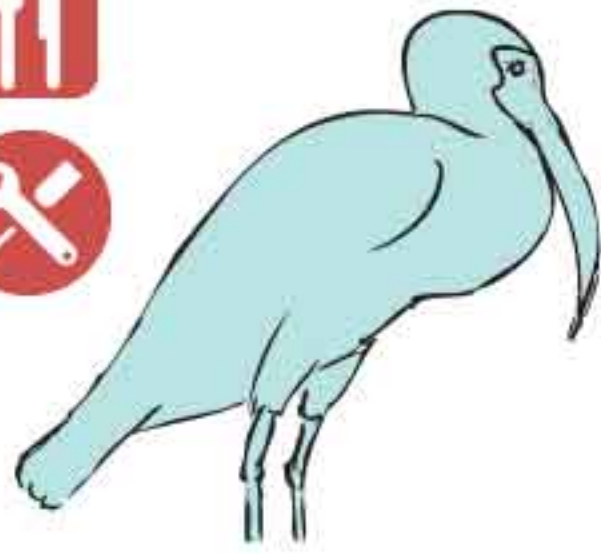
Discovered in Little Salt Spring, the remains of a **Giant land tortoise** (extinct) may have been cooked and eaten by native peoples.



Key:  Food

 Tools

 Shelter



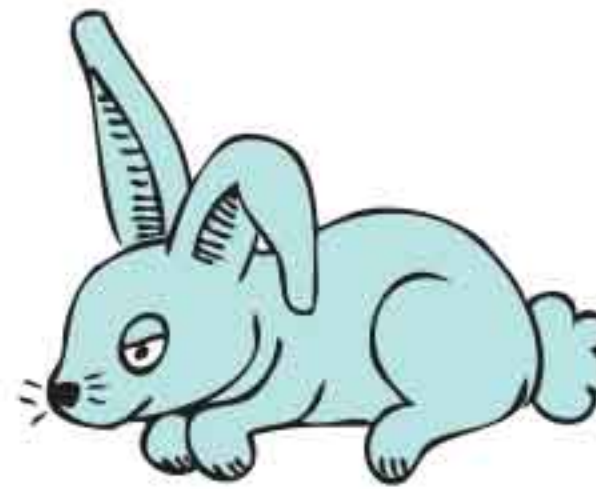
Native peoples could have eaten the **Wood ibis** and used the feathers for tools like arrows.



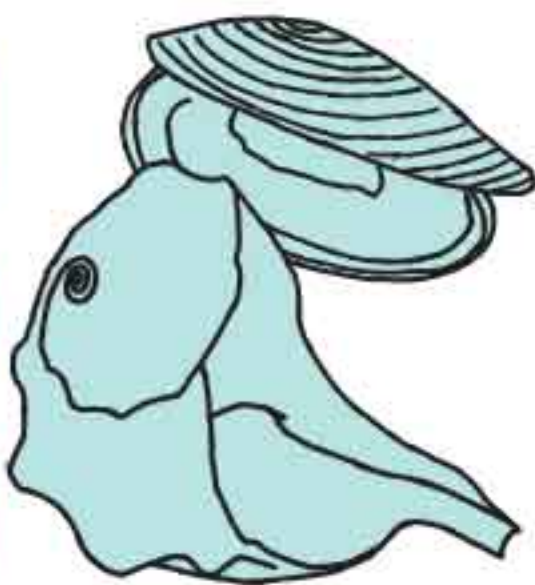
Native Americans have hunted **Deer** for thousands of years and used them for everything like meat for food and antlers for tools.



The **Diamondback rattlesnake** has lived around Little Salt Spring for many years and could have been eaten by early peoples.



Rabbits were hunted for food and their pelts (skins) could have been worn as clothing.



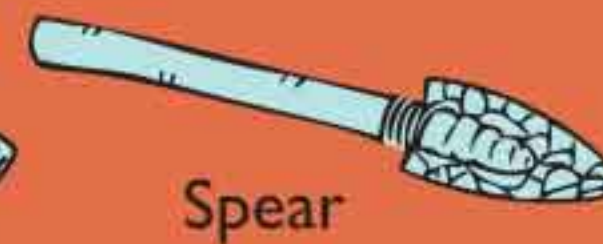
Gastropods (like snails) and **Mussels** were gathered for food and their shells were used for tools.

How did Native Americans hunt?

They used different tools through time!



Atlatl



Spear



Throwing Stick



Bow & Arrow

These stone points found at Little Salt Spring were made by native peoples to go on the end of tools like spears or darts.



Clothing




Storage

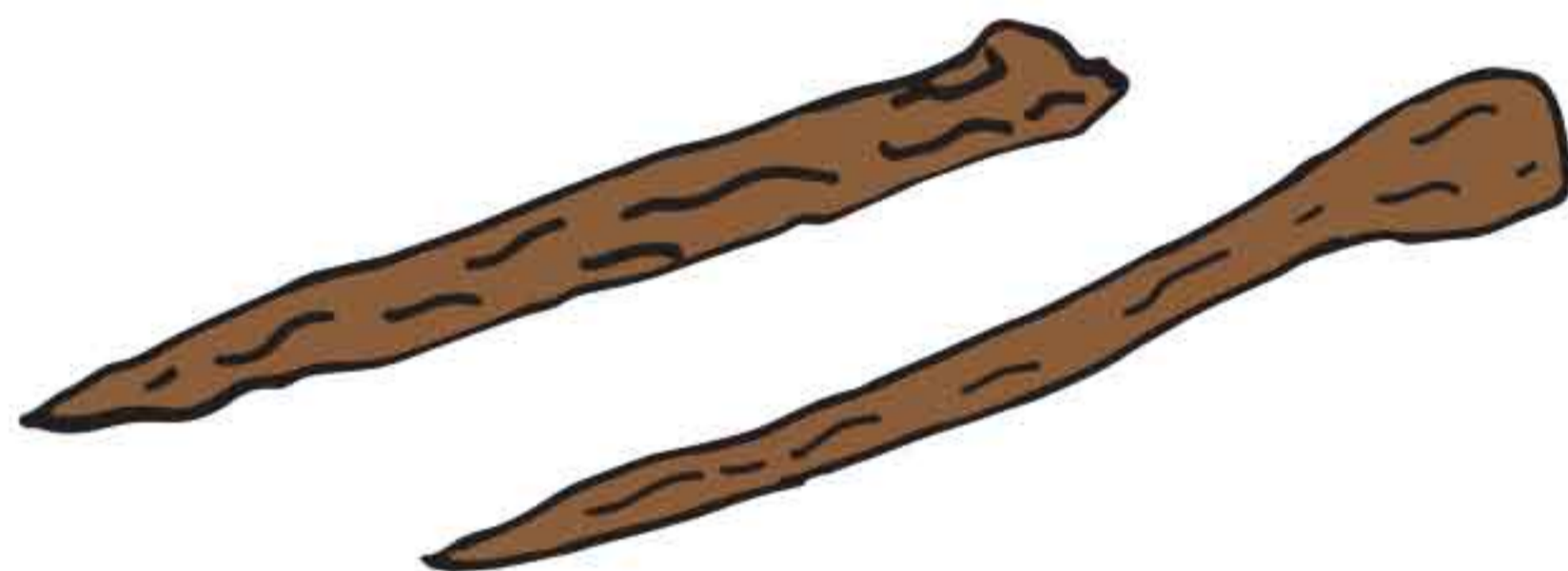
Why is Little Salt Spring Important?

Preservation

Little Salt Spring is an ancient sinkhole filled with mineralized water bubbling up from a flowing spring that has helped preserve artifacts, remains of animals, and some plant life that date to nearly 12,000 years ago!



After a long time in the ground, wood decays away. It only preserves in very special conditions like those at Little Salt Spring!



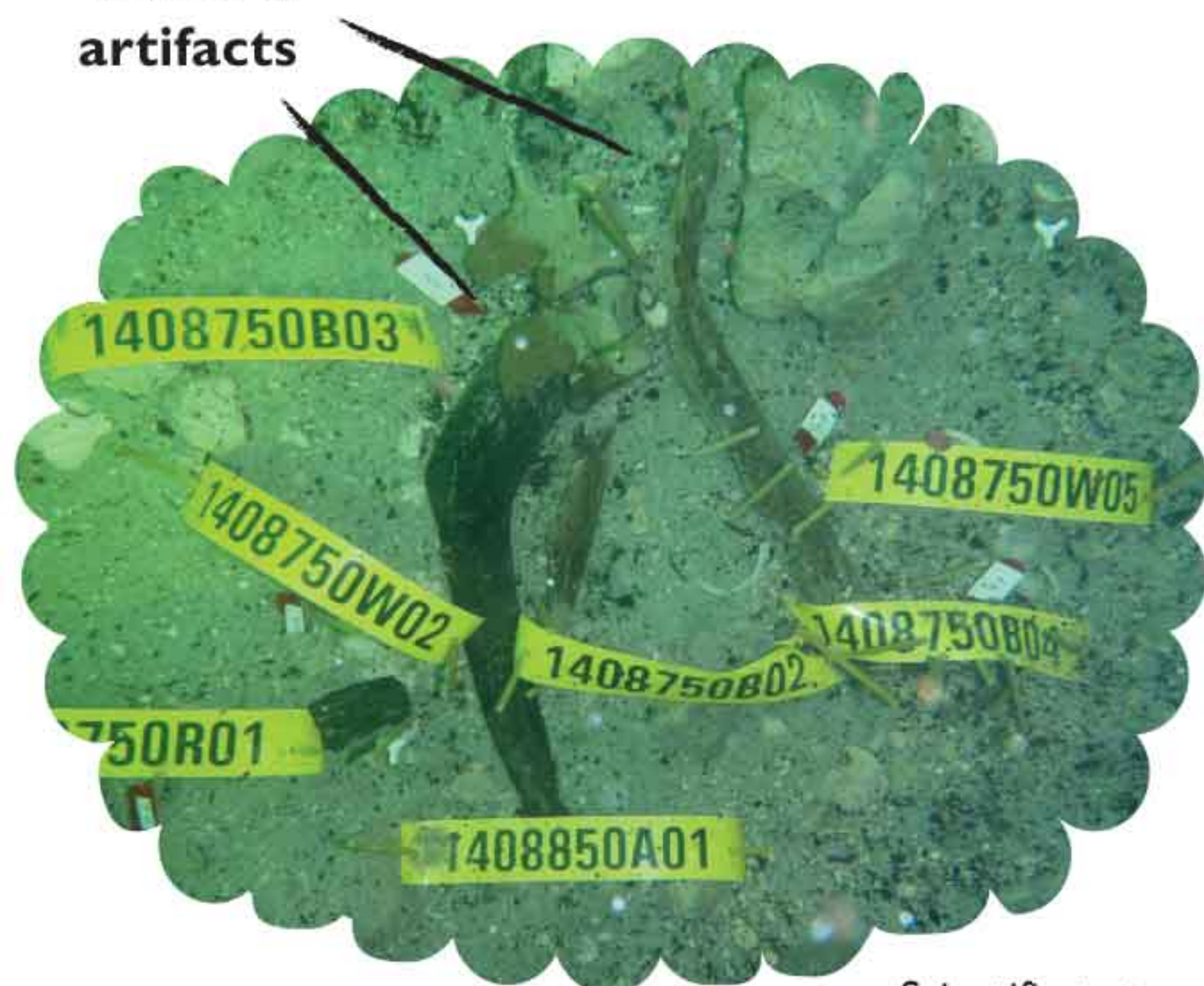
Wooden stakes like these were found stuck into the muck in Little Salt Spring. Archaeologists think that Native Americans may have attached ropes to them so that they could lower down into the Spring before it was completely filled with water like it is today.



Throwing Stick

Archaeologists uncovered this preserved oak wood throwing stick from deep in the Spring. Throwing sticks were used to hunt animals like rabbits or birds and were used by people all over the world.

Wooden artifacts



Archaeology

Artifacts recovered from Little Salt Spring are clues for us today to discover how ancient people lived. Based on some of the artifacts, we know how and what people hunted, what they made their tools from, and even when people lived there!

Scientific tests can be done on artifacts made of wood and bone that can tell us when the artifacts were made. These tests cannot be done on other types of artifacts made of stone or clay. These wooden artifacts from the Spring are rarely found at other archaeological sites.



Archaeologists found the remains of a giant land tortoise with a charred wooden stake driven into it in the Spring. The tortoise itself is important, but even more important is where it was found and what other artifacts were found near it.



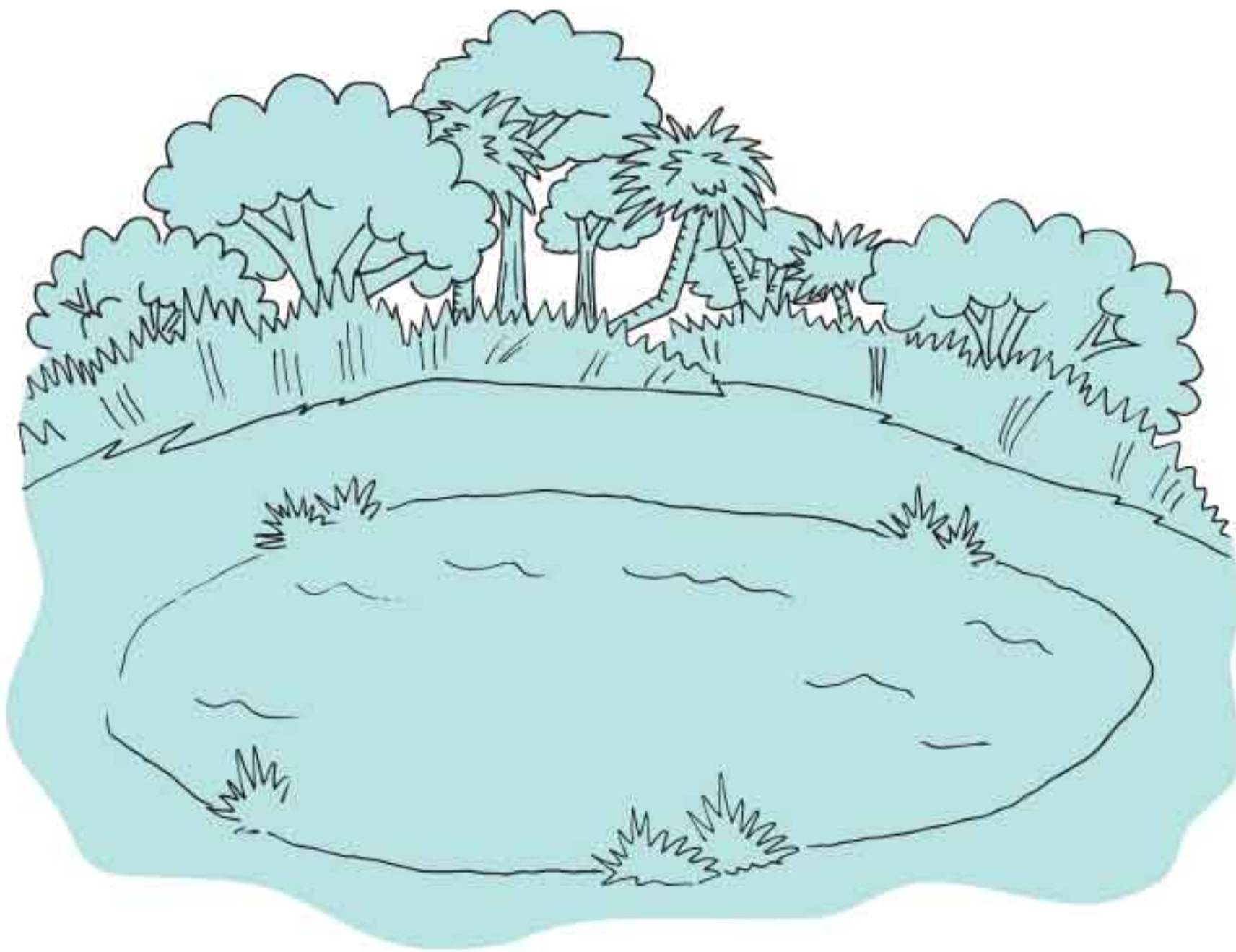
This artifact from the Spring is made of greenstone and is thought to have been a pendant that Native Americans would have worn around their necks. This stone is not found in Florida and shows that these people were travelling or trading with people from far away!

Why is Little Salt Spring Important?

22

Environment

Little Salt Spring was an oasis long ago, and remains one still today. Some of the plant species that are visible around the spring have survived there for 15,000 years, maybe even longer! Extinct animals such as mammoths and giant ground sloths, whose bones are preserved on ledges inside the Spring and at the bottom, were attracted to the sinkhole for the same reasons that people were drawn to it.

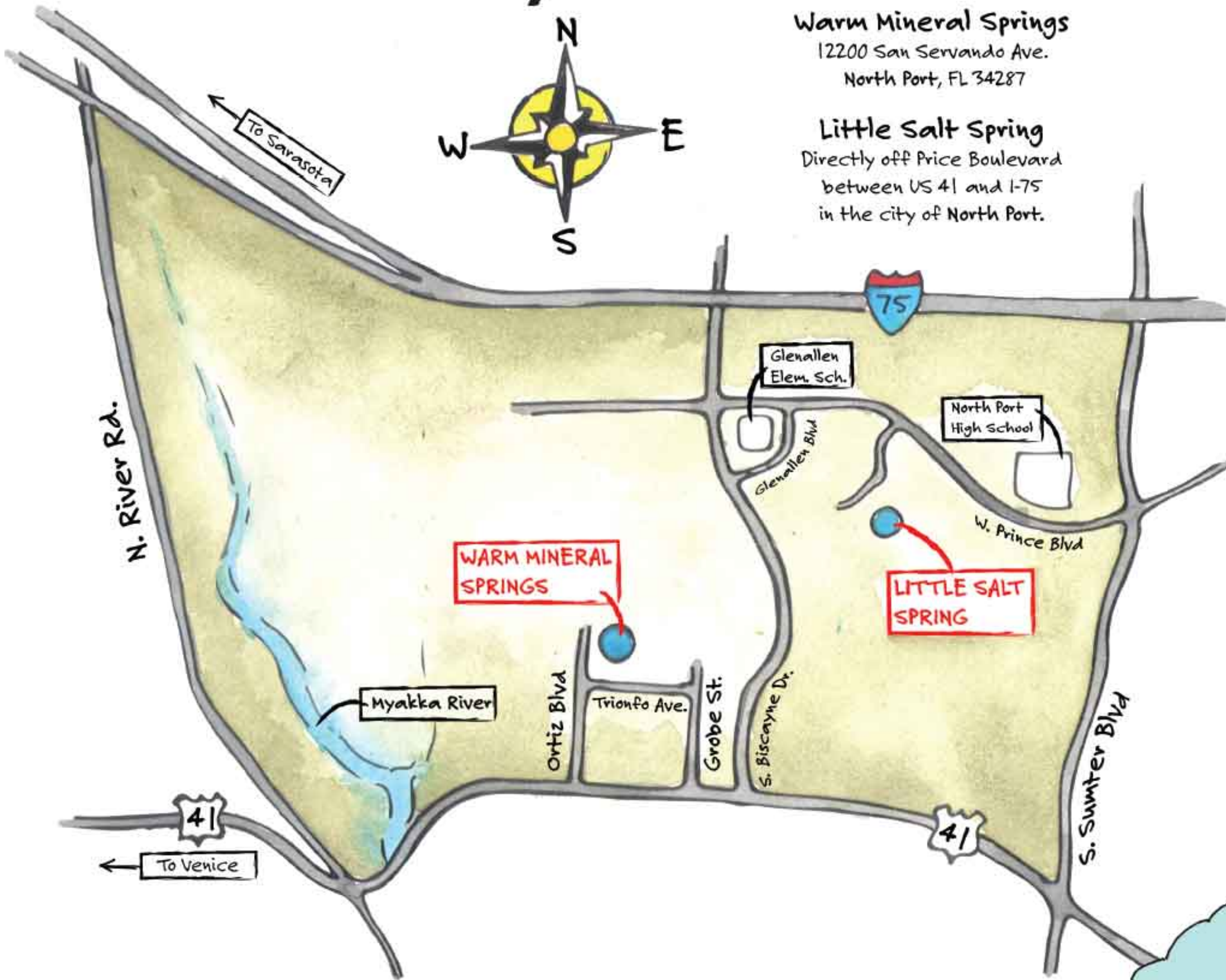


The Spring water has supported diverse plant and animal life for thousands of years. It was also an important resource for Florida's first people.

A lot of plant life lives around Little Salt Spring. Some of the same plants Native Americans ate and used for tools are still present at the Spring today. One of these is red mulberry, which was used to make one of the throwing sticks found in the Spring.



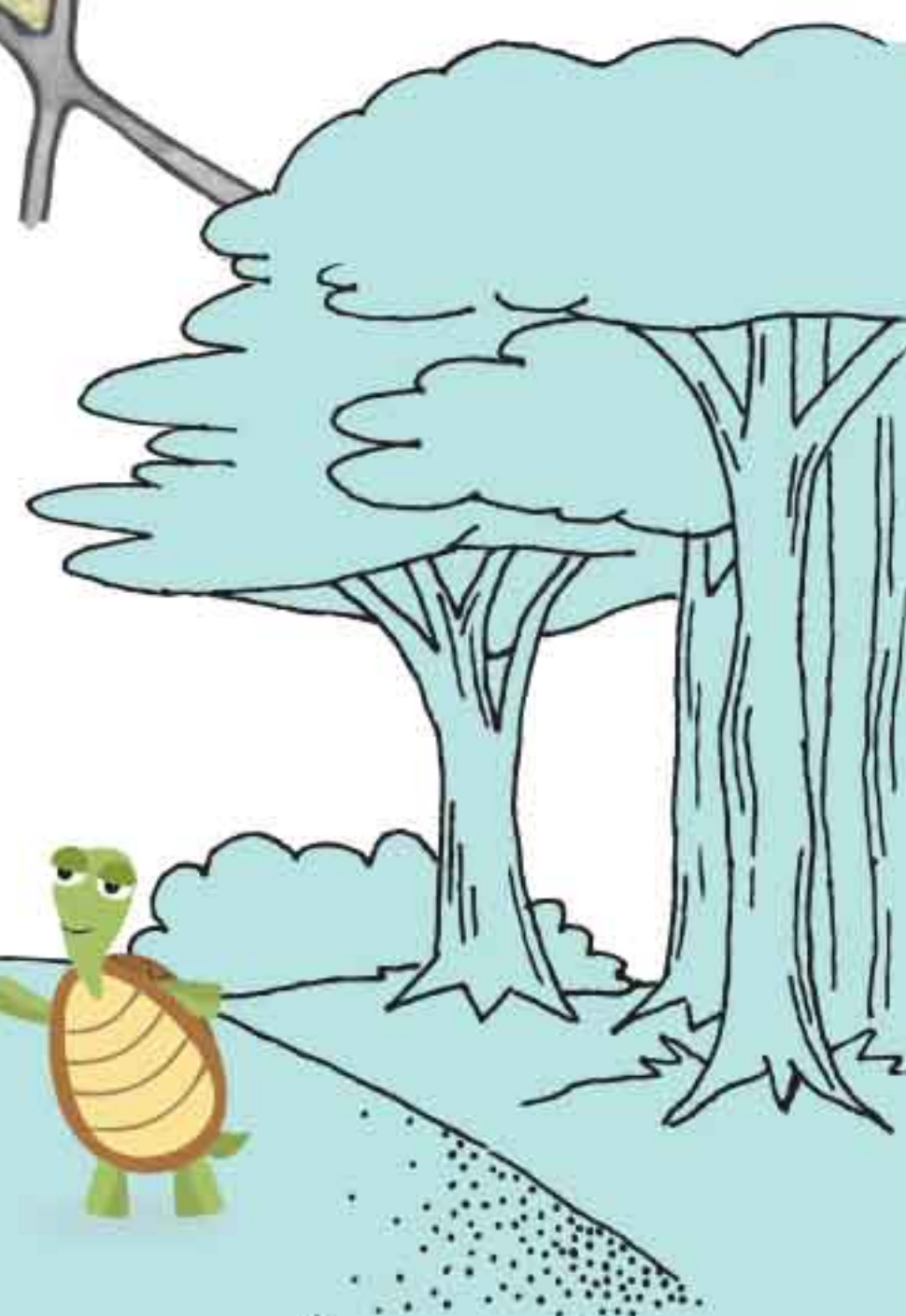
Community

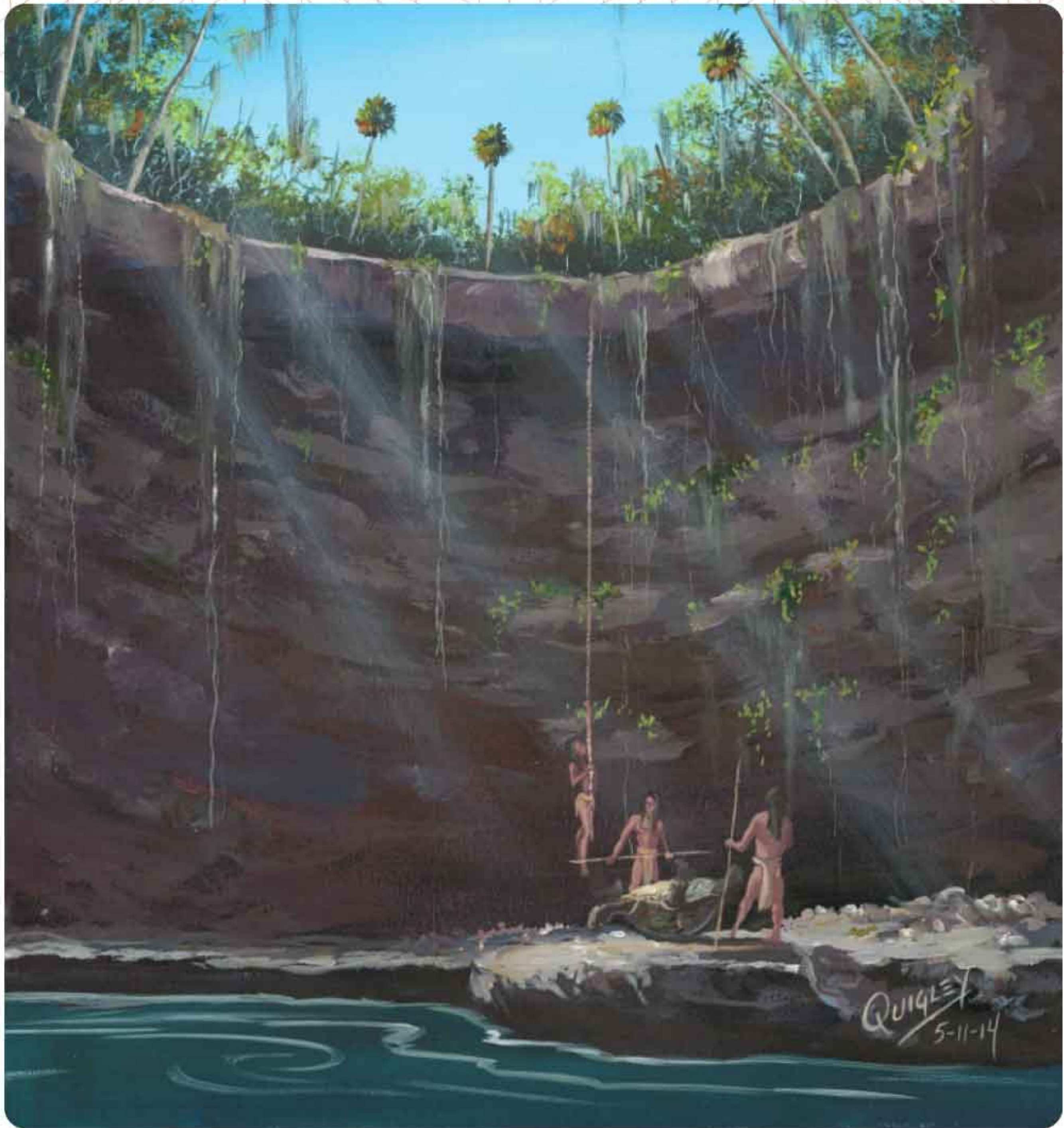


Warm Mineral Springs
 12200 San Servando Ave.
 North Port, FL 34287

Little Salt Spring
 Directly off Price Boulevard
 between US 41 and I-75
 in the city of North Port.

Little Salt Spring provides a glimpse into the lives of ancient people and the makeup of a pristine Florida environment. Today, we have the unique opportunity to visit and learn about this place, a trace of ancient Florida, and to tell our friends, families, and neighbors all about it!





The Tortoise and the Ledge by Dean Quigley

For more information on FPAN events and programs go to:

www.fpan.us/wcrc/

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