

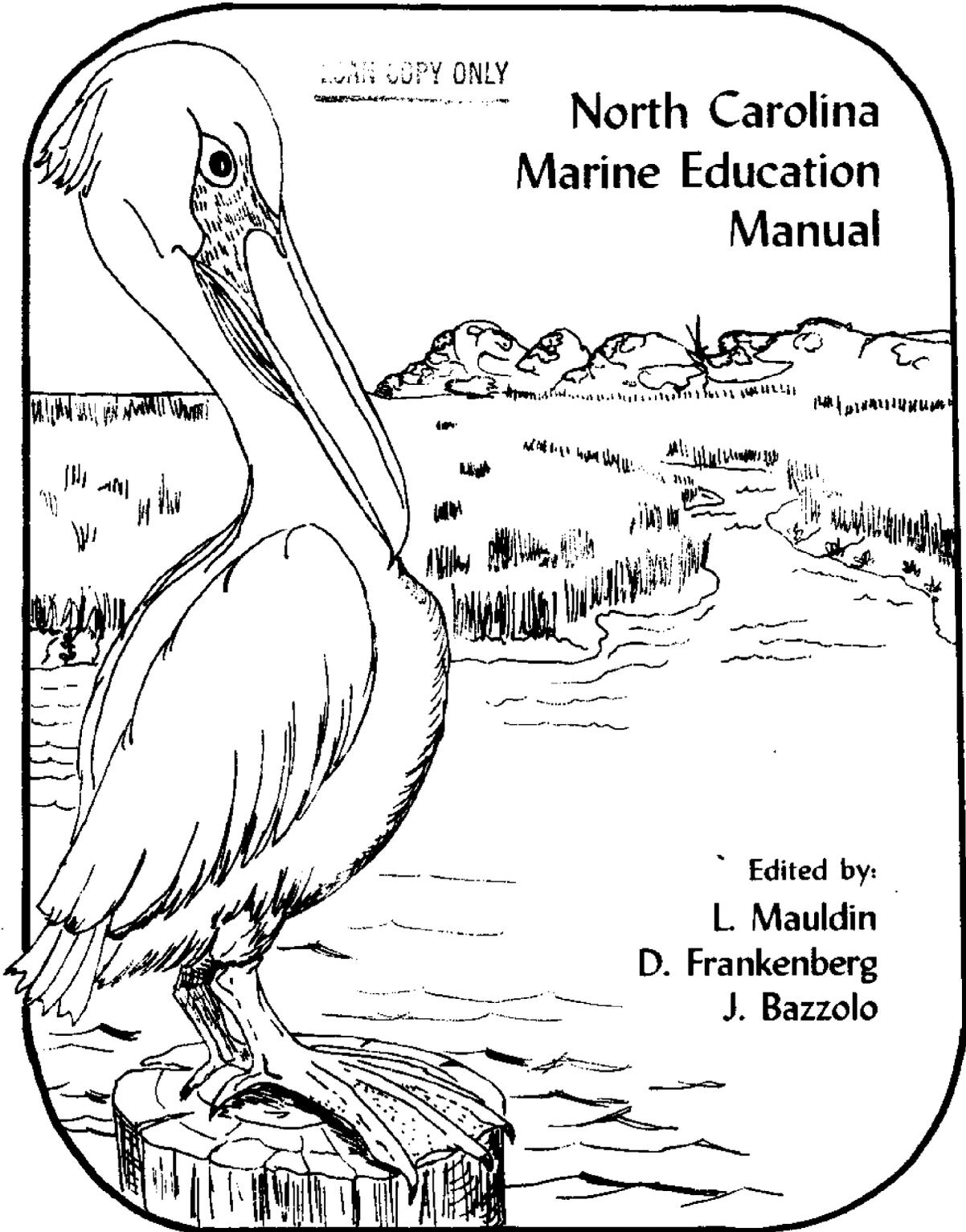
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Unit Four

Coastal Beginnings

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North Carolina Marine Education Manual



Edited by:
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NORTH CAROLINA MARINE EDUCATION MANUAL

UNIT ONE
COASTAL BEGINNINGS

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The North Carolina Marine Education Manual is a collection of teaching materials generated by North Carolina public school teachers and university professors under a University of North Carolina Sea Grant College project entitled "Man and the Seacoast." Dr. Dirk Frankenberg is the principle investigator; the Resource Unit Development Committee project directed by Dr. William Rickards of North Carolina State University assisted with material production. The manual is designed to help middle school teachers put marine perspectives into their lessons. The activities can be modified for higher or lower grades.

This manual consists of separate units which cover environmental aspects of the coast such as geology, ecology, and seawater interactions and motions. Additional units cover facets of coastal communities and economics, history, anthropology, art, folklore, and literature. An appendix provides information on keeping aquaria, state and federal agencies, field trip guides, and film company addresses.

We wish to acknowledge the cooperation we have received from other marine education projects, North Carolina Marine Resource Centers, North Carolina Department of Public Instruction, National Marine Education Association, and many people who have contributed suggestions and opinions. Especially we wish to thank those people whose enthusiasm and contributions made this project possible--the following North Carolina teachers.

The teachers involved in both summer workshops translated information given to them through lectures and field trips into viable lessons, activities, and educational strategies. Later, they were part of an evaluation team who enabled this edition to be possible.

1977 "Man and the Seacoast" teachers

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1977 "Man and the Seacoast" staff

Dr. David Brower, Dr. Dirk Frankenberg, Dr. Richard King, Dr. Jerry Machemehl, Dr. David Phelps, Dr. James Sabella, Dr. John D. Seelye, and Dr. William N. Still. Graduate assistants: Johanna Bazzolo, Mike Duncan, and Joe Gutierrez.

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The North Carolina Marine Education Manual developed through the interaction and involvement of people interested in marine education. UNC Sea Grant would like to continue the involvement by inviting your opinions and suggestions for topics and activities. In this way, we can remain responsive to your needs with new additions to the manual.

Please address your comments to: UNC Sea Grant College Program
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Introduction

"Coastal Expressions" is an introduction to the past cultures of coastal people. The first concept is an attempt to provide information on the methods and techniques which are used by anthropologists to discover past cultures. Other concepts emphasize the life styles of the North Carolina coastal Indians prior to 1585, the early explorations of North Carolina, and the patterns of colonial settlement. As this unit provides only "thumbnail sketches" of events over many years of history. Many references are included in the resource sections to encourage more reading on North Carolina's heritage.

One major theme to be considered throughout this unit is the integration of environment and people. The physical characteristics of the coast and waters have shaped the food, housing, occupations, defense, and customs of the people living here. While reading through the concepts, try to identify the ways in which Indians, colonists, and residents today use the land for living and farming and the water for fishing and traveling. For example, fishing weirs for catching herring today are replicas of those shown in John White's water colors from 1585.

Of course, changes have occurred. Shrimp, now one of the fisheries most important money species, used to be thrown away as useless. However, today, the "trash fish" are being considered underutilized species and may become important commercially in the years to come. Many changes are happening right now on the coast as tourism, huge agricultural farms, and population size develop and continue to put pressure on the environment. These characteristics of our culture are understood more easily through the knowledge of how other cultures on this coast evolved.

Table 1 provides a summary of the activities presented in Unit IV in relation to the recommended program features of the North Carolina State Curriculum Guide (Course of Study of Elementary and Secondary Schools, K-12, 1977). These activities and the background information could be included in many places in the middle school curriculum: life science, biology, earth science, and several elementary science programs. Table 2 provides a list of education goals and behavioral objectives for Unit IV.

Table 1. Correlation of activities with some skills and program features recommended by the North Carolina Department of Education.

ACTIVITIES

Archaeology Dig	X	X	X	X	X
Old Bones	X	X	X		X
Broken Pot	X	X	X	X	X
Trash Can	X	X	X	X	X
Tools	X			X	X
Artifacts	X			X	X
Time Search	X				
Crossword	X				
Find-a-word	X				
Trash Can K-4	X	X	X	X	X
Time Capsule K-4	X		X	X	X
Pottery				X	
Indian Craft	X			X	
Indian Food	X			X	
Fishery	X			X	
Algonkian Village	X	X	X	X	X
Locating Village Settlement	X	X	X	X	X
Coastal Cultures	X				X
Culture is . . .	X		X		X
Future Shock	X			X	X
Marooned	X		X	X	X
Creative Writing	X		X	X	X
Crossword	X				
Find-a-word	X				
Indian Food K-4	X				X
Painting K-4				X	
Pottery K-4				X	
Picture Story K-4	X		X	X	X
Shelters K-4	X	X		X	

Process Skills
 Manipulative Skills
 Organizational Skills
 Creative Skills
 Communicative Skills

Table 2.

Goal: To relate coastal environments to culture.

Concept 1. Anthropology, the study of man, uses a variety of methods to discover characteristics of coastal Indian cultures.

Behavioral Objectives: Upon completion of this unit, the student should be able

1. To design an archaeological dig in order to preserve the element of time as shown in layers of artifacts.
2. To identify some artifacts which would give clues to the present day culture.
3. To define the word, culture, through various examples.

Concept 2. Culture is learned but it is shaped by the environment. Coastal peoples, both Indians, and Europeans, used land and water resources in similar ways.

Behavioral Objectives: Upon completion of this unit, the student should be able

1. To describe some culture characteristics of early Indian culture on the coast.
2. To replicate Indian pottery shapes and designs.
3. To cook some Indian food, know its origin and harvesting style.
4. To describe the natural balance between Indian requirements for survival and the characteristics of the coastal environment to meet those requirements.

Concept 3. Early explorers record their impressions of the New World.

Behavioral Objectives: Upon completion of this study, the student should be able

1. To recognize five of North Carolina's early explorers. (names and deeds)
2. To draw a rough map of his or her home town in order to experience early explorers' map making problems.

3. To list three reasons why Europeans came to North Carolina.

Concept 4. Coastal geography shaped European settlement patterns, transportation and commerce.

Behavioral Objectives: Upon completion of this unit, the student should be able

1. To relate North Carolina geography to the settlement and expansion patterns.
2. To identify several types of boats which used North Carolina sounds and waters for commerce.
3. To list the major ports and what goods they handle.
4. To name the commercial fisheries.

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Concept 1. Anthropology, the study of man, uses a variety of methods to discover characteristics of coastal Indian cultures.

a. Background Reading

Anthropology is generally defined as the "study of man". Its four sub-fields--archaeology, ethnology, linguistics and physical anthropology--provide a comprehensive and integrated study of the human behavioral system (culture) in the past (archaeology) and present (ethnology), the transmission of knowledge from generation to generation (linguistics), and the diversity and changes in the human species through time and space (physical anthropology). Information from archaeological and ethnological studies seeks to explain how and why cultures have changed and attempts to extract from the cultural record basic principles of change which may be used to predict the future courses of human behavior. (Further reading may be obtained in any general text, for example, Haviland, 1974, Anthropology.)

Archaeology is the sub-discipline of anthropology which studies past culture. People have existed for approximately 5 million years and have left a cultural record of comparable length. Written knowledge of the cultural record has existed for only the past 6000 years at the earliest, and many cultures today are still illiterate. While the archaeologist will never be able to interpret past culture to the extent that an ethnologist observing a contemporary society can, we depend on that interpretation to understand specific and general culture change through time. Without a time-depth understanding, no presently existing culture can be fully comprehended, and no valid predictions for future change can be made.

Archaeological studies may be divided into two types: Prehistoric, which deals with cultures without a written language and must be understood by their material remains alone; and historic, which studies cultures through both remaining materials and records. The techniques of the two types vary only in the greater knowledge available in the latter and the necessity of records research.

Archaeology is defined as a specialized set of techniques for reclaiming and explaining past culture. In order to satisfy this definition, particular research methods have been developed to reclaim the remains of past cultures in their original context, in so far as this condition exists. Archaeological context has three elements which must be controlled in order to understand culture--time, space, and culture content.

Time is controlled relatively by careful excavation of each stratum or layer of cultural deposits in a site and observing the sequence of the stratigraphy. Absolute time control is provided by such physical-chemical techniques as radiocarbon (C^{14}) dating, which measures elapsed time by assaying the degree of radioactive decay in organic materials (charcoal, wood, shell, bone) found in original context as left by the culture being studied. Chronology can then be correlated with the existing calendar system.

Space refers to the pattern of structural and behavioral organization of the community in each strata of a site, and to the placement of various types of communities within the territory and environment recognized by the culture as their own. Space analysis provides data on land use, adaptation and demography through understanding of the pattern of settlement typical of a culture at any one time.

Culture content includes the artifacts, structures, food remains, natural resources, and anything else still remaining from past cultural activities. While many things are scattered in sites, it is the material left in behavioral context (burials, houses, cooking pits, granaries, religious buildings, etc.) which provide information on type and complexity of the culture, and allow accurate description and explanation. In each strata, the artifacts are grouped to serve as identification traits for that particular culture. (Readings on archaeological techniques can be found in Hole and Heizer, 1977.)

The cultural record is established by comparing the contents of each stratum of each site with that of other sites. The change in content (artifacts, structures, burial patterns, etc.) through time establishes change in culture; the similarities of the content in a number of sites establishes the settlement pattern or territory of a culture. The settlement pattern and site content such as food remains and tools provide information on environmental adaptation and subsistence efficiency in synchronic moments as well as an understanding of cultural adjustments to changes in the natural environment.

b. Vocabulary

anthropology - the study of man

archaeology - the study of past cultures

artifact - an object made by humans

culture - the customary beliefs, social systems and material traits
of a group

demography - the study of populations; births, deaths, etc.

ethnology - the study of present day culture

excavate - to uncover or expose by digging

linguistics - the science of languages

physical anthropology - the study of the physical characteristics
of man

potsherds - fragments of pottery

prehistoric - of the period before recorded history

radiocarbon dating - method of determining the absolute age using
carbon 14 measurement

strata - a layer

synchronic - happening at the same time

c. Activity

Archaeological Dig

Objective: To simulate an archaeological dig and learn to apply some techniques for extracting artifacts.

Teacher Preparation: Have available nails, string, clay, sand, humus, large cardboard box. Artifacts--dolls, tea set, nails, toy shovel, zip lock bags, pad, pencil, meter stick. Bucket, pan, small brush.
Prepare or go outside and dig a hole with alternating layers of soil burying the artifacts.

The preparation for this can become elaborate if you wish to dig a hole, fill it with alternating layers of items, then dirt, then more items. However, if you can organize one class to prepare a site and another to excavate it, the dirty work involved is shared among your students.

Procedure: 1. Prepare a string grid over the "site". The resulting squares should be fairly large, perhaps just four to the site.



2. Have a team consisting of digger, cleaner, measurer, recorder, and bagger to work on each square. The digger is armed with a garden trowel, the measurer with a meter stick, recorder with pen and paper, cleaner with pan, small brush and water, and bagger, with sack for carrying any artifacts.

3. The digger and measurer work together. The digger removes earth evenly and carefully. The measurers measure the depth of the excavation which is recorded by the recorder. Any artifacts are located by their depth and position in the square, described by the recorder, cleaned by the cleaner, and bagged, of course, by the bagger.

4. When the site is excavated, the different teams need to compare finds, levels of cultural artifacts and try to interpret their finding.

Discussion: 1. What problems do archaeologists have to face in excavating for artifacts?

2. Why is it important to label depth and location of artifacts?

3. Archaeologists think the artifact is much more important in context with its location in a site and relation to things near than by itself? Why?

4. Discuss some of the differences between excavating a trash pile and a buried city like Pompeii.
5. Check out slides on archaeology from UNC Sea Grant on archaeology of coastal Indians.

c. Activity

The Broken Pot

Objective: To simulate some of the skills archaeologists use.

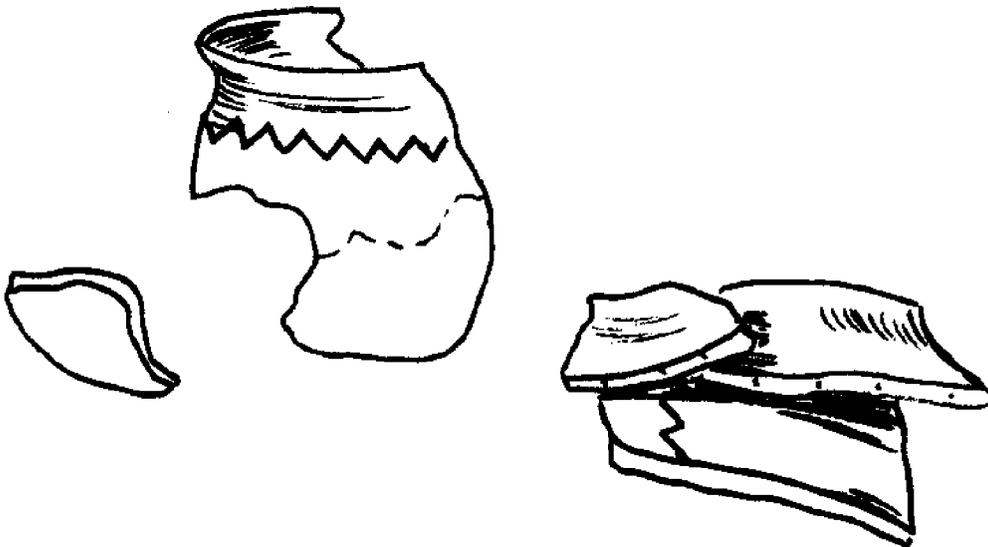
Teacher

Preparation: Collect several pieces of china and earthenware, and break them into medium sized fragments. Mix them together in a box. Provide groups with glue and rubber bands. Set up a situation in which these fragments are artifacts from an archaeological "dig" and are now called potsherds.

Procedure: Separate the fragments by types and try to reconstruct the item.

Discussion: 1. In archaeological digs, some of the best artifacts come from human waste piles. Discuss some of the advantages and disadvantages of finding these remains.

2. What clues about culture are found in remains of old pots?



c. Activity

Describing Recent Cultures/What's In The Trash Can?

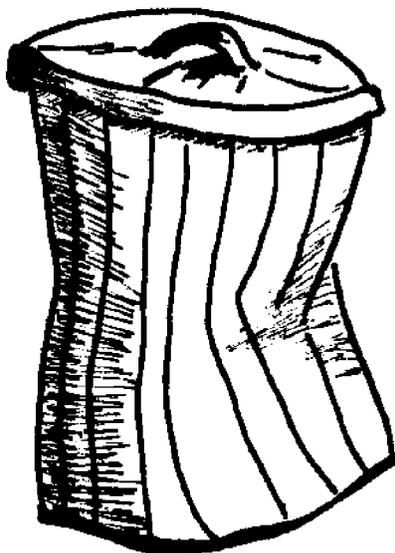
Objective: To use observational skills to interpret recent "artifacts".

Teacher

Preparation: Ask students to bring in two items from their own home which will be combined in a box. Alternatively, borrow a trash can from another teacher (principal, groundskeeper, etc.). Review class on how archaeologists have to interpret how other peoples lived by observing remains of their culture.

- Procedure:
1. Divide the cultural remains in the trash can or box among several teams. Have the teams record their finds. When all the artifacts have been catalogued, combine the teams for a discussion. Share the records.
 2. Using their facts, ask them to describe what they can interpret of the other culture.

- Discussion:
1. What types of technology are evident?
 2. What can be deduced about the social organization?
 3. What can be interpreted about their diet, clothing and transportation?
 4. What can be deduced about the level of civilization based on religion, communication, agriculture and commerce?



c. Activity

Old Bones

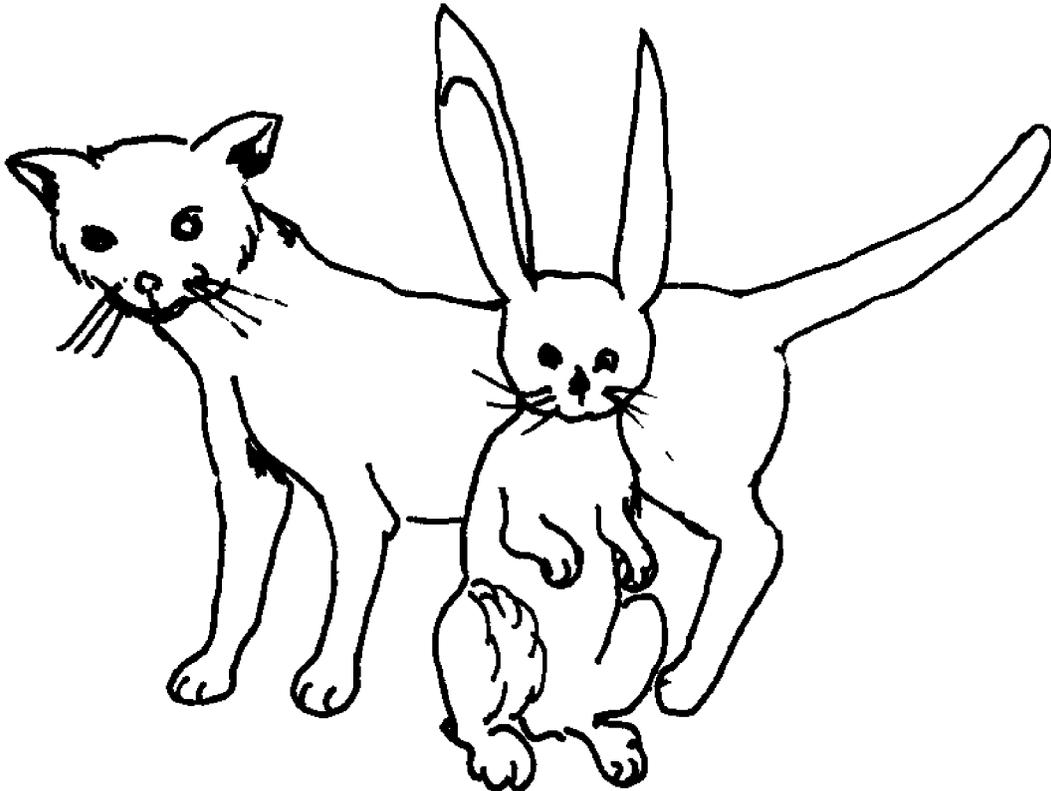
Objective: To reconstruct an animal's skeleton from its loose bones.

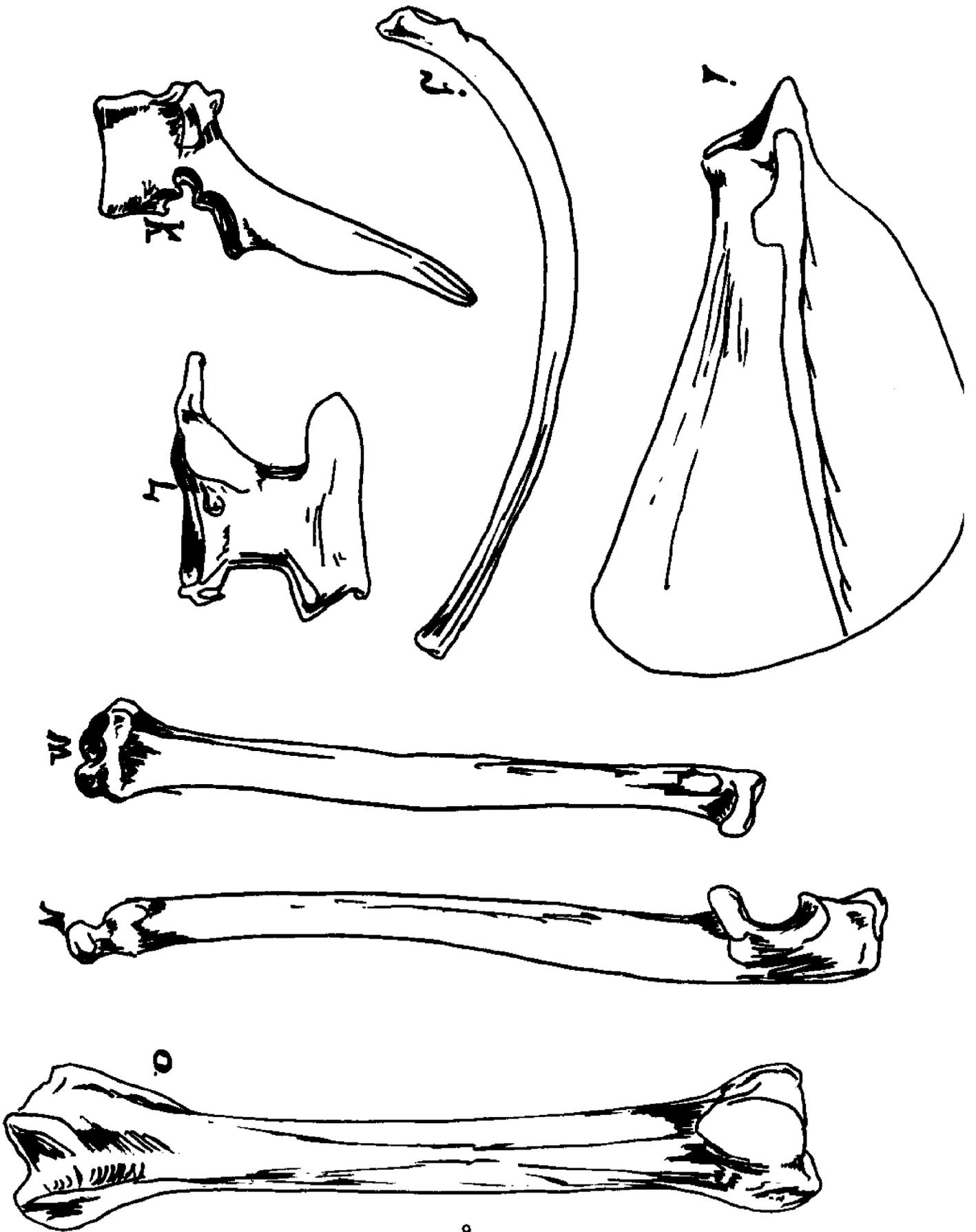
Teacher

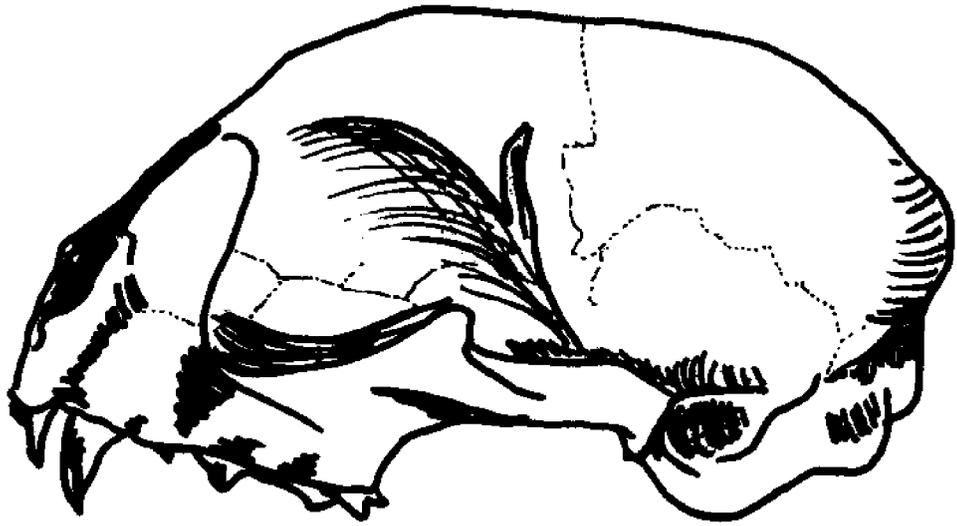
Preparation: Duplicate the following diagrams and have the students cut the parts out and try to arrange them in a logical order.

- Procedure:**
1. Arrange the bones in what appears to be a correct position.
 2. Try to construct missing parts.
 3. Compare your skeleton to rat and rabbit skeletons. Is it the same or different? What do you think these bones belong to? (cat) What are some clues to this animal's behavior?

Discussion: What sorts of information can archaeologists derive from finding animal bones in sites?



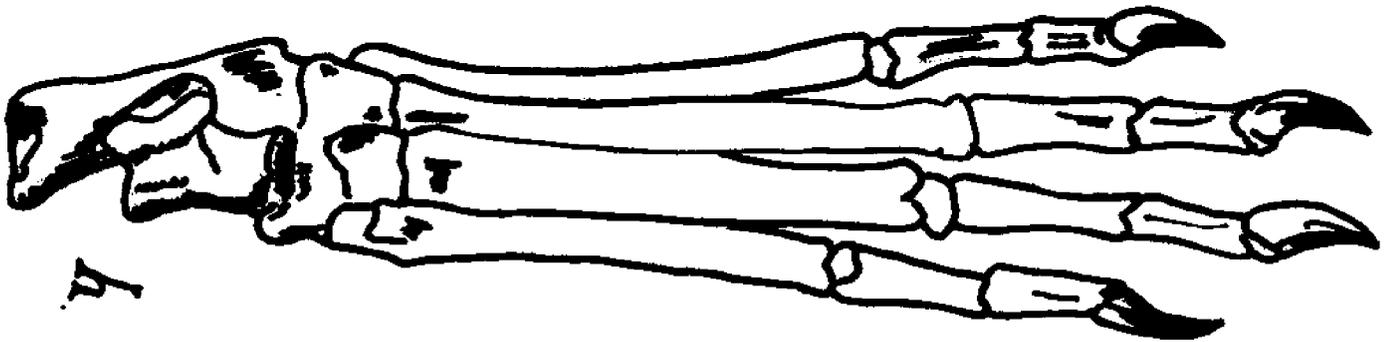
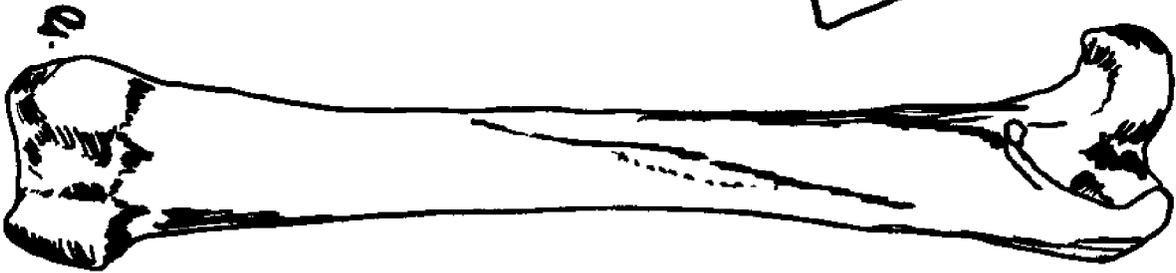
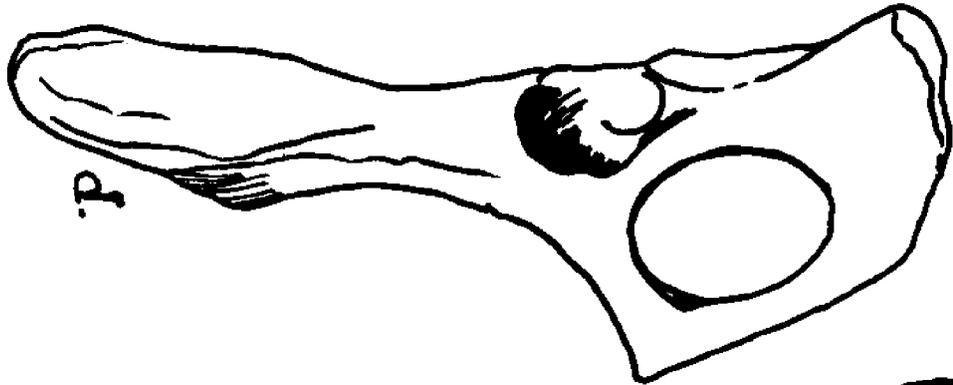
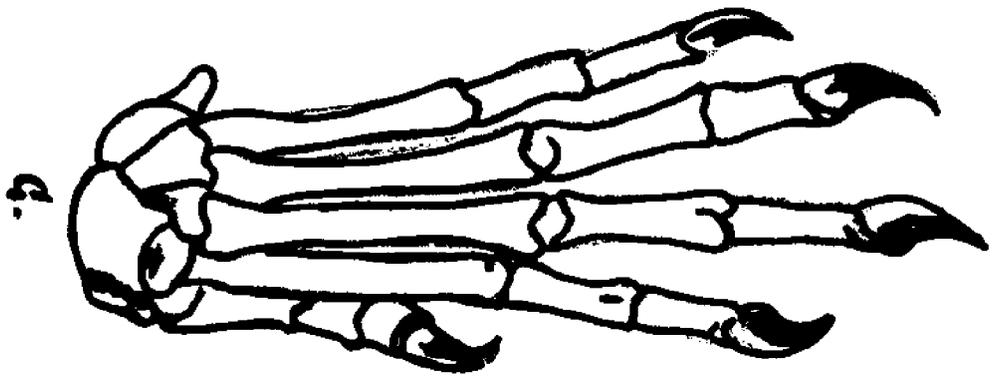




a.



b.



c. Activity

Tools

A

Objective: To interpret culture by tools.

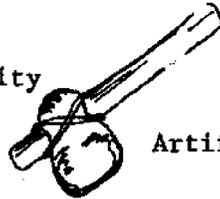
Teacher

Preparation: Bring to class a variety of kitchen gadgets, utensils, and also some miscellaneous tools from woodworking and car repair. Old farm tools are good as most children are familiar with them.

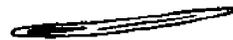
Procedure: Number and lay the tools and utensils and gadgets on a table. Let the students fill a sheet describing the tools and interpreting their possible uses.

Discussion: How do tools reflect the level of cultural advancement?
What tools would be found in a culture which only hunted?
What tools would be found in a culture which farmed?
What tools which were useful 100 years ago are no longer being made?

c. Activity



Artifacts



B

Objective: To recreate a life style of ancient peoples from artifacts left behind.

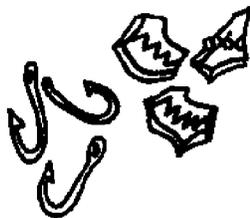
Teacher

Preparation: From the list of items below have as many examples or drawings as possible for student observation.

Procedure: Ask the students to describe the way in which these people might have lived by using clues from each of the artifacts found. Suggest ways that each artifact may have been used. (individual or group)

- | | |
|-------------------------------|---------------------------------|
| 1. Piece of smoking pipe | 7. Remains of a burned out tree |
| 2. Carved wooden poles | 8. Piles of oyster shells |
| 3. Hooks made from bone | 9. Broken pieces of pottery |
| 4. Remains of animal furs | 10. Corn and squash seeds |
| 5. Pieces of woven grass mats | 11. Bones of fish |
| 6. Conch shells cut in half | 12. Mounds of Indian skeletons |

Using the preceding clues, ask students to describe a day in the life of these people.



c. Activity

Time Search

Objective: To use the word game below as a vocabulary review.

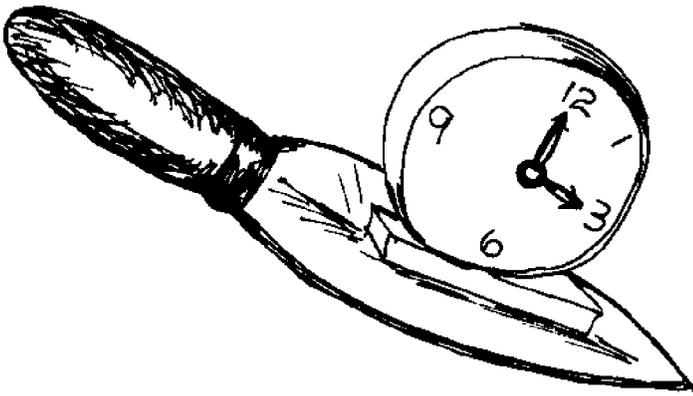
Teacher

Preparation: Write the following chart on the board. Divide the class in half, and give 5 seconds to find the answer from the board.

Activity: The teacher should read the definition to the first two contestants. One point is given for the first correct answer. To avoid confusion, the student should give the position as row, column and word. (Example: row 4, column B, preserve.)

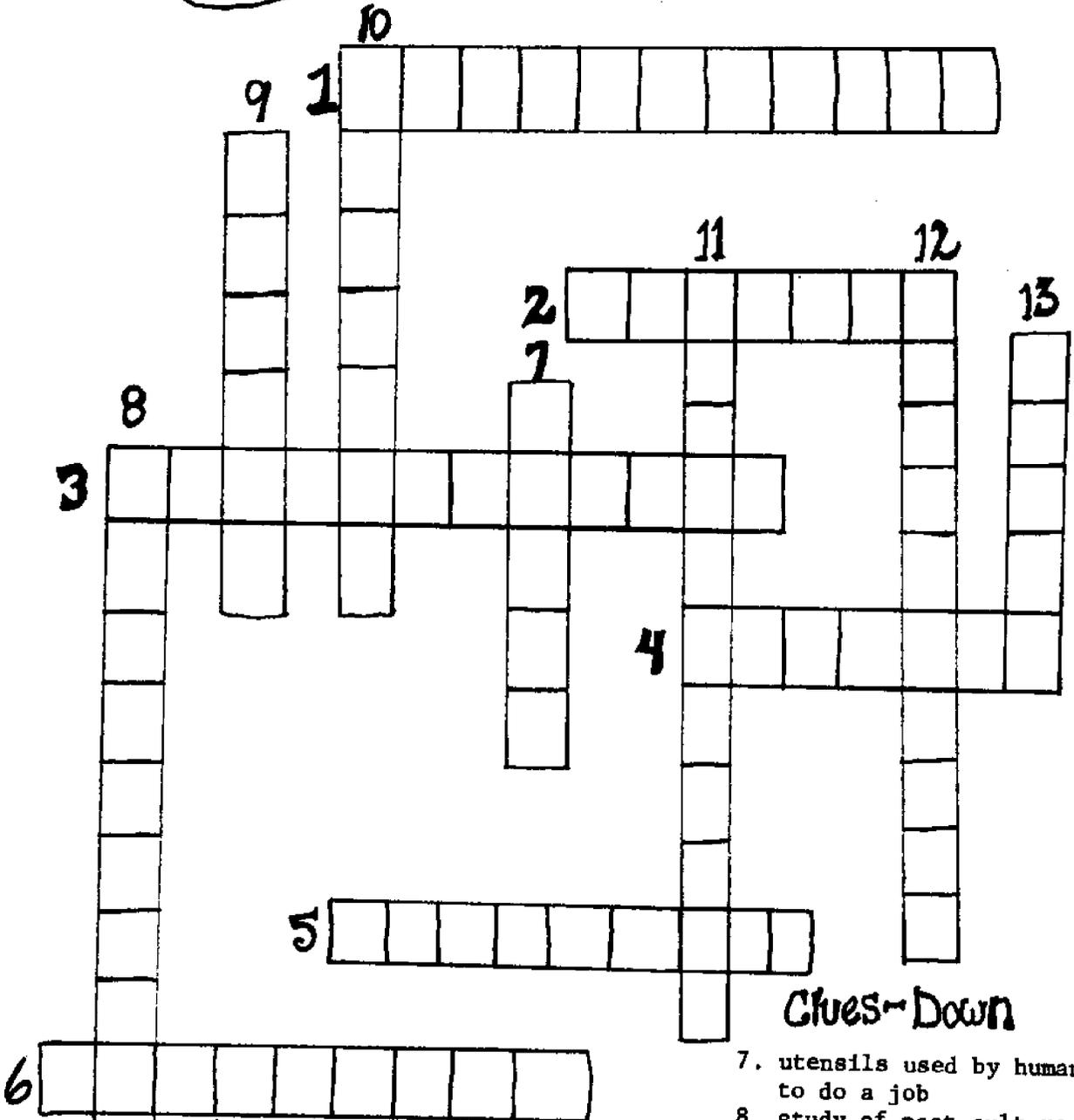
CLUES

- Trowel - a small, shovel-like instrument
- Preserve - to save or keep
- Artifacts - things left behind by an ancient civilization
- Site - location of an archaeological find
- Anthropology - the study of man
- Archaeology - the study of past cultures
- Ossuary - a mass grave site
- Inhabit - to occupy, to live or to stay
- Surplus - abundance, more than is needed
- Fragment - broken object
- Clay - type of soil used to make pottery
- Geology - study of rocks
- Dig - excavated site
- Grid - method used to systematically divide up a dig site
- Fossil - ancient preserved remains of an animal or plant
- Prehistoric - before written language
- Culture - learned behaviour patterns
- Layer - horizontal strata
- Subsistence - basic existence of survival
- Excavate - to uncover layers of soil for research purposes



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1.	K	A	N	T	H	R	O	P	O	L	O	G	Y	M	E
2.	R	N	J	B	S	I	T	E	I	N	H	A	B	I	T
3.	E	X	C	A	V	A	T	E	C	U	L	T	U	R	E
4.	C	P	R	E	S	E	R	V	E	J	O	P	Z	N	X
5.	R	S	T	N	F	O	S	S	I	L	A	Y	E	R	L
6.	S	U	R	P	L	U	S	S	T	R	O	W	E	L	N
7.	S	K	J	C	L	A	Y	O	N	D	I	G	R	I	D
8.	F	E	R	U	G	E	O	L	O	G	Y	O	M	E	Y
9.	P	R	E	H	I	S	T	O	R	I	C	W	E	E	R
10.	I	D	S	U	B	S	I	S	T	E	N	C	E	V	A
11.	O	S	S	U	A	R	Y	F	R	A	G	M	E	N	T
12.	E	G	R	N	A	R	C	H	E	O	L	O	G	Y	R
13.	W	D	N	I	G	Y	A	R	T	I	F	A	C	T	S

Review Crossword

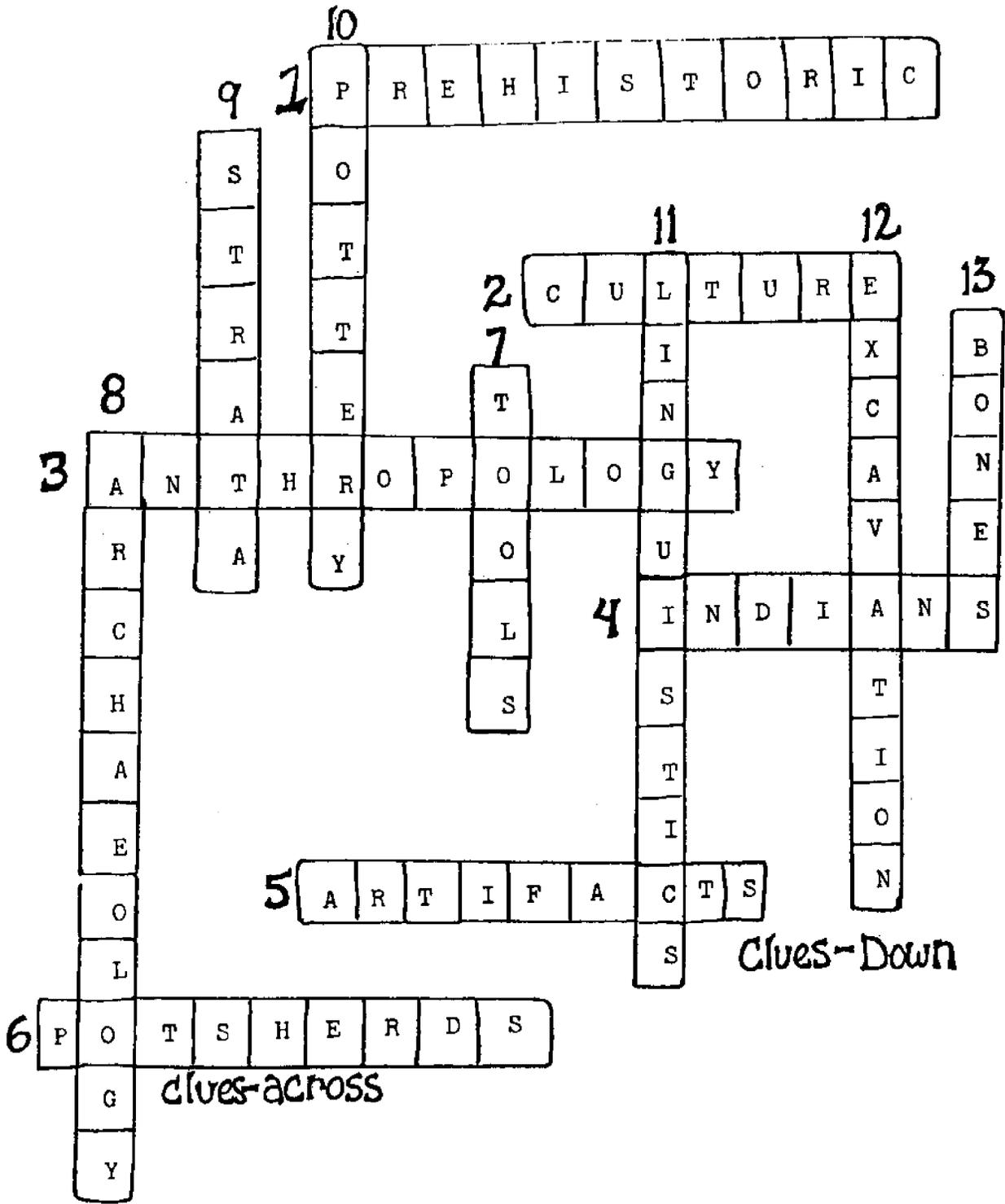


Clues-across

1. before recorded history
2. the beliefs, social systems and material traits of a group
3. the study of man
4. early cultures of North America
5. objects made by humans
6. pottery fragments

Clues-Down

7. utensils used by humans to do a job
8. study of past culture
9. a layer
10. vessels used for cooking, storing water, etc.
11. study of languages
12. a hole dug out to expose evidence of past life
13. help archaeologists determine the types of food eaten

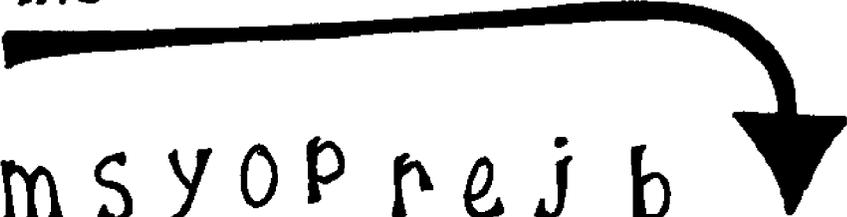


clues-across

clues-Down

FIND THE HIDDEN WORDS

h e m s y o p r e j b
 w u r h s h o m t e e
 n a w e t u t y n i n
 z o k l r c t a m g c
 i w e d a r e h a l u
 g z a n t h r o p o l o g y
 l d r b a o y r a s t e f h
 a o c a z l i s l h u x e c
 n a h i s t o r i c r c r h
 i n a r t i f a c t e a e b
 n d e o z l b s p c s v d m
 d t o o l s o e n o i a
 i n l u e a n c e t n t
 a p o t s h e r d s o i
 n d g n u n s c x a r o
 s g y l d i a v c s p n
 p r e h i s t o r i c t



archaeology
 pottery
 strata
 anthropology
 tools
 potsherds

culture
 prehistoric
 excavation
 Indians
 artifact
 bones
 historic

c. Activity

**K-4

Trash Can Culture

Objective: To use observational skills to interpret recent "artifacts."

Teacher

Preparation: Ask each child to bring in one representative object from home (favorite food containers, cuddley creature, tags, clothes, etc.).

Procedure: 1. Put all objects in a trash can or box.
2. Have children describe a home and family using all the objects.

Discussion: 1. What type of family life is represented?
2. What can be said about the society as a unit?
3. What can be said about their diet, clothing and transportation?

c. Activity

**K-4

Time Capsule

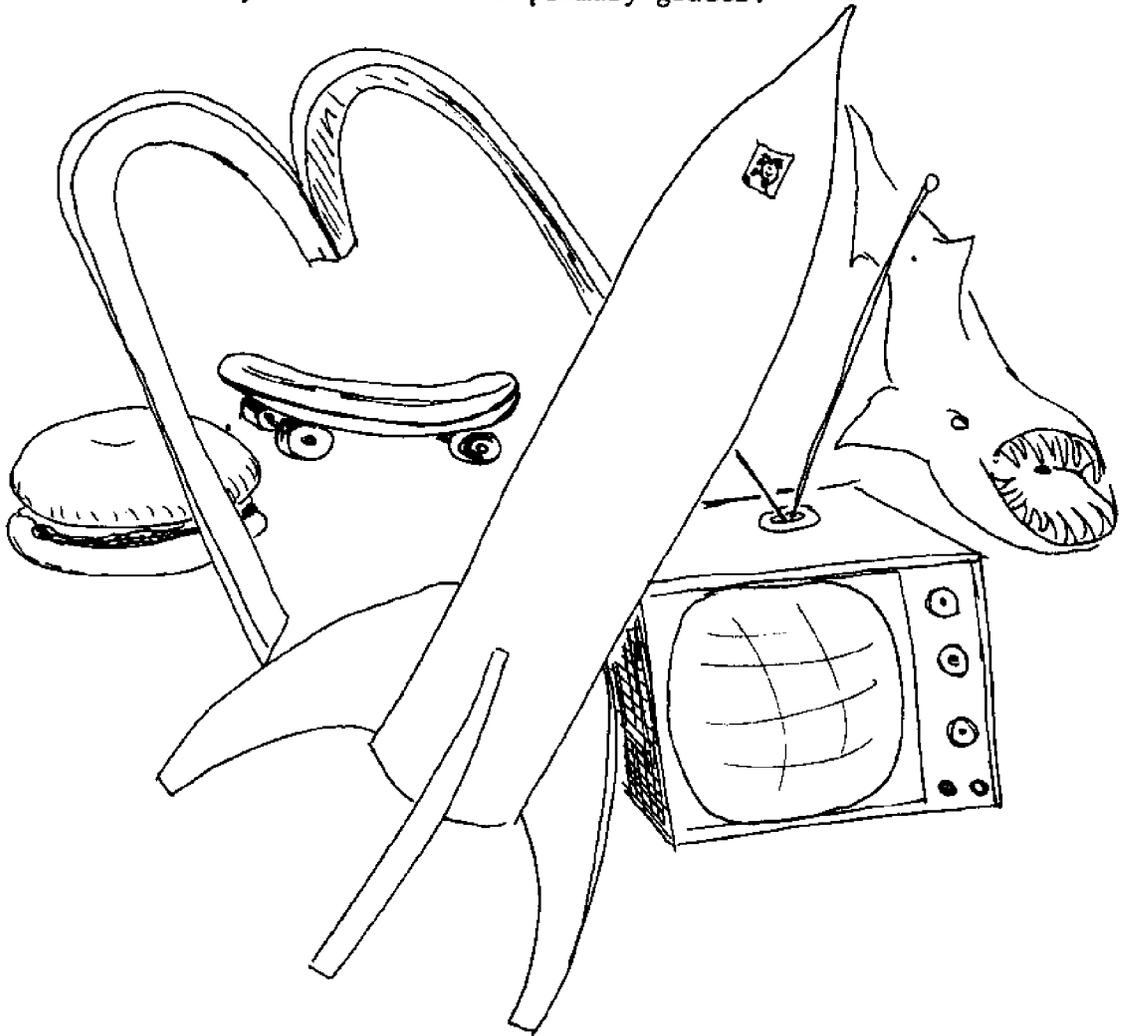
Objective: To make students aware that the people of the future can learn about us.

Teacher

Preparation: Prepare a time capsule with about 10 items, (such as clocks, books, etc.)

Activity: Have the children discuss what each item would tell us about the people who made the capsule. Then discuss with the class what objects would represent our way of life. Small groups can decide what they would put in a time capsule, then the class could come to a consensus as to 15-20 items they would put in the capsule.

**This activity is intended for primary grades.



d. Resources

Haviland, William A. 1974. Anthropology.

Hole, Frank and R. F. Heizer. 1977. Prehistoric Archaeology: A Brief Introduction. Holt, Rinehart and Winston, Inc. New York.

Phelps, David S. 1975. Archaeological Sites as Interim Areas of Environmental Concern. In Coastal Development and Areas of Environmental Concern. (S. Baker, ed.) pp. 73-79. UNC Sea Grant Publication UNC-SG-75-18. Raleigh, NC.

Films

Diggers and Finders. Motion picture, National Instructional Television Center, 1974, 20 minutes, discusses archaeological explorations.

Slides

Archaeology slides and script available on loan from
University of North Carolina
Sea Grant College Program
105 1911 Building
North Carolina State University
Raleigh, NC 27650

This set of slides deals with current archaeological investigations by Dr. David Phelps on North Carolina Coastal Indians.

Pamphlets

Coastal Archaeology--A look at Human History. University of North Carolina Sea Grant College Newsletter. Vol. 5 Number 7, August 1978. Available from the above address.

This pamphlet contains information on the culture of the Algonkians and methods of archaeology.

Concept 2. Culture is learned but it is shaped by the environment. Coastal peoples, both Indian and Europeans, used land and water resources in similar ways.

a. Background Reading

Basic to the understanding of culture is an understanding of the natural environment in which the culture exists. Man is an integral part of the ecosystem, but unlike other animal communities, humans have an adaptive advantage--culture. The complexity of human culture at any one time is directly dependent upon (1) the available natural resources (food resources in particular), and (2) the degree to which the culture can exploit these resources. This is the concept of cultural ecology. The biological concept of plant and animal communities maintaining balance in an environmental niche differs from human communities in which the ability to learn from experience and symbolically transmit the information to the next generation resulting in the accumulation of knowledge. As knowledge increases, culture becomes more complex. We have now reached a point where culture, man's adaptive advantage, is disrupting the natural environment.

No culture ever dies; a part of it is always passed to the next generation, even across linguistic, religious and political barriers.

The general cultural record for eastern North America is given below (see Willey 1966). The period names reflect changes in culture and the natural environment. The record is applicable to the North Carolina coastal area as well as Virginia and Maryland. Obviously local and regional adaptations are different from that of the Appalachian region, but share a general level of complexity and accumulated knowledge at any one moment of time along the time continuum. (Table 1).

Current knowledge of human entry into North America from Asia indicates that the earliest arrivals may have been about 50,000 years ago. Evidence for the period from 50,000 to about 14,000 years ago is meagre and scattered and lacks sufficient context for even a valid description. It is presumed that these early cultures were comparable in content and adaptation to those of the middle and upper Paleolithic periods of Europe and Asia, hunters of large animals supplementing their diet with edible vegetable foods. No known evidence of this period has been found in North Carolina.

Paleo-Indian Period

The Paleo-Indian period (12,000 - 8000 BC) is represented in North Carolina and a few sites of the period are found on the higher, stable upland ridges in the coastal zone. The period marks the last part of the Pleistocene 4th glacial (Wisconsin), a time of much colder climate in North America, and the last of the "big game hunters." Cultures of the period were fully committed to a subsistence pattern based on hunting of the larger animals (megafauna) typical of the Pleistocene, and were organized into small mobile bands whose settlement pattern was to some degree dictated by the territorial range of the

Table 1

<u>Date</u>	<u>Period</u>	<u>Subsistence Technology</u>	<u>Key Traits</u>
50,000 - 12,000 BC	(un-named)	hunting and gathering	
12,000 - 8,000 BC	Paleo-Indian	hunting and gathering	dependence on Pleistocene megafauna
8,000 - 5,000 BC	Archaic, early		changes in climate changes in hunting
5,000 - 2,000 BC	middle	hunting and gathering food plant collecting	shell fish & fishing
2,000 - 1,000 BC	late	incipient plant domestication	seasonal base villages
1000 - 300 BC	Woodland, early	hunting-gathering incipient agriculture	sunflower domesti- cated maize-beans-squash introduced sedentary settlement bow and arrow pottery
300 BC - 800 AD	middle	extensive agriculture	incipient state class division elaborate ceremonial
800 AD - 1650 AD	late	extensive agriculture	incipient theocracy state religion
1650 - 1715 AD	European Expansion (North Carolina)		removal of native cultures

animals being hunted (mammoth, mastadon, horse, camel, Bison antiquus, elk and others). The sites are usually small camps occupied for short periods and cultural remains are few. The artifacts typical of the period are spear points with characteristic lanceolate shape and "fluted" sides where long flakes had been removed to facilitate hafting. The earliest of these points is the Clovis type, followed by Cumberland, Quad and Dalton types, all reflecting shape changes by which the archaeologist measures culture change and identifies particular phases of the period. Other artifacts include varieties of scrapers for skinning and preparing hides, blades for butchering and general cutting purposes, drills, gravers (sharp pointed tools for engraving or etching bone and stone or slitting leather), and various bone tools. The culture content reflects the major commitment to a hunter's life, and a religion, if we can accept the European evidence as applicable to North America, (world view, ideology) based on the importance of the animals to human cultures as witnessed by the elaborately executed paintings of animals and men in the Upper Paleolithic period caves in France and Spain.

Paleo-Indian sites on the North Carolina coast are few, and represent only the small upland camps. Sea level during the Pleistocene was much lower (perhaps 300 feet) than at present. The subsequent rise following the Pleistocene has gradually covered the coastline of that period and drowned the stream systems to create estuaries where rivers once flowed. In the process, the Paleo-Indian sites, most of which would have been located on levee and ridge systems adjacent to the trunk and larger lateral streams, have been inundated. Those we know are surface scatters of stone artifacts, and nothing has been preserved to provide knowledge of specific adaptations to other resources of the coastal area during that time. (Paleo-Indian artifact types can be found in Wiley, 1966.)

Archaic Period

Following the Pleistocene, climate began a slow amelioration toward current conditions, and this change brought about similar shifts in floral and faunal communities. Many Pleistocene animals became extinct, replaced by other species or smaller varieties of older species. Forest types changed, and with them the other communities and culture. The Archaic period has been called a time of "forest efficiency" in the eastern U.S., but perhaps "subsistence efficiency" is a better general term. Coincident with the contributing climate and environmental changes, there was a continuing increase in adaptation of Archaic cultures to new food resources (fish, shell-fish, by at least 5000 BC, nuts, berries, grasses, tubers and flowers). Hunting kept apace, but its percentage in the total subsistence strategy decreased. By middle Archaic times, the grinding or milling stone was a typical artifact in the tool kit, reflecting the growing importance of plant foods. Toward the end of the Archaic, such plants as the sunflower may have been domesticated. There was a steady increase in settlement size and density and population during the period, and a shift toward seasonal utilization of base settlements within each society's territory. Artifact types increase, including (besides the milling stones) axes, abraders (for polishing stone and bone), and in the late Archaic, stone vessels for cooking and storage.

The Archaic cultures of the North Carolina coast were fully adapted to marine and riverine resources as well as abundant upland foods, both plant and animal. Many of the sites, like those of the preceding Paleo-Indian period were drowned by the continuing rise in sea level, but many more upland locations were occupied. Only the very late Archaic is known on the Outer Banks, since these have existed in the current configuration for only about 3000 years.

(A summary of Archaic period phases and the changes in spear point types may be found in Coe 1964. While this applies specifically to the North Carolina Piedmont, it is similar to the coastal culture sequence.)

Woodland Period

The Archaic period ends around 1000 BC with the introduction of pottery, a new type of triangular projectile point indicative of the substitution of bow and arrow for the spear and spear-thrower, and domesticated plants. There is also evidence of elaborate ceremonialism and construction of burial mounds for the upper ranks of the social system, but this phenomenon has not been identified in the North Carolina coastal area. Some continuities from the Archaic indicate slow replacement of the older way of life. These new traits of the early Woodland period (1000-300 BC) have origins outside North America; the domesticated plants were maize (corn), beans (many varieties) and squash (many varieties of squash, melons, gourds), all earlier domesticated (7000-5000 BC) in Mexico and by 1000 BC had become sufficiently productive there to support full-fledged civilization. Coincident with their introduction to North America were religious ideology, use of ceremonial luxury goods, and elaborate burial of the higher social ranks, all embryonic traits of state organization based on extensive agricultural subsistence, surplus food, craft specialization and trade. Ceramics probably had a Mesoamerican origin also, but the bow and arrow have been presumed to come from an Asian source.

The "early Woodland" in the North Carolina coast was not so complex. Ceramics were produced and the bow and arrow replaced the spear but no evidence of elaborate religion or burial ceremonial is known. The settlements of this period still reflect a primarily Archaic way of life and many Archaic sites were re-occupied during this phase. The settlement distribution indicates little attention to selection of soils for agriculture, and the entire pattern is one of a hunting-plant collecting --maritime adaptation, evidenced from North Carolina northward along the Atlantic coastline. More ornamental artifacts (beads, gorgets) were produced, and an increase in the number of smoking pipes (usually tubular) is indicative of greater tobacco production and use (introduced from Mexico).

A marked change in settlement patterns in "middle Woodland" times (300 BC-800 AD) occurred. Sites were located to take advantage of soil types suitable for agriculture, and larger settlements were situated only on trunk streams and their more important tributaries. The decrease in small, dispersed camps reflects a decrease in year-round hunting and an

increase in dependence on domesticated plants. More elaborate goods and artifacts are found in the sites, and burial patterns reflect new ideological systems (cremation rather than inhumation, for example). The first known occupation of sites on the Outer Banks occurs during this phase, and the site locations are those still occupied by modern Banks villages (Manteo, Wanchese, Hatteras Village, Buxton and others). Burial mounds do occur in this phase on the coast, from the Neuse River southward, and their distribution implies a cultural difference from that time onward between the northern and southern coastal areas of North Carolina.

The "late Woodland" period (800-1650 AD) saw the coastal area occupied from the Neuse southward probably by people who spoke the Sioux language and were culturally similar to the far south. That part of the coast is poorly known and only further research will clarify its affiliations. From the Neuse northward, the late Woodland cultures were speakers of the Algonkian language, and while they were considerably influenced by the southern groups, their culture still retained many northern traits. It has been speculated, but not proven, that the Algonkian cultures in North Carolina probably date back to the beginning of the Woodland period.

The various Algonkian tribes were actually small monarchies with definite political boundaries, a formal state religion and priesthood (while still retaining elements of the older hunting religion and shaman practitioners), dependent upon an agricultural subsistence base adapted to the coastal zone but equally adapted to marine food resources, hunting and wild plant foods. They depended upon trade for luxury goods (copper, flint), lived in permanent (Figure 2) and seasonal villages, and established small temporary camps to exploit shell fish beds and other resources, travelling by established trails and by boats hewn from cypress logs. (Figure 3) Their burial patterns were elaborate and distinctive, involving the cleaning and storage of the dead in skeletal form for a certain length of time, after which all were buried in a mass grave (ossuary). (Figure 4)

The period of English exploration on the North Carolina coast has left us a legacy of description (Corbett 1953) and paintings (Lorant 1965) of the Algonkian people and their culture. This, coupled with the archaeological record, provides a more complete record than would the latter alone. From the English and colonial records we know the tribal names such as Chowanoc, Weapemeoc (Yeopim), Croatan (Hatteras), Secotan, Pomeioc (Pamlico), Neusioc (Neuse), Pomouik, Tripanoc, Pasquonoc (Pasquotank), Moratoc, and others whose distribution is shown on the accompanying map. (Figure 1)

Mook (1944) has summarized the historic records for the Algonkian tribes and a layman's summary (suitable for students) is available in Johnson (1972). Haag (1958) provides description and illustration of artifacts of the Woodland period. Much of the archaeological work in the Algonkian sites has been within the last five years and is yet unpublished.

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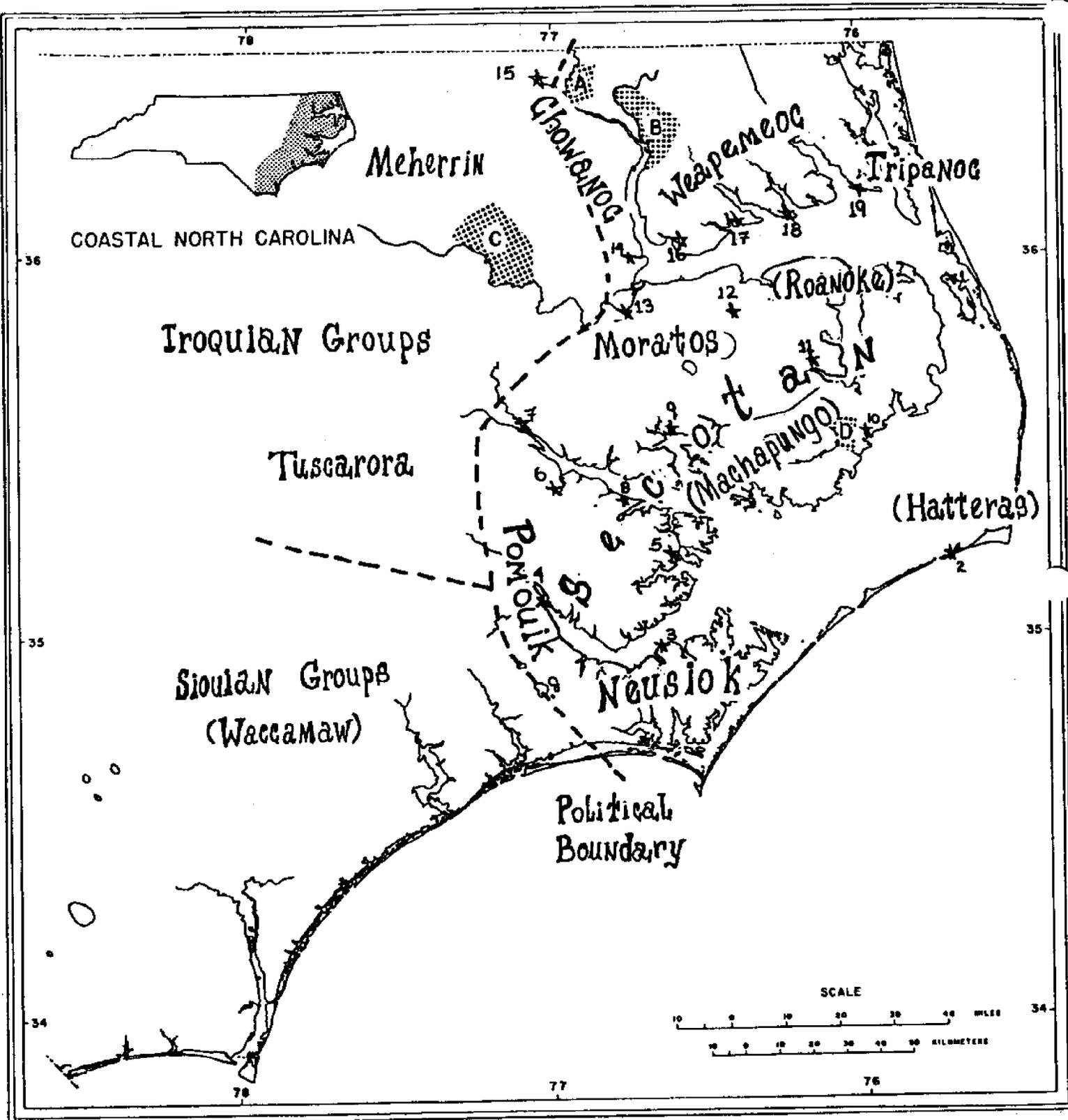


Figure 1. The coast from Cape Lookout to Chesapeake Bay. Dots mark the places visited by the settlers.

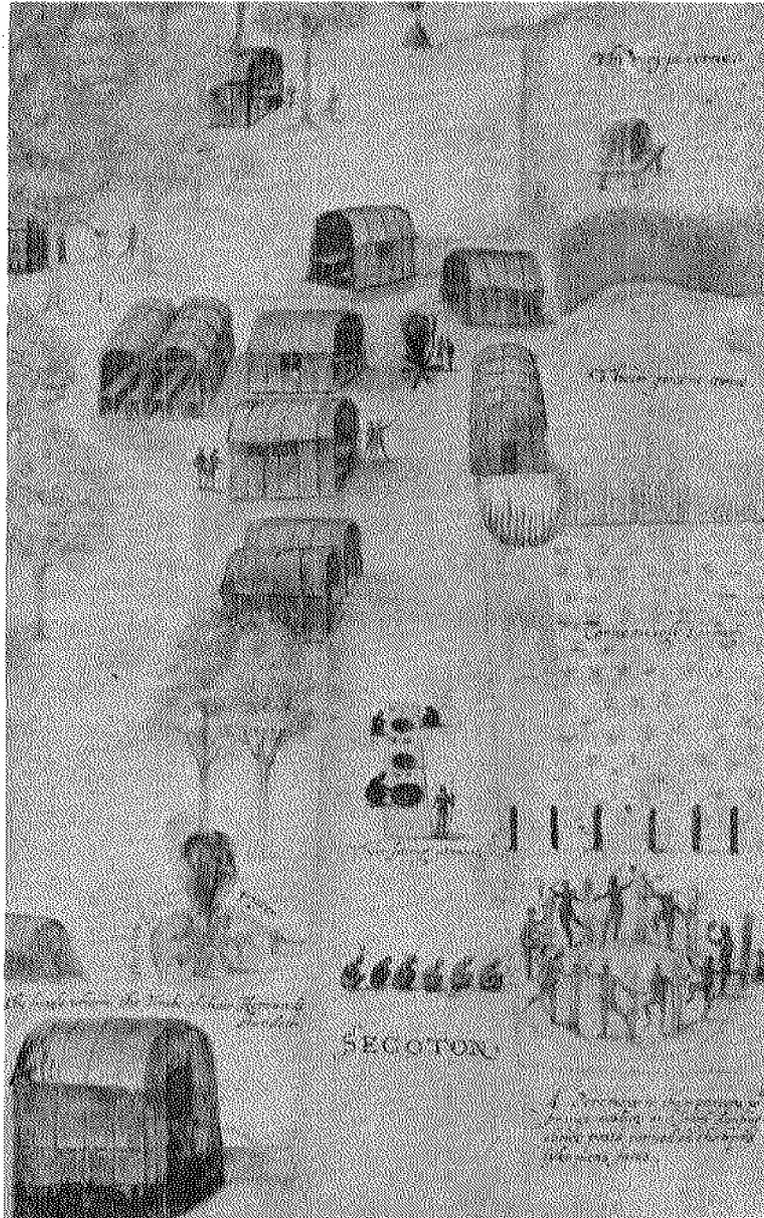


Figure 2. The Village of Secoton, situated on the south side of the Pamlico River near Bonnerton. This village contained 13 dwellings and lacked a palisade. Food eating in the middle from a mat. The corn fields show three stages of maize. A dance is happening on bottom right.

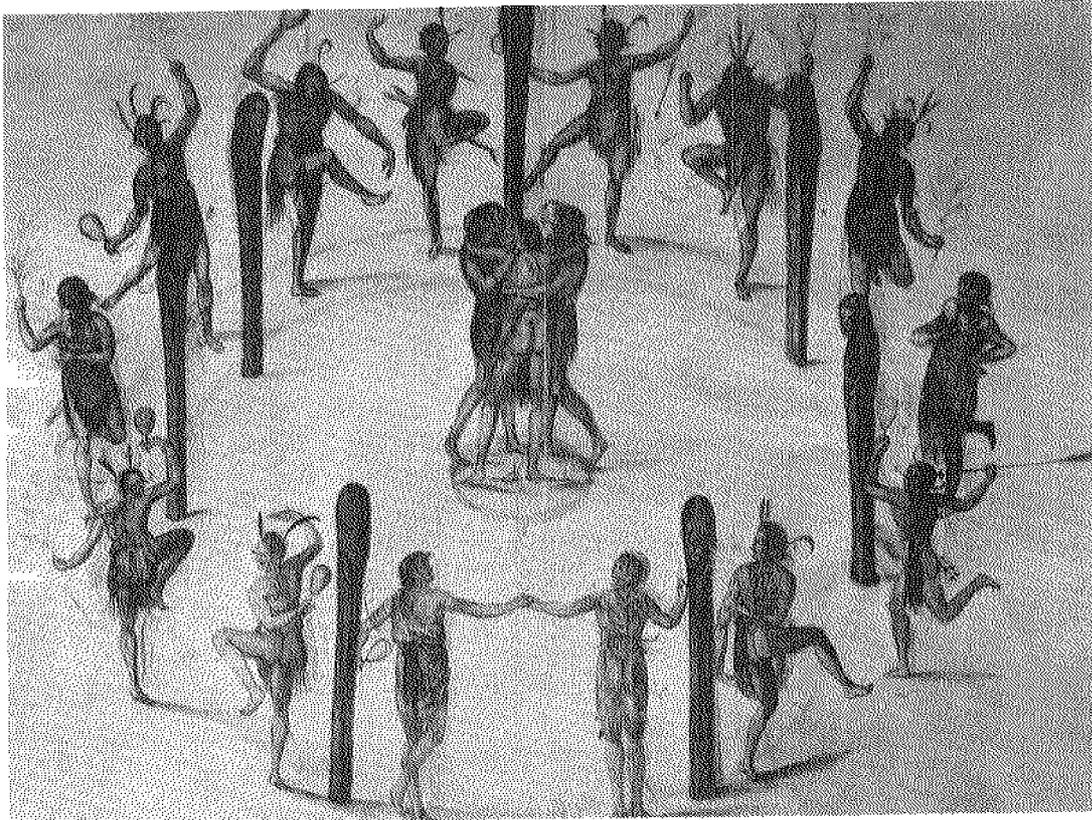


Figure 3. A religious dance with 17 Indians. The location of this dance is suggested to be Secoton. Note that the posts tops are carved in the form of human heads.



Figure 4. Indians sitting at a meal eating grains of food. Note the mat which is probably woven of black needle rush.

European-Indian Cultural Contact

While there is evidence of minor Spanish contact on the North Carolina coast prior to 1584, that year marks the beginning of English exploration for the purpose of economic exploitation and colonization. England and other European monarchies had benefitted from the technological advances resulting from the stored (written) knowledge of 5000 years of civilization, and the "Age of Discovery" was a period of search for further economic outlets, places to establish surplus population as producing colonies, and new supplies of food for an already exhausted agricultural system. In culture contact terminology, the English were dominant in the technological sense (metallurgy, weapons, ship-building, tools, draft animals), but not superior in social organization or ideology. The backing of a well-developed state organization (The Crown) was a dominant advantage, but the ability to write was so little developed in English culture that it offered little superiority.

The various expeditions between 1584 and 1590 failed, primarily because of more important political commitments elsewhere, but friction had developed between the English and the Algonkians even during that period. Cultural differences in goals of the exploration, manners, and land ownership were points of conflicts between the two cultures.

The Algonkian pattern of land ownership was that of tribal ownership, the land and its resources benefitting the entire society. This was one major point of conflict in the contact situation. That acculturation of some Algonkians occurred is witnessed by the deeds recording sale of Yeopim (Weapemeoc) land to colonials in the late 1600's. Although under orders to live in harmony with the native peoples, the eventual population pressure for available land, and the English practice of private ownership became the over-riding point of conflict. It was enforced by arms and aided by disease and starvation.

The colonial settlement pattern in the coastal zone duplicates that of the late Woodland Algonkian culture in the placement of ports, towns and farmsteads. In fragile areas such as the Outer Banks, nature limited settlement location and land use, but in the estuarine zone, the colonial selection was based on similar subsistence techniques and strategies. Extensive agriculture was the primary subsistence pattern for both cultures and the crop complex (the same we have today with some later additions) was adapted by colonial farmers who found European plants non-adaptive to the climate. Fishing and shell-fish collecting were adapted outright and many fishing techniques were similarly adopted. Hunting for subsistence by colonial populations was extensive until later times when domestic animals were more plentiful. Only after the colonial period did American culture move to intensive agriculture on a large scale, open more land and diversify its economic process. Until that time acculturation to Algonkian subsistence patterns had supported it.

From 1584 to about 1650, Algonkian culture was left in peace, but colonial expansion from Virginia after the latter date marked the beginning of the end for the native cultures. At first the colonial families were few and simply settled into small niches in the Algonkian Territories along the coast and in the Albemarle region, but as numbers increased, so

did pressure for land and resources necessary to the subsistence of both groups. The introduction of diseases to which the American natives were not immune took a toll of life, but sufficient numbers of the Chowanoke Tribe still existed to harass militarily the English settlements on the Chowan in 1675. This resulted in removal of the few remaining of that tribe to a swamp reservation in what is now Gates County in 1675, the first of the "Indian reservations." Between 1675 and 1715, displacement or annihilation of the remaining Algonkians and other coastal cultures occurred and their territory became the domain of the Carolina colony.

The North Carolina coastal zone witnessed at least 12,000 years of human use by cultures whose adaptive patterns have been relatively in harmony with the ecosystem. The most noticeable changes have occurred in the mainland areas since 1850 and in the Banks since 1930. Technological systems have become so efficient that most of the individuals in a highly complex culture, such as the United States today, have no contact with, or knowledge of, the natural environment. Thus they cannot understand that destruction of food producing environments (the North Carolina estuaries, for example), pollution of stream systems, or surplus human population will ultimately affect the culture's subsistence base. And in the final analysis, it is the subsistence system--the obtainment of food resources--which determines the complexity of the culture and whether or not it remains stable, changes or ceases to exist.

To be fully equipped to formulate successful policies for the future of the coastal zone, we need the benefit of knowledge of past human experience. Archaeological sites along the coast must be identified and interpreted before they are lost forever to rising sea level and our culture today.

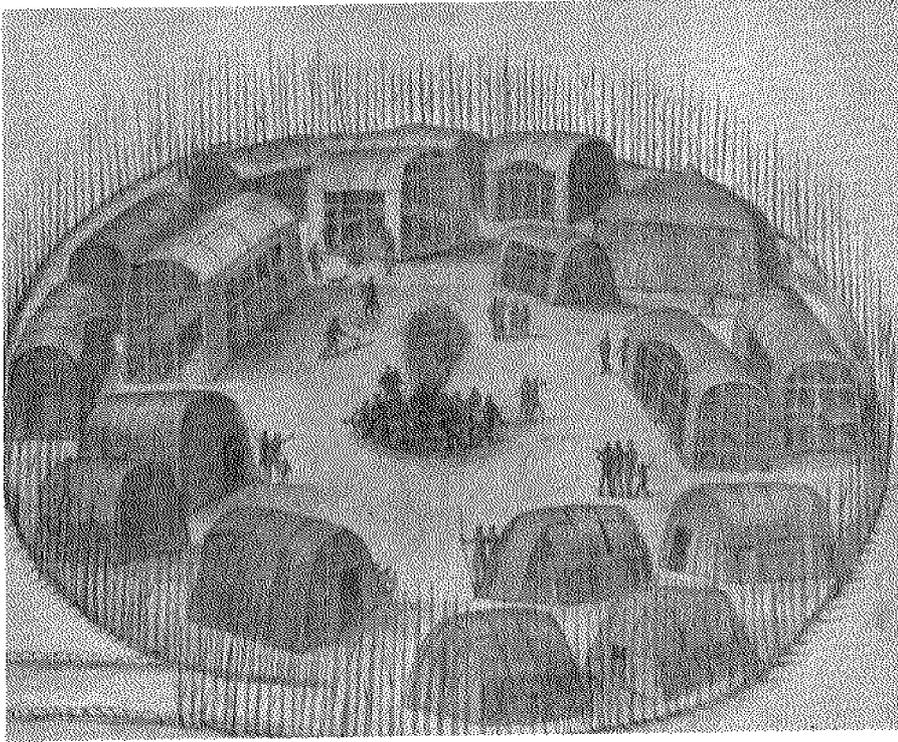


Figure 5. The Village of Pomeiock near the mouth of Gibbs Creek in Hyde County. Eighteen structures inside the circular palisade, a ground of Indians around the fire. The structures are dwellings for chiefs and principal men, made of posts covered with matting which can be rolled up to let in light and air.

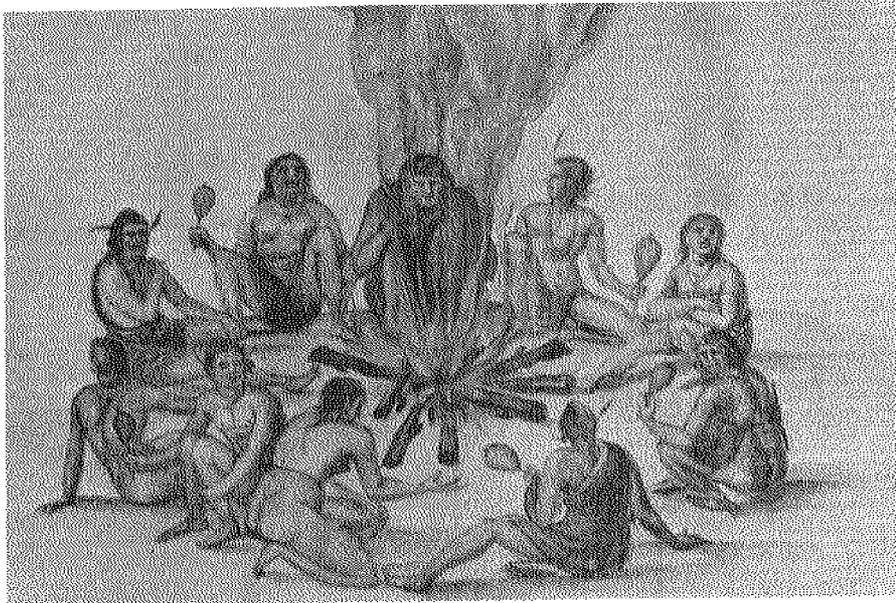


Figure 6. Sitting around the fire. Apparently singing accompanied by rattle made of gourds filled with pebbles or fruit stones.

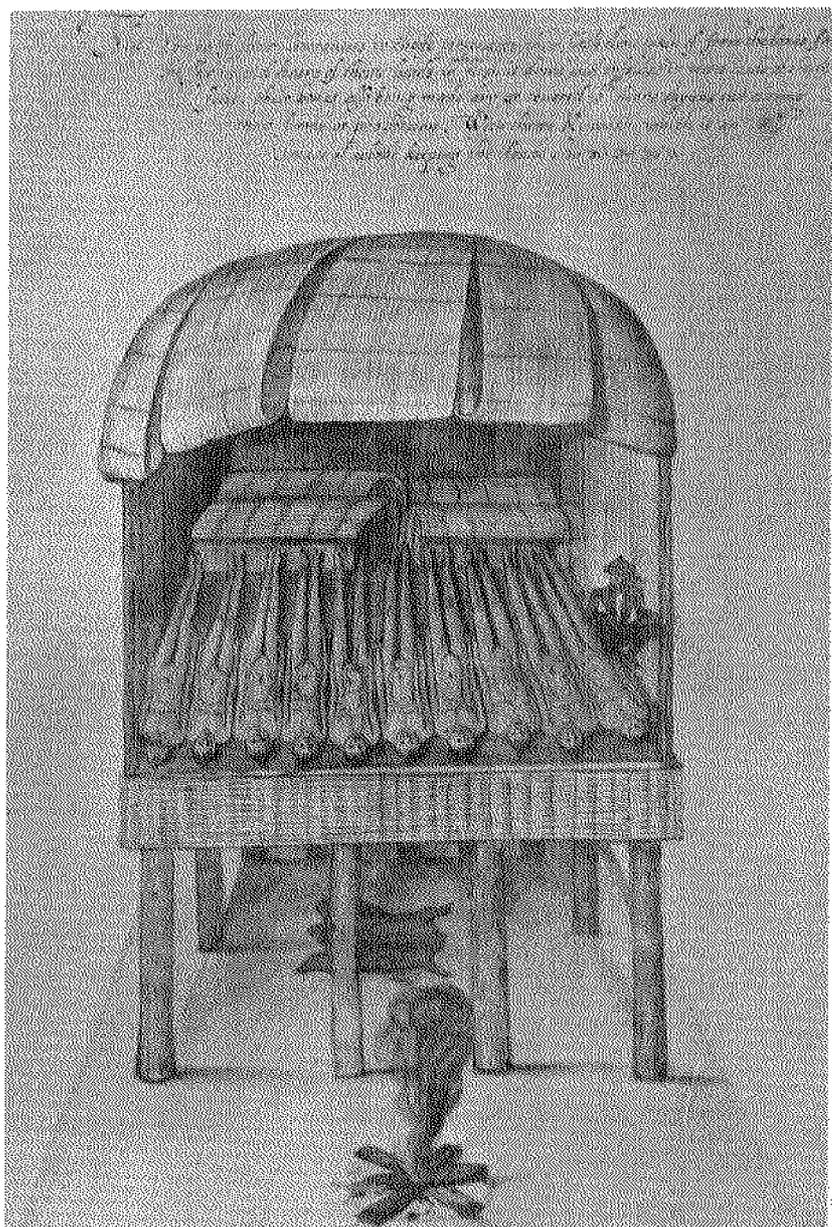


Figure 7. Burial House of the Virginia Algonkians. The tomb of their principal people, allowed to dry in a ceremonial fashion.



Figure 8. Indian fighter. The apron of deerskin. Note the body decorations of feathers, ear ornaments of bone, six strand necklace, two bracelets and body painting red and white colors.



Figure 9. Wife and daughter of a chief. The little girl is holding a doll probably a gift from the Colonists. From the Village of Pomeiock.



Figure 10. The Conjuror.



Figure 11. Indians fishing. Notice the techniques for catching fish--spears and traps.

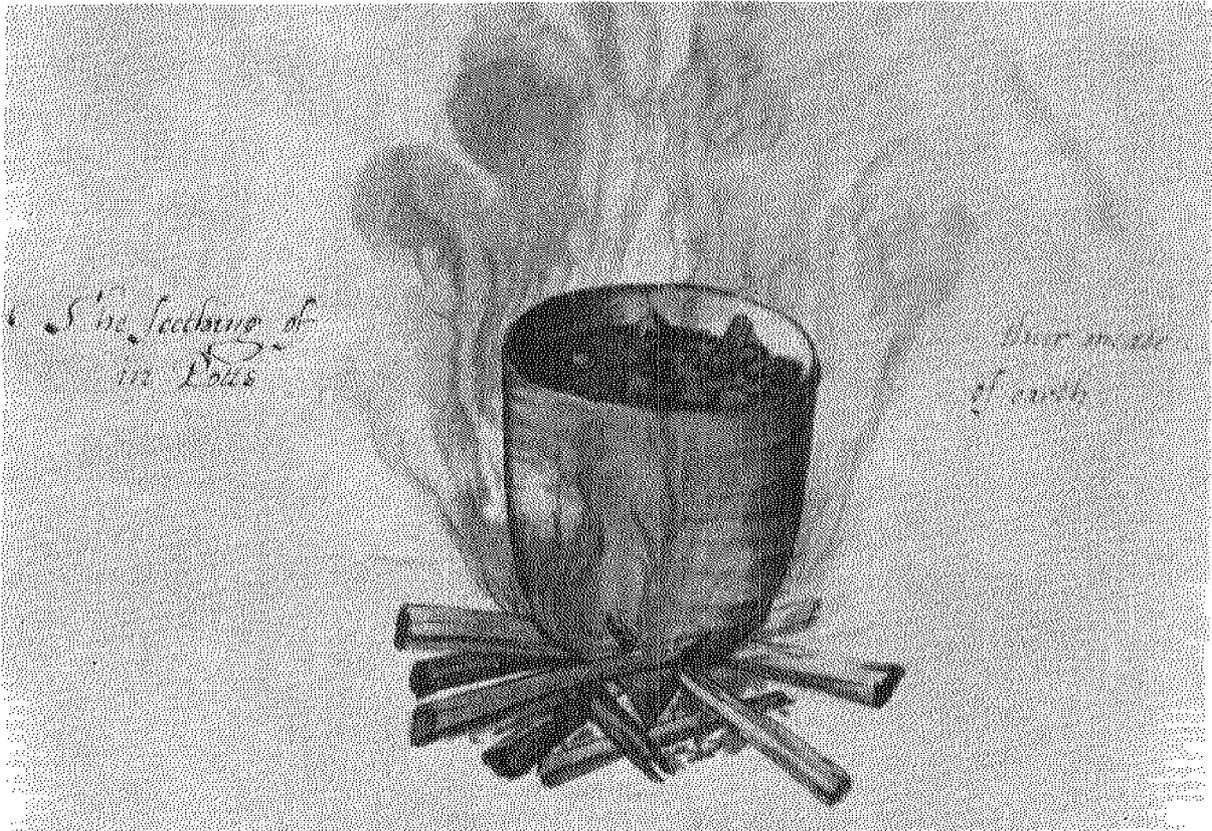


Figure 12. Method of cooking in a pot. Probably most food was stewed.

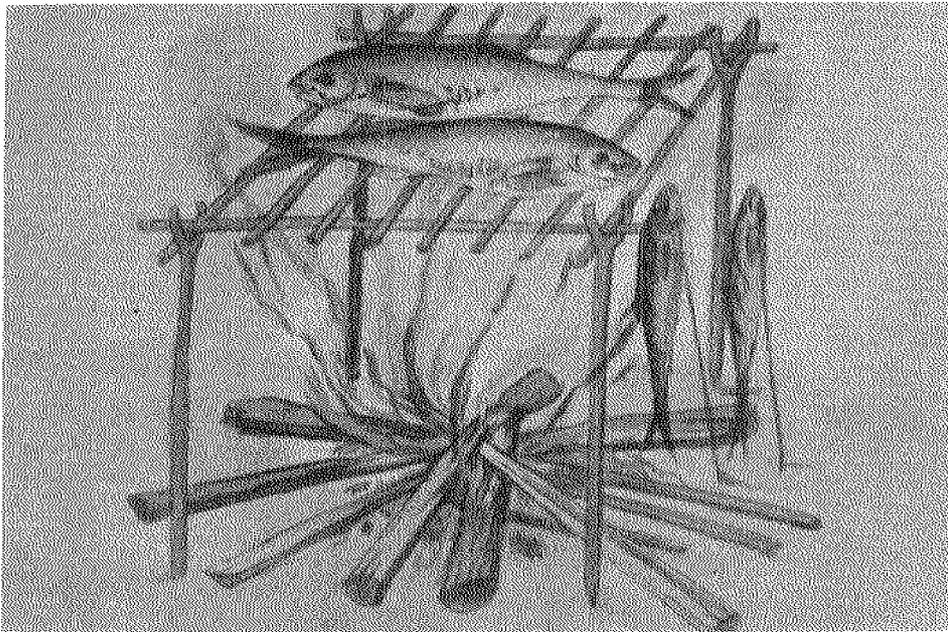


Figure 13. Method of broiling fish.

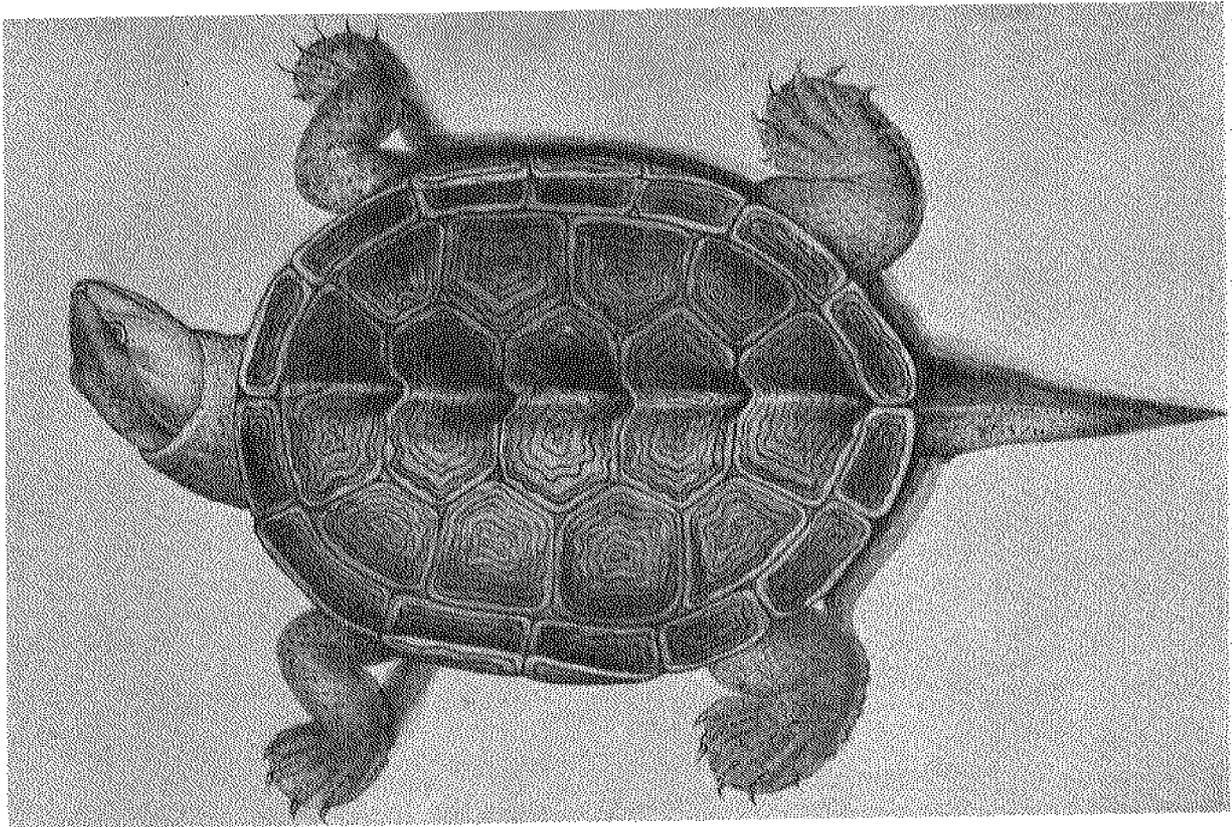


Figure 14. Diamond-back terrapin. A marsh reptile used for food.

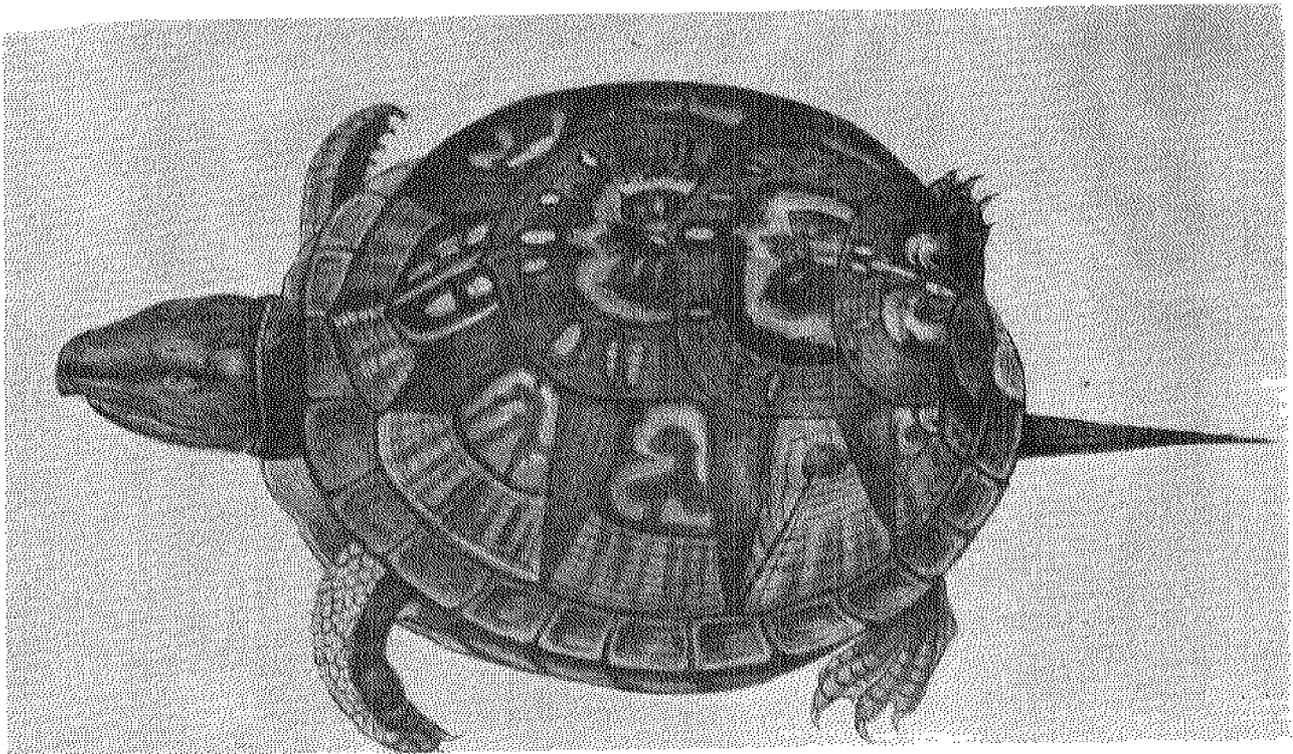


Figure 15. Box turtle. A land reptile also used for food.

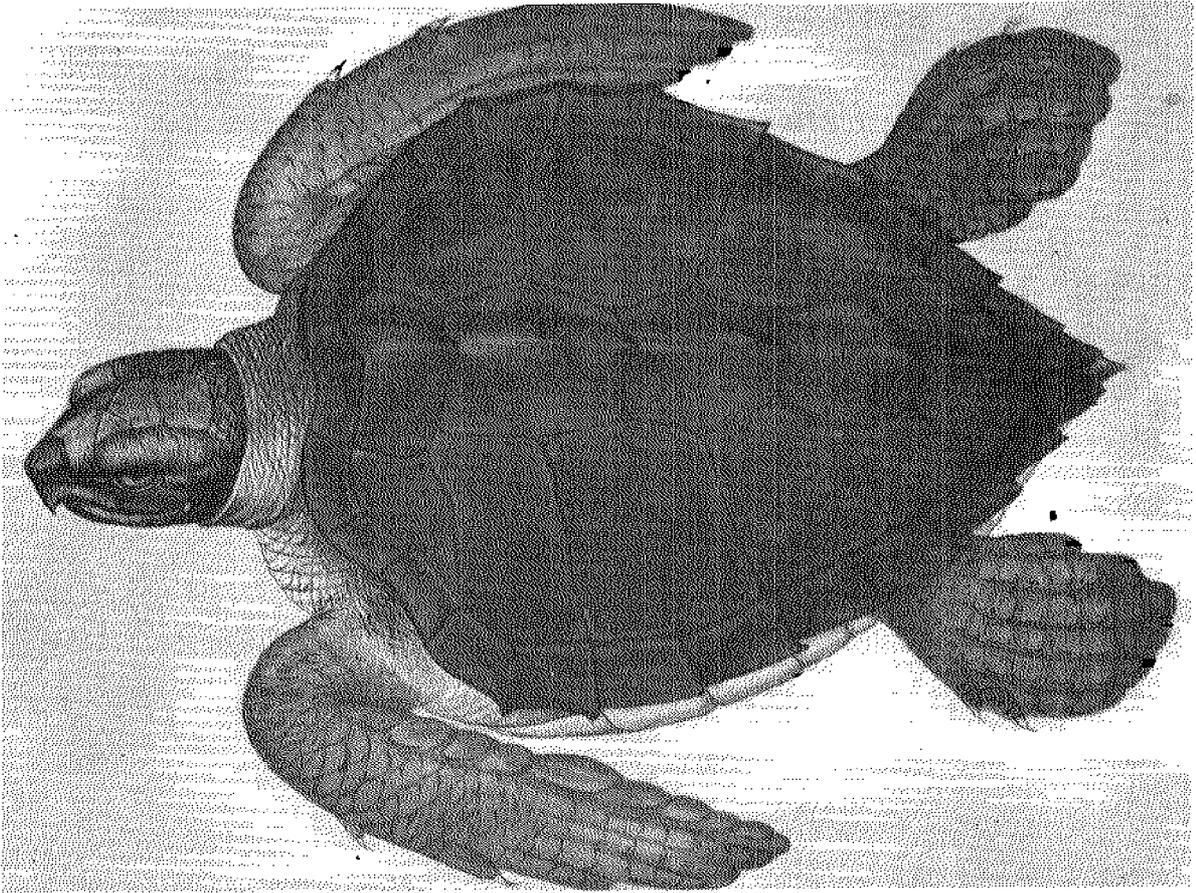


Figure 16. Loggerhead sea turtle. Often used for food by Indians.

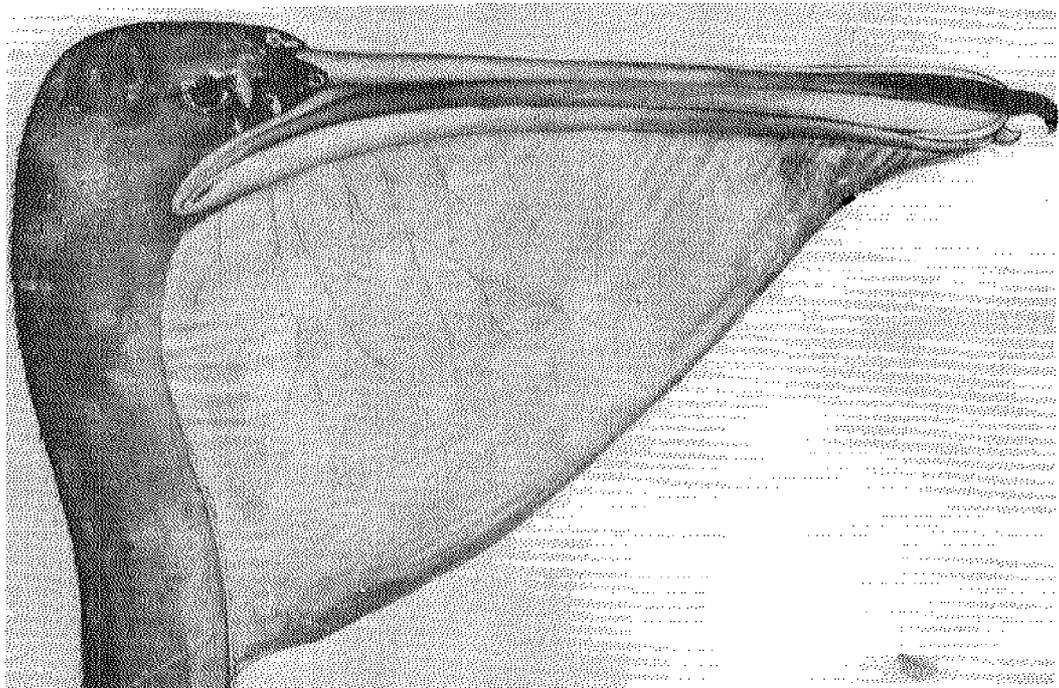


Figure 17. Head of brown pelican.

b. Vocabulary

acculturation - the process of becoming conditioned to cultural patterns

artifacts - objects made by humans

cremation - burning a dead body to ashes

culture - the customary beliefs, social systems and material traits of a group

gorgets - ornamental objects

inhumation - burial

lanceolate - narrow or tapering point

midden - a great pile of shells and bones left at a fishing camp site

monarchy - government headed by king or queen

ossuary - mass grave

shaman - priest or medicine man

subsistence - means of support or livelihood

theocracy - government by priests claiming to rule with divine authority

c. Activity

Pottery

Introduction

One of the chief sources of knowledge of man's early culture is to be found in his pottery.

From the tombs of Egyptian kings to the middens of the coastal areas of North Carolina secrets of the people have been uncovered.

Cooking utensils, water jugs and works of art have been located. The decorations on many of these utensils, water jugs, bowls, etc. have given information as to the family life, wars and social activities.

Because of the economics of plastics most of our pottery today serves a decorative purpose.

Objective

To allow students to work with clay to duplicate some of the products and skills of coastal Indian culture.

Materials

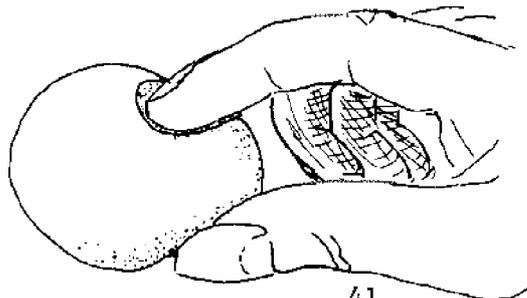
Clay - can be purchased from school supply companies
Sponges - for cleaning and smoothing
Popsicle sticks - sharpened for use as tools
Sandpaper - for smoothing and cleaning
Old Cloths - to work on
Plastic Bags - for storing clay

Procedure

There are three methods for hand-forming pottery.

Pinch Pot Method

Using a ball of clay the size of a golf ball and using the thumb and fingers as tools, you form the desired shape. The thumb is inserted into the center of the ball of clay causing the sides to gradually expand. Control the expansion with the fingers held on the outside of the pot. To obtain height pinch the clay upward.



Coil Method

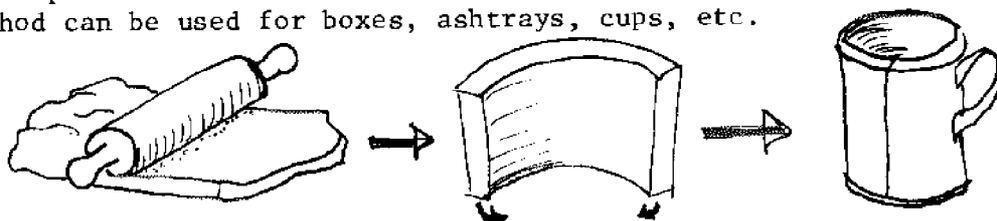
Take small balls of clay and roll them on a table surface to form snake-like coils. The coils should be about $\frac{1}{2}$ inch in diameter. Use a round disk of clay for the bottom of the pot. Begin stacking the coils one on the other.



In order to keep the coils from separating during the drying time, scratch the top of each coil with a pointed stick and apply slip. Continue laying on coils until the pot reaches the desired height. The coils can be rubbed together inside, outside or both to form a smooth surface.

Slab Method

Take a ball of clay and flatten it to some degree with your hands. Using a rolling pin, roll the clay out like biscuit dough until the clay is $\frac{3}{8}$ inch thick. This can then be cut into the desired shape. The sides are attached in the same way as the coils. This method can be used for boxes, ashtrays, cups, etc.



Finishing Process: (all three methods)

1. Use a sponge to smooth cracks or rough edges.
2. Set the pieces away from direct heat until leather hard, one day.
3. Decorate with any method you choose from the following pages.
4. After decorating allow 3 or more days drying time.
5. Bisque fire in electric kiln or pit kiln.
6. Glaze if desired.
7. Fire glazed piece at suggested temperature.

Vocabulary

Clay Body - mixture used to make pottery
Slip - soupy mixture of clay and water
Bisque - pottery that has been fired once
Greenware - dried ware before firing
Kiln - oven for baking clay
Glaze - glass coating for pottery
Leather hard - partially dried clay
Coil
Slab three methods of hand
Pinch pot forming pottery

Pit Kiln

1. Dig hole 5' x 1' in sand (reflects heat)
2. Set pots in hole (not touching)
3. Cover with pine needles and soft dry grass
4. Cover this with small brush
5. Feed fire for two hours
6. Cover pit with tin
7. Let cool completely
8. Take out pottery

c. Activity

Prehistoric Coastal Ceramic Surface Decoration or Finishing

Objective: To learn some techniques to decorate pottery.

Teacher Preparation: Provide students with dowels, strings, wooden paint stirrers.

Procedure: Read the following explanations and try to duplicate techniques.

- a. Cord-making: Done with a dowel wrapped with twined string (material of string unknown). The wrapped dowel is rolled over the surface of the wet clay prior to drying producing long, parallel impressions.



(Cord marking appears with the earliest ceramics around 1000 BC and continues to be popular until about 1000 AD, after which it declines in popularity and is rare after 1200 AD.)

- b. Fabric impressing: This is accomplished by weaving twined string around a series of parallel dowels, and simply impressing the tool into the wet clay surface.



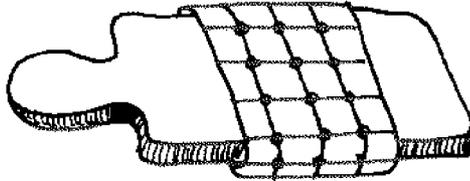
(This also begins about 1000 BC and maintains its popularity throughout prehistoric continuum. The dowel diameter and twine diameter decrease in size through time.)

- c. Simple stamping: A wooden paddle has parallel lines carried into one surface, and is impressed onto the wet vessel surface producing a series of parallel grooves which are rectangular in cross-section.



(Simple stamping occurs very early in the record from 1000-300 BC, then drops out. It is revived again around 1000-1200 AD, and continues up to 1650 AD. Apparently, both times it reflects influence from the south where paddle stamping is one of the major decorative techniques.)

- d. Net-impressing: A net fabric, with knotted intersections, is wrapped around a wooden paddle, which is then impressed into wet clay.

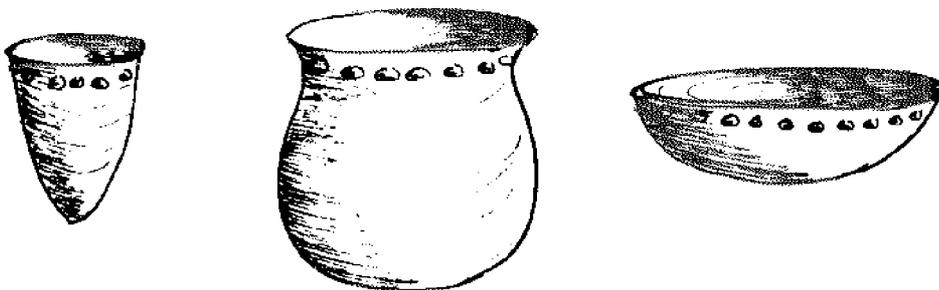


(Net impressing occurs from 1000 BC to about 1000 AD, but appears to be more popular in the earlier period, 1000 BC - 500 AD.)

- e. Incising: Incising is accomplished with a sharp pointed bone, wood, or stone tool, cutting lines into wet clay surface. Very rarely, incising or incised designs cover the entire vessel surface; it is more usual for incision to be used as rim decoration, most popular in the period from 1000-1650 AD. Incised rim bands can occur over other surface decorations such as fabric impressing and simple stamping.



- f. Punctuation: Punctated rim bands are usual as a decoration on plain, fabric impressed and simple stamped vessels, as illustrated below. Punctuation is made with whole or half dowel (stick) end, cut reeds, ends of small bones, finger nails, etc. This techniques post-dates 1000 AD.



c. Activity

Indian Food

Objective: To make students aware of types of Indian food that were adopted by the early settlers in America and are still used by people today. (See Figures 12-16)

For more information of Indian habits, refer to The Algonquins, Indians of That Part of the New World First Visited by the English by Roy F. Johnson. (Johnson Publishing Company, 1972; Murfreesboro, North Carolina 27885.) (Copyright, 1972.)

As an example on page 55, "They sat or haunched on their buttocks to eat or to pray." "The Algonquins had no tables for eating. They spread a mat of twigs on the ground, placed a container of food in the center and sat around it, the men on one side and the women on the other."

Seminole Pumpkin Bread

2 cups of prepared pumpkin (ready for pie)
3 cups of self-rising flour
1 cup sugar (a little less won't hurt). An equivalent amount of honey may be substituted--gives it a very good flavor.



Mix all ingredients well. Take tablespoonful-size quantity, roll in flour and flatten to about 5 or 6 inches long, 3 to 4 inches wide and $\frac{1}{4}$ inch thick, drop in hot grease, and fry to golden brown.

Dab Cornbread

2 cups of plain meal
A pinch of salt
 $\frac{1}{2}$ cup of water
Mix cornmeal and salt. Add water to the ingredients until slightly moist. Make individual patties in the palm of your hand and fry in deep fat.

Baked Fish on Outside Grill

1 fillet fish
3 slices onions
1 slice bacon to a fillet
4 thin slices potato
Salt and pepper to taste
Wrap all ingredients in aluminum foil. Place on a grill and cook 30 minutes.

Succotash

2 cups of fresh cut corn (canned corn can be used)
2 cups of baby lima beans
1 cup of water
Drippings from one piece of salt pork or slab bacon
Salt and pepper to taste
Mix all ingredients well and cook in a covered sauce pan
for 30 minutes over medium heat.

NOTE: These foods can be used in your classroom as a "Taste Treat" for you and your students.

ENJOY

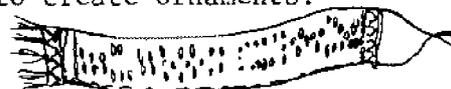
Discussion: 1. Why was corn used so much in early colonial recipes?
2. What other foods played an important part in the preparation of colonial food?

c. Activity

Indians Crafts and Skills

Coastal Indians were skilled people in that they made all the things they needed to survive and also their own ornamentation. Many of their items can be simulated in the classroom. This gives kids a chance to try their hand and also teaches an appreciation of the skills involved with living "off the land and water."

1. Objective: To use natural materials to create ornaments.



Using a variety of shells, stones, and pebbles have the students make different types of ornamentation that were worn or used for ceremonies, wampum, or decoration by the Algonquins. Pins, beads, necklaces, runtees, wampum, or pendants could be included. It should be emphasized these were used for reasons other than decoration such as money and trade. These should be displayed and labelled as to their uses.

2. Objective: To paint using natural materials and pigments.

Almost all Indian cultures show examples of art work. Many have been ceremonial paintings on hide. Students can try to duplicate this by painting on cloth (old sheets, etc.), rocks, and wood. It would be interesting to use some natural pigments, e.g. acorn juice, ground-up minerals, grass.

3. Objective: To study arrowheads.

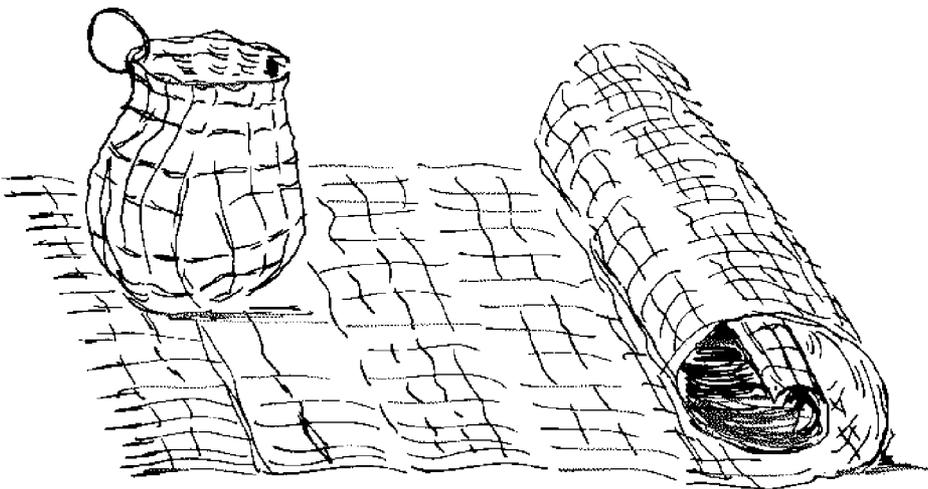
Evolution in arrowhead design and technique in construction has provided good indicators of time and culture in Indian archaeological sites. Many students have arrowheads and axe heads. Make a display collection and use reference texts in Resources of Concept 1 and 2 to try to identify period, culture and use. A fascinating description is found in the novel, Centennial, by James Mitchner, on a paleolithic Indian chipping a spear head. This could be read aloud. Some students may want to try arrowhead making by chipping a rock (flint, quartz) into shape.

4. Objective: To weave using natural materials.

Mats made of marsh needle grass (*Juncus*) have been found as early as 250 BC which are also illustrated in drawings by John White in the 1500's. They were used for sleeping, house coverings, and carpets.

Procedure: Collect some long grasses or buy basket making materials. Look through some craft books and experiment with flat mat weaving using different patterns. Some students may want to try making baskets from twigs or vines. Remember when using natural materials, they weave better having been soaked and used when damp.

Discussion: Have students discuss what they make or put together to be less dependent on manufactured items. (e.g., grow food, hunt, knit, paint, etc.)



c. Activity

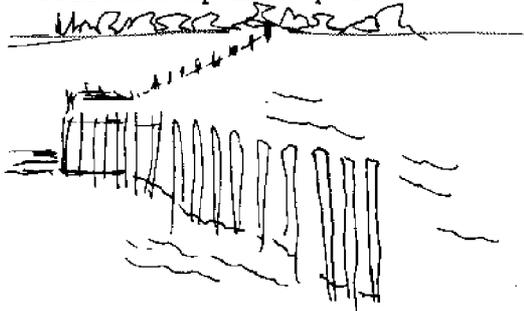
Fishing and Preparation

1. Objective: To prepare a model exhibit of the fishing gear.

(See Figure 11.)

Have students create models of the following:

- a. they would "fasten the sharp, hollow tail of a certain fish (something like a sea crab) to reeds or to the end of a long rod for a spear. . ."
- b. fish weirs (description?): weirs made of sticks or stones. These were made in the shape of a large "V." By placing them across the rivers and streams with traps at the opening in the base of the "V," they were used to catch fish as they tried to go through. (Indians in North Carolina.)
- c. Line and hook
- d. Poisoned spear: poison from devil's shoe string or buckeye.



2. Objective: To prepare fish as the Algonquins might have.



Algonquins used what we consider very difficult methods to prepare and preserve food. Purchase a raw, whole fish from a local seafood market and attempt to clean and prepare it. This should be done using tools made from shells, stones and bones. After it is clean, cooking should be done by boiling, steaming or roasting over heated rocks.

3. Objective: To use primitive methods of fish preparation.

Coastal Indians did not preserve fish by smoking or drying because there was always an abundance of fresh fish. They often roasted them: "They stick four stakes of equal height into the ground with a number of posts across them. The fire is built beneath."

- a. Clean fish with clam shells.
- b. Construct a roasting frame and roast fish.
(See Figure 13.)

c. Activity

Algonkian Village

A

Objective: To construct a scale model of a typical Algonkian Village.

Teacher

Preparation: Reproduce illustrations on pages 27 - 39 for individual students or for a bulletin board display.

Activity: As a class, decide to reproduce a scene on a large sheet of plywood or similar material. Organize into groups and assign development areas to each. Keep these facts in mind:

1. "The common people presumably lived outside the town. Towns were located near rivers and men were often $\frac{1}{2}$ day away fishing.
2. Houses were from 18-36 feet x 36-72 feet; about twice as long as wide.
3. Houses were "made of small poles, made fast at the tops in round form. . . in most towns covered with barks, and in some artificial mats made of long rushes from tops of the houses down to the ground."
4. The temple had no windows.
5. A hole at the top of houses let smoke out.

c. Activity

Locating an Indian Village

B

Objective: To determine the best location for an Indian village.

Teacher

Preparation: Prepare individual copies of the following map of an hypothetical coastal area and distribute to students. (Figure 18)

- Activity:
1. Have students work individually or in small groups.
 2. Students are to determine the best location for an Indian village and locate it on the map.
 3. Have them give four reasons why they chose the particular location.

Discussion: Why did you place your village where you did?
(food, water, floods, storms, intruders, etc.)
What problems will you encounter here?
Is food available? Fresh water? Shelter?
Do you have protection from weather?
(storms, floods, and sun -- from animals and intruders?)
What places would be good for hunting or fishing camps?

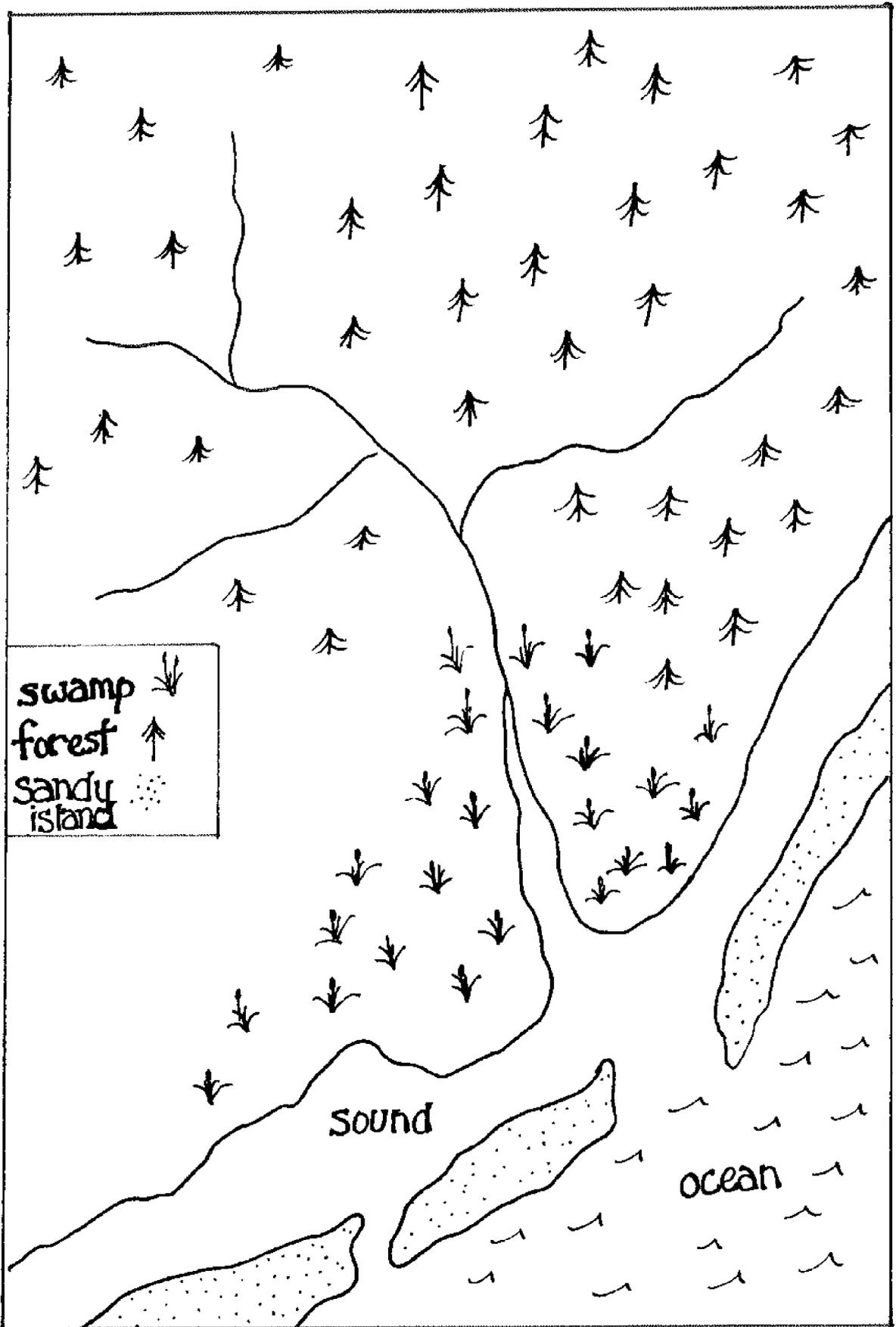


Figure 18.

c. Activity

"Settlement - Yesterday and Today"

Objective: To make the child aware of the topography of coastal North Carolina and how this affected settlement.

Teacher

Preparation: Have available an overhead projector and transparencies. Reproduce Map #1 for each student.

Activity: Distribute to each student a map of North Carolina. (Map #1) Have students label or color the different topographical regions of North Carolina. (Map #2) Show overhead transparencies of Indian settlements (Map #3) and major population centers of today, (Map #4) . As overlays on Maps 1 and 2, compare the choice of locations based on physical features of the land. (Forest, swamp or sand, protection from storms, food and water?)

Discussion: 1. How did physical characteristics of coastal North Carolina influence Indian settlement, and major population centers today? (Indians and early settlers did not settle on barrier islands but farther inland, protected from storm and flooding. Also, many settlements were near water, which provided transportation and food.)

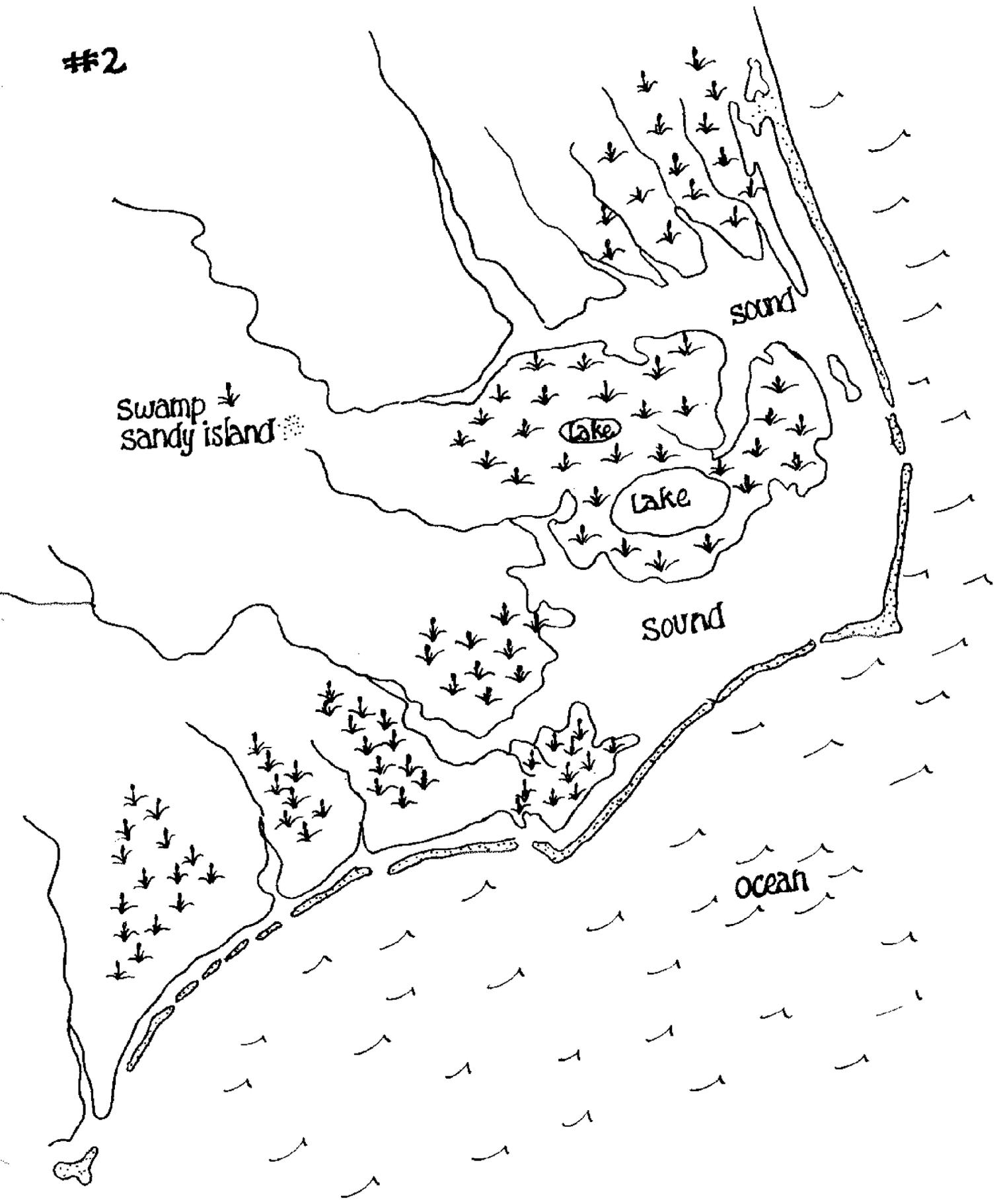
2. What danger are people who now live on the barrier islands such as people with beach houses or those who own boats at marinas? (Storms and flooding.)

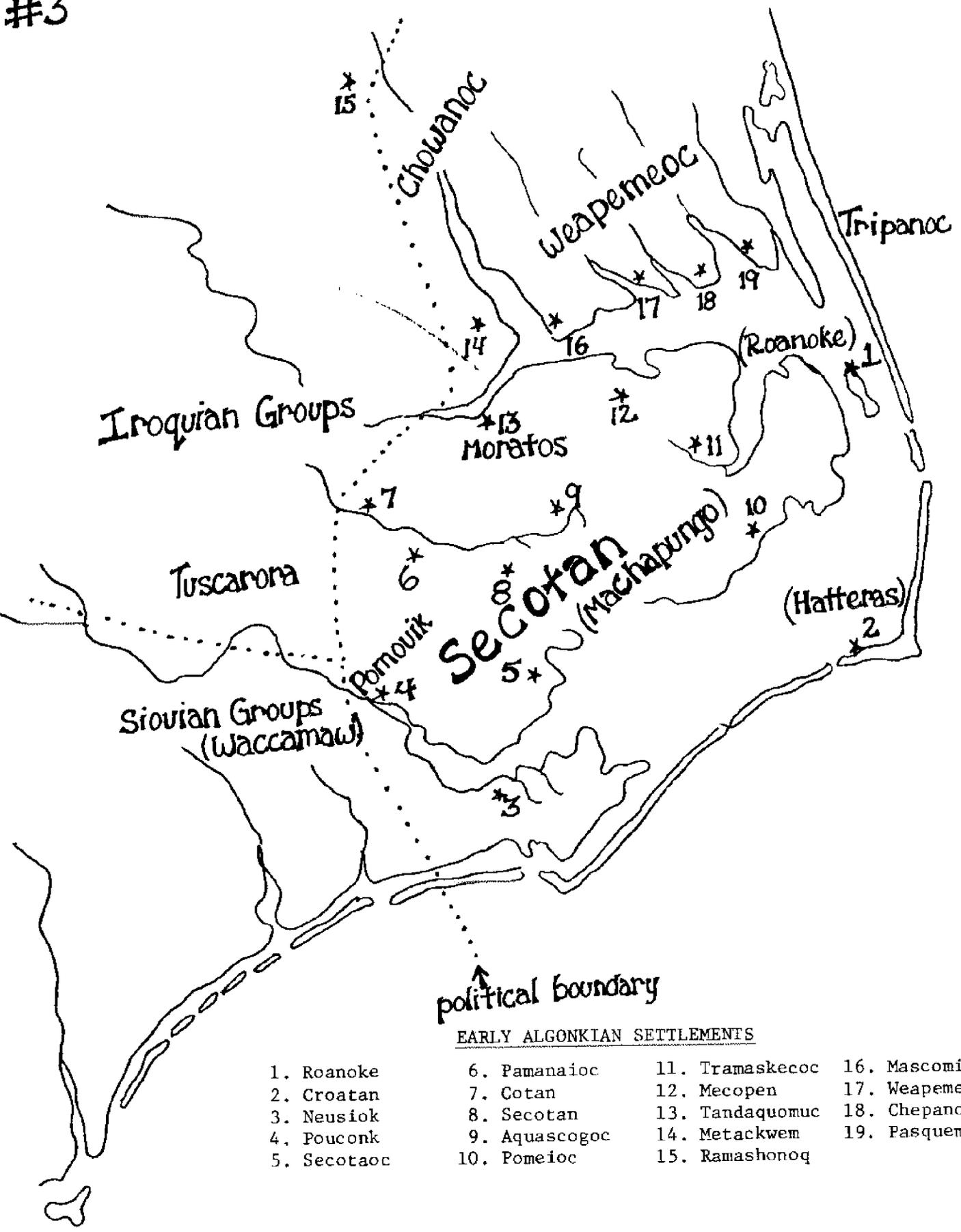
3. What things exist today causing so much more settlement on barrier islands? (Freetime, roads, more people.)

#1



#2



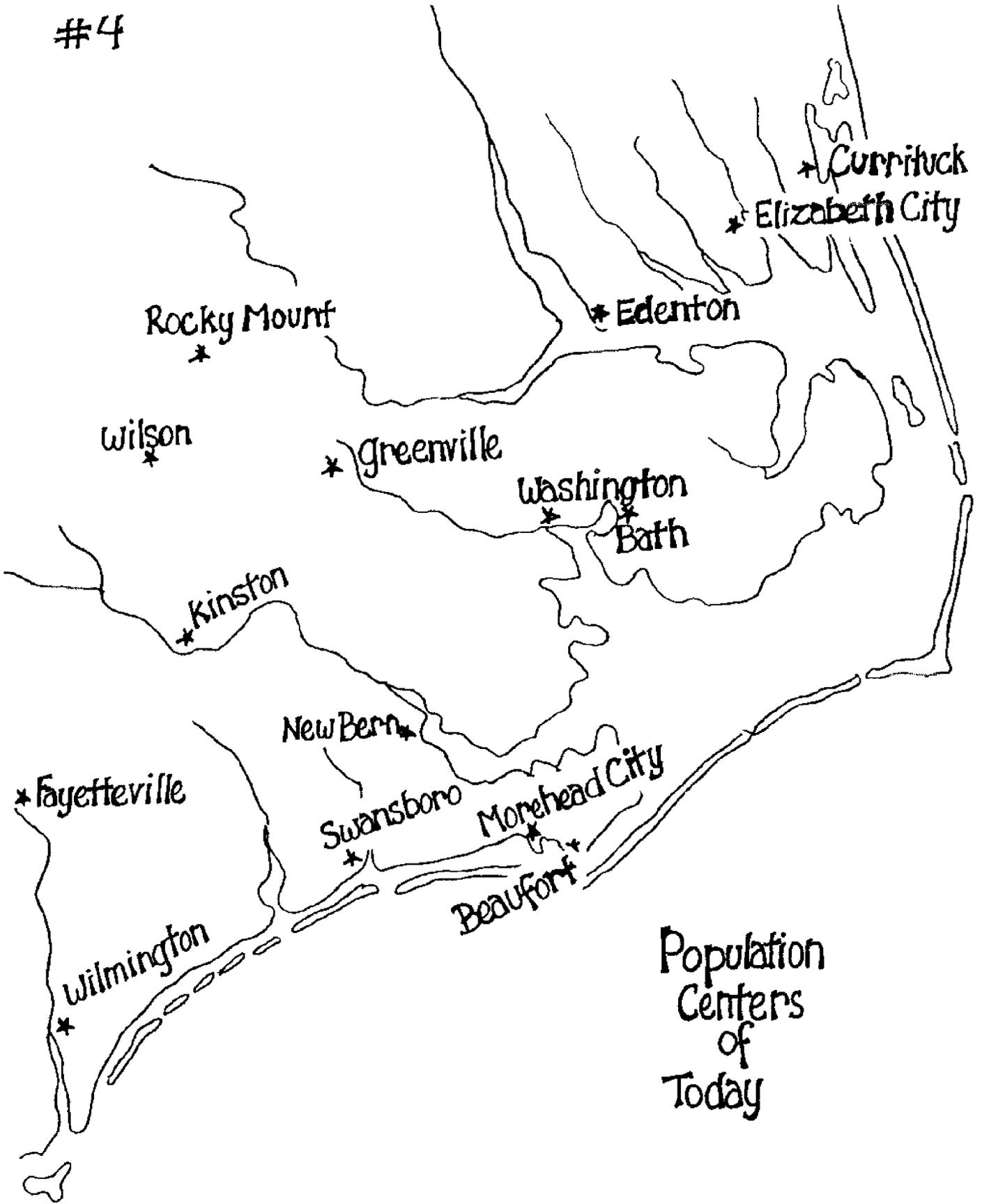


↑
political boundary

EARLY ALGONKIAN SETTLEMENTS

- | | | | |
|-------------|---------------|-----------------|---------------|
| 1. Roanoke | 6. Pamanaioc | 11. Tramaskecoc | 16. Mascoming |
| 2. Croatan | 7. Cotan | 12. Mecopen | 17. Weapemeoc |
| 3. Neusiok | 8. Secotan | 13. Tandaquomuc | 18. Chepanoc |
| 4. Pouconk | 9. Aquascogoc | 14. Metackwem | 19. Pasquemoc |
| 5. Secotaoc | 10. Pomeioc | 15. Ramashonoq | |

#4



Population
Centers
of
Today

c. Activity

"Cultures of Man in Coastal North Carolina"

Objective: To compare and contrast the cultures of man in coastal North Carolina.

Teacher

Preparation: Utilize the material on the Paleo-Indian period, Archaic Indian period and Woodland period found in Concept 2, Background Reading and adjust to your grade level.

Activity: Have students complete the following chart or some variation of it. Include any of these possible elements of the various cultures of the Paleo-Indian, Archaic Indian, Woodland Indian and modern man.

Possible Components of a Culture	Paleo-Indian (12,000 BC to 8,000)	Archaic Indian (8,000 BC to 1,000 BC)	Woodland Indian (1,000 BC to 1,650 AD)	Your Household (Present)
Religion				
Personal Hygiene				
Dwelling Units				
Transportation				
Clothing				
Plant Food				
Animal Food				
Weapons				
Tools and Utensils				
Domesticated Animals				
Recreation				
Communication System and Trade				
Units of Measurement				
Barter System				
Furniture				

Possible Components of a Culture	Paleo-Indian (12,000 BC to 8,000)	Archaic Indian (8,000 BC to 1,000 BC)	Woodland Indian (1,000 BC to 1,650 AD)	Your Household (Present)
Division of Labor				
Settlement Patterns				
Burial Grounds				
Environmental Changes				
Bone and Shell Ornaments				

Discussion Questions:

1. Describe a typical day in the life of a Paleo-Indian, an Archaic Indian, a Woodland Indian, a typical day in your life.
2. Trace the coastal environmental changes that occurred in each Indian period.
3. Describe the evolution of cultural changes in each example below:
 - a. dwelling units
 - b. transportation
 - c. settlement patterns
 - d. types of food (both plants and animals)
4. Additional suggested activities:
 - a. demonstrate stone boiling
 - b. roast a fish using mud and hot coals
 - c. demonstrate the preservation of food by smoking, salting, or drying and compare with same food with no preservation.
 - d. make a typical bone-shell-bead ornament worn by the various cultures. See Activity - "Indian Crafts and Skills"

c. Activity

Future Shock

Objective: To demonstrate the impact of cultural contact and conflict of an Algonkian if he were suddenly transported through time to 1978.

Activity: Have half of the students pretend that they are members of an Algonkian culture of the 15th century who had never seen a white or black man. They are suddenly swept through time to the present day in your town. Have the "Indians" discuss among themselves what amazing things they saw. Then, try to communicate with the other half of the class by sign language some needs and questions, e.g. I'm hungry, where are we, etc.

Discussion: 1. Of the many strange sights, what impressed you most?
2. Did anything frighten you? Why were you afraid of it?
3. What types of problems would need to be solved, and questions answered, to allay the Algonkian fears?

c. Activity

Culture is. . .

Objective: To provide a better understanding of the Algonkian culture of the Late Woodland period by comparing it with our today.

Teacher

Preparation: Prepare copies of the following chart. Necessary information is in Concept 2, Background Reading Section.

Activity: Using the chart, have students fill it in and compare and contrast the Algonkian culture with the lifestyles of their home town. The chart should include: agriculture, settlement patterns, dwelling units, clothing, hunting, political organization, transportation, religion, ceremonial practices, recreation, and weapons development.

Discussion: 1. In what areas are there similarities?
2. In what areas are the differences greater?
3. Using as many aspects of the chart as you can, describe a typical day in the life of an Indian from the Algonkian culture.
4. Do you see any cultural aspects which we borrowed from the Algonkians?

Culture is...	Woodland (Late)	Today
"how food is grown" (agriculture)		
what settlements are like . . .		
what people live in . . .		
what people wear . . .		
who's in charge . . . (Politics)		
how people move around...		
who or what people worship. (religion)		
types of ceremonies		
how people get meat... (hunting)		
forms of recreation		
weapons		

Culture is...	Woodland (Late)	Today
"how food is grown" (agriculture)	much of their food coming from agriculture maize, sunflower, beans, squash	family farms very big farms
what settlements are like . . .	permanent (around good agriculture areas) and seasonal camps (depending on food available)	cities towns (suburbs)
what people live in . . .	mat-covered longhouse	single family houses apartments huge apartment complexes
what people wear . . .	deerskin skirts deerskin breechcloth skin cloaks, feather cloaks--jewelry, tatoo	anything!
who's in charge . . . (Politics)	small tribal monarchies	democracy monarchy dictatorship
how people move around...	established trails boats hewn from cypress logs	some walking, bicycling cars, trains, buses planes, rockets
who or what people worship.. (religion)	formal "state" religion --some elements of hunting religion and shamans	Christianity, Moslem, Buddhists, etc.
types of ceremonies	elaborate burial rituals	Christmas, Thanksgiving celebrations, etc.
how people get meat... (hunting)	bow and arrow stalking large animals gathering fish, shellfish	hunting for sport-- meat from stores
forms of recreation		
weapons	bow and arrow	guns nuclear weapons

c. Activity

Marooned on a Barrier Island

Objective: To simulate how man develops a culture by adapting to his environment.

Teacher

Preparation: List the following items on the board:

fresh water	turtles	shore and sea birds
salt water	muskrats	crustaceans
maritime forest	rabbits	shell fish
salt marshes	squirrel	fish
sand dunes	deer	
shells	snakes	
grasses	raccoon	

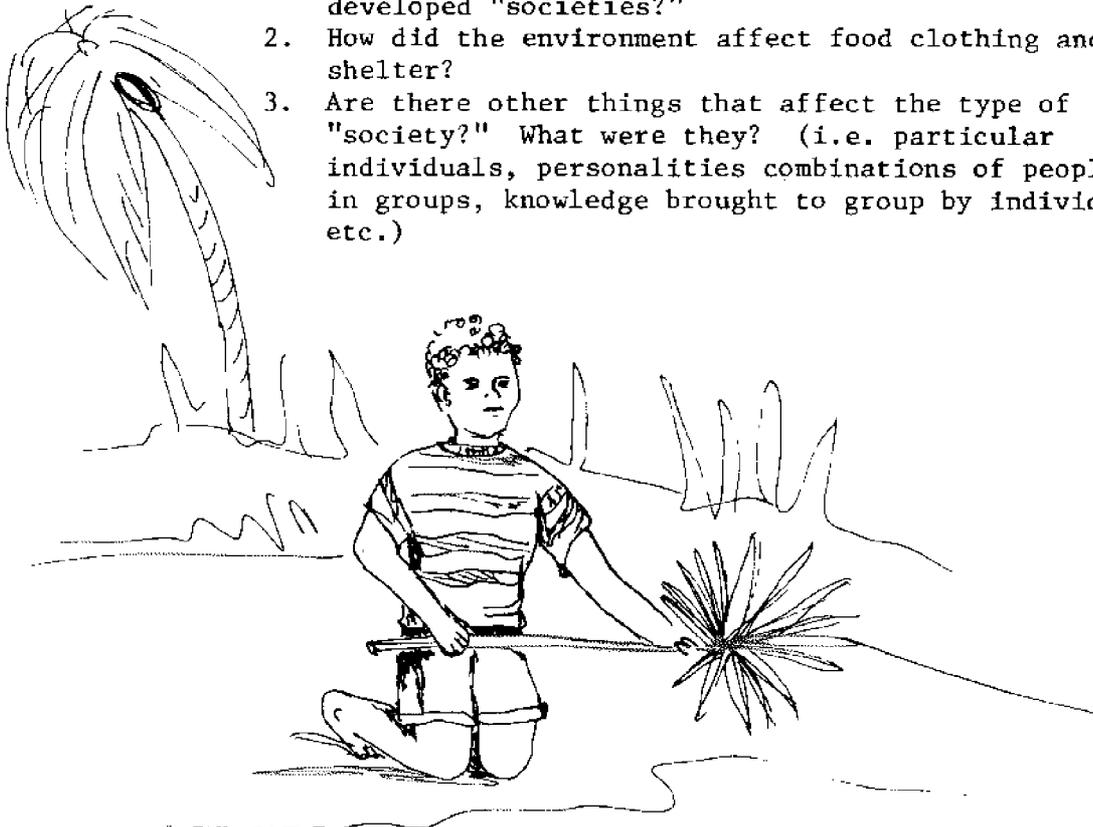
Divide the class into small groups.

Activity: Inform the students that they are marooned on an uninhabited barrier island with nothing but the "clothes on their backs." It is spring and they must use the above available natural resources to develop a system of living. This should include a means of providing food, clothing and shelter. Depending on the level of the students, an economic system, government and religion can also be developed.

Discussion: 1. What similarities and differences exist in the newly developed "societies?"

2. How did the environment affect food clothing and shelter?

3. Are there other things that affect the type of "society?" What were they? (i.e. particular individuals, personalities combinations of people in groups, knowledge brought to group by individuals, etc.)



c. Activity

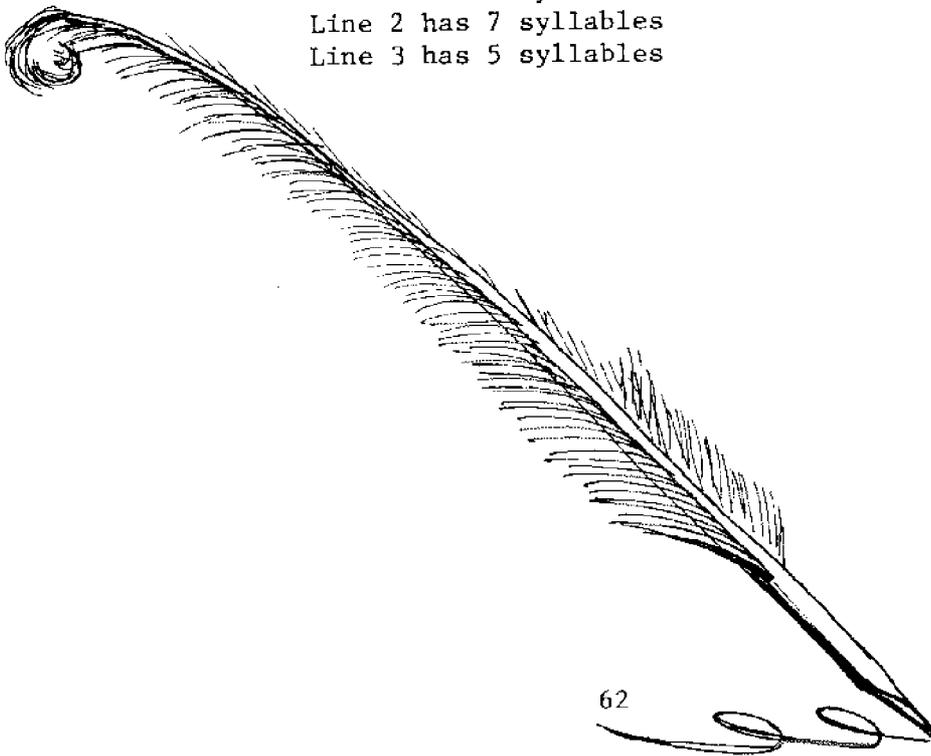
Interpretation through Creative Writing

Objective: To observe details in selected John White paintings.

Teacher

Preparation: Have available a copy of the September, 1947, National Geographic Magazine. (See Resources at the end of this section) or show the black and white copies of these pictures in the Background Reading Section of Unit IV.

- Activity:
1. Have each student choose a picture and list as many details as they observe.
 2. Arrange the details by category such as characteristics of people, their dress, distinctive tools, activities, houses, etc.
 3. Have each student develop a topic sentence for each category and write a paragraph. This can be descriptive of the scene or imaginative, telling a story.
 4. Ask the students to imagine they are colonists and keep daily journals. Let one writing be a day in the journal.
 5. Ask the students to pretend they are one of the Indians observing John White. Create a short dialogue between Indians discussing the event when White leaves.
 6. Ask the student to consider the differences in culture, the beauty of the land, and adventure of exploring, the hardships of ship travel and other deprivations. How could they express the ideas through poetry? Haiku is an ancient Japanese form consisting of only three short lines, with a total of 17 syllables.
Line 1 has 5 syllables
Line 2 has 7 syllables
Line 3 has 5 syllables



Indian Culture Crossword Clues

Across

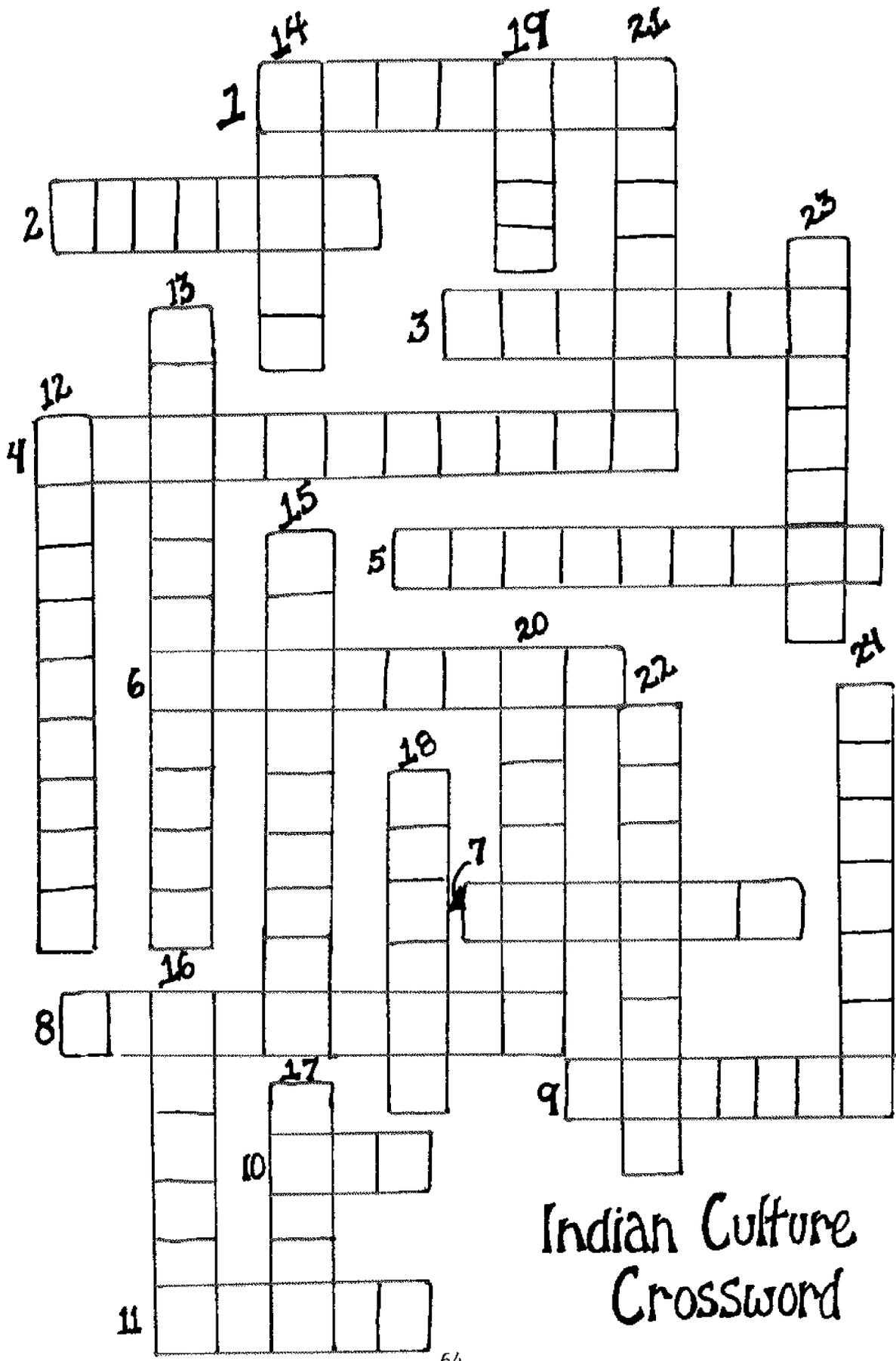
Down

1. Plant foods are common during this period as shown by a fairly common artifact, the grinding stone
2. The Woodland period begins with the use of _____
3. A mass grave
4. The cultivation of plants for food
5. A common type of food near the coast
6. An Algonkian tribe was ruled by a king and so was a _____
7. A large pile of shells and artifacts left at a fishing camp
8. Obtaining food by collecting
9. Some of the first Europeans to come in contact with the Algonkians
10. A typical artifact once used for chopping
11. An early weapon
12. Name of Indian Group in what is now Southeastern United States
13. A type of grave
14. Replaced the spear as a weapon
15. Type of shelter built by Algonkians
16. Groups of Indians
17. A type of corn brought from Mexico
18. The name of the earliest spear point
19. Early people are thought to have come to North America from _____
20. Obtaining food by killing animals
21. The beliefs, social systems and materials used by a group
22. The period beginning around 1000 BC
23. Boats were carved out of _____ logs
24. A large animal hunted by Paleo-Indians

answers

across

1. Archaic
2. Pottery
3. Ossuary
4. Agriculture
5. Shellfish
6. Monarchy
7. Midden
8. Gathering
9. English
10. Axe
11. Spear
12. Algonkian
13. Burial Mound
14. Arrow
15. Longhouse
16. Tribes
17. Maize
18. Clovis
19. Asia
20. Hunting
21. Culture
22. Woodland
23. Cypress
24. Mammoth



Indian Culture Crossword

Find the hidden words



p	e	o	h	l	r	i	c													
w	b	u	r	i	a	l	o													
o	q	m	i	n	s	c	r													
o	a	x	e	d	i	r	n													
d	t	c	a	i	a	m	e													
l	b	z	b	a	l	a	i													
a	l	g	o	n	k	i	a	n												
n	a	b	w	e	t	z	r	h												
d	s	p	e	a	r	e	r	y												
t	c	e	m	a	m	m	o	t												
h	u	n	t	i	n	g	w	r												
y	l	p	a	w	t	h	t	i												
w	t	e	r	a	e	s	v	b	x	p	n									
s	u	r	r	p	o	t	t	e	r	y	g									
n	r	l	o	n	g	h	o	u	s	e	a									
o	e	t	w	f	i	s	h	h	o	o	k									

- algonkian
- woodland
- arrow
- mammoth
- hunting
- maize
- culture
- tribe
- pottery
- bow
- arrow
- burial
- spear
- asia
- Indian
- axe
- corn
- longhouse
- fishhook

c. Activity

**K-4

"Indian Food"

Objective: To illustrate how the coastal Indians of the past used some food resources much like man on the sea coast today.

Teacher

Preparation: Prepare various seafood dishes served today. Steamed shrimp, oysters and scallops. Also, cornbread, brunswick stew, sweet potatoes and pumpkin bread (recipe below).

Activity: Have children taste various foods. Tell them that these are foods eaten by coastal Indians and are still eaten by us today.

Discussion: Why did the Indians choose these foods?

(Because they are made of things that were easy to find.)

Why do you find these foods served at the coast today?

(Because they are still easy to find at the coast.)

**This activity is intended for primary grades.

Seminole Pumpkin Bread

2 cups prepared pumpkin (ready for pie)

3 cups self-rising flour

1 cup sugar (or equivalent in honey)

Mix all ingredients well. Take tablespoonful-size quantity, roll in flour and flatten to about 5-6 inches long, 3-4 inches wide and $\frac{1}{2}$ inch thick. Drop in hot grease, and fry to golden brown.

c. Activity

**K-4 "Indian Face Painting"

Objective: To allow children to experiment with other forms of Indian ornamentation.

Teacher

Preparation: Have available tubes of yellow ochre and red ochre acrylic, paint brushes; mirrors; and pictures of facial designs.

Activity: Have children paint their partner's face with one of the following designs. Let them look at others and themselves.

DESIGN PATTERNS



c. Activity

**K-4 "Indian Pottery"

Objective: To allow children to participate in making pottery like coastal Indians made and to discover its use in Indian culture and today's culture.

Teacher

Preparation: Provide clay (commercial potting clay, marsh mud, red clay) and various "Mother Nature" printing materials (shells, sticks, sand, pieces of chicken bone).

Activity: Let children make clay containers and decorate them by imprinting. Pinch pots are the easiest to form.

Discussion: Pieces of old Indian pots have been found on the coast. They usually made their pots using the "coil method." A textural design was put on them so they would look good and be easy to hold if they got greasy. Ask the children how an Indian might have used the container he just made? (carry fish, water, cook food, smash berries, bathing) What could you use your container for today?

**This activity is intended for primary grades.

c. Activity

**K-4

"Neuseok"--Picture Story

Objective: To stimulate an interest in coastal Indian culture by means of a "rhebus" story.

Teacher

Preparation: Prepare a copy of the beginning of a story such as the following:

"One day  left the  to go  ing.  took along his  and  in case he saw a .  was walking merrily by the  when all of a sudden. . . .

KEY: Spear 
Fish 
Longhouse 
Pot 
Fishhook 

River 
Hairy Beast 
Neuseok 
Village 

Procedure: Have children complete the story using information they have learned about Indians. Let them create new symbols as necessary.

c. Activity

**K-4

"Building Shelters"

Objective: The child will be able to use various materials to make a model house which would keep him dry.

Teacher

Preparation: Have available sand, twigs, clay, leaves, water, shells, rocks and dirt; pictures of Indian huts.

Activity: Show pictures of Indian huts on next page. (With the materials at the front of the room, have the children construct a house to live in.) Discuss how they were built and how they were used.

Discussion: 1. Did the Indians get material at stores?
Why or why not?
2. What did they use for cement?

**This activity is intended for primary grades.

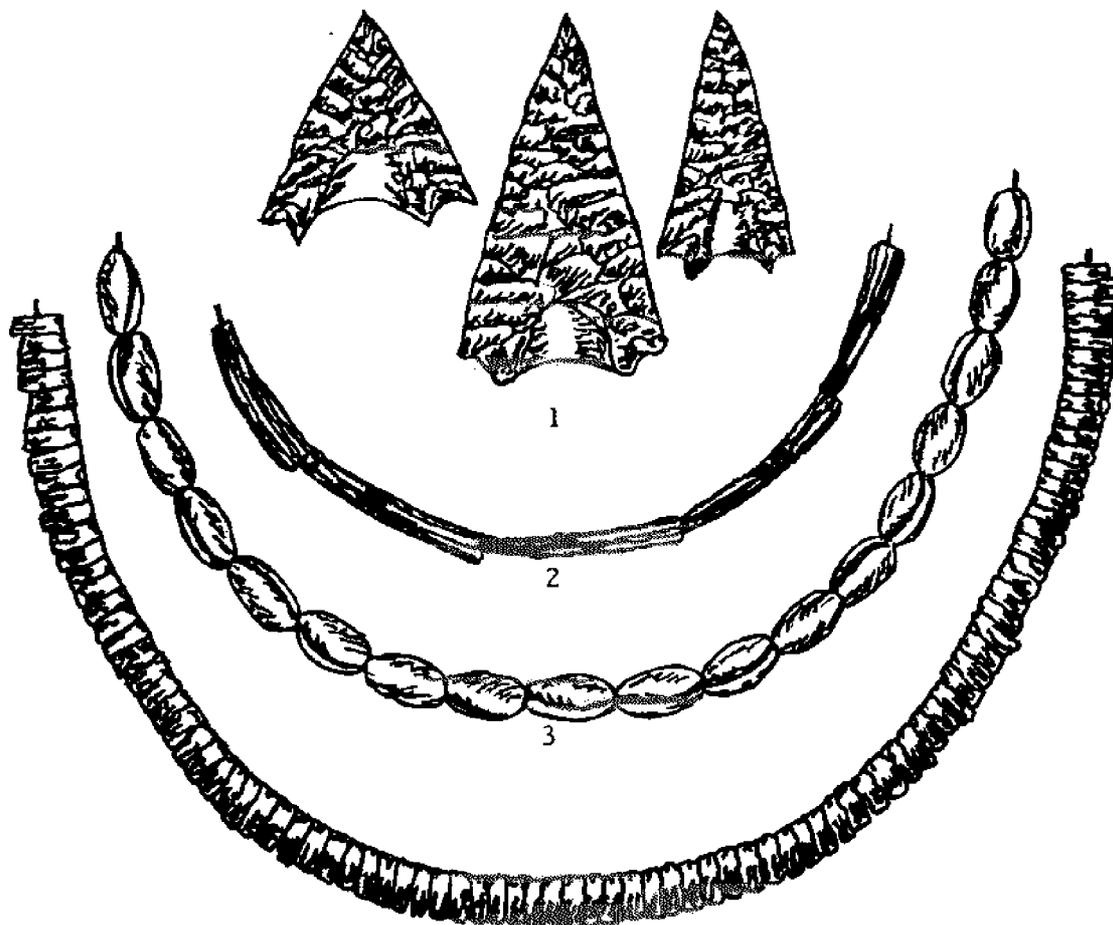
Bone and Shell Ornaments

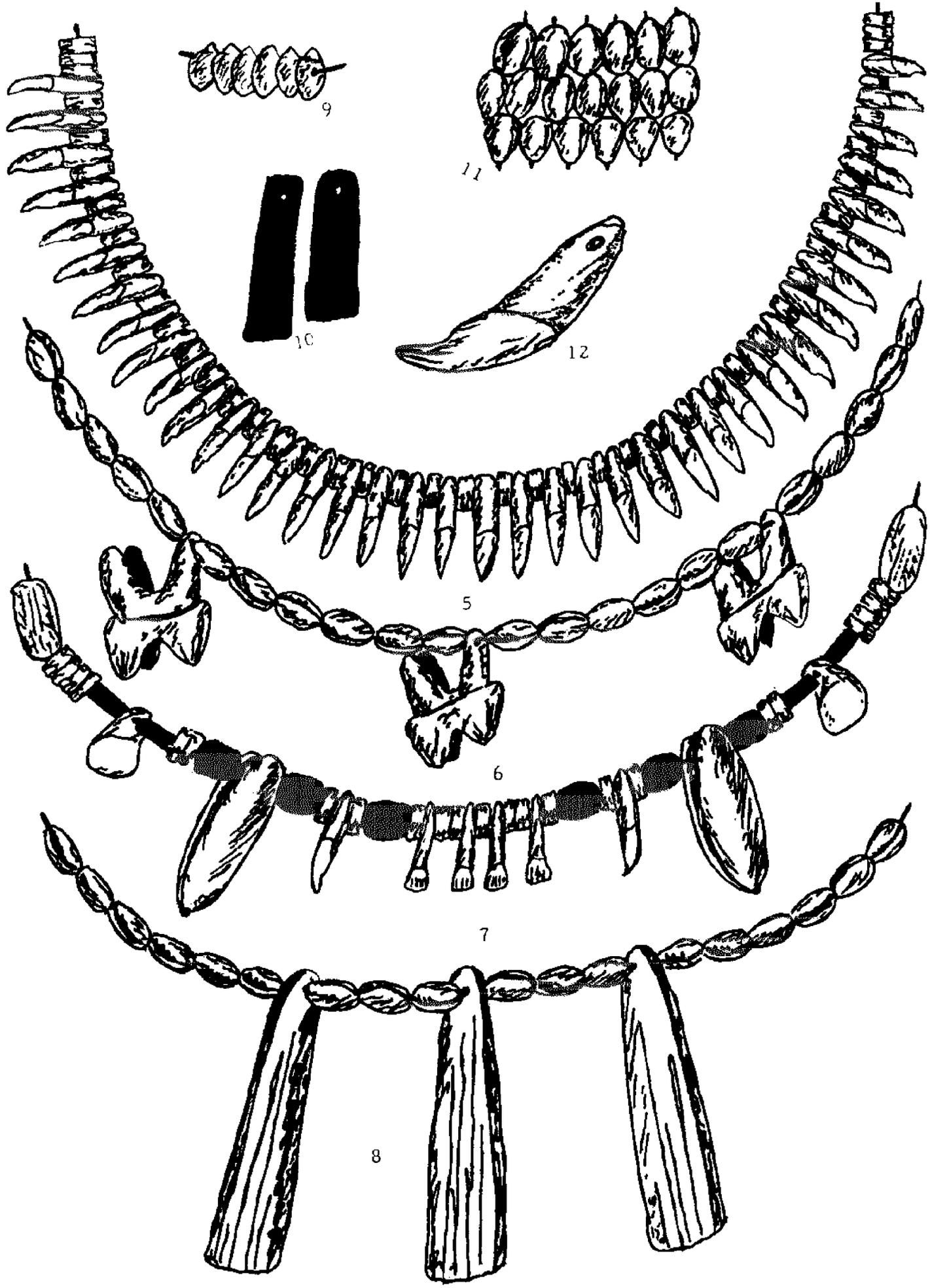
Variety of ornaments worn by Indians of the Carolina coastal plains is shown by well preserved grave goods found at Waratan Site on the Chowan River in Chowan County.

Illustrated are: (1) an Early Woodland projectile point associated with burials; (2) fossil tusk shell beads seemingly obtained from the Miocene and Pliocene period fossil beds exposed at the base of the river cliff; (3) abraded marginella shell beads; (4) disc shell beads probably from the quahog or blue lipped clam; (5) perforated animal teeth, including those of the small dog, grey fox, raccoon and bobcat; (6) root perforated bear molar teeth; (7) beads and pendants from what may have been a ceremonial offering pit, including disc shell beads, rolled copper barrel shaped beads, perforated elk teeth, rolled copper barrel shaped beads, olivella shell beads or pendants and small canine teeth; (8) whelk shell pendants; (9) side drilled marginella shell beads; (10) copper pendants; (11) marginella beads as found in situ; (12) and a partially drilled bear canine.

A striking feature of the collection is the small representation of shell objects from the coast. On the other hand, emphasis is given to the hunting tradition. --Courtesy of Floyd Painter, "The Chesapeake," II. 6, pp. 140-143.

Figure 18.





9

11

10

12

5

6

7

8

70

d. Resources

General References, North American Indians

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*Johnson, F. Roy. 1972. The Algonquians (2 vol.). Johnson Publishing Company, Murfreesboro.

*Lorant, Stefan. 1946. The New World. Duell, Sloan and Pearce, New York.

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*South, S. A. 1972. Indians in North Carolina. North Carolina Division of Archives and History. Raleigh. 50¢--available by writing. Very good.

*These works are suitable for direct school use in the middle grades.

Unit IV

Concept 3. Early Explorers record their impressions of the New World.

a. Background Reading

Early explorers touched several parts of the North Carolina coast. In 1585 explorations organized by Sir Walter Raleigh written accounts by Richard Hakluyt and sketches by John White record their impressions of the New World. Both men influenced future settlement at Roanoke Island through their writings.

The writings of the English propagandist for empire, Richard Hakluyt, 1585, demonstrate the extent to which Great Britain, as a late entry into the race to establish colonies in the New World, was inspired by Spanish example. Hakluyt fully expected that the English would find gold in North America because of the Spanish success in that regard. He also assumed, because of the erroneous report of Giovanni da Verrazano, that somewhere in the region of the Outer Banks a passage to India would be found. Thus Sir Walter Raleigh, whom Hakluyt served as geographic advisor, instructed his captains, Arthur Barlowe and Philip Amadas, to search that area for gold mines and northwest passage.

Barlowe's report to Raleigh in 1584 was very hopeful in its account of "Virginia" (the entire eastern seacoast was so called by the English) describing semi-tropical islands and native people who were not only friendly and cooperative but who wore ornaments of gold. So Raleigh sent a larger party of explorers over in 1585 to continue the search for gold mines and a passage to India. Two reports give conflicting news of the experience of that colony, which established a fort on Roanoke Island. The most famous, Thomas Hariot's Brief and True Report of the New Found Land of Virginia (1588) is an enthusiastic description of the North Carolina coast and its Indian inhabitants. However, the private report of Ralph Lane, the Governor of the colony, to Raleigh is much more realistic, being an account of his unsuccessful search for gold mines and a passage to India and, equally grim, his troubles with Indians. Though eager to trade furs for trinkets, the Indians were not happy to see the English remain as permanent settlers, and the resulting tension finally exploded in violence.

Still, it was not Indians but a hurricane that drove the colonists off Roanoke, destroying their boats and sending them back to England with Sir Francis Drake in 1586. Lane therefore recommended that Raleigh locate his next colony in the protected waters of Chesapeake Bay, but time and money did not permit this, with the result that the second colony was planted in 1587 on Roanoke also. This was the famous, "Lost Colony", and with it Raleigh's attempts to settle Virginia ended.

Though the Outer Banks were an attractive setting, the English soon learned the Indian wisdom that the islands were not a good place for permanent settlement. Low lying and exposed, they were subject to inclemencies of weather. Though Indians visited the islands on fishing

and clamming expeditions, they customarily located their villages along the protected waters of inland rivers. When the English resumed their colonization efforts in 1606, they took Ralph Lane's advice and planted their fort on the banks of the James River in the Chesapeake Bay. Yet in some respects the Jamestown settlers repeated the mistakes of the Roanoke colonists. Under the leadership of Captain John Smith, they continued to search for gold and passage to India. Again, though their relationships with Powhatan and other Indian leaders was peaceful at first, soon the Indians began to resent the English presence and plotted violence against them. It is clear that Powhatan tolerated the colonists only because he wanted the goods they brought to trade, in particular iron implements. He also hoped to get firearms and weapons of steel, a desire that was not heeded by John Smith but which boded ill for the relationship between Red men and White.

Indians, however, were important to the English and had to be dealt with carefully. From them the colonists bought vital food supplies and obtained information about the interior. Yet it is clear that the Indians drove hard bargains selling corn, and the information seems to have been mostly a corroboration of the misconceptions the English brought with them. Thus, Powhatan told Smith that there was indeed a great body of water beyond the mountains (the Alleghanies) where white men in sailing ships put ashore. This confirmed for many years the expectation of finding a northwest passage somewhere along one of the rivers pouring into Chesapeake Bay. In exploring those rivers to the falls, Captain John Smith did not find such a passage, but he did map out the great Tidewater region of plantation agriculture, and so misconceptions resolved themselves into a new and entirely unexpected reality.

b. Activity

Early Map Exercise

Objective: To compare and analyze early maps of North Carolina.

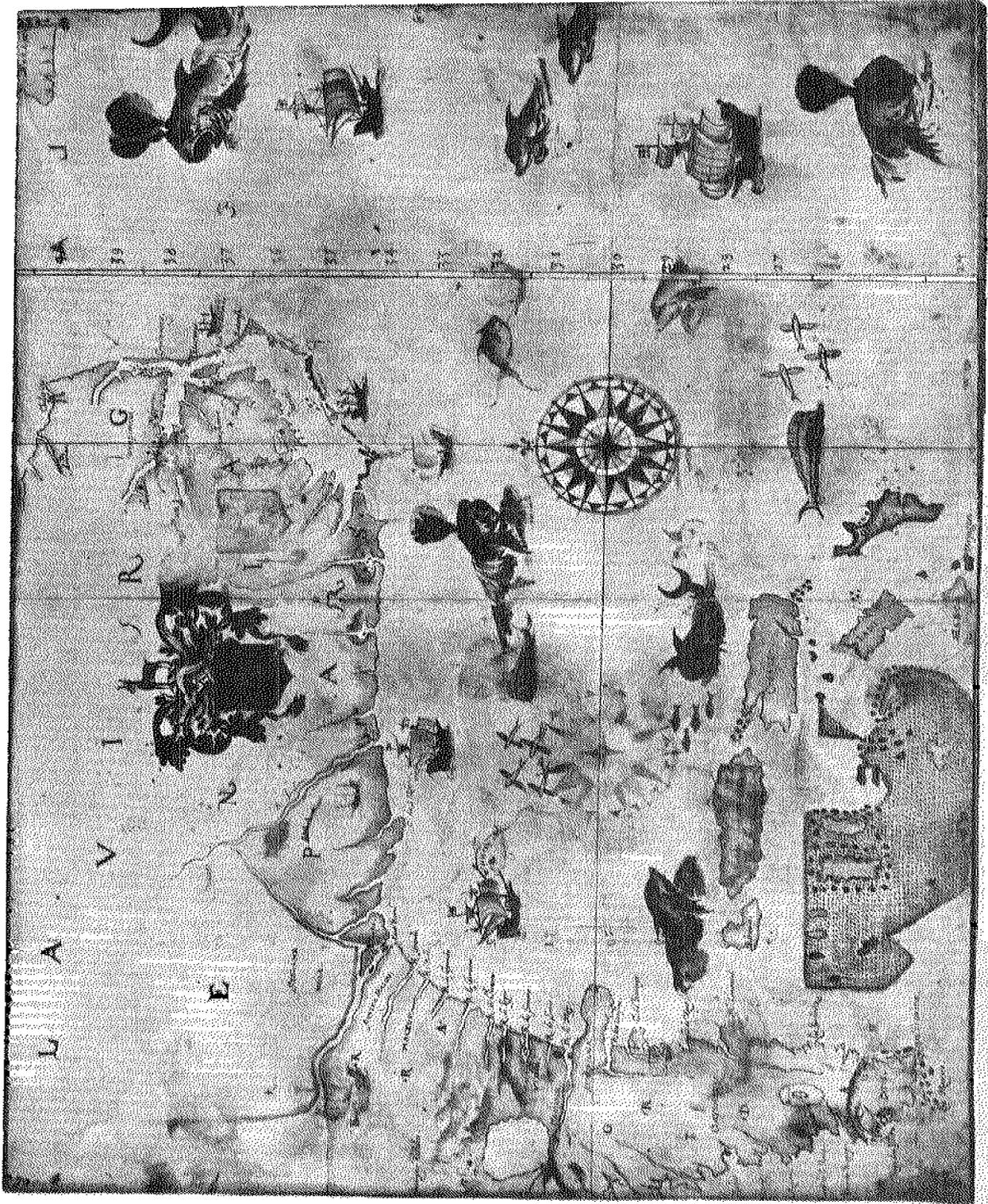
Teacher

Preparation: Reproduce the maps duplicated here. You may wish to order a set of 15 early maps for \$10.00 from the Department of Cultural Resources, Division of Archives and History, Historical Publications Section, Raleigh, North Carolina 27611, "North Carolina in Maps" with its accompanying booklet--a good investment. A road map is necessary to make comparisons.

Included Maps: White 1585 MS Moseley 1733
White-De Bry 1590
Mercator-Hondius 1606
Comberford 1657 MS
Ogilby c. 1672

Procedure: Compare the coastline of North Carolina on early maps with the road map. Note the changes, exaggerations, and misconceptions. Record any places on early maps and check their existence today.

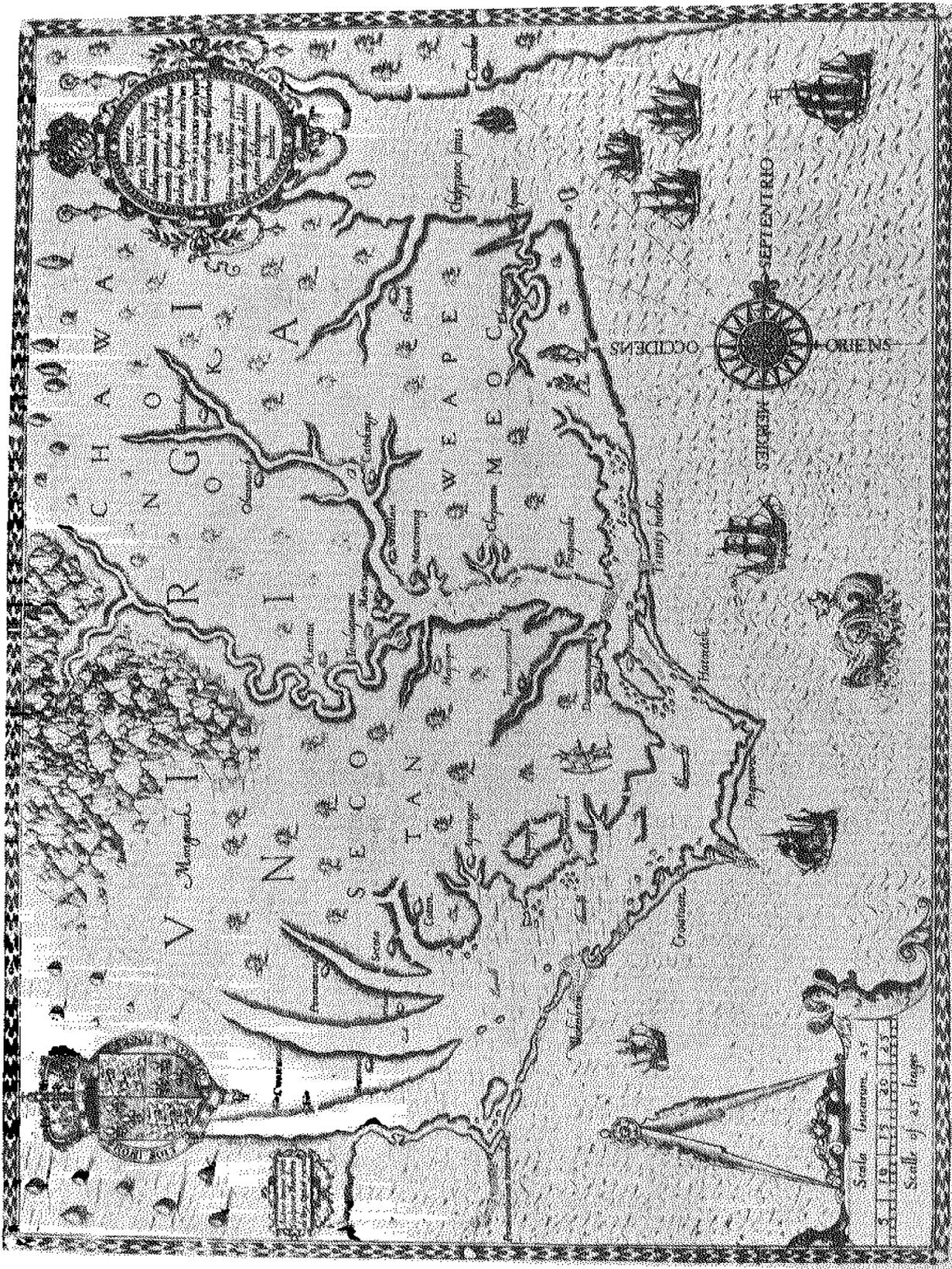
Discussion: 1. Which of the early maps is most accurate?
2. Discuss how maps are made today and how the explorers made them. (For an experiment, draw a map from memory of your home town or neighborhood. How accurate are you?)
3. What do the artistic embellishments represent on White's maps?



Chicago, Ill., 1885. Map of the
College of Arts and Sciences, Chicago, Ill.

White 1585 MS

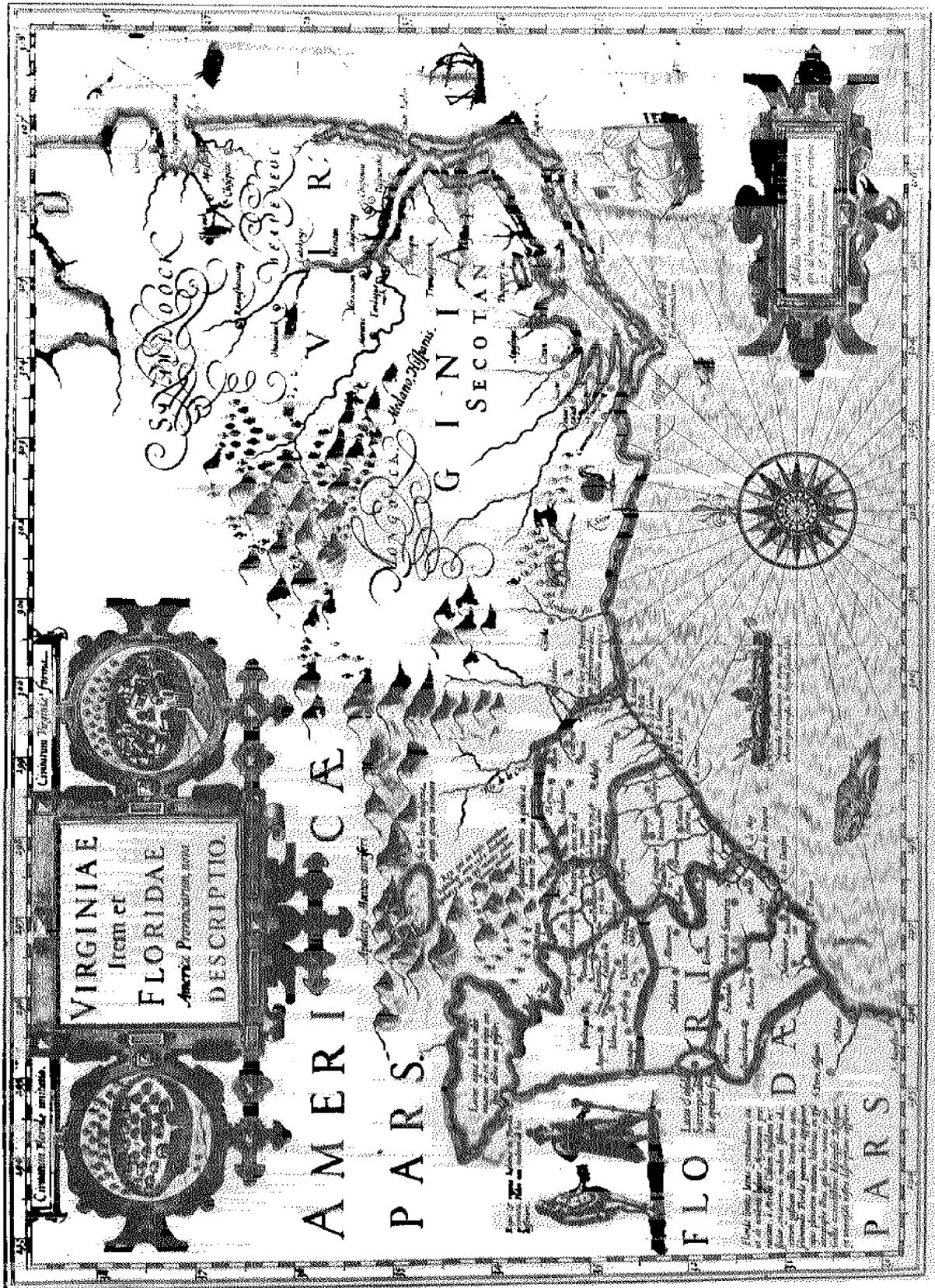
W. P. Garrison, North America and Mexico, (London, 1847)
Department of Archives and Manuscripts, Ottawa, Canada



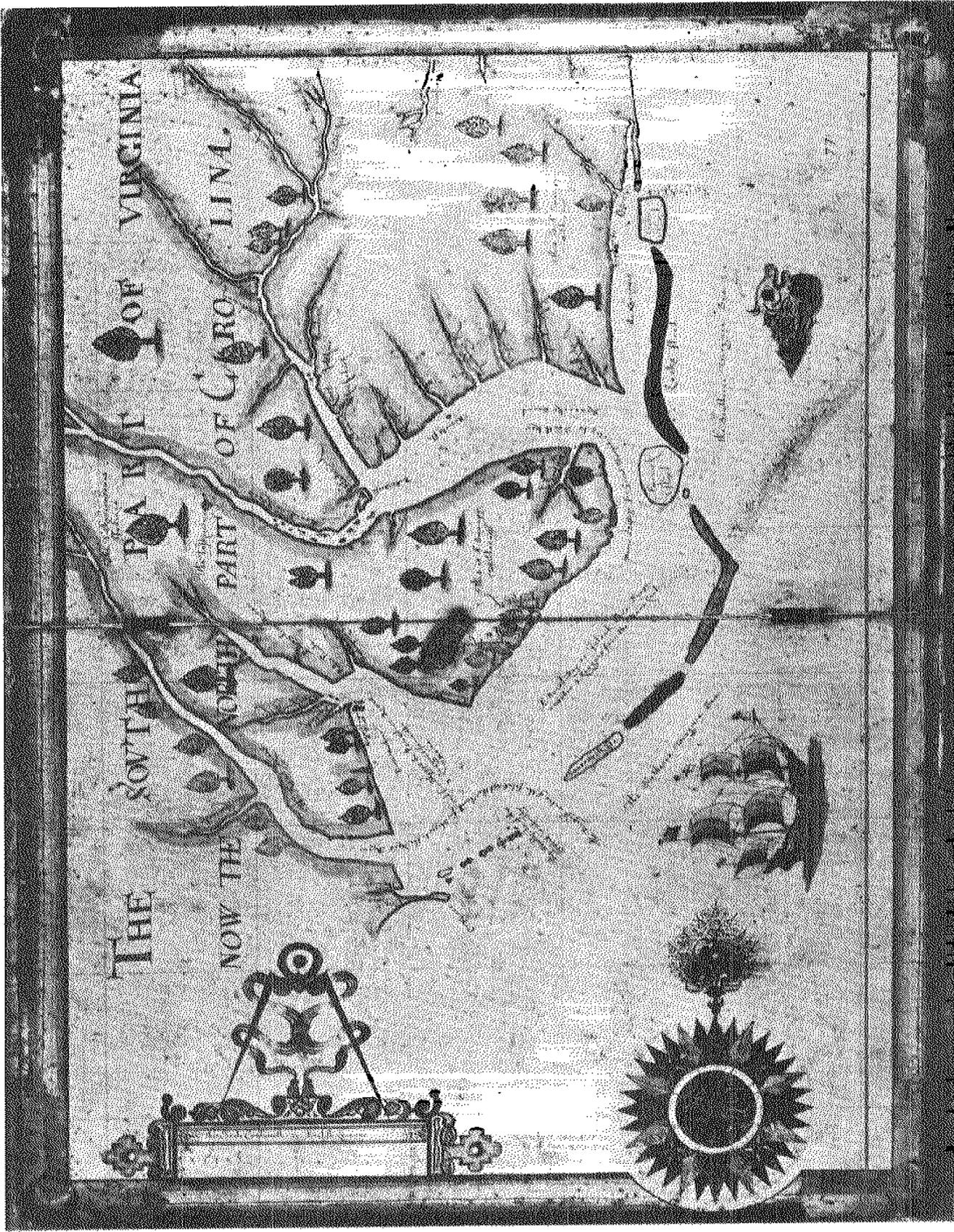
White - De Bry 1590

W. P. Cunningham, North Carolina in May, 1585, through State Department of Archives and History, (1904), Plate II

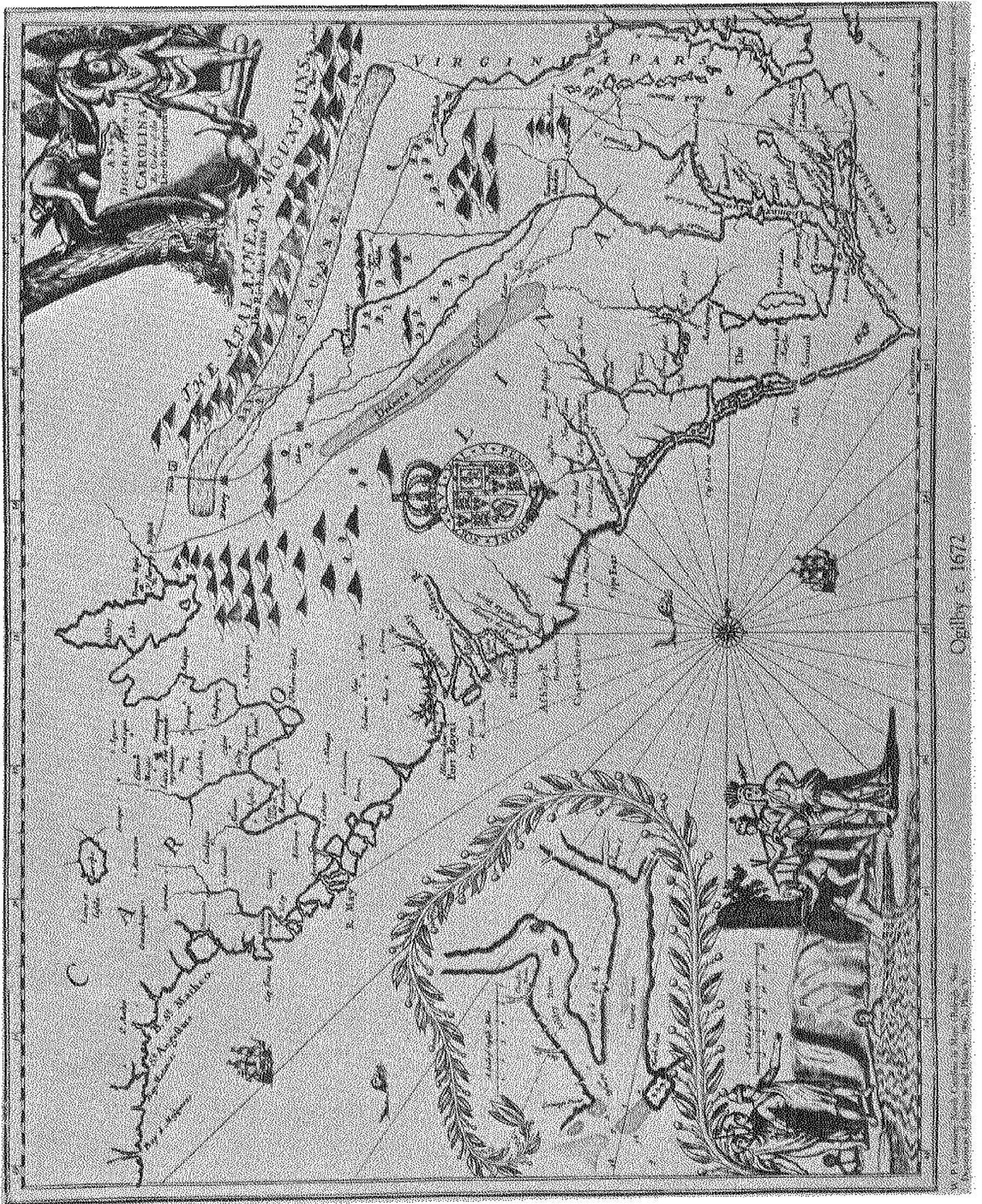
Courtesy of State Department of Archives and History, Raleigh



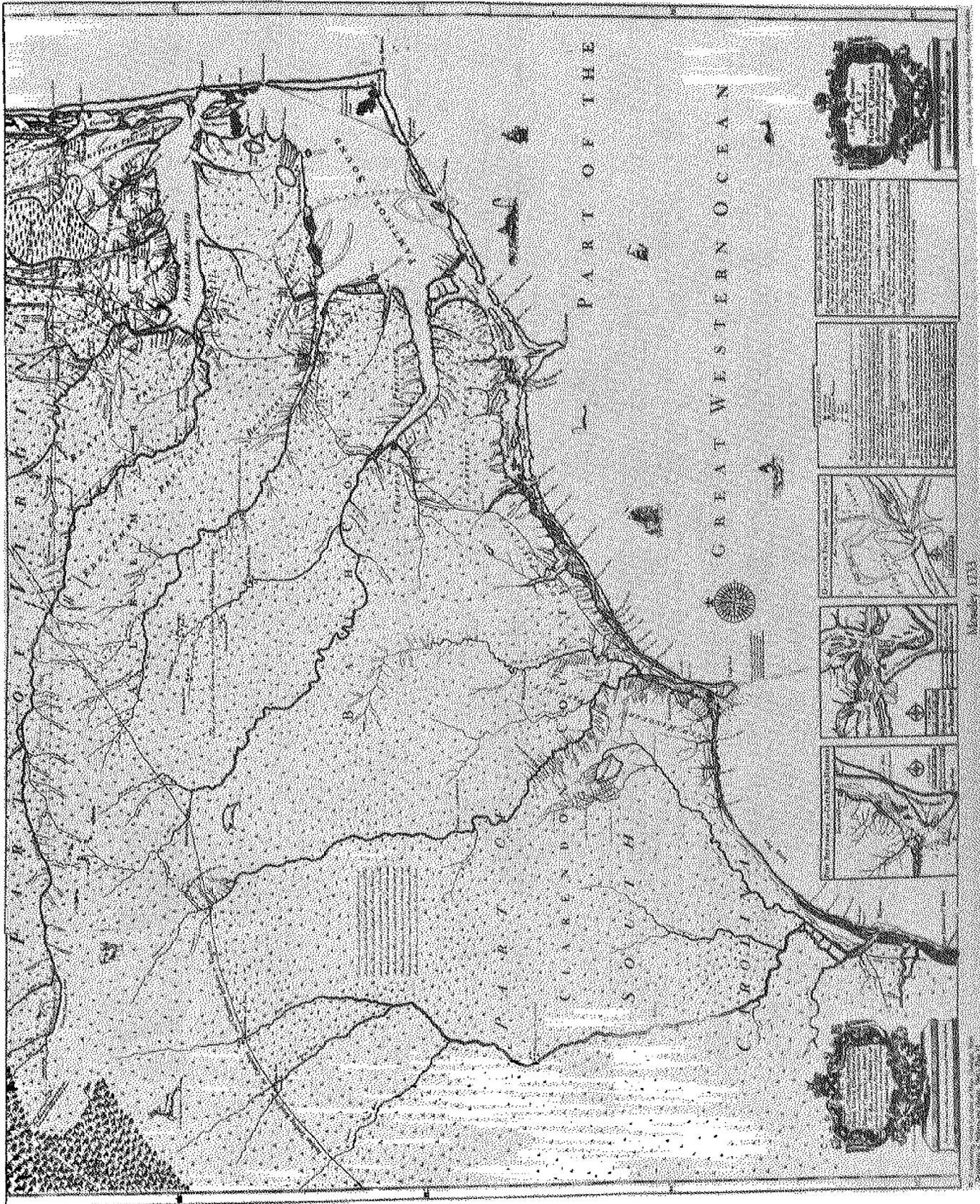
Mercator - Hondius 1606



77
Comberford 1657 MS



Ogilby c. 1677



b. Activity

Maps - Explorer's Perspectives

Objective: To demonstrate and emphasize how mistakes could have been made on early maps of the New World by mapping an unfamiliar part of the student's community.

Teacher

Preparation: Select an area of several blocks of the community or a half-mile square. Agree verbally or mark the boundaries with flags. For comparison, you need to get an accurate map of area - county road map, city planner's map, aerial photograph or quadrangle of a topographic sheet. (Clipboards/notebooks, pencils and blank paper--color.)

Procedure: Explain to the students that they are going walking around a section of their community for the purpose of preparing an explorer's map. This should be a quiet walk with each student working individually. Items for them to record would be distance, direction, elevation, natural marks (trees, rivers), buildings and roads. Rough maps can be polished up in class. Post maps.

- Discussion:**
1. In what ways did individuals see the same area differently?
 2. Choose five maps which would be suitable for a return "voyage." Of these, vote on one to represent the exploring party's idea of the area. (Roleplaying; John White returning to England.)
 3. Compare student maps with "correct" map. Note differences and similarities. Discuss how mistakes get into mapping.

VARIATION: Divide class in half. Have half prepare a map of a designated area as the exploring party and the other half of the class try to locate certain spots as the colonizing party. This is the "true" test of a map!

b. Activity

North Carolina in 1524 - Verrazano

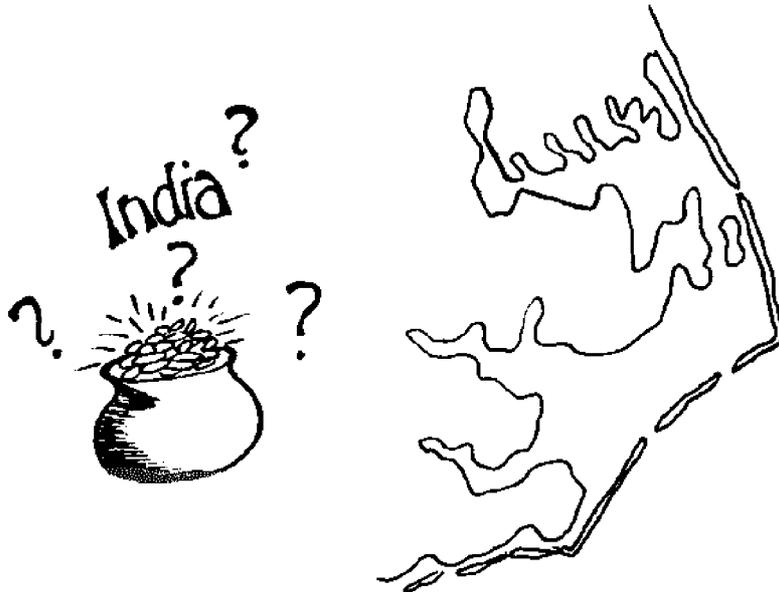
Objective: To make the students aware of why the first English explorers landed on the Outer Banks.

Teacher

Preparation: Obtain a copy of Exploration, Descriptions and Attempted Settlements of Carolina, 1584-1590 (State Department of Archives and History, Raleigh), \$2.00. Read pages 139-145 on Verrazano's reports.

Procedure: Have the students prepare an account of why English explorers decided to come to the Outer Banks, considering previous Spanish explorations in search for gold and a north-west passage to India.

- Discussion:
1. How was Giovanni da Verrazano's report misleading?
Answer: Indicated the rivers through the North Carolina sounds would lead to India.
 2. How was Sir Walter Raleigh affected by the Spanish reports?
Answer: He sent in soldiers to search for gold and routes to India.
 3. What differences were there between what English explorers expected to find and what they actually found?
Answer: Instead of gold and Indian spices, they found an undeveloped and relatively harsh land with an Indian culture not entirely happy with the English intrusion.



b. Activity

Failures and Successes - Early Settlements

Objective: To understand the connection between the Roanoke and Jamestown settlements and the important role of Captain John Smith.

Teacher

Preparation: Obtain materials on Jamestown and the three Roanoke Island settlements (Lost Colony, e.g. David Stick - Dare County: A History. Department of Archives and History, 1975, \$1.00)

Procedure: Draw a map of the area which early explorers called Virginia and locate Roanoke Island and Jamestown. With arrows, trace directions you would explore in each location. Where did John Smith go?

Discussion: 1. What was the advantage in locating a settlement in Jamestown?

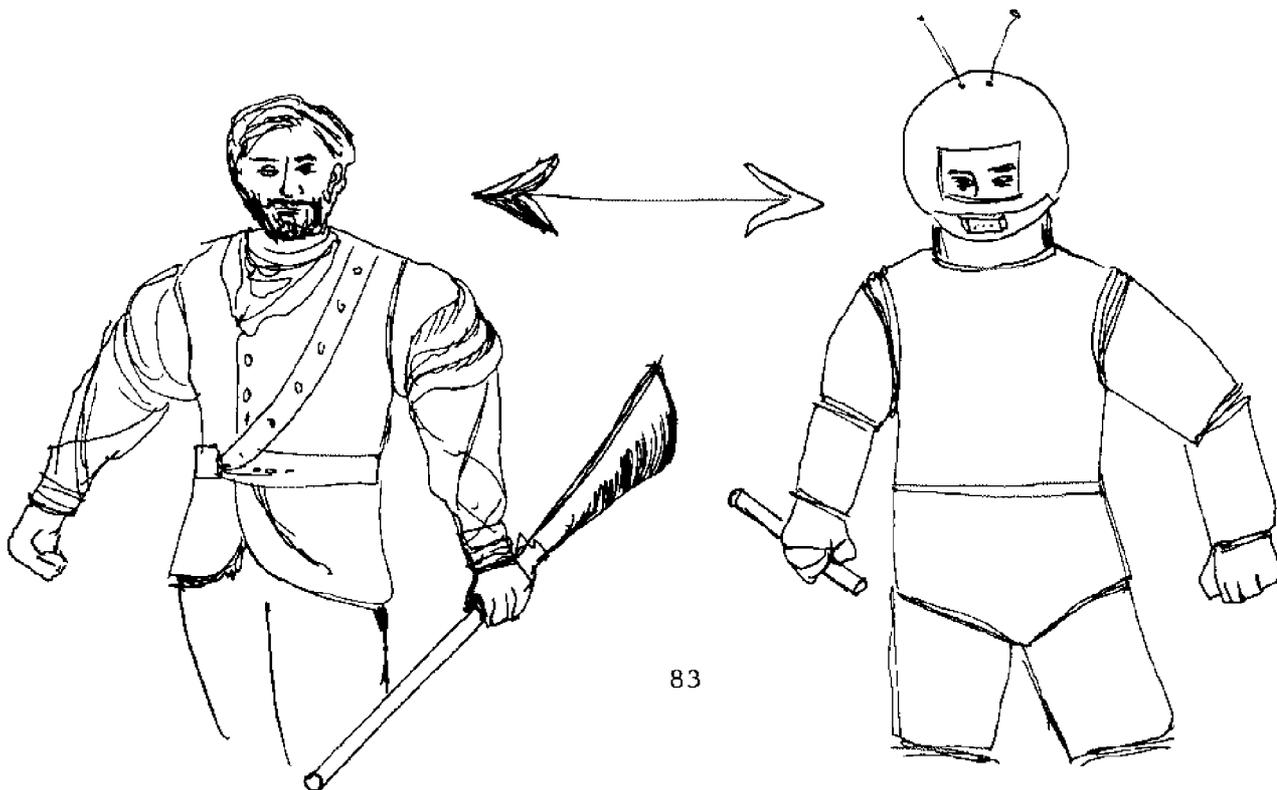
Answer: Safety from storms, flooding.

2. Did the Jamestown settlement repeat the same mistakes of the Roanoke experiment?

Answer: Continued search for gold and northwest passage.

3. What could John Smith have done to avoid hostilities with the Indians?

4. Compare John Smith to an astronaut. Do they exhibit the same qualities of courage and enterprise necessary for settling a new place?



b. Activity

Who Explored North Carolina?

Objective: To encourage the student to learn about some of the earlier explorers of the North Carolina coast.

Teacher

Preparation: The names of some of the early explorers and the identification statement should be passed out. Use library resources and those listed in References for students to elaborate on statement.

Procedure: 1. Using maps, trace travels of each. Identify those who worked at the same period of history.
2. Have students prepare a more complete statement of the explorers.

ANSWERS: Drake, 7; Lane, 6; Hariot, 5; White, 9; Barlowe, 3; Harvey, 8; Hakluyt, 2; Verrazzano, 1; Amadas, 4.

<u>Explorer</u>	<u>Identification</u>
Sir Frances Drake	1. An Italian employed by the French furnished first written record (1524) of explorations of NC Outer Banks to the King of France.
Ralph Lane	2. Englishman who served as geographic adviser to Sir Walter Raleigh.
Thomas Hariot	3. An explorer for Sir Walter Raleigh who searched the coastal area for gold and the Northwest passage.
John White	4. Captain for Sir Walter Raleigh who helped search for gold mines and a Northwest passage.
Arthur Barlowe	5. In 1588 he wrote <u>Brief and True Report of the New Found Land of Virginia</u> . It is an enthusiastic description of the NC coast and its Indian inhabitants.
John Harvey	6. He served as governor of Raleigh's first colony.
Richard Hakluyt	7. He allowed the colonists to return to England on his ship after a hurricane had destroyed their ships.
Giovanni da Verrazzano	8. One of the first permanent settlers in NC engaged in cattle business.
Philip Amadas	9. He did the drawings which today remain the best and most detailed pictures of North American scenes and people during the period of early colonization and exploration.

b. Activity

Name the Hidden Explorers

Objective: To encourage students to learn about some of the early explorers of the North Carolina coast.

Teacher

Preparation: Duplicate the following questions and "Seek and Find" word game.

Procedure: Have students search the puzzle for answers to these questions.

ANSWERS: 1. Richard Hakluyt, 2. Ralph Lane, 3. Verrazzano, 4. Arthur Barlowe, 5. Philip Amadas, 6. Thomas Hariot, 7. Sir Frances Drake, 8. John Harvey, 9. John White.

1. I was an Englishman who served as geographic advisor to Sir Walter Raleigh. My name is _____.
2. I was the governor of Raleigh's first colony. My name is _____.
3. I was an Italian employed by the French who furnished the first written record of explorations of the North Carolina Outer Banks in 1524. My name is _____.
4. I was an explorer for Sir Walter Raleigh who searched the coastal area for gold and the northwest passage. My name is _____.
5. I was a captain for Sir Walter Raleigh who helped search for gold and a northwest passage. My name is _____.
6. In 1588, I wrote the Brief and True Report of the New Found Land of Virginia about the North Carolina coast and its Indians. My name is _____.
7. I allowed the Roanoke colonists to return to England on my ship after a hurricane destroyed their ships. My name is _____.
8. I was one of the first permanent settlers in North Carolina engaged in the cattle business. My name is _____.
9. I was the artist that drew early North America scenes during the period of exploration and colonization. My name is _____.

Wki g j m s b g n k j e j a
e t n s o a d a e v l u w o n
s h o r h n i r l r m s a h p
i o f a n y r a b s p t r n a
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b. Activity

Over the Ocean/Up in Space

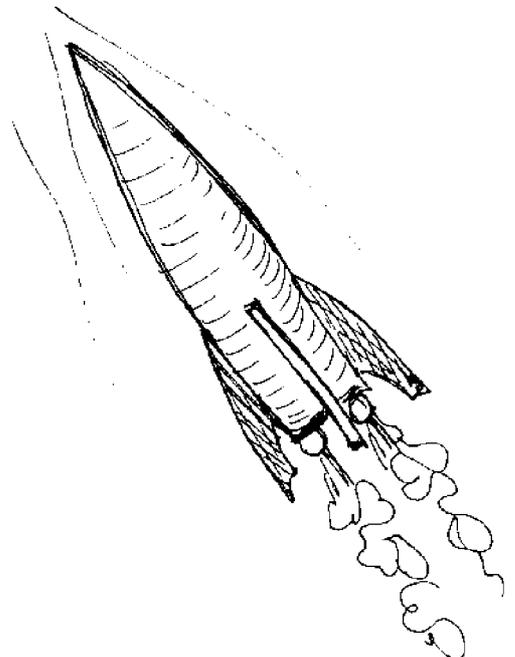
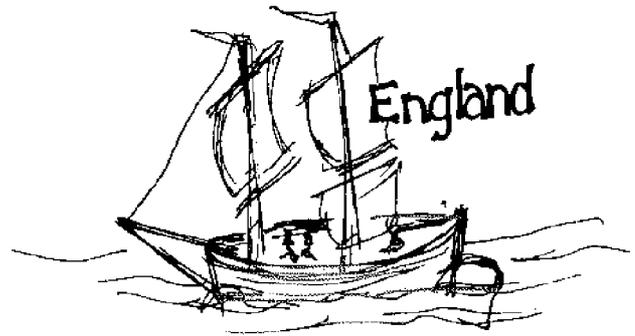
Objective: To compare new world exploration with space exploration.

Teacher

Preparation: Furnish resource material for "new world" exploration and "space" exploration. (Encyclopedias, periodicals, almanacs, see references in back.)

Procedure: Divide class in half. One half prepares for journey to new world; the other half prepares for space. Each should include the following suggestions: communication, transportation, funding, supplies, personnel, clothing, food. After 20 minutes, combine groups. Make a blackboard chart comparing needs.

Discussion: 1. Discuss similarities and differences in the type of people involved in each (education, personalities.)
2. What would be similar hardships and stresses?



c. Resources to Use

- Barbour, Philip L. 1964. The Three Worlds of Captain John Smith. Standard Life, with maps and illustrations.
- Barbour, Philip L. 1970. Pocahontas and Her World. A fine introduction to Indian life as it was lived in America three centuries ago.
- Corbitt, David Leroy. 1953. Explorations, Descriptions, and Attempted Settlements of Carolina, 1584-1590. State Department of Archives and History, Raleigh, North Carolina, \$2.00. Great dialogue.
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- Craven, W. F. 1949. The Southern Colonies in the Seventeenth Century. Baton Rouge, pp. 27-59.
- Cumming, W. P. et al. 1972. The Discovery of North America. Handsomely and extensively illustrated.
- Lefler, Hugh T. (ed.) 1934, 1948. North Carolina History Told by Contemporaries. Chapel Hill, pp. 1-15.
- Morison, Samuel Eliot. 1971. The European Discovery of America: The Northern Voyages. The most recent and authoritative account.
- Queen, David B. 1955. The Roanoke Voyages. 2 Vols. London (includes copies of original letters describing North Carolina coast).
- Stick, David. 1975. Dare County: A History. State Department of Archives and History, Raleigh, North Carolina, \$1.00.
- William Byrd's Histories of the Dividing Line betwixt Virginia and North Carolina with a new introduction by Percy G. Adams, notes by William K. Boyd. 1967. Dover Publications, Inc. New York. (paperback: \$2.75) Considered a classic of colonial period in literature, source for social history of that time, and comprehensive account of the first successful effort to establish the boundary between North Carolina and Virginia.

Unit IV

Concept 4. Coastal geography shaped European settlement patterns, transportation and commerce.

a. Background Reading

Settlement:

Although Americans consider themselves primarily a land oriented people, in reality, we have been and are a water oriented people. Throughout history we have depended upon the oceans. The creation of the American Republic came through exploration and settlement by way of the Atlantic, and the earliest settlements were established along the rivers, sounds, bays, and the ocean itself. The early settlement of North America was largely determined by water. The need to maintain communications with the mother country explains why the French settled along the St. Lawrence, the Dutch along the Hudson, the English Puritans along the Connecticut, and other English along the French James, Ashley, Cooper and Savannah. Geography was a determining factor in the early settlement of the American colonies, including North Carolina.

The early settlement and development of North Carolina was retarded because of the absence of adequate access to the sea. From Cape Henry, Virginia, to Cape Fear, a distance of more than 300 miles, there is a continuous barrier of islands. Between the banks and the mainland proper are five sounds: Albemarle, Pamlico, Bogue, Currituck and Core. Unfortunately, the sounds are shallow and the inlets between the barrier islands are shallow, shifting and treacherous. The American Coast Pilot, a manual which has been depended upon by ship masters and pilots for over a hundred years said: "We decline giving directions for sailing into many ports in North Carolina, as all the harbors are barred, and always subject to alteration by every gale, particularly in the equinoctial storms; but the bars create only a part of the danger in sailing into those ports; it is the vast bed of shoals that lie within the bars, with their innumerable small channels which give to the tide so many different directions that even the pilots who live on the spot find it difficult to carry a vessel in without some accident."

After the failure of the Raleigh colonies on Roanoke Island, the major flow of colonization went north and south of the state --to the Chesapeake region and to South Carolina. The settlement of Jamestown in 1607 was the nucleus for the settlement of North Carolina. The desire for fertile bottom land and fresh hunting grounds drew explorers, hunters, trappers, and farmers to the Chowan River valley and the Albemarle region early in the 17th century. The colonization of North Carolina followed the familiar pattern of frontier settlement: first trappers and hunters, then cattlemen and farmers, and finally merchants. Although the migration

to the northeastern section of North Carolina dominated colonization during the first hundred years, settlers did slowly filter into the Cape Fear region from South Carolina, and a few from the West Indies.

In 1663 King Charles II of England granted to eight Lord Proprietors the Carolinas. Although the proprietors tried to stimulate settlement in North Carolina in areas not previously settled, the Albemarle region continued to be the center of early colonization. In 1663, Albemarle County was created and in 1696, Bath County. The dividing line was vaguely the Albemarle Sound. The history of these early North Carolina settlements until late in the 18th century is the story of unrest, confusion, slow growth and armed rebellion. The colony was generally isolated and out of touch with the outside world except by way of Virginia or an occasional vessel from England that entered the Cape Fear River.

In 1704, John Lawson, Surveyor General of the Province, laid off Bath, the first incorporated town in North Carolina. In 1715, it was made the first official port of entry into the colony with a collector of customs. Bath was followed by a number of small towns, all of which were ports--Brunswick, New Bern, Beaufort, Edenton (Port Roanoke), and Wilmington. Of these, the largest and most important was New Bern.

This period (the end of the 17th century and first decades of the 18th century) is frequently called the golden age of piracy. North Carolina was attractive to pirates and smugglers because of the peculiarities of the North Carolina waterways as well as the large tracts of deserted land along the coast. There was a very thin line between smuggling and piracy. Because of the severity of British regulations concerning trade--the Navigation laws--smuggling was widely practiced in the colonies and frequently encouraged by officials. This may be one explanation of why a number of North Carolina colonial officials including several governors were deeply involved with pirates. (See "Pirates of North Carolina" activity.)

Although there were a number of pirates in North Carolina waters at one time or another, the two most notorious were Blackbeard (Edward Teach) and Major Stede Bonnet. Blackbeard, a native of Bristol, England, was a privateersman during Queen Anne's War before becoming a pirate sometime after 1713. He entered North Carolina waters by way of the West Indies, made his headquarters at Bath, and began to terrorize commercial shipping along the coast of Virginia and the Carolinas. Teach once boasted that he could be invited into any home in North Carolina. He was approved by many including royal officials in Bath and the surrounding area. When some of Blackbeard's booty was discovered in a barn belonging to the secretary of Governor Eden, a delegation of North Carolinians appealed to the governor of Virginia. A force of Royal Marines found Blackbeard near Ocracoke Inlet and killed him after a struggle.

Bonnett concentrated his pirating activities along the lower Cape Fear against South Carolina shipping until he was captured and hung in 1718. (See Carson, 1957, Chidsey, 1952, Lee, 1975.)

Piracy generally disappeared from North Carolina waters after this, although some questionable activities bordering on piracy occurred as late as the 19th century.

By 1750 there were approximately 75,000 people living in North Carolina, the majority living in the coastal regions. Few of them, however, actually lived on the banks. The only settlement of any size that developed on the Outer Banks were Ocracoke and Portsmouth, because of the importance of Ocracoke Inlet. There were also a number of grazers--sheep, horses, and cattle--scattered along the banks during this period. Negro slaves constituted a sizeable portion of North Carolina's population in the colonial period. From 1730 to 1790 approximately a third to a fourth of the population was Black.

By 1724, North Carolina was experiencing a period of expansion. Wars with the Indian natives had forced most of the Indians of the eastern area of the state to flee, or had reduced the tribes to impotency. The famous pirates of North Carolina had been captured so there was no barrier to the settlement of the Cape Fear region. During the Indian Wars, Col. James Moore of South Carolina had marched South Carolina troops through the Cape Fear region to the aid of Albemarle. Moore and many of his fellow South Carolinians had been impressed with the Cape Fear area and, after the war, they returned and founded two cities. In 1723, James Moore and his brother Maurice returned with settlers from South Carolina. With the addition of some settlers from Albemarle, the town of Brunswick was founded by Maurice Moore in 1725. Wilmington, located some sixteen miles further up the Cape Fear River, was founded in 1733.

Thus, initial settlements in North Carolina were actually the result of overflows from Virginia and South Carolina.

Transportation and Commerce:

Geographical factors have played a significant role in determining the evolution of eastern North Carolina from the colonial period to the present. This was particularly true in transportation and commerce. From the colonial period well into the 20th century, this section has depended upon water transportation as its principle means of transportation. North Carolina's indented coastline with its sounds, bays, and rivers, severely handicapped the development of land transportation. Until the 20th century roads were poorly surfaced, ill-drained, and inadequately marked. The same was true of railroads. In 1860, there was only one North-South railroad and it ran near the fall line, the western fringe of the coastal region. A second North-South line closer to the coast was not completed until early in the 20th century. For these reasons, water transportation was essential.

Maritime history records dozens of different types of vessels plying North Carolina waters, from small wooden barges and canoes to large sailing craft, steamboats and steel merchant ships. The early explorers such as Christopher Columbus sailed on small ships known as caravels, perhaps the first true ocean going vessels. Galleons, a larger, faster, and more efficient type first introduced in the 16th century were more than likely employed in the first expeditions to the North Carolina coast, including Sir Walter Raleigh's colony at Roanoke Island.

The first settlements in the colony, Bath in 1704, followed by New Bern, Brunswick, Edenton (Port Roanoke), Wilmington and Beaufort, were all small ports. They carried on very little direct trade with England, but an extensive trade with the West Indies and other North American colonies. This characteristic of North Carolina ocean shipping--that is trade concentrating on West Indies and the eastern coastline of North America markets--would continue into the 20th century. Because of the shallow waters along North Carolina's coast, only vessels with slight draft were used in this trade. Large ocean going ships did enter the Cape Fear (the only major North Carolina River that flows directly into the Atlantic) as far as Wilmington, but the remainder of the ports were only open to small vessels.

Leading exports in the colonial period were naval stores; tar, pitch, turpentine, and resin. Other forest products exported were boards, shingles, barrels, staves, and timber, primarily pine. Some corn, hides, and tobacco were also exported, but much of this was taken to Norfolk over overland trails for shipment.

In the 19th century, water transportation expanded to carry more commercial trade. New ports appeared, Swansboro on the coast and a host of inland communities such as Washington, Fayetteville, Elizabeth City and Plymouth. Throughout the century, these small ports were thriving with dozens of craft of all descriptions entering and leaving. James Sprunt in his book Chronicles of the Cape Fear mentions counting ninety vessels at anchor or docked in Wilmington at one time late in the century. Nonetheless, in comparison to the state's two neighbors, Virginia and South Carolina, trade remained relatively small. In 1816, only one and a third million dollars worth of products were shipped through the state's ports to the outside world. This was because of the geographical handicaps previously mentioned as well as the wars the nation engaged in during these years. However, the War of 1812 did provide the impetus for completing the Dismal Swamp Canal.

Until the canal was completed, except for Wilmington, the only opening from the sea to the state's ports was Ocracoke Inlet below Hatteras. There were other inlets used for navigation, but throughout the early part of the century, they were in the process of shoaling up. Roanoke Inlet in 1811, Currituck Inlet in 1828, and even Ocracoke Inlet gradually closed up. Hatteras and Oregon Inlets would replace Ocracoke in importance. The Army Corps of Engineers made periodic efforts to dredge the various inlets, but generally the work was dropped with the completion of the canals.

Not only was the depth of water over its bar so shallow that large ships were virtually barred from passage, but in order to reach the more northern ports (Edenton, Elizabeth City, etc.) it was necessary to go below Hatteras and then double back for a considerable distance. In wartime even this trade was threatened because of an enemy's blockade, hence the decision to complete the Dismal Swamp Canal.

The canal was actually started in 1787, but not completed until 1828, some forty-one years later. Unfortunately, it was too small (40 feet wide, 5½ feet depth) to accommodate most vessels. In 1855, a second canal, the Albemarle and Chesapeake Canal, was begun and completed in 1848. This canal was much larger and has continued in operation since then. Today, it is a part of the inland waterway system. A third canal, the Clubfoot and Harlowe's Creek Canal, was dug between the Neuse River and Beaufort but was never used extensively.

These canals were to a great degree responsible for the declining importance of the inlets, particularly after the Civil War. In 1836-37, more than 1,400 vessels passed through Ocracoke Inlet. In 1895, the last commercial vessel supposedly passed through Hatteras Inlet. In 1892, 4,061 steamers, 1,807 schooners, 1,150 barges, 62 lighters, 329 sloops, and 298 rafts went through the Albemarle and Chesapeake Canal. In the 20th century, the Intercoastal Waterway was completed which incorporates the Albemarle and Chesapeake Canal. By 1930, this waterway was in operation the entire width of the state.

Until the last fifty years, most of the trade in the east was carried on vessels. In the colonial and early national periods, small sailing craft, large canoes, lighters, and rafts, were used. The steamboat, invented early in the 19th century, proved particularly useful to North Carolina's inland waterborn commerce, and the first small crude steamboats were introduced on the state's waters in 1817-1818. The number grew rapidly and by the 1850's there were dozens of these crafts plying the rivers and sounds. The railroads at first aided and complimented water commerce. Small east-west railroads could reach the piedmont and hinterlands and carry produce to the ports. As the railroads expanded, the riverboats carried goods and passengers to rail heads. In the 20th century, however, the railroads gradually absorbed the riverboat trade.

In the post Civil War years, excursion trips to resorts along the coast were an important aspect of the steamboat business. On the "Cape Fear," passengers were carried to Carolina Beach; and on the "Neuse," they were carried occasionally to Morehead City. But the most important and popular resorts to North Carolinians were those found on the Outer Banks. During the season, weekly trips were made by steamboats running from Elizabeth City, Edenton, Washington, New Bern, and even Norfolk. Because of the inaccessibility of the Outer Banks well into the 20th century, these excursion boats continued to make runs until World War II.

Today other than barges and an occasional small vessel carrying petroleum products, little remains of the state's once extensive inland river trade. The barges today carry primarily pulpwood, phosphate, and oil.

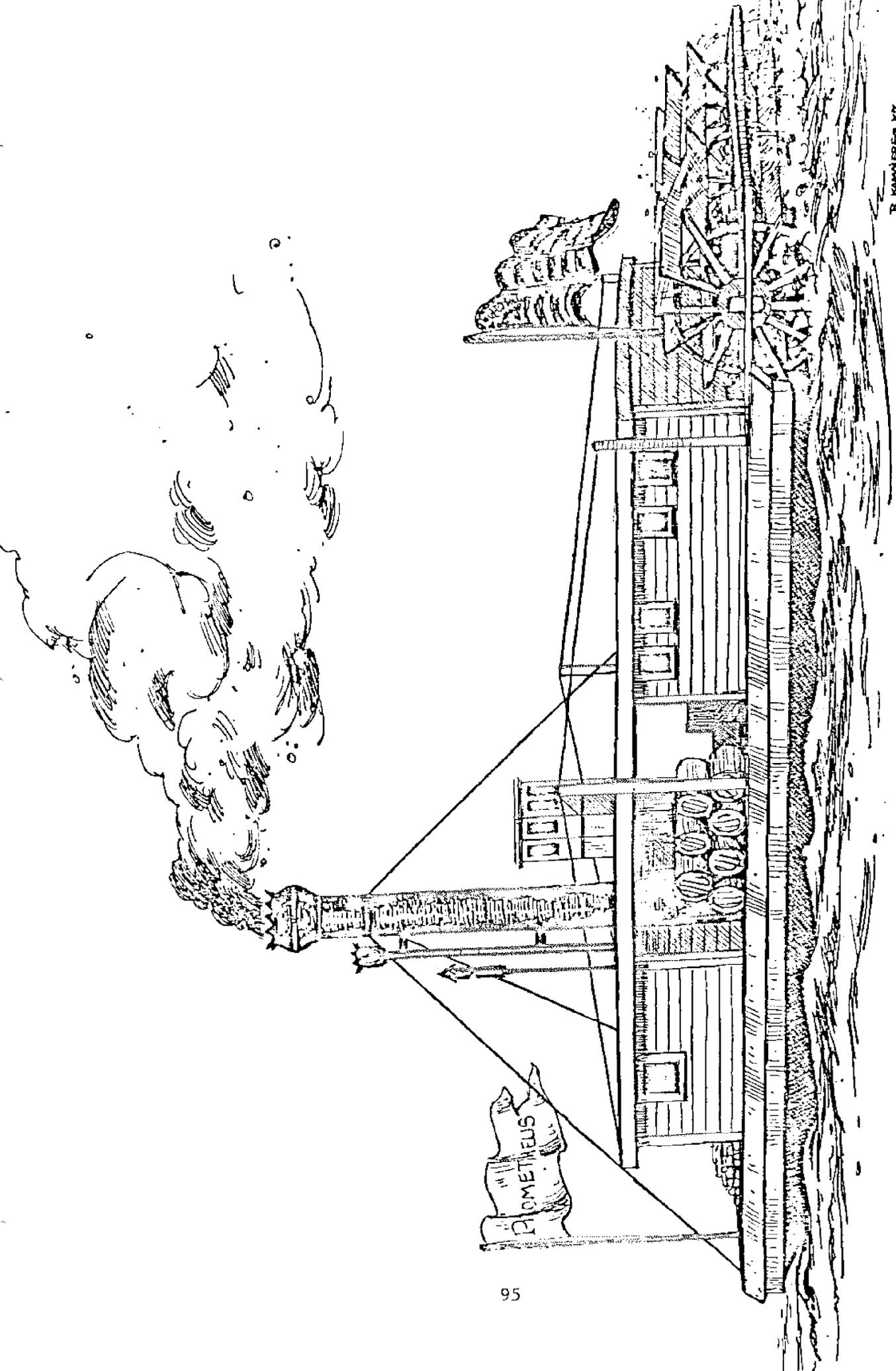
At present, only two major ports remain in the state, Wilmington and Morehead City. In 1853, Governor John Motley Morehead and a group of associates purchased extensive land holdings at Sheppards Point, on the mainland across the Newport River from Beaufort for development as a port. Although a railroad linking the port to the interior was completed in 1858, it did not become the important deep water port that Morehead envisioned. It has never rivaled Wilmington in importance.

In 1816, eighty percent of the state's ocean trade went through Wilmington. Although the percentage has declined, Wilmington has continued to be the most important port in the state. In 1945, the General Assembly passed the North Carolina State Ports Authority bill establishing state-owned and operated deep water terminals at Morehead City and Wilmington. Redevelopment and construction of facilities at both ports took place and the Port Authority began operation in 1952. In that year, only 16 ships called at State Port terminals. In 1976, nearly 700 ships called. Although most of the cargo moving through Morehead City is handled by the State Port Authority, only approximately 20 percent is handled by the state agency in Wilmington. The bulk of Wilmington's shipping business is still primarily handled by private firms.

Although Wilmington and to a lesser degree Morehead City are important to the state, they both are primarily regional ports. They receive very little merchandise from outside the state for exportation or importation. Water transportation is no longer essential to the economic welfare of the East.

The Ship and Boatbuilding Industry:

A ship and boatbuilding industry developed in North Carolina shortly after the first settlers arrived. More than likely the first craft were small rafts, canoes, and sailing vessels for local use. Before the end of the 17th century, however, sailing vessels were being built large enough to engage in the coastwise and West India trade. As early as 1694, a North Carolina built sloop carried a load of lumber to the West Indies. More sloops were built in North Carolina in the colonial period than any othertype of vessel. Schooners and brigs were also built. Nearly all vessels constructed in North Carolina were shallow-draft because of the shoal waters. (See "Ships" activity.) There were no large shipyards in North Carolina. Instead most of the vessels were constructed along the sounds and rivers as close as possible to the source of timber. A few North Carolina communities became noted for shipbuilding. Johann Schoeph mentions in Travels in the Confederation that he visited Washington, North Carolina



R. KAMMIGER, 17

Figure 1. First steamboat built in North Carolina in 1818 at Swansboro, Prometheus.
Designed to carry cargo up shallow rivers and sounds.

in 1783 and found it "a new settled little place of perhaps 30 houses. . . .The trade of Washington is as yet trifling; the chief occupation is the building of small ships and vessels; which are put together entirely of pine timber quickly rotting under water, but lasting well above ground."

In 1807 Robert Fulton built the Clermont, the first practical steamboat in American history. Ten years later the first steamboat, the Prometheus, was constructed in North Carolina. Shallow-draft steamboats like those Mark Twain said cruise on a heavy dew were very practical on North Carolina waters, and hundreds of them were built. These small box-like craft did not have the sleek lines of a sailing vessel or the stately lines of a Mississippi River steamboat, but they were vital to the section's economy. Steamboat construction began declining late in the 19th century as railroads gradually absorbed the inland trade.

The 19th century was the heyday of shipbuilding in North Carolina. Nearly 8,000 North Carolina built vessels were documented by the U.S. custom houses. In addition to steamboats, vessels of every description were constructed from small sloops to huge four masted schooners and ships, warships, and fishing craft.

During the Civil War, a number of Confederate warships were built for the Confederate government. These included the ironclad vessels-of-war Raleigh and North Carolina constructed in Wilmington, the Neuse built on the Neuse River above Kinston, and the Albemarle constructed near Scotland Neck in a corn field. These ships were wooden with a thick iron armor covering part of the hull and the casemate where the guns were located.

In the 20th century, the shipbuilding industry declined in North Carolina, primarily because of the expansion of railroads and highways into the east and decline of water transportation. During the period of the two world wars, however, the state was a center for the construction of warships and merchant vessels. In World War I, shipyards in Wilmington, Morehead City, New Bern, and Elizabeth City built wooden, steel, and concrete ships. Concrete merchant vessels, river steamers, and tankers were built for the U.S. government in New Bern and Wilmington. Shipyards in Wilmington not only built large steel merchant vessels and concrete ships, but huge wooden sailing ships. Two 4 masted, 2,000 ton schooners, the last of the tall ships to be built in the state, were launched off Cape Fear. In World War II, the state again utilized its shipbuilding potential for the war effort. Shipyards in Elizabeth City, Manteo, New Bern, and Wilmington built a large number of vessels for the government. During its wartime existence, the North Carolina Shipbuilding Company in Wilmington was the largest single industry in the state with more than 2,000 employees. More than 250 large liberty and victory merchant ships were launched at this yard.

The ship and boatbuilding industry since the end of World War II has been small. The two largest shipyards in the state, the Elizabeth City Shipyard and Barbour Boatworks, have given up

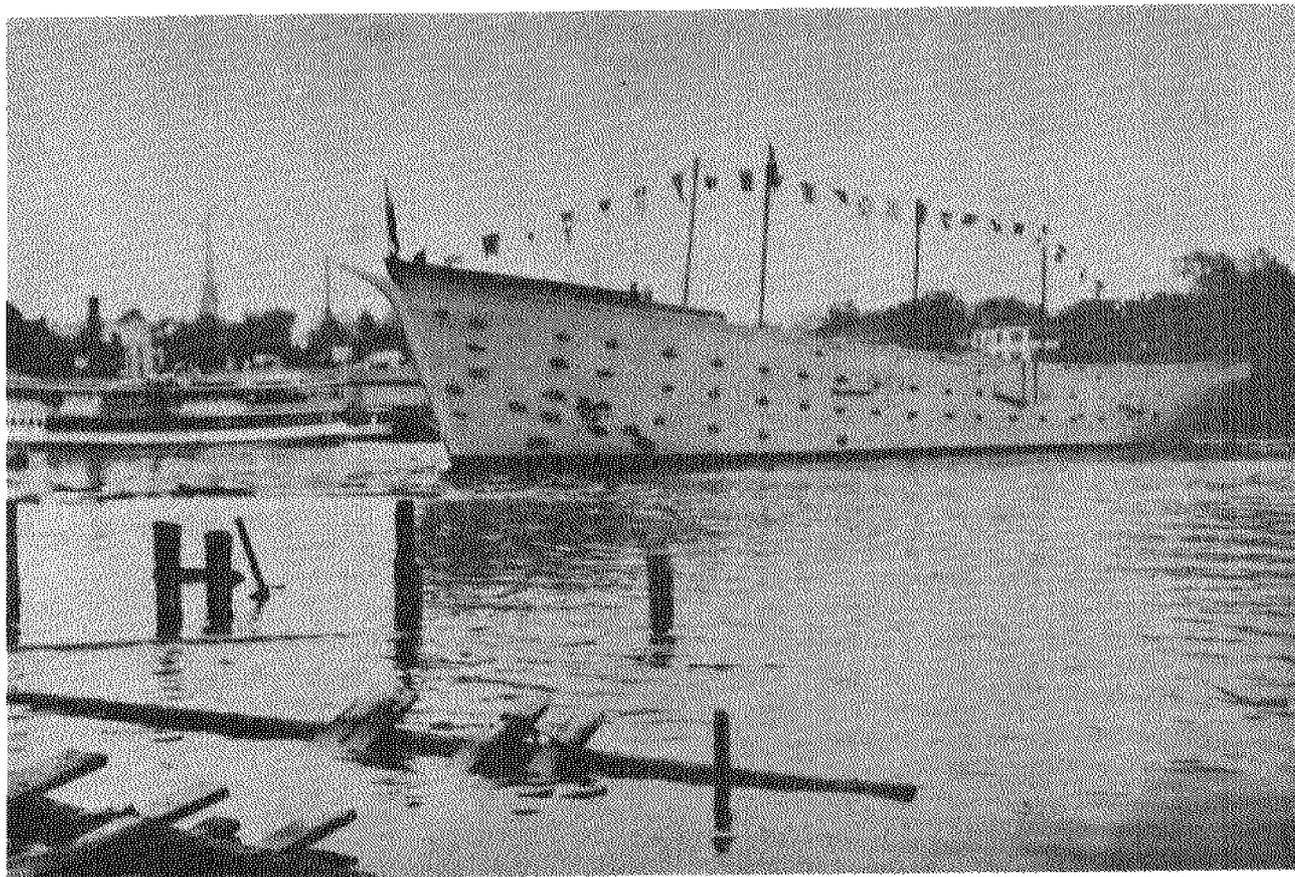


Figure 2 . Recently launched 2,000 ton four-masted wooden schooner Happaugue from the Naul Shipyard opposite Wilmington, North Carolina in 1917. The last of the large wooden sailers built in North Carolina.

CREDIT: North Carolina Department of Archives and History

the construction of large vessels. The 1976-77 Directory of North Carolina Manufacturing Firms lists seventeen companies making boats in the state. These companies range from plants, such as Clark's in New Bern that specialize in sailing craft, to Uniflite in Swansboro and Hatteras in High Point, that manufacture large pleasure yachts. There are also a number of small yards on Harker's Island, Marshallburg, Wanchese, Holden Beach, and elsewhere that build wooden fishing vessels. In recent years, however, the majority of fishing vessels built in North Carolina have been built by "back yard builders," where a vessel is built in a yard or small field rather than in a large shipbuilding facility. Although the boatbuilding industry is small, there are still ship carpenters in North Carolina capable of laying down and constructing boats as seaworthy as those built by their fathers and grandfathers.

Fishing Industry:

The seafood industry (fishing, shellfishing, seafood processing and packaging) is one of the three most important industries in the eastern part of the state. Agriculture is first, general tourism second, and seafoods third. This has not always been true. Fishing in the colonial period was primarily for subsistence. For the settlers residing in the coastal region seafood was probably their mainstay. In 1765, a French traveller wrote that the "inhabitants /of Beaufort/ seem miserable, they are very lazy and indolent, they live mostly on fish and oysters /sic/" However, there was some commercial fishing. The French traveler mentioned the catching and salting of fish caught in rivers particularly shad and alewives for shipment to the West Indies. During the colonial period, nearly all the fishing was done on the rivers and most of it from shore; the sounds were considered too rough. As early as 1765 seine fishing was conducted on the Chowan River. The only ocean fishing during this time, was for whales.

North Carolina's whale fishery started in the colonial period and lasted until the 20th century. Although it was never important in comparison to New England whaling or to the herring and shad fisheries in North Carolina, it has attracted considerable attention. As early as 1681 the Proprietors were informed that "there are many whales upon the coast of Carolina." John Lawson in his book, the History of North Carolina published in 1709 mentioned numerous whales on the North Carolina coast. He also described how Indians went out and climbed upon the backs of beached whales in order to "peg or plug up his spout, and so kill him." Because of the lucrativeness of the whaling business and the need for whale oil used for lighting, the proprietors tried to encourage whalers to settle in North Carolina. In 1715, they decreed that "such persons as are willing to come and settle /in North Carolina/ to catch whale, Sturgeon, or any Royal Fish . . . paying only two deer skins yearly to the Lords as an acknowledgement to them for the same." Some New England whalers were attracted to the area and, using Lookout Harbor as a base, they operated in the waters off Hatteras. New England whaling off the North Carolina coast would continue until the 1870's, although it declined in the post Civil War years.

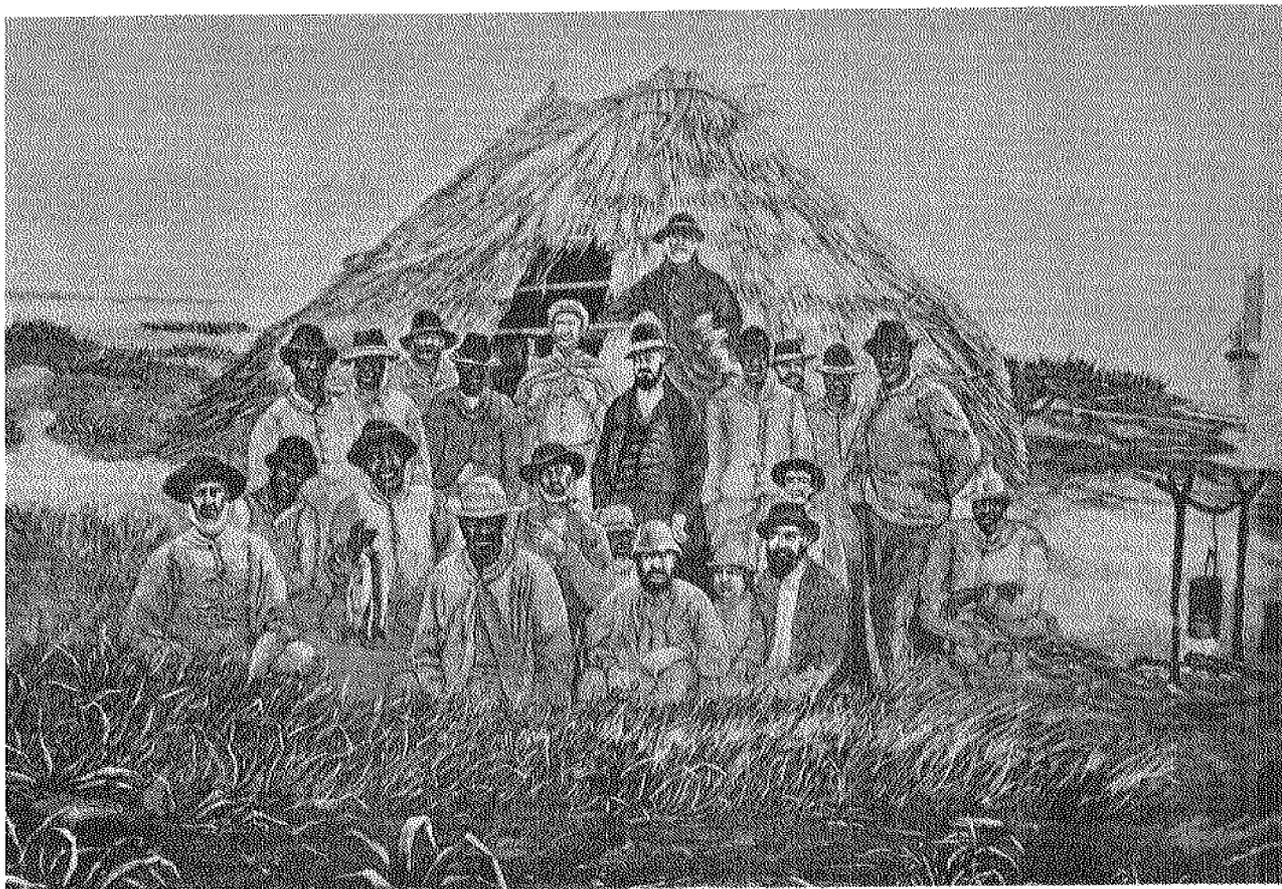
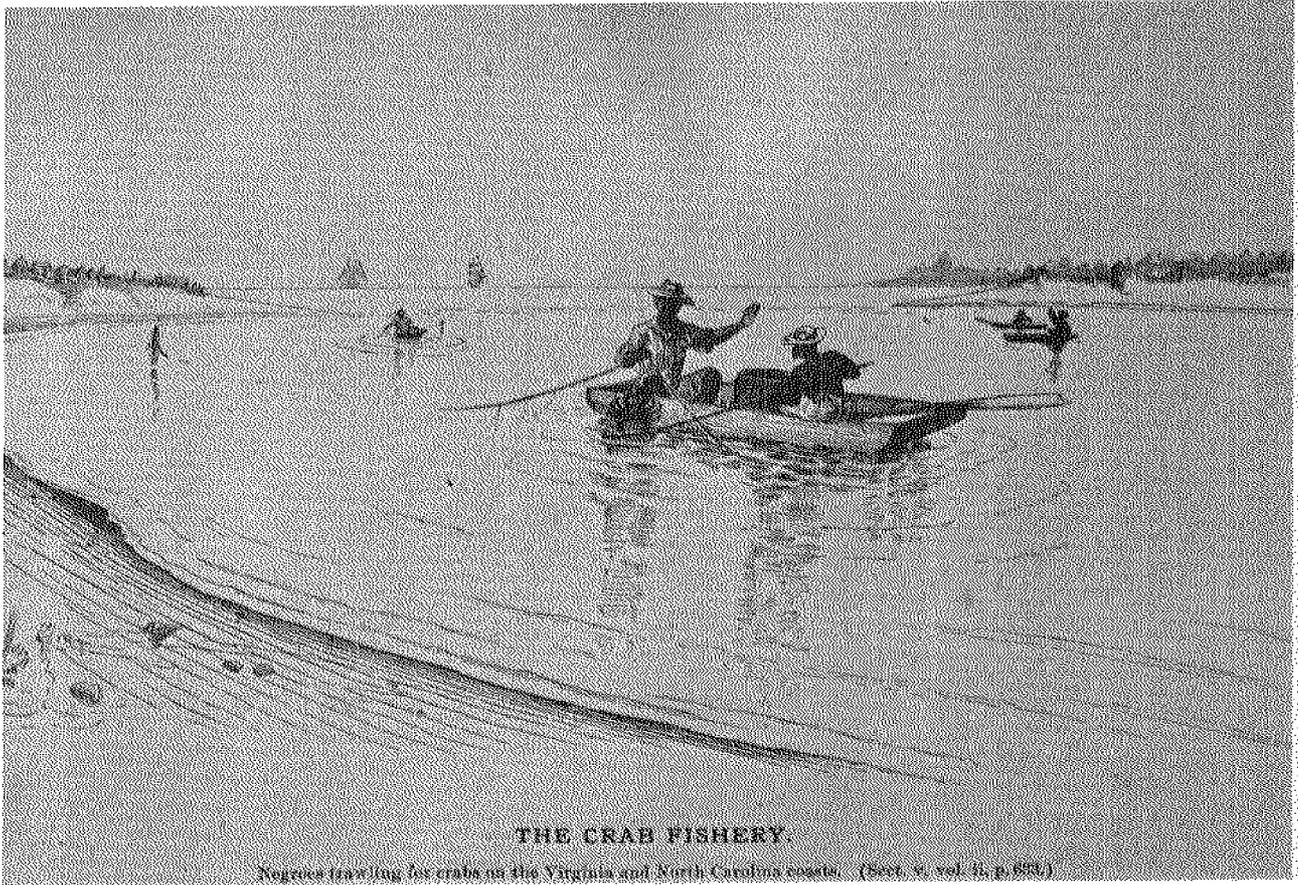


Figure 3. Mullet fishing camp on the Outer Banks in the latter part of the 19th century. These camps were seasonal, usually established in the fall.

CREDIT: U.S. Commission of Fish and Fisheries, 1887



THE CRAB FISHERY.

Negroes trawling for crabs on the Virginia and North Carolina coasts. (Bent. N. vol. 4, p. 693.)

Figure 4. Crab fishing in small skiff along the North Carolina coast. The two fishermen are tending trot lines (usually over a thousand feet long) attached to an anchor and buoy on one end --19th century.

CREDIT: U.S. Commission of Fish and Fisheries, 1887

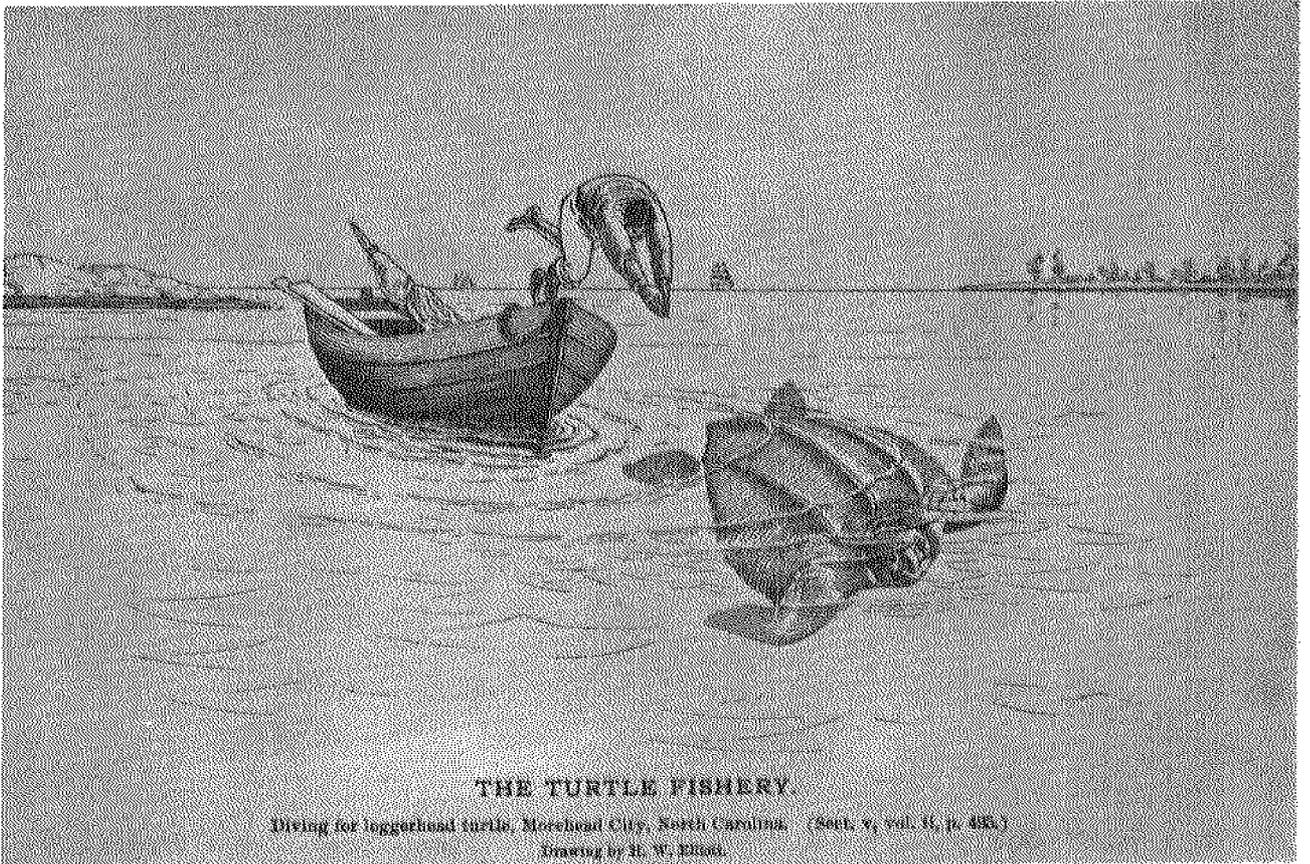


Figure 5. Turtle fishing in 1887 near Morehead City, North Carolina. Although this shows an unusual method of catching turtles, it was occasionally done. The usual method was to use spears or "gauges" to obtain them while they were in the water swimming.
CREDIT: U.S. Commission of Fish and Fisheries, 1887

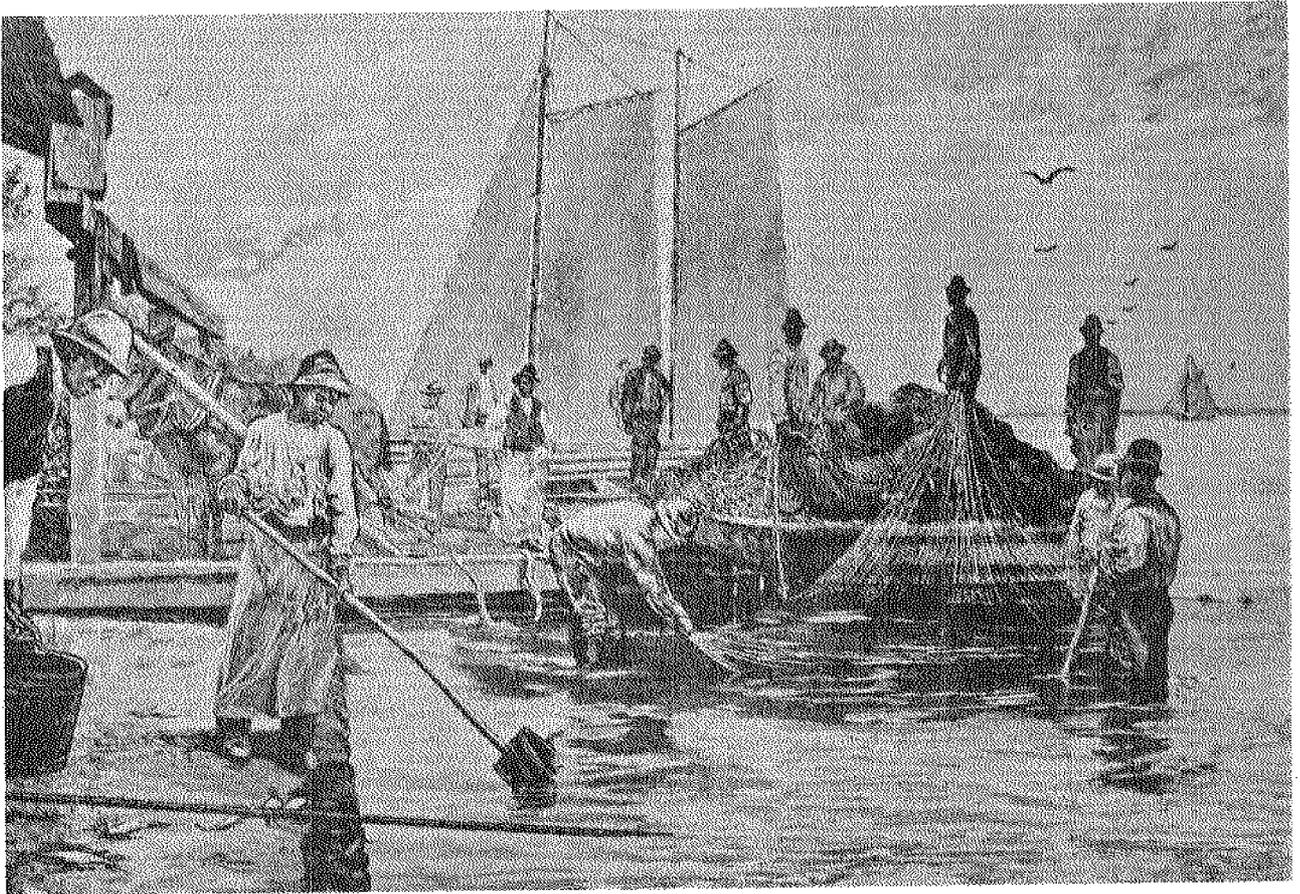
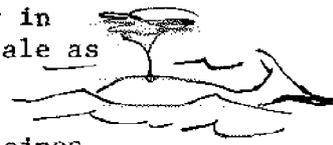


Figure 6. Shows a herring fishery probably located on the Albemarle Sound near Edenton in the 1880's. The black woman is dipping herring from the water. The fish were brought in by the seine which is being reloaded on the boat to be carried back out into the sound. CREDIT: U.S. Commission of Fish and Fisheries, 1887

Shore based whaling in the vicinity of Cape Lookout also originated in the colonial period. The shore whalers used small boats launched from a beach when a whale was sighted. Diamond City, a small fishing village located a short distance west of Cape Lookout Lighthouse, was the center of shore based whaling in the 19th century. There are no records of the number of whales killed, but one local inhabitant mentioned personally being involved in killing 52 whales. The whales caught along Shackleford Banks in the latter part of the 19th century were frequently given names. One was the "Little Sister" named for the boat that brought the whale in; another "The Little Children" was named this because young boys manned the boat that captured it. One called the "Mayflower," was captured in 1874, was named after the day (fourth of May) it was killed. The skeleton of this whale is now in the state museum in Raleigh.

Late in the 19th century, whale oil decreased in value and fewer whales appeared off the North Carolina coast. In 1899, Diamond City was destroyed by a hurricane and the disappearance of this whaling community symbolized the end of the whaling industry in North Carolina. Whales continued to be caught on a small scale as late as 1920.



In 1815, two northern fishermen introduced long haul seines into Albemarle Sound. That event marks the real beginning of the commercial fishing industry in North Carolina. The long haul seine fishery for shad and herring in Albemarle Sound and the Chowan River became the most important commercial fishery in North Carolina in the following decades. This is the principle reason why in 1860 North Carolina ranked second in the South in commercial fishing. According to the census of that year there were thirty-three fisheries in the state. Nevertheless, the industry in terms of its dollar value was still small. In 1860, fish and shell fish sold commercially was valued at only \$120,000. The major problems were preservation and transportation. Only those fish and shellfish such as herring, shad, and oysters that could be salted in barrels or smoked, were exported. The lack of an adequate transportation system in the eastern part of the state severely limited what could be shipped out.

Fishing in the 19th century was still primarily in the rivers, although more boats were used and they were beginning to penetrate further into the sounds. In addition to whales, herring, and shad, commercial fishermen caught over forty other species, most of which were marketed locally. In the Beaufort area, porpoise fishing developed. These fish, caught in heavy seines by boats with large crews of 15 to 18 men were valuable for their oil. This industry disappeared before the Civil War.

In the post Civil War years, commercial fishing expanded rapidly. There were a number of reasons to explain this. Transportation improved with better roads, more railroads, and an efficient system of water transportation. The problem of preserving the seafood was decreased with increasing use of ice in the 1870's. Ice was usually brought to the fishing communities by boat and railroad.

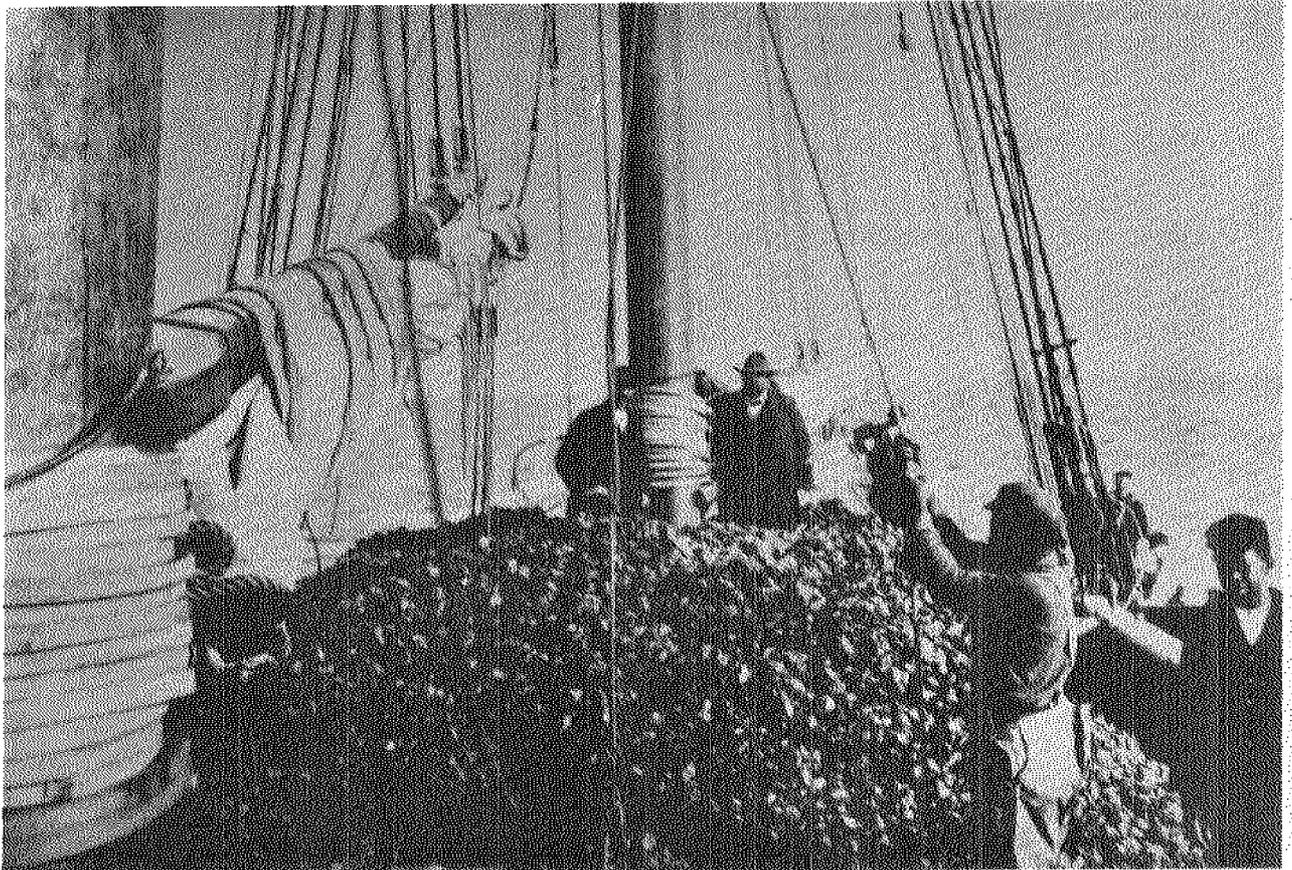


Figure 7. A deck load of oysters being brought into the port of Washington, North Carolina by schooner from the beds in Pamlico Sound in the 1890's.

CREDIT: North Carolina Department of Archives and History

Salt continued to be used, but more and more fresh fish could be sent to market in the piedmont and to other parts of the country. Better gear and more efficient methods of fishing were introduced in these years. Pound and gill nets were first used in the 1870's. The steam winch was first used in the herring industry in 1869-70 and shortly afterwards small steamboats were used to lay out the nets. The first powered vessels in the fishing industry were used in the herring and menhaden fisheries. After the turn of the century, gasoline powered boats were employed in the fishing industry.

The menhaden fishing industry originated in the northeast and came to North Carolina immediately after the Civil War. In the 1860's and 70's, menhaden processing plants were built on Harker's Island, on Portsmouth Island, and near Oregon Inlet. Although the menhaden fishery grew very slowly during the 19th century, it would become the most important finfish caught (in terms of monetary value) in the 20th century. Vast catches were possible because they massed together in schools found on the surface. The menhaden's principal uses are as fish meal, oil and fertilizer.

In the 1880's, oysters became important in the state's seafood industry. Small quantities of oysters were shipped out in the first half of the 19th century, but it was not until the eighties, that large numbers reached markets in the cities. This was at least partly because a serious decline in the number of oysters found in the Chesapeake Bay region occurred, and Virginia oystermen began working in North Carolina water. Up to this time oystering in North Carolina waters was done primarily by tongs. The Virginia oystermen introduced a new technique using dredge boats. A controversy known as the "Oyster War" developed between North Carolina fishermen who resented the Virginians oystering in Albemarle and Pamlico Sounds. Attempts were made by state authorities to regulate the industry. These efforts were apparently unsuccessful and the industry declined in the 20th century.

Clammers used tong boats as well as rakes, but commercial harvesting of clams has always been limited in North Carolina. The same is true of scallops.

Until the last half century crabs and shrimp were considered pests or of no value to commercial fishermen and were frequently thrown back. Crabbing by trot line predates the Civil War, however, the industry did not develop until crab pots were introduced in the state in the 1930's. The blue crab fishery has continued to be an important shellfish industry in the state.

During the latter years of the 19th century and the first decades of the 20th century, some shrimp were caught by commercial fishermen usually with a hand seine. Although catching shrimp with a trawl was developed and used in the United States early in the 20th century, it was not used extensively in North Carolina until the 1930's. Up to that time, nearly all of the shrimp caught in this state were caught in Brunswick County. Since then, it has spread north to Pamlico Sound.

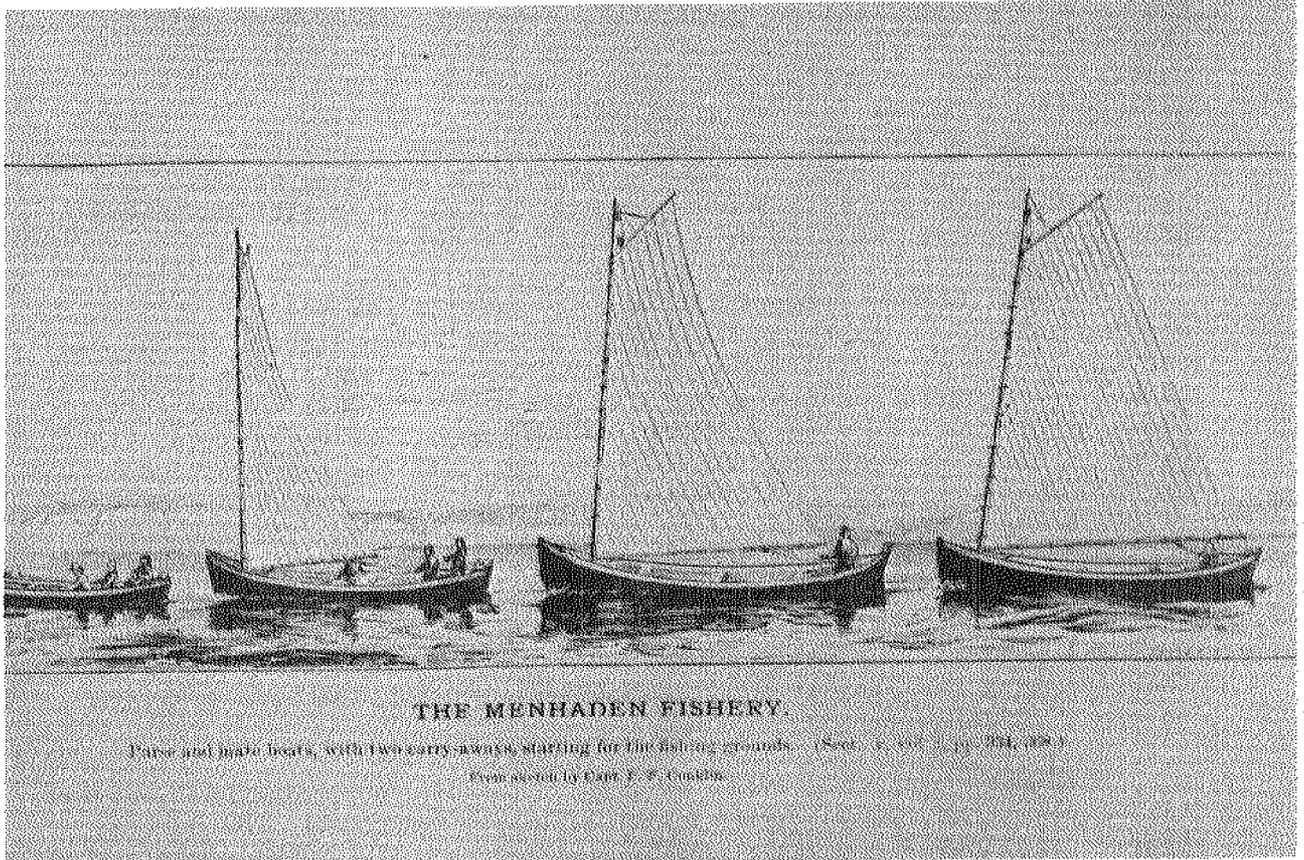


Figure 8. Small wooden sailing boats called purse and mate boats used in the menhaden fishing industry in the latter part of the 19th century.

CREDIT: U.S. Commission of Fish and Fisheries, 1887

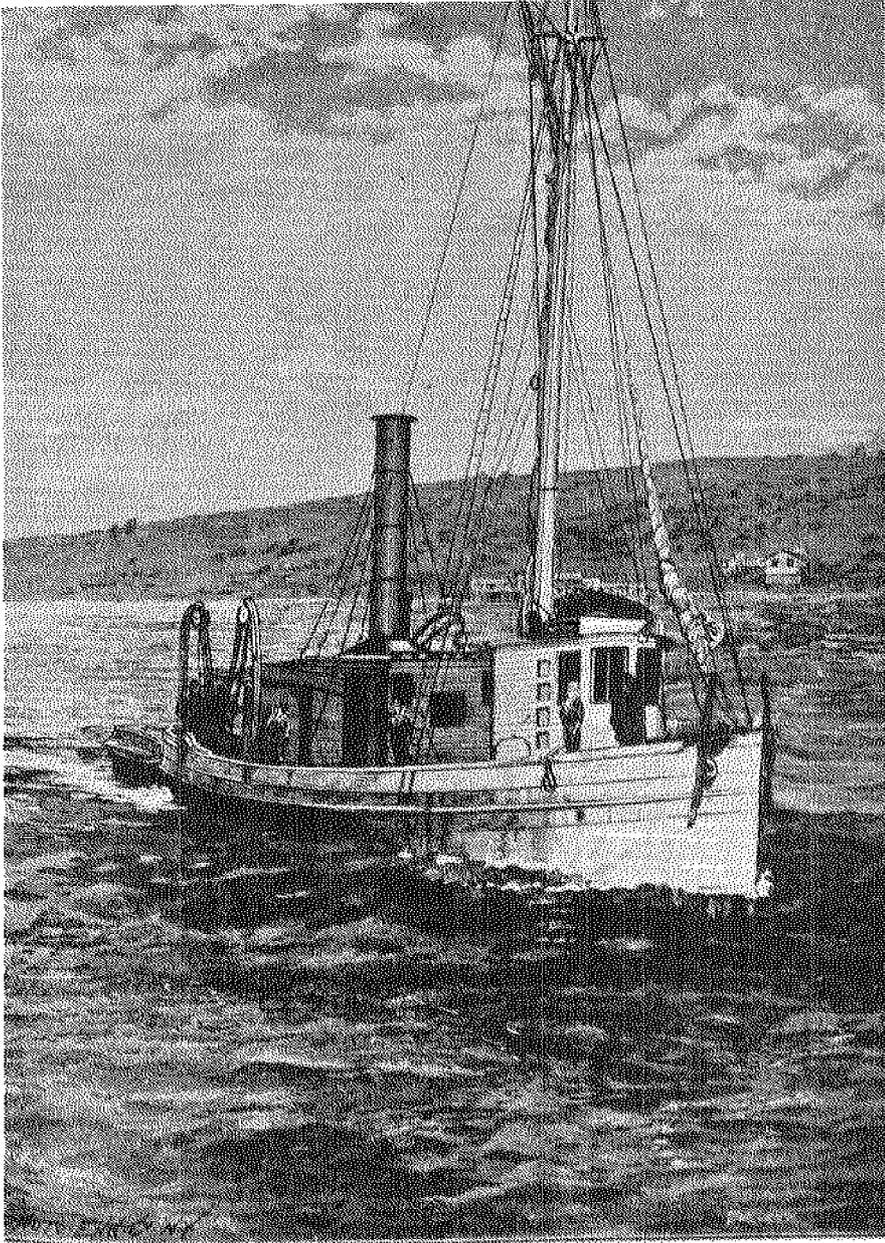


Figure 9. A menhaden carrier vessel around 1880; used to carry menhaden to factory.

CREDIT: U.S. Commission of Fish and Fisheries, 1887

The industry began to expand rapidly in the post World War II years when offshore trawling developed. Its peak was in 1953 when 14.6 million pounds were harvested. Since then shrimp has remained the number one fishing industry so far as monetary value is concerned.

Sport fishing also became an important aspect of the industry in the post war years. Before the war nearly all sport fishing was combined to the sounds, rivers and shore. The big game fish at that time was considered the channel bass. Offshore fishing probably started in the late 1920's when a few individuals began to go out to the Gulf Stream in search of amberjack, albacore, wahoo, bonito, barracuda, blue marlin and red snapper.

The fishing industry has continued to grow in North Carolina. Today there are some twenty-five counties that are engaged in the industry. Nearly 9,000 individuals are employed in the industry including approximately 5,500 full-time commercial fishermen. In 1973 commercial fishermen harvested some 130.5 million pounds of seafood.

b. Vocabulary*

casemate - an armored enclosure on a warship from which guns are fired.

draft - the depth of water drawn by a ship.

Intercoastal Waterway - inshore route for pleasure boats and barges from New York to Miami. Canals, water depth and other criteria are maintained by the U.S. Corps of Engineers.

seine - a large net with sinkers at one end and floats at the other.

shoals - large moving sand bars often found near inlets and capes.

steam winch - a machine used for hauling or pulling powered by steam.

trawl - a large conical net dragged along the sea bottom.

trot line - one of the short lines with hooks attached at intervals to a longer line.

*See also the "Ship" activity for vocabulary pertaining to ships.

c. Activity

Sounds and Rivers of Coastal North Carolina

Objective: To familiarize students with the locations of sounds and rivers in coastal North Carolina.

Teacher

Preparation: Have available copies of the blank map for students, red and blue colored pencils and a transparency of the completed map for use on an overhead projector.

Procedure: Using the teacher's key and attached map, have the students label the following rivers and sounds of the North Carolina coast.

<u>Small Rivers</u> (Red)	<u>Small Sounds</u>	<u>Large Rivers</u> (Blue)	<u>Large Sounds</u>
White Oak River	Bogue Sound	Neuse River	Pamlico Sound
North River	Core Sound	Cape Fear River	Albemarle
Pasquotank River	Croatan Sound	Pamlico River	Sound
Little River	Roanoke Sound	Chowan River	Currituck
Perquimans River		Roanoke River	Sound
New River			
Tar River			

Discussion: Why did large ships have difficulty reaching the North Carolina coast?

Answer: Shallow sounds, shifting inlets.



Figure 10-A.

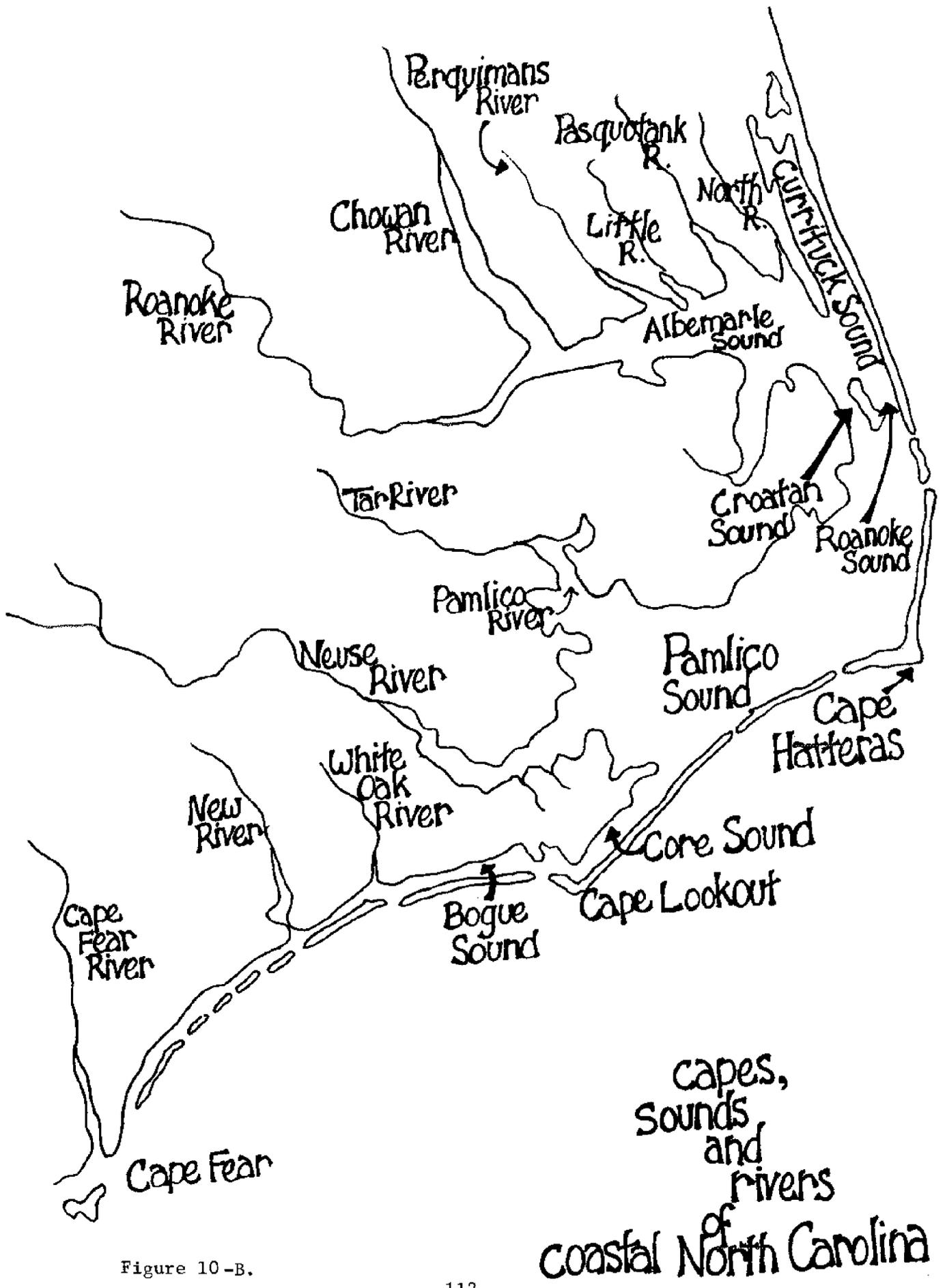


Figure 10-B.

c. Activity

Land Ho! Aboard Game

Objective: To familiarize students with some of the problems of early ocean travel and the special problems of reaching the North Carolina coast.

Teacher

Preparation: Prepare board by placing the following four pages on a piece of cardboard.

1	2
3	4

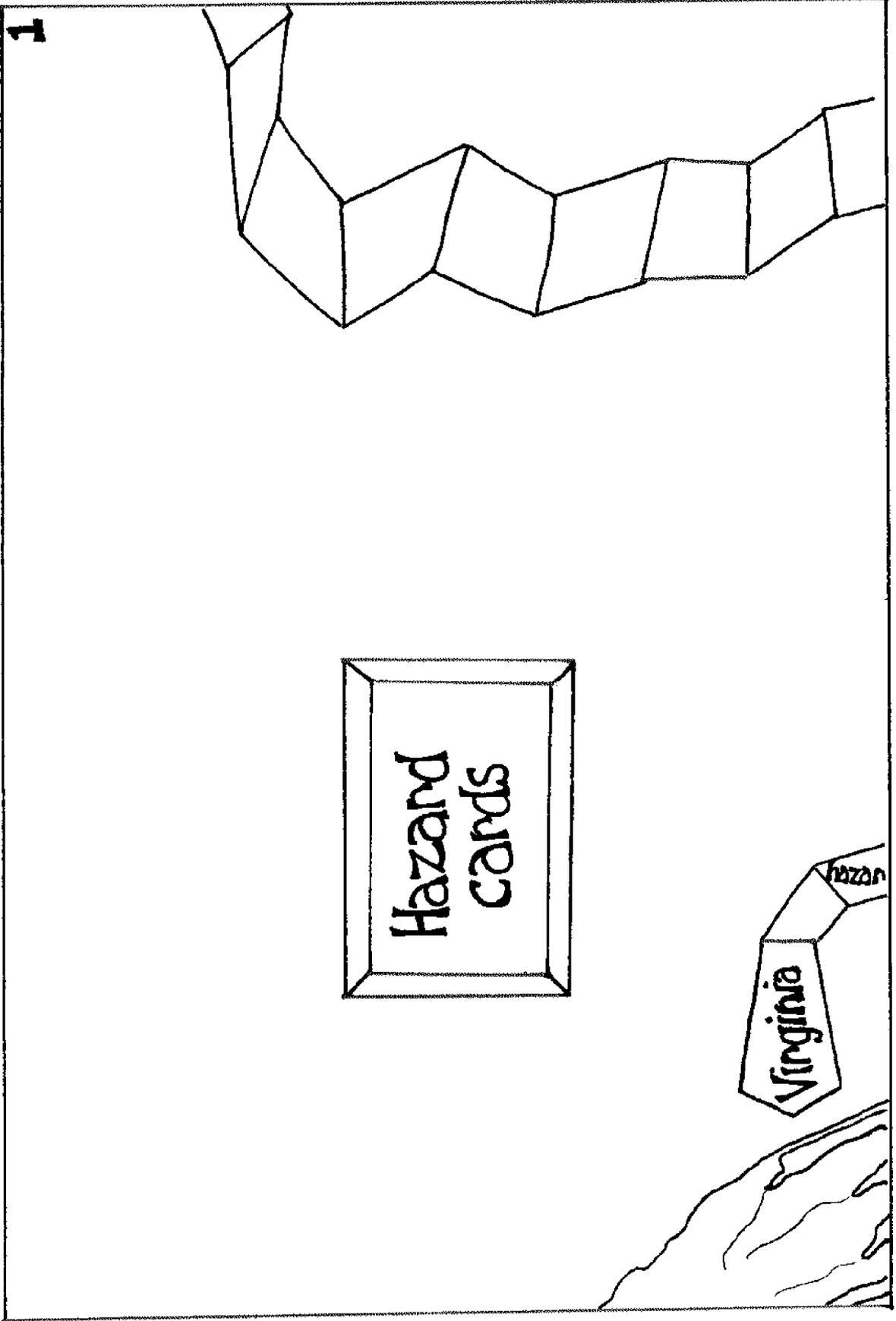
Cut out "Hazard" and "Sea" cards and place them on the board. After using cards, return them to the bottom of the pile. (The board and cards can be laminated for longer use.)

One die is used to count spaces.

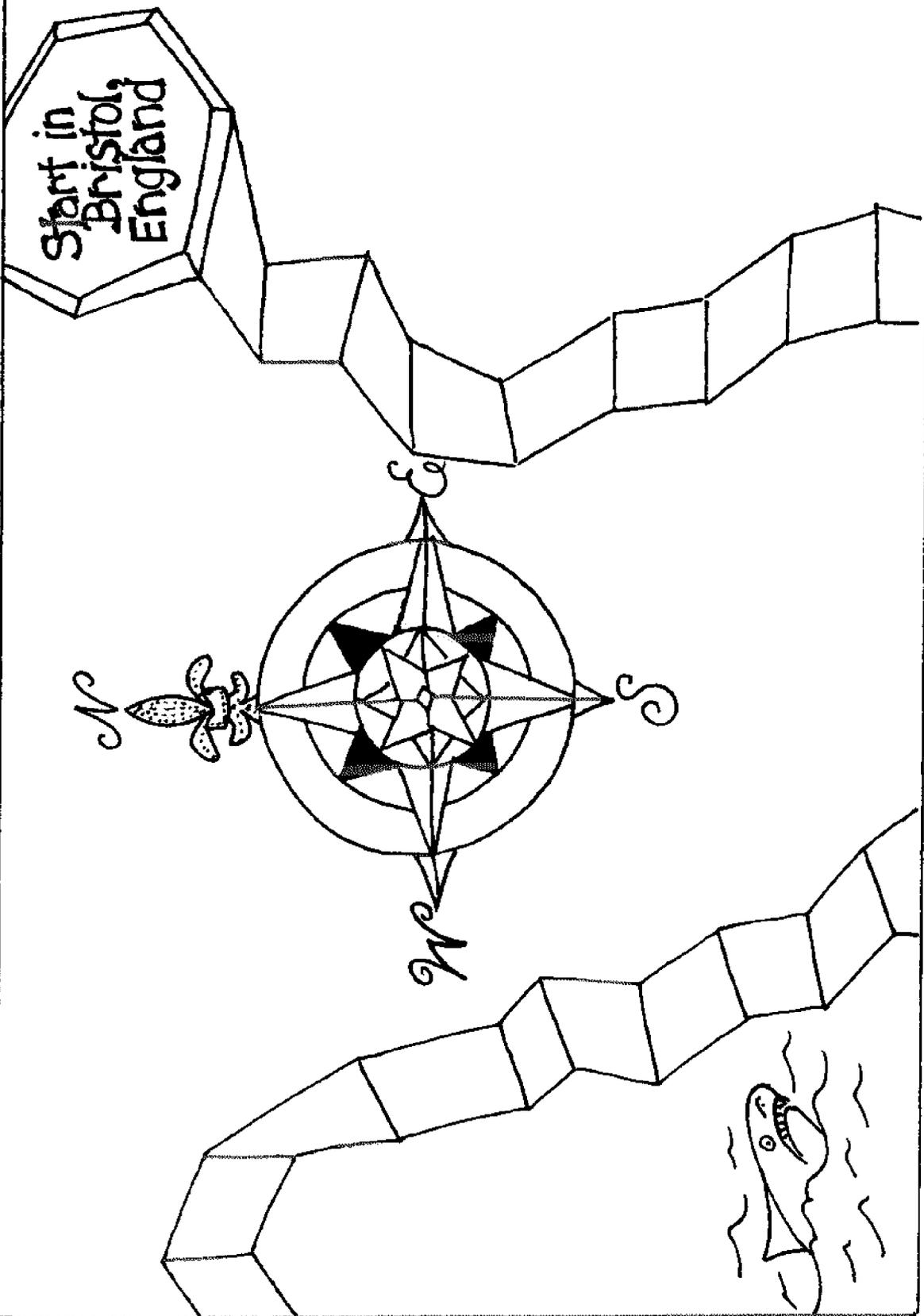
Procedure: The board is self-explanatory. Begin in Bristol, England. The first student to reach North Carolina is the winner.

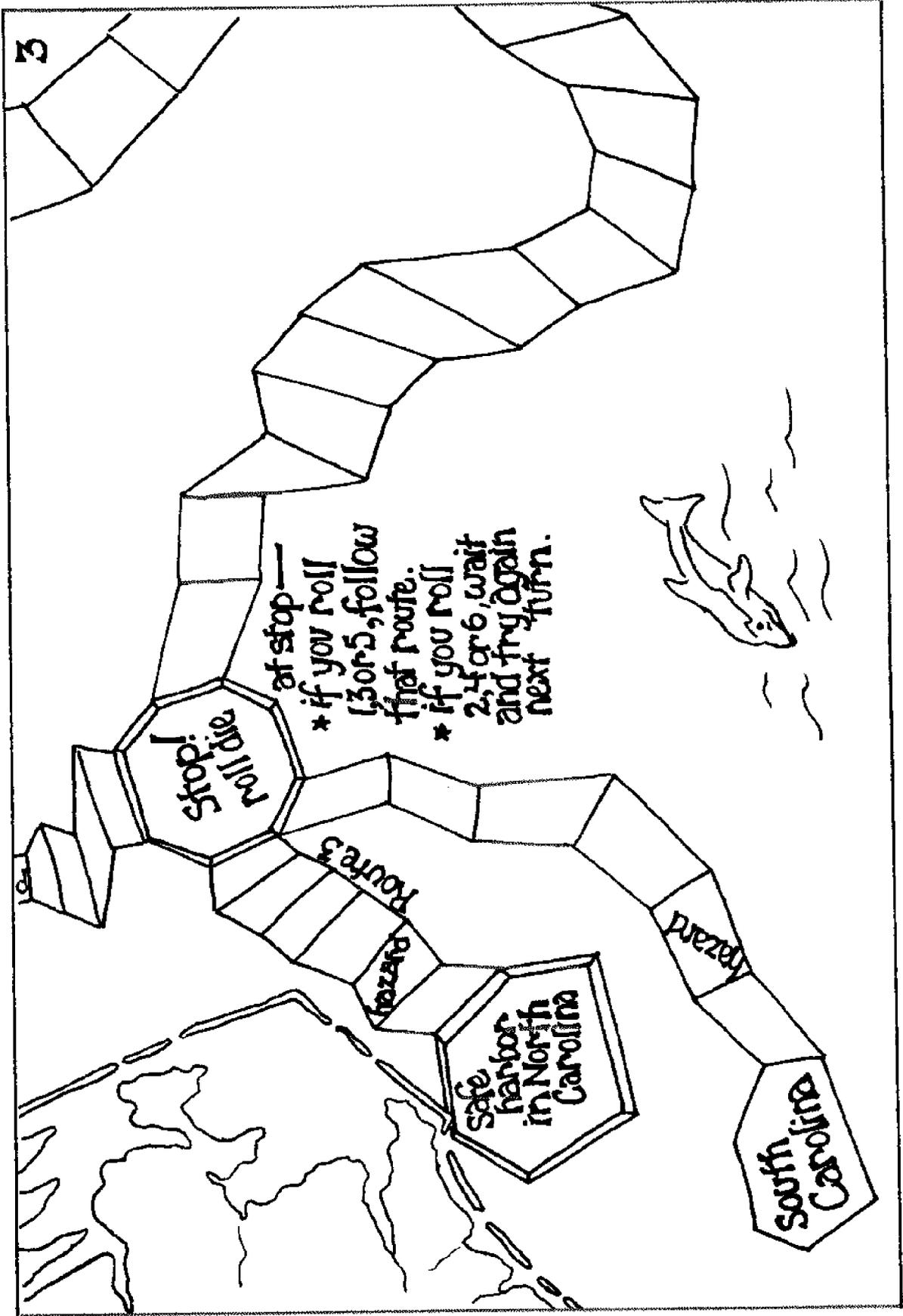
<p>ship springs leak! lose 2 turns...</p>	<p>sails tear in storm! go back 3 spaces...</p>	<p>ship springs leak! go back to Bristol...</p>	<p>great white shark rams boat! go back 2 spaces...</p>
<p>good winds! advance 2 spaces...</p>	<p>wind dies down! lose 1 turn...</p>	<p>spanish scare! go back to Bristol...</p>	<p>scurvy! go back 3 spaces...</p>
<p>Atlantic storm! lose 1 turn...</p>	<p>pirates attack go back 3 spaces...</p>	<p>mutiny! go back 5 spaces...</p>	<p>great white shark rams boat! lose 1 turn...</p>
<p>Spanish scare! go back 5 spaces...</p>	<p>good winds! advance 3 spaces...</p>	<p>scurvy! lose 1 turn..</p>	<p>mutiny! lose 1 turn..</p>

wrecked on Hatteras! lose 2 turns	stuck on sand bar! go back 2 spaces	hurricane! go back 3 spaces	stuck in shallow water! lose 1 turn	hazard
wrong river for harbor! go back 3 spaces	stuck in swamp! lose 1 turn	tides are against you! go back 1 space	Blackbeard attacks! go back 3 spaces	hazard
water spout! lose 1 turn	going against wind! go back 2 spaces	winds die down! go back 1 space	stuck on sand bar! lose 1 turn	hazard
currents push you back go back 2 spaces	stuck in swamp! go back 2 spaces	wrong river for harbor! go back 6 spaces	water spout! go back 3 spaces	hazard

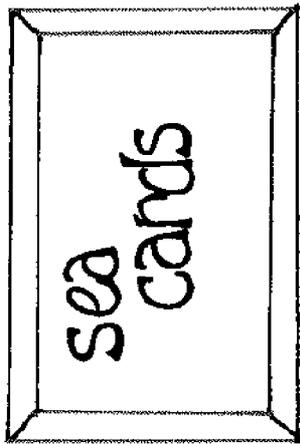
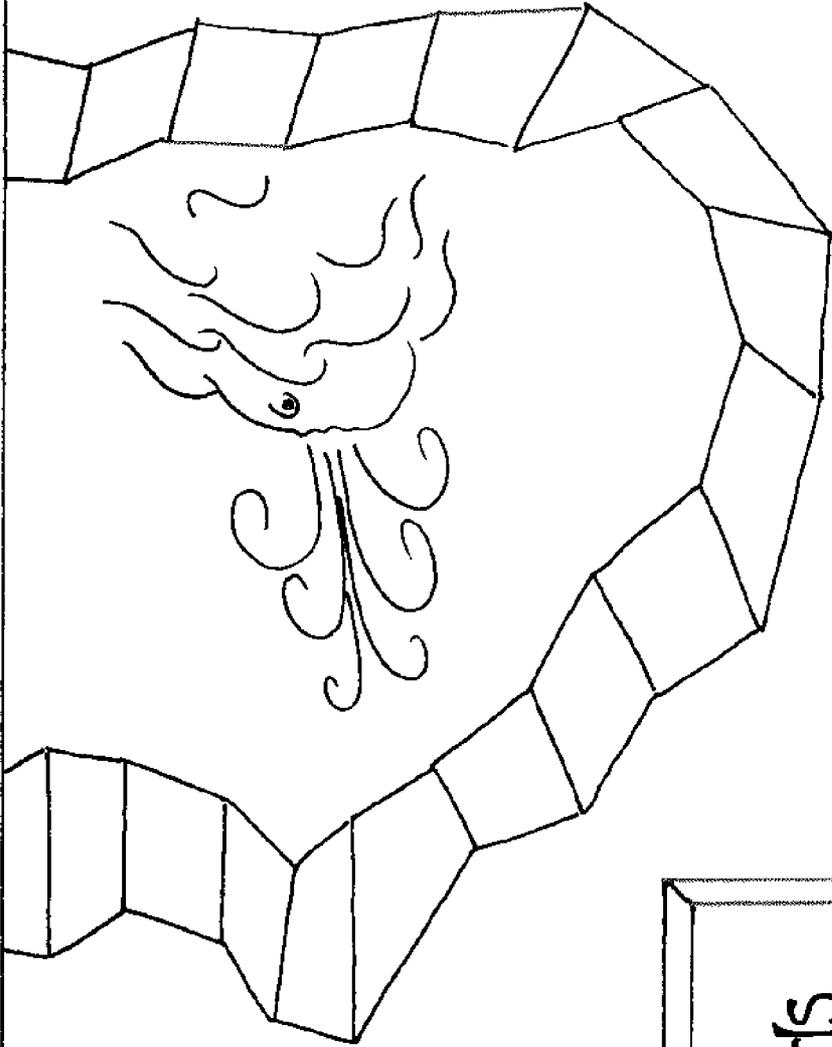


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4



c. Activity

Famous Names and Places

Objective: To relate geographic names in North Carolina to Indians and Colonists.

Teacher

Preparation: Allow students to read material on early explorers, Indians and colonial government figures. This material can be taken from the background reading, encyclopedias or any of the reference material. Have road maps of North Carolina available.

Procedure: Give students the road maps. See who can make the longest list of North Carolina places accompanied by the historical person for whom it is named.

For example: Albemarle Sound - Lord Albemarle of England
Chowan River - Chowanoc Indians
Raleigh - Sir Walter Raleigh

Discussion: 1. From your list, would you say most names are of English, Indian, French or Spanish origin? Why?
2. Does any member of your class have a name which is also a place in North Carolina? Can this student trace his "roots" to colonial periods?
3. Discuss how some towns of North Carolina received their names (Snow Camp, Sunshine, Soul City).

c. Activity

Ships

Middle Ages until the 15th century

1. The long ship evolved from the Mediterranean region. as an oar vessel which did not rely primarily on sail, these ships were reliable and independent of the wind. However, they were not suitable to extensive oceanic travel.

2. The round ship evolved in Northern Europe. It was a simple sailing vessel with a single mast and a single sail. One must be careful of generalizations concerning these two ship types. Although the long ship was primarily an oar galley, it did have auxillary sail. Similarly, the round ship was a sailing vessel with auxillary oars. In this period, the only distinction between warships and merchant vessels was simply that warships carried weapons while merchant vessels carried goods.

"The Age of Exploration" (15th and 16th centuries) was facilitated by technological maritime improvements: number of masts (from one to two or three masts), increased tonnage (weight of ship and cargo), and the introduction of the rudder.

1. Caravel, the first ocean going vessel, was a fusion of the long ship and the round ship. Developed by the Portuguese, these vessels were used by Vasco da Gama and Bartholemew Diaz in their voyages of discovery around Africa. Christopher Columbus, in 1492, sailed to San Salvador in the Nina, the Pinta, and the Santa Maria--3 small caravels. Relatively small, the caravel was noted for its lack of comfort.

2. Galleon, a heavily armed vessel, was the prototype of the ship of the line. Used frequently by explorers, galleons were relatively fast and maneuverable. Raleigh's colony at Roanoke Island was brought to the New World by a galleon. The construction of these vessels was limited to Europe and none were built in the colonies.

17th and 18th Centuries

1. Ships of the line were large warships that usually carried seventy-five guns placed on several decks. Gun crews were often forced to man their weapons while kneeling or bending over in the lower decks. War tactics called for ships to line up and fire shot broadship into enemy vessels. Ships were also used for cargo transportation as well as defense.

2. Sloops were one masted, fore and aft rigged, vessels. They could be manned by a small crew and were easy to maneuver. Because they were shallow-draft and easy to construct, sloops were the most popular of the colonialist ships and were used extensively in coastal trade.

3. Barks were extremely fast merchant vessels that became popular in the latter part of the colonial period. It was distinguished by having two or more square rigged sails on one mast; others are fore and aft rigged.

4. Pinks: These were small double-ended vessels that evolved in New England for fishing. They could maneuver in shallow waters, and be operated by a small crew.

5. Schooners evolved at the turn of the 18th century as the first distinctively American ship type. By the American Revolution, it was the most popular type of merchant vessel in the colonies. Because it was relatively inexpensive to construct, its popularity spread to Europe early in the 19th century.

19th century - transition from sail to steam and the development of the screw propeller and iron hull.

1. The Clipper, which evolved from the schooner, was the fastest sailing ship of its time. Narrow, long, and multi-masted, it carried small quantities of valuable cargo Trans Pacific in the famous "Tea-Trade" with China. The period of 1840-1860 has been named the "clipper era." The Flying Cloud made the voyage from Boston, around Cape Horn, to San Francisco in only 89 days. By the end of the Civil War, however, the days of the great sailing vessels were numbered.

2. Steamboats with paddle wheels

Although John Fitch developed a creditable steamboat serving in 1790, Robert Fulton has been recognized for the first successful application of the steamboat, when, in 1807, Fulton's Clairemont completed both ends of a successful 137 mile trip.

The steamship Savannah, launched in 1819, was the first ocean going steam propelled vessel.

Generally, early 19th century steamboats operated primarily in inland waters. By the 1850's, over 1000 steamboats were in operation on western waters. Western steamboats were relatively inexpensive to construct and very light. Many could operate in a few feet of water. The development of a national railroad system contributed most heavily to the decline in importance of river steamboat transportation.

3. Steamboats with screw propellers

The development of the screw propeller by Francis Petit Smith and John Ericson was a revolutionary technological achievement which opened the way for the evolution of modern oceanic travel. The superiority of the screw propeller over the paddle wheel was recognized in the famous tug-of-war between the screw steamer Rattler and the paddle wheeler Electo. Having little difficulty with the paddle wheeler, the Rattler easily towed away her opponent at the rate of two and half knots. The U.S. Navy's interest in the screw

propeller grew out of two major concerns. First, the paddle wheel was highly vulnerable to shot and secondly, the paddle wheel reduced the number of guns aboard ship. The screw propeller solved these problems, and, by the 1850's, twin propellers were introduced and were common during the American Civil War.

4. Ironclads were developed during the Civil War to have a low profile, e.g. Monitor (now sunk in N.C. waters), Merrimac, and the Neuse (on display in Kinston, NC).

5. Iron-hulled ships were ignored by the U.S. until the 1880's. While England and France were constructing a modern navy, the United States continued to rely on wooden vessels. Indeed, by mid-century, the American fleet was becoming obsolete. From its #1 position in merchant shipping in 1850, the United States plummeted to #18 by 1875. It was not until 1884 that the United States commissioned its first modern steel warships. The Atlanta, Boston, Chicago, and Dolphin were British in everything except name. Their construction, however, signalled the emergence of the United States as a major naval power.

vocabulary

boom - horizontal spar supporting the bottom of a sail.

bow - front end of a ship.

bow-sprit - spur projecting forward from the bow on which headsails and supporting wires for the mast are set.

double-ended boat - a ship with pointed bow and stern.

fore an' aft rigged - sails lie on a plane from bow to stern.

foremast - small, bow-most mast.

gaff-rigged - mainsail is supported at bottom by boom and top by a short spar pivoting on the mast.

lateen-rigged - mainsail is supported by single, angled spar attached to mast.

mainmast - tallest mast of a vessel.

mast - perpendicular pole supporting sails, and spars.

mizzenmast - smaller, stern-most mast.

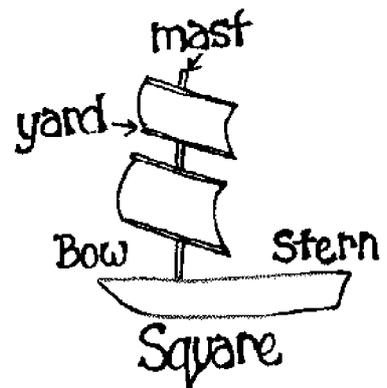
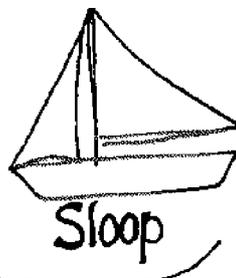
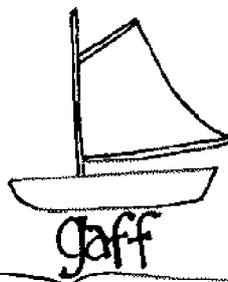
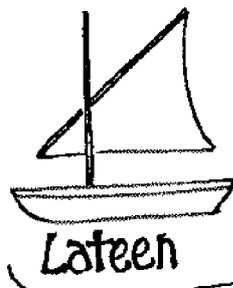
poop deck - stern quarters (originally a tiny house) on deck of a ship.

rudder - flat piece of wood attached upright to a ship's stern so that it can be turned and thus steer the direction of the vessel. A helmsman used a tiller or wheel to control the rudder.

square-rigged - sails are set on yards, are square in shape, and stretch across the ship rather than fore an' aft.

stern - back of ship.

yard - a pole or spar used to support square sails.



fore an' aft

Ship Design

Objective: To use a dichotomous key in order to determine various ship types.

Teacher

Preparation: Duplicate the following ship design outlines either in overhead transparencies or as copies for students. Also, duplicate a key for each student. In order to investigate ships, it would be useful to have some library books on ships available. Copy the drawings of the various types of ships' rigging on the board. (These are found on the bottom of page 106.)

Procedure: In order to identify the name of the ship, use the dichotomous key. EACH time start at the beginning, choose either left or right side until the ship is named. Several mariner's terms are given in the vocabulary to help.

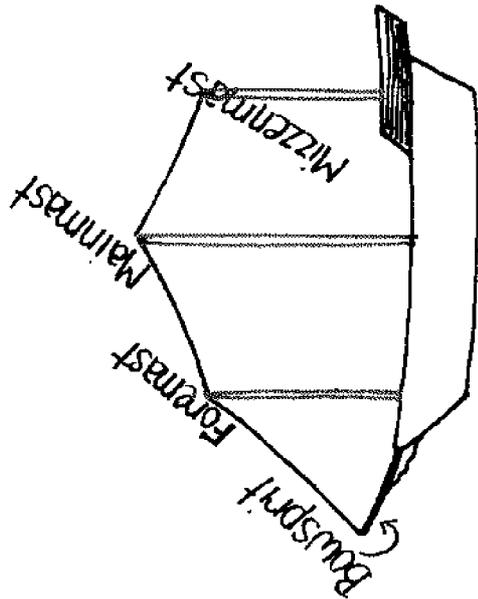
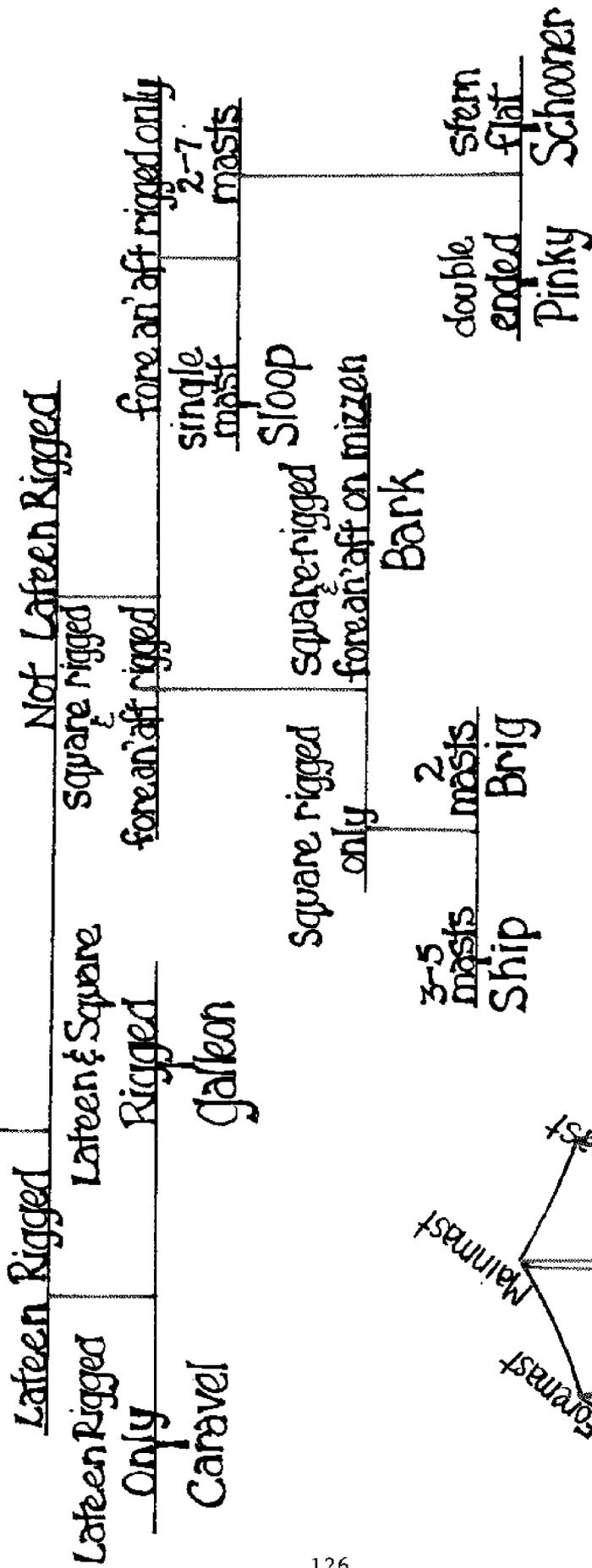
- Discussion:
1. Which are the earliest ship designs?
(Compare their sails with those of ancient Egyptians.)
 2. How was the SHIP modified so that it became a warship or "ship of the line?"
 3. The fast "clipper ship" is just a modification of the schooner. What was changed?
 4. What is an advantage of a boat being "double-ended?"
 5. Which design is used for pleasure sailing yachts today? What type of sail design is used on 12 meter yachts used as racers for the American's Cup?
 6. Find some pictures from the "Tall Ships" which sailed into New York harbor in 1976 for the Bicentennial. See if you can identify their type from the key. (Remember, there are several types not illustrated here.)

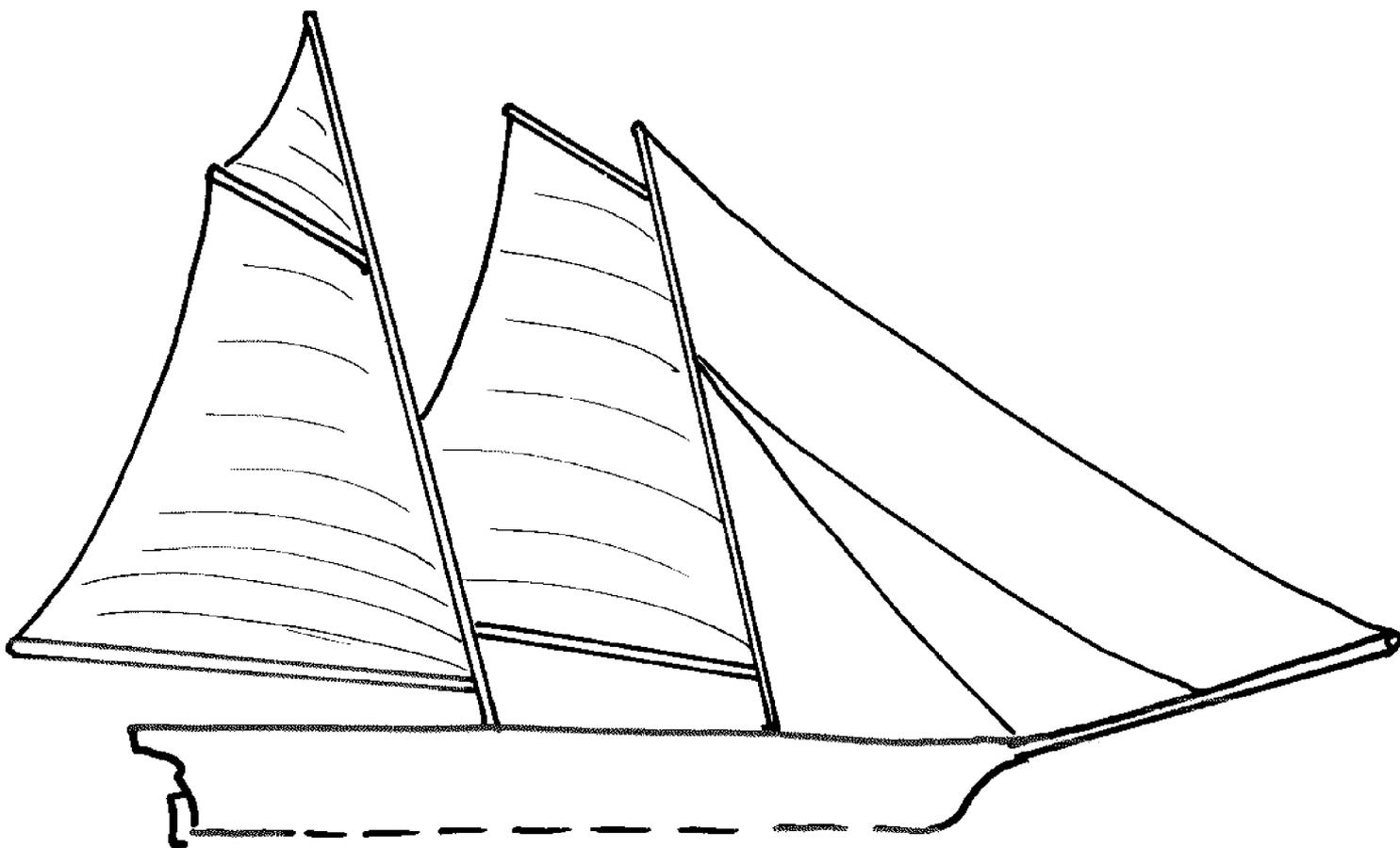
ANSWERS: to dichotomous key

- Picture 1 - Schooner
2 - Bark
3 - Galleon
4 - Brig
5 - Sloop
6 - Ship
7 - Pinky
8 - Caravel

Key to Historically Common Sailing Vessels

all illustrated vessels

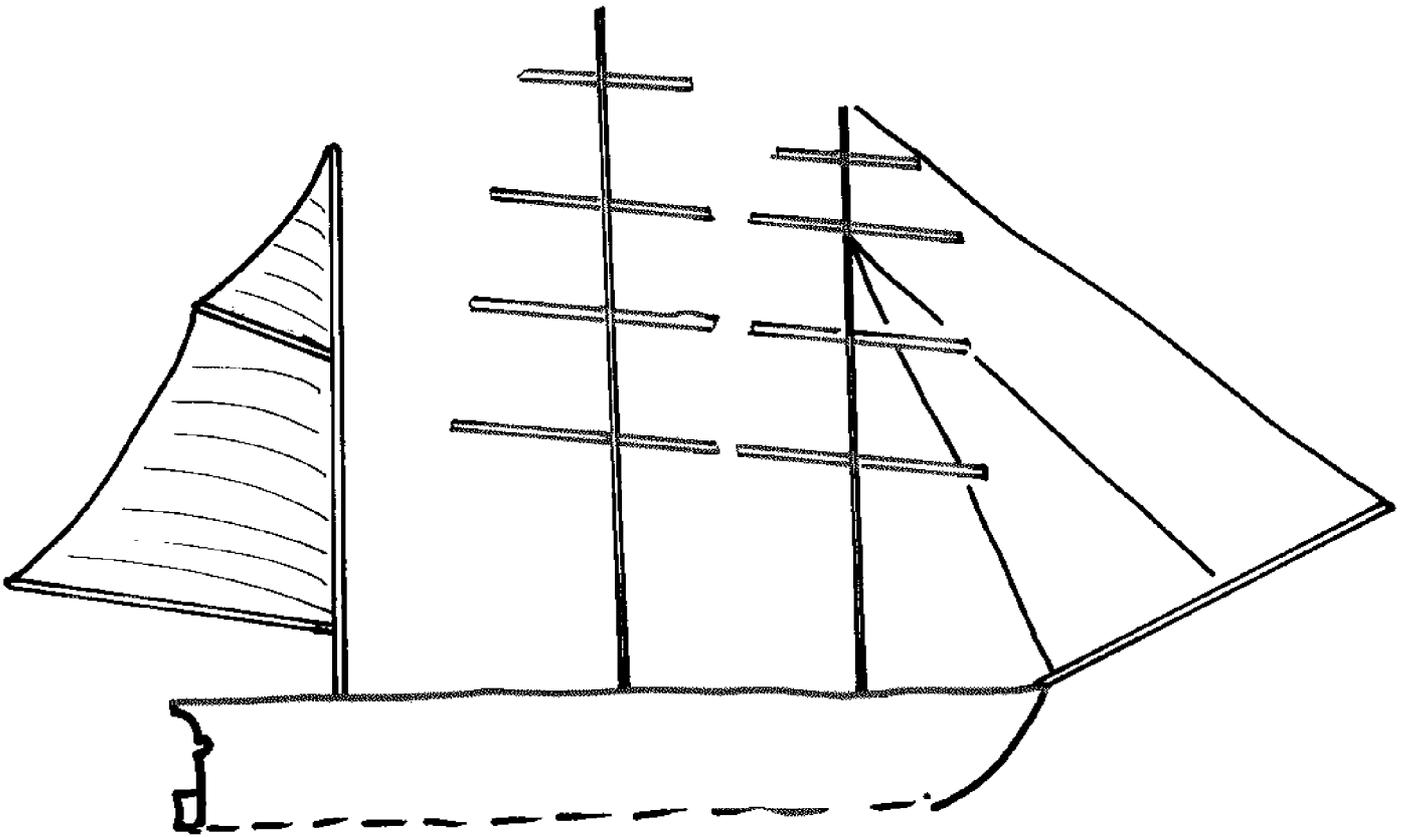




1.

Name: _____

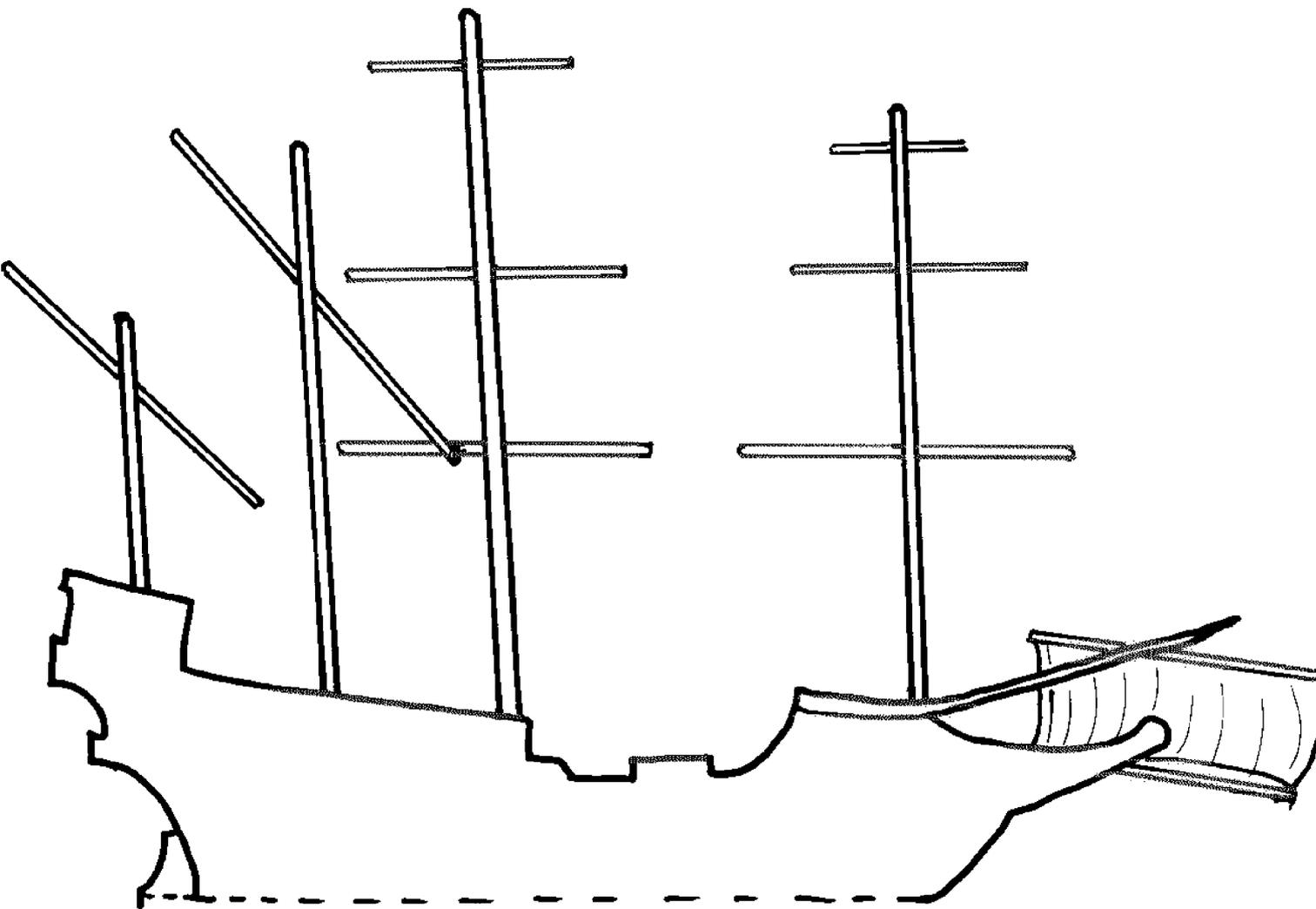
Uses:



2.

Name: _____

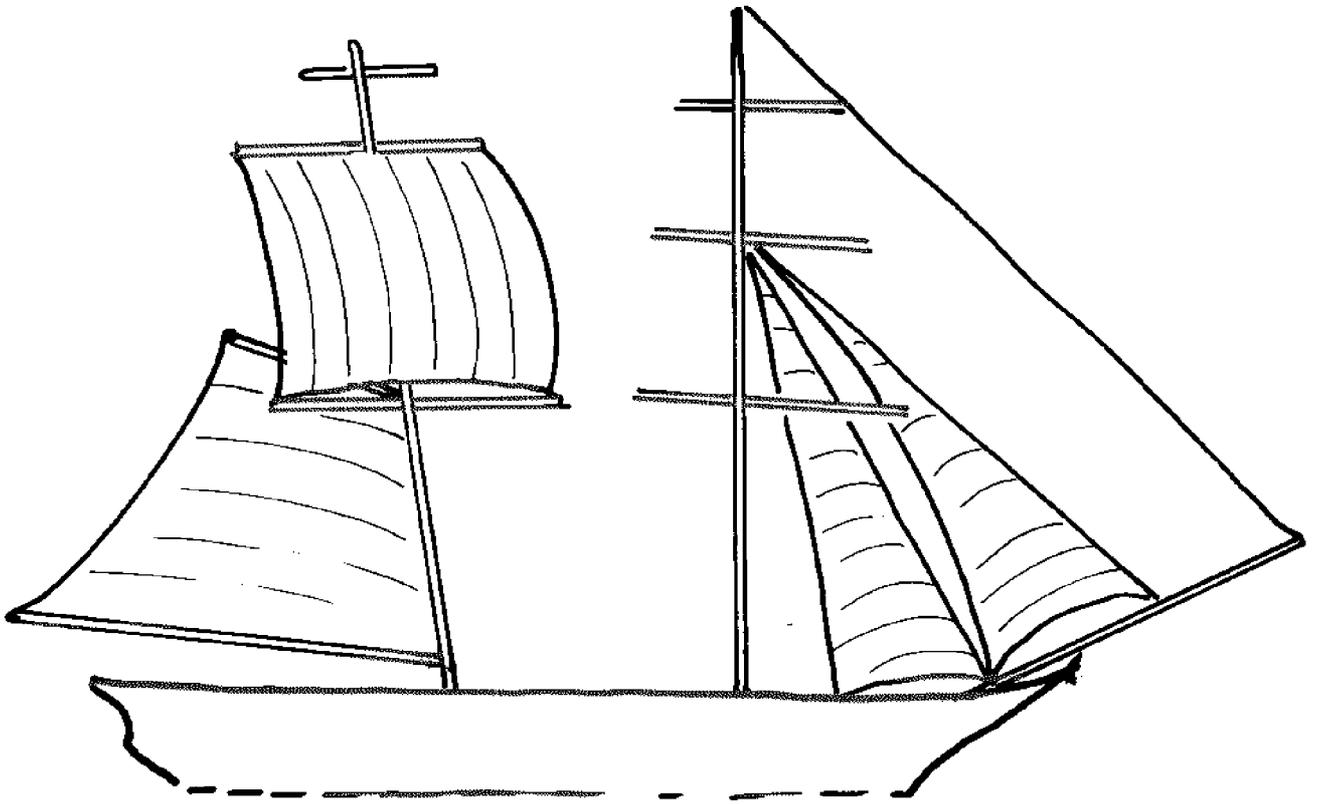
Uses:



3.

Name: _____

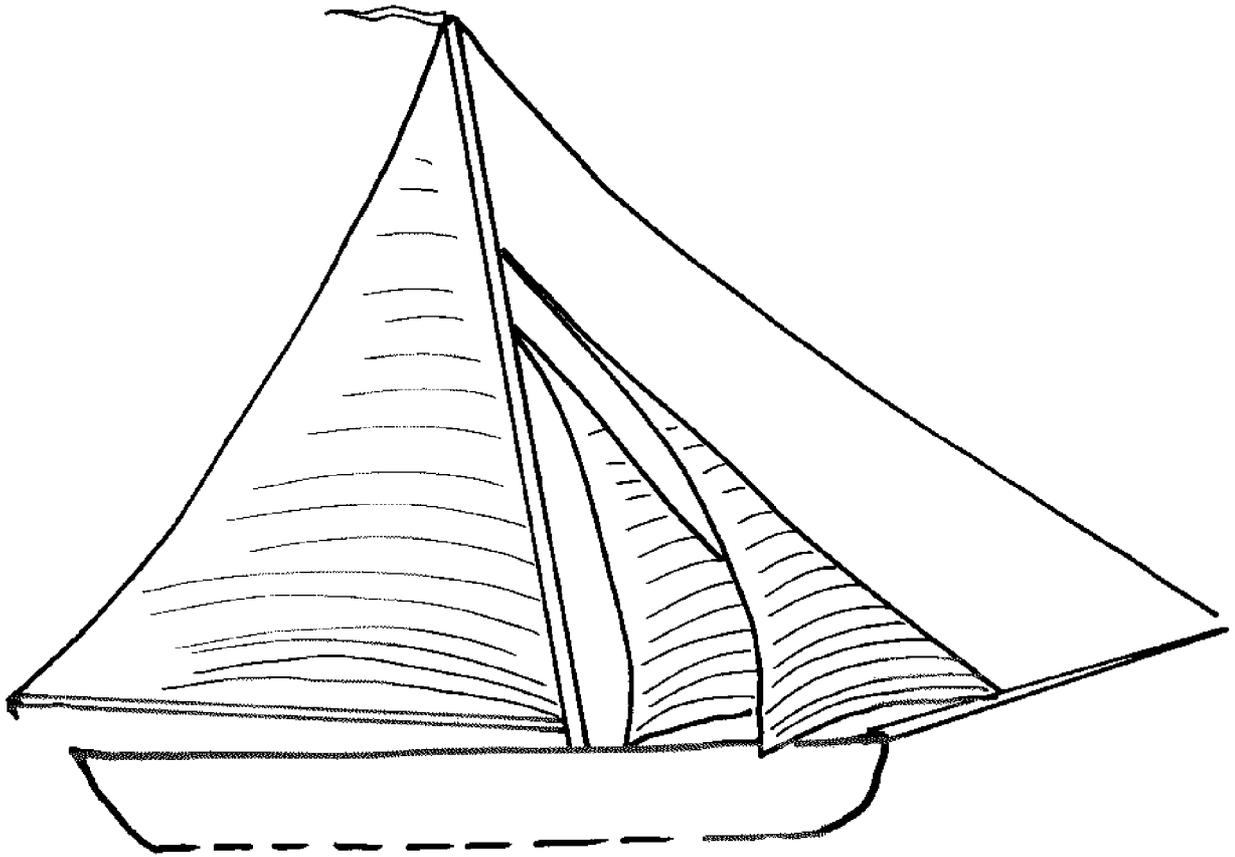
Uses:



4.

Name: _____

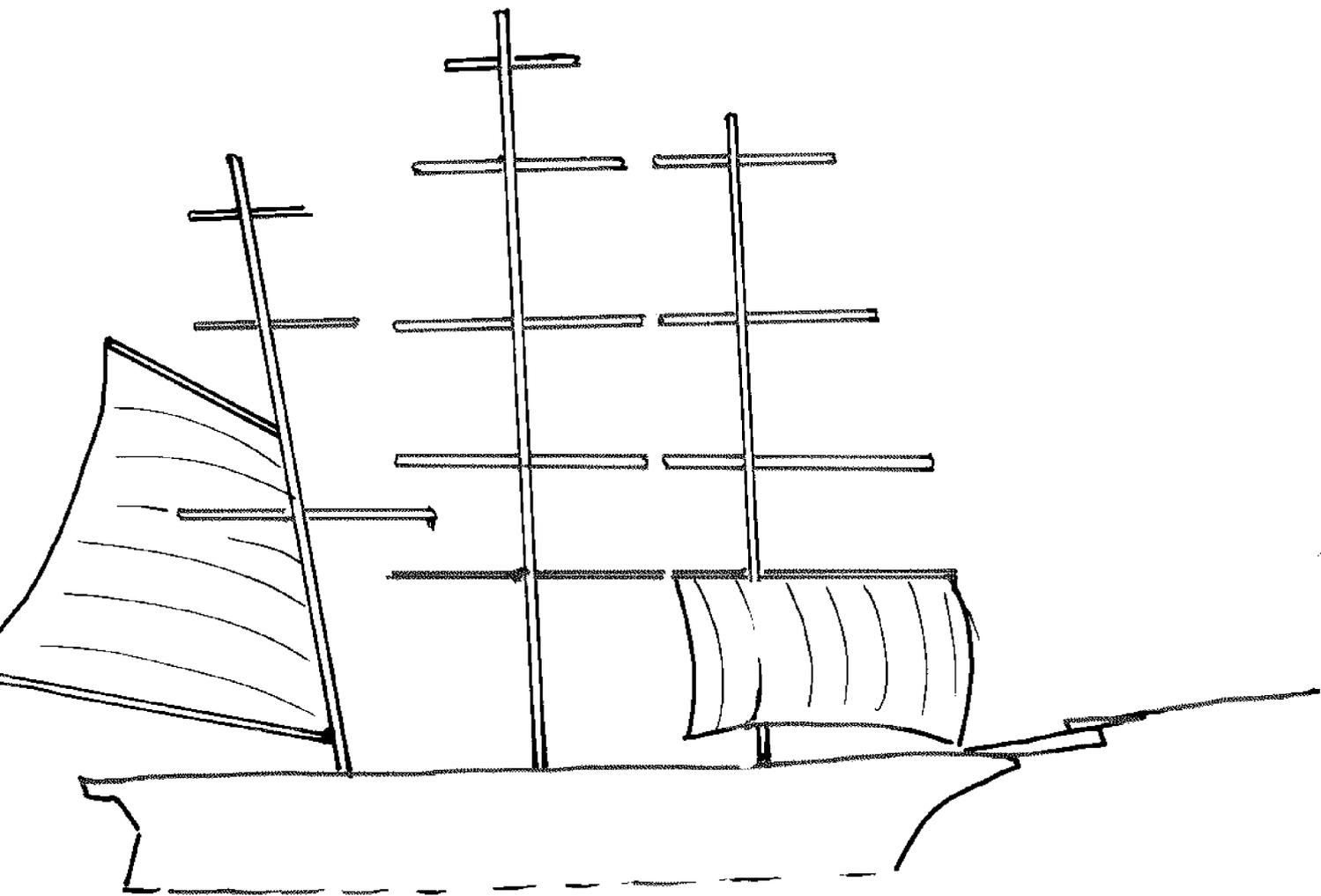
Uses:



5.

Name: _____

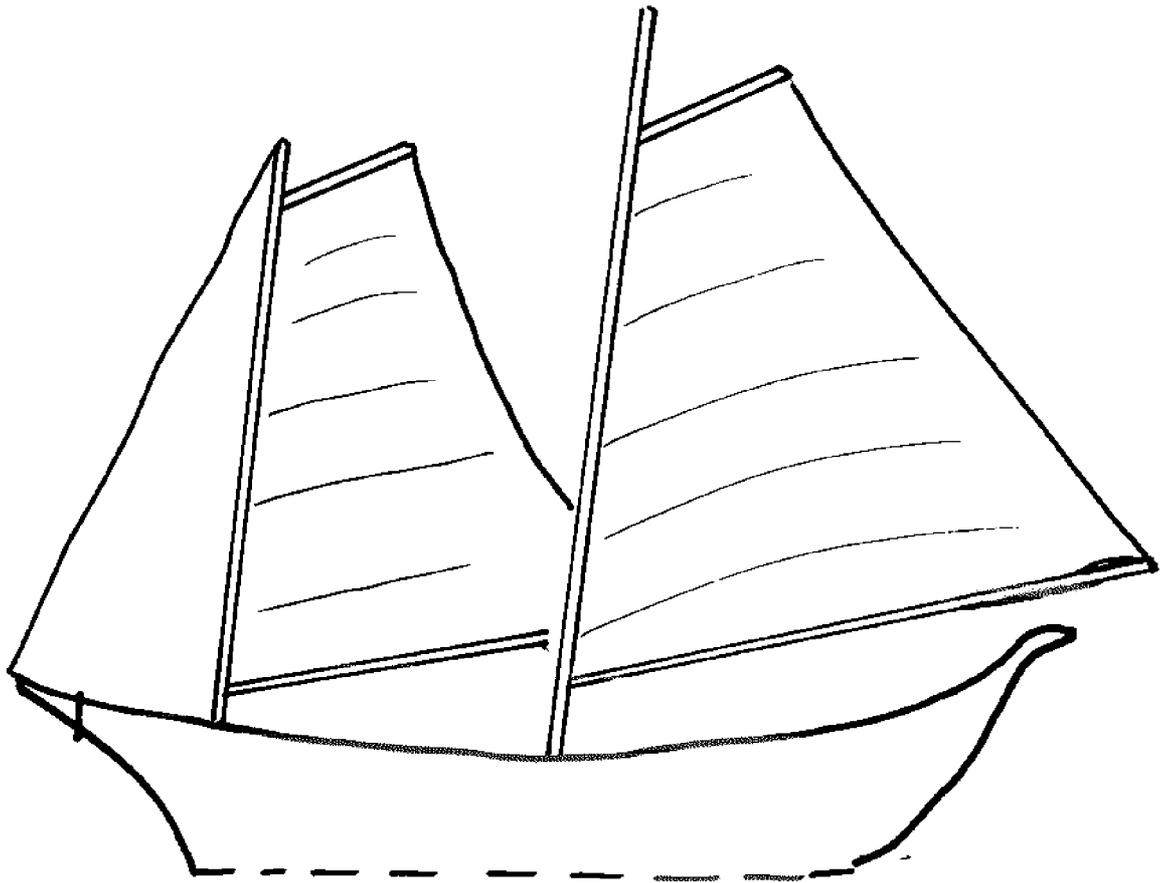
Uses:



6.

Name : _____

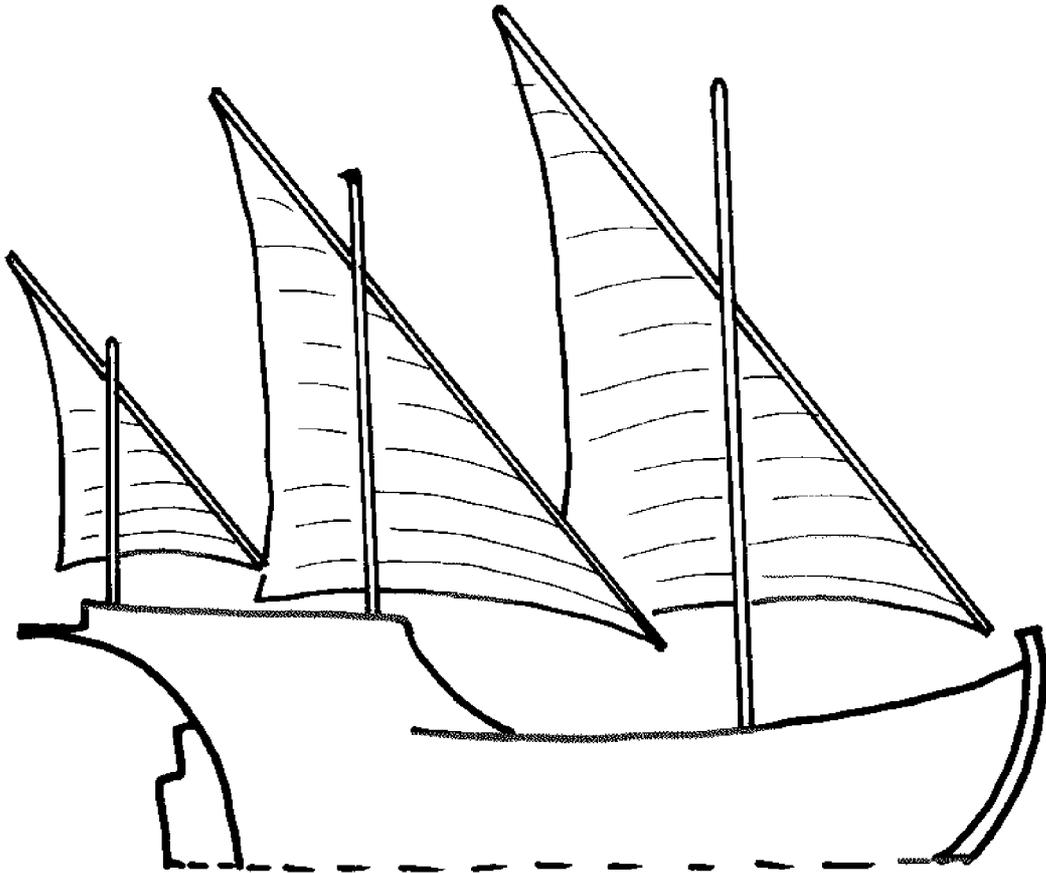
Uses :



7.

Name : _____

Uses :



8.

Name: _____

Uses:

Figureheads and Sea Art on Ships

Objective: To introduce figureheads on ships and allow students to create their own version of figureheads

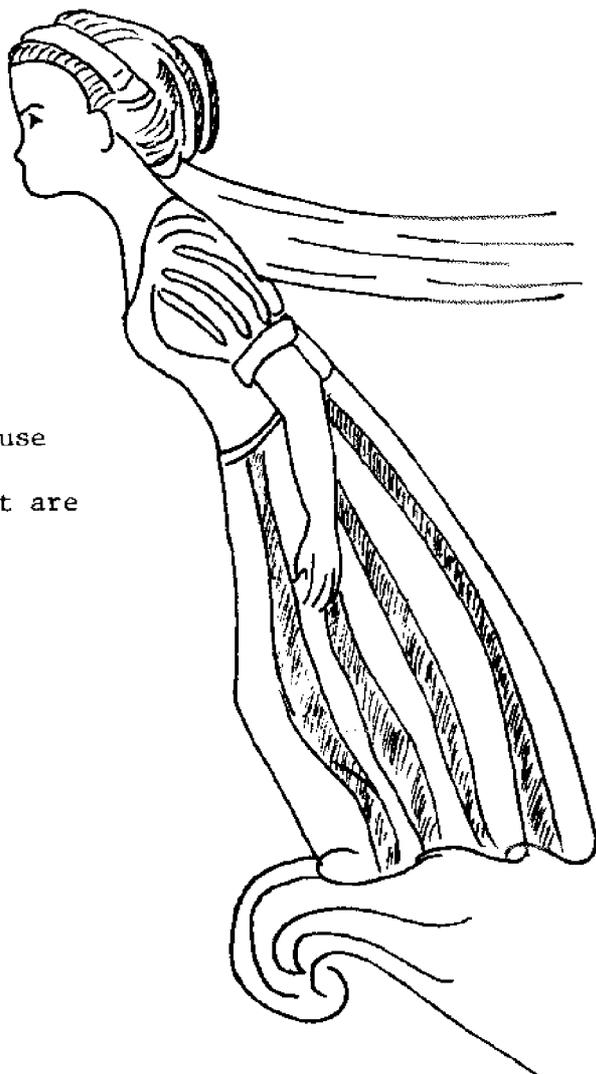
Teacher

Preparation: Provide colored crayons or paints, white paper, and perhaps some pictures of ship figureheads. Some students may want to whittle a figurehead from balsa wood. Discuss the evolution of figureheads on ships. At one time, these figures were believed to be guides for ships (Chinese Junks have eyes painted on the bow to see the way!), and later evolved into decorations. Men of distinction, women, sirens, heroes, and animals were common subjects. It has been said that some clipper ships had such risqué figureheads that ports would not allow them to enter!

Procedure: Draw a bow profile of a ship, bark, brig, clipper, schooner, or other ships. Where the bow sprit juts forward is the location of most figureheads. Create one which pleases you, may relate to the ship's name, or represents some good luck object.

Try to visit a mariner's museum, e.g., Beaufort, NC and Hampton, VA, near Norfolk.

- Discussion:**
1. What are some reasons to use figureheads?
 2. What other examples of art are found on ships?



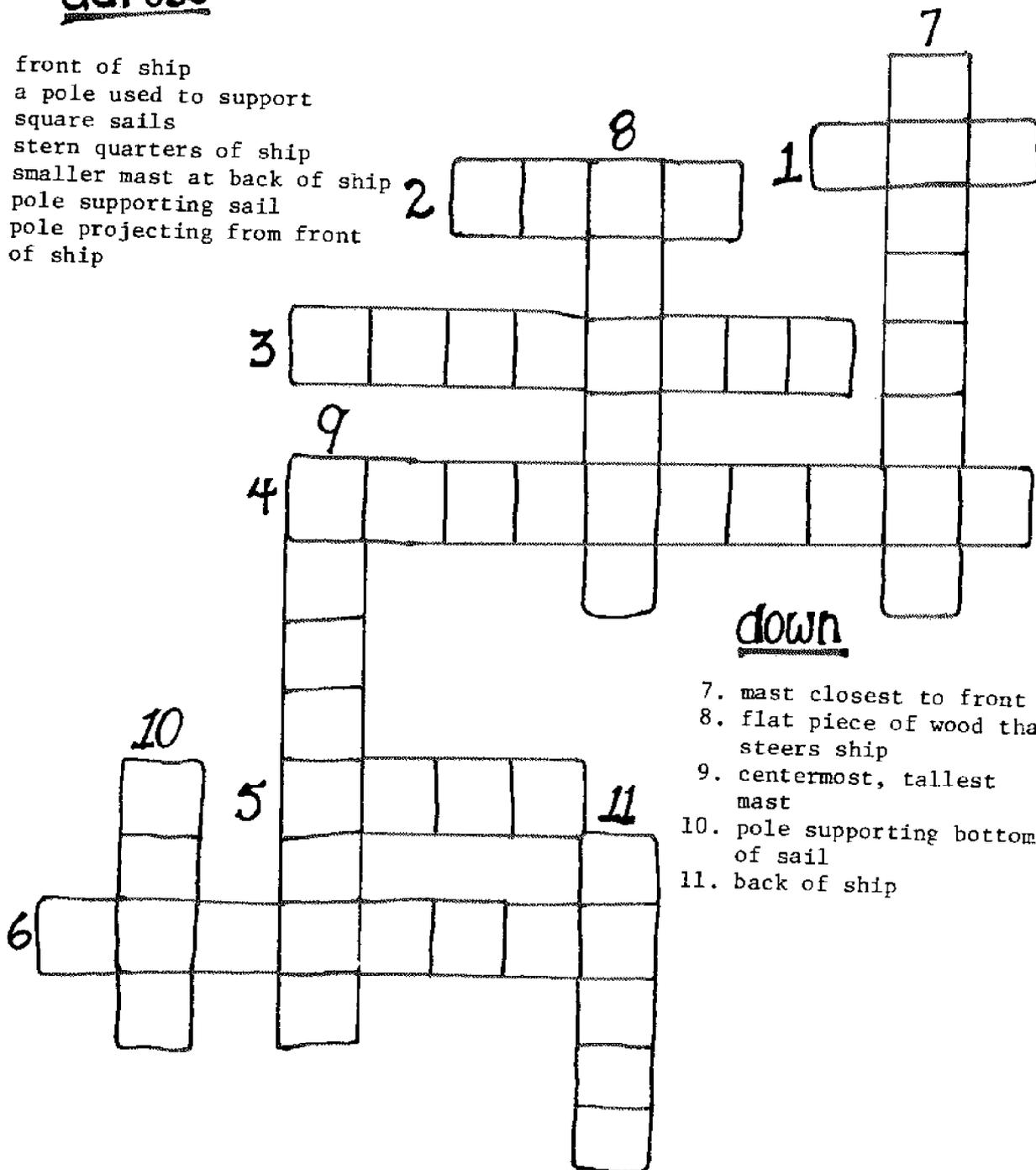
CROSSWORD PUZZLE - ANSWER KEY

- | <u>Across</u> | <u>Down</u> |
|---------------|-------------|
| 1. bow | 7. foremast |
| 2. yard | 8. rudder |
| 3. poop deck | 9. mainmast |
| 4. mizzenmast | 10. boom |
| 5. mast | 11. stern |
| 6. bow sprit | |

Maritime Crossword

across

1. front of ship
2. a pole used to support square sails
3. stern quarters of ship
4. smaller mast at back of ship
5. pole supporting sail
6. pole projecting from front of ship



down

7. mast closest to front
8. flat piece of wood that steers ship
9. centermost, tallest mast
10. pole supporting bottom of sail
11. back of ship

A Word Game: Find the Hidden Ships

Objective: To familiarize students with the different types of ships.

Teacher

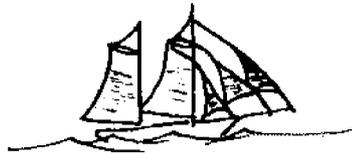
Preparation: Give copies of the following descriptions and word puzzle. Go over background information on ships with students.

Procedure: Have students match the descriptions with the correct ship in the puzzle. (Hidden ships are vertical and horizontal.)

1. Columbus discovered America in this type of ship.
2. A heavily armed vessel which was fast and maneuverable.
3. A one-masted shallow-draft vessel used in colonial coastal trade.
4. Double ended ships used for fishing.
5. The fastest type of sailing ship during the 1800's.
6. Operated by boiling water and invented by Robert Fulton.
7. Civil War ships that sat low in the water.
8. Very fast merchant vessels.
9. An early oar vessel from the Mediterranean.
10. Large warships containing about 75 guns on several decks.

ANSWERS:

- | | |
|-----------------|-----------------------|
| 1. Caravel | 6. Steamboat |
| 2. Galleon | 7. Ironclad |
| 3. Sloop | 8. Barks |
| 4. Pink | 9. Long Ship |
| 5. Clipper Ship | 10. Ships-of-the-Line |



Find the Hidden Ships

J	S	B	A	D	F	I	R	G	R	A
N	H	A	Z	R	A	N	K	E	N	B
B	I	R	O	N	C	L	A	D	L	U
O	P	K	A	G	I	N	F	R	O	R
N	S	S	G	A	L	L	E	O	N	G
H	O	Z	C	N	A	S	M	V	G	E
A	F	R	H	I	T	L	I	O	S	N
S	T	E	A	M	B	O	A	T	H	Y
O	H	L	O	W	Z	O	Q	U	I	P
S	E	W	N	T	B	P	K	V	P	S
C	L	I	P	P	E	R	S	H	I	P
R	I	A	I	V	T	S	M	A	N	U
K	N	C	N	C	A	R	A	V	E	L
P	E	T	K	Y	L	B	I	R	C	H

c. Activity

North Carolina's Wooden Working Sailboats

Background Information:

Coastal North Carolina, due to the shallowness of the sounds and river estuaries, modified three basic types of working sailboats to fish its waters during the 19th and early 20th centuries. The sharpie, the spritsail skiff, and the Albemarle shad boats were each designed for specific needs, constructed by the local boat builders, and used by the commercial fishermen. Consequently, these boats are different from the pleasure craft which sail the sounds today. Unfortunately, only a few of these wooden sailing craft exist. Most have been lost to worms, rot, fire and neglect. The annual Heritage Boat Show held in Beaufort, North Carolina in September resembles an Antique Car Show in that boats with their owners gather to race and to show. Renewed interest in wooden boats is encouraging coastal people to preserve some of their unique heritage by saving these craft. Organizations like the Wooden Boat Association and the Hampton Mariner's Museum serve as catalysts and resources in this endeavor.

Teacher Preparation:

Duplicate the following photographs of wooden sailboats. When possible, ask a student to translate these to sketches. Collect sailing magazines, history books, and articles for references. Additional references are listed at the end of this activity.

Procedure:

1. Reading the information under each picture, discuss how the boats were used, what was caught, where they were sailed. One tact to try, is have the students parallel modifications on boats to modifications on animals. Remember that the key to survival is meeting needs--usually adaptations. Discuss what factors might have caused the sailboats to fade away (gasoline motors, larger boats, off-shore fishing, need for speed and cargo space, etc.). Have the students design their own craft for commercially fishing the sounds (see Unit I: Coastal Geology; Unit III: Coastal Ecology for descriptions of sounds and fisheries). Let them use whatever technological inventions they can think of. Then pose the problem of fuel shortage and ask them to design a workboat for that. (More sail powered vessels should emerge from their drawing boards.)
2. Point out some of the unique characteristics of the boats. For example, the shallow draft of the sharpies. Even the rudder is designed for shallow water. Notice how the boats are built for working space and cargo, not luxury. Even the rigging (sails and mast) have special modifications. Contrast these boats to modern sailboats shown in magazines. How do they differ in design, construction materials, and use?
3. In order to bring the problem of saving these old wooden boat designs, have the students look in their own community for things which are now "technologically passe'," e.g., the horse drawn wagon. Ask the question, "Should these antiquated and now unused pieces of equipment be lost to the youth of today?" List other artifacts which are passing "out of style"--wringer washers,

clothing styles, dial telephones, retractable ball point pens, fountain pens, the list goes on. Perhaps your students could visit a junk yard, flea market, or such for ideas and even start a mini-museum of the "out of date."

References:

Chapelle, Howard L., The National Watercraft Collection, U.S. Nation Museum Bulletin, 219. Smithsonian Institution, Washington, D.C., 1960.

Chapelle, Howard L., The Migrations of an American Boat Type, U.S. Nation Museum Bulletin, 228. Smithsonian Institution, Washington, D.C., 1961.

Stick, David, The Outer Banks of North Carolina. University of North Carolina at Chapel Hill, 1958.

Sharpie

The Carolina Sharpie is a traditional wooden working sailing craft which probably evolved from the New Haven Sharpie popular in Long Island Sound. Sharpies were brought to the central Carolina coast about 1880 and used for fishing, mainly oysters. They were usually classified by their oyster capacity, e.g., 50 bushel boat or 100 bushel boat rather than a 25-50 foot boat. The standard rigging found on the sharpie is the "leg-o-mutton" usually two masted. Distinguishing characteristics are the slightly reverse raked stem at the bow, the round stern, low free board for ease in loading oysters, and extremely shallow draft. The sharpie had stable sailing qualities (Figure 13, 14).

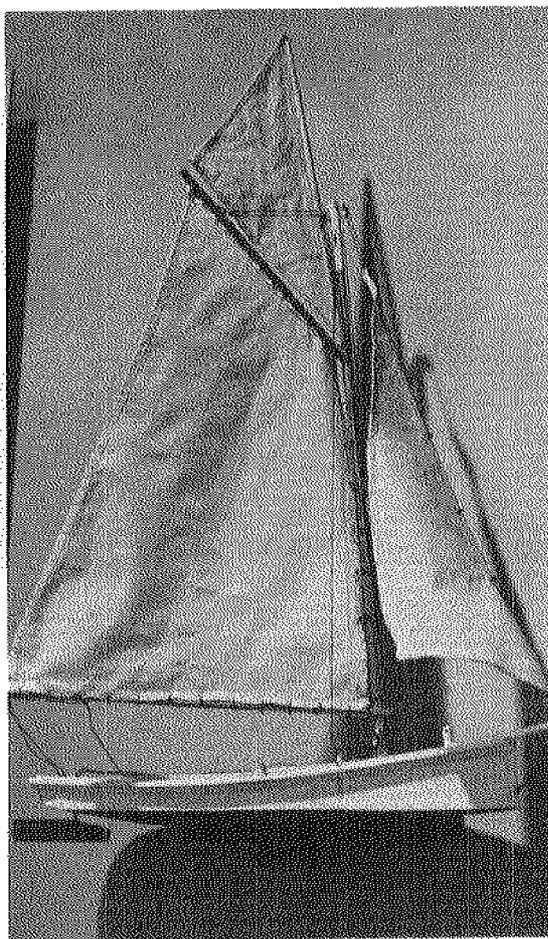


Figure 11.
Model of single-
masted gaff-rigged
sharpie.
(Courtesy of Hampton
Mariner's Museum.
Photograph by
David Cavett.

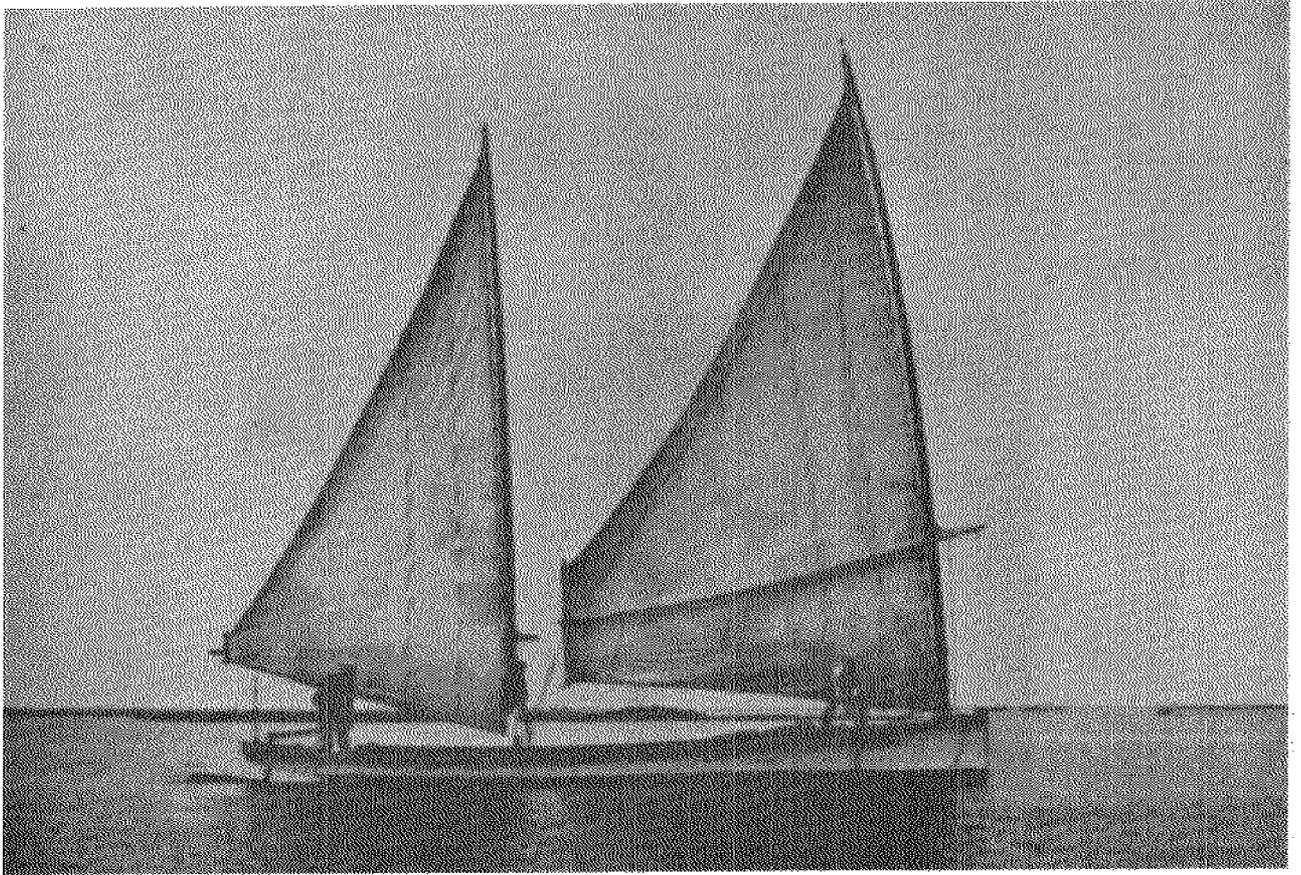


Figure 12. North Carolina sharpie, a flat-bottomed sailing skiff, usually around 40 to 45 feet in length, originally developed for oyster fishing. This type of vessel was introduced in North Carolina in the 1870's and by the beginning of the 20th century there were hundreds in state waters.

CREDIT: Hampton Mariner's Museum, David Cavett.

Spritsail Skiff

The spritsail skiff has been one of the most common small sailing craft used for local fishing during the late 19th century. These were back yard boats, i.e., constructed in the fishermen's back yards. The most common version was a 21-23' deadrise, square stern, centerboard skiff. Deadrise is a term meaning the sides of the boat are almost at right angles to the bottom. The rigging of the sail was such that it could be single handed. The mast, sprit pole and sails--about 150-200 square feet of sail with one or two head sails could easily be furled and mast shipped for the fishman to set nets or haul a seine. These boats were relatively fast and are sailed today as a pleasure and racing craft. The "1921" restored by the Hampton Mariner's Museum is a fine example of the classic craft. The museum logo is a spritsail skiff (Figures 15, 16 and 17).

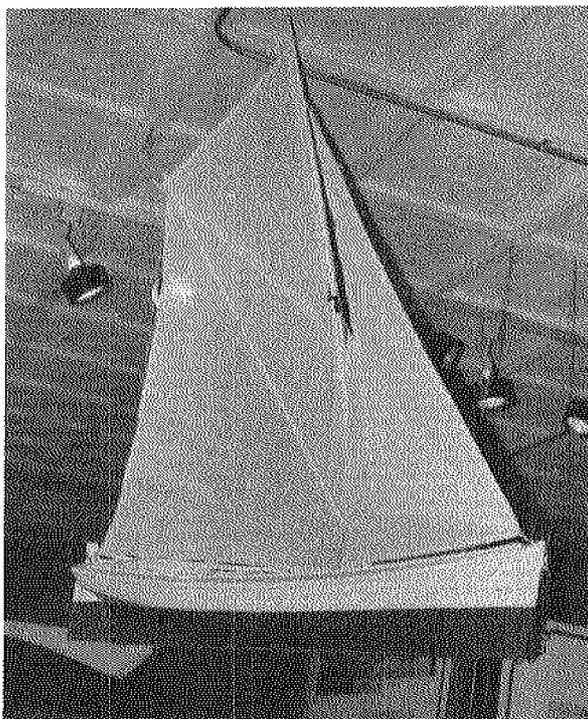


Figure 13.
Model of spritsail
skiff. (Courtesy
of Hampton Mariner's
Museum. Photograph
by David Cavett.

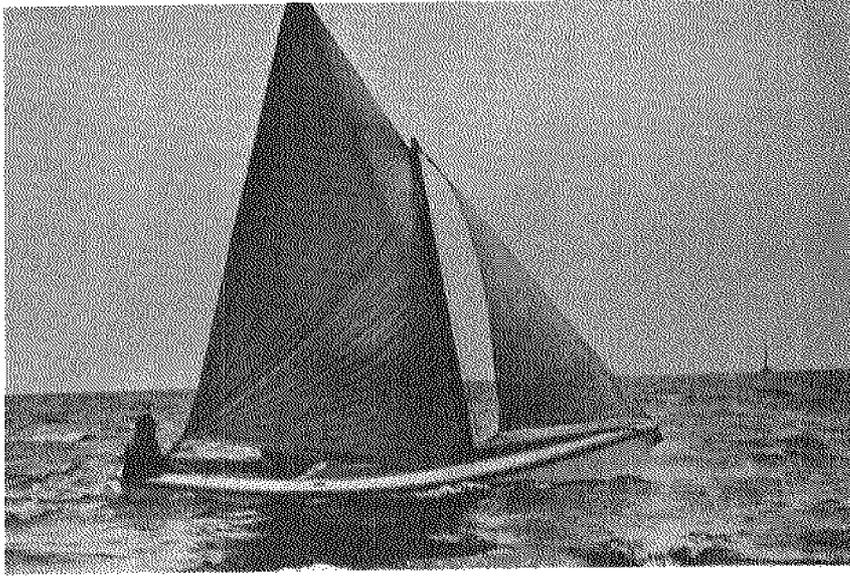


Figure 14. Spritsail skiff--lee side. Photograph by David Cavett.

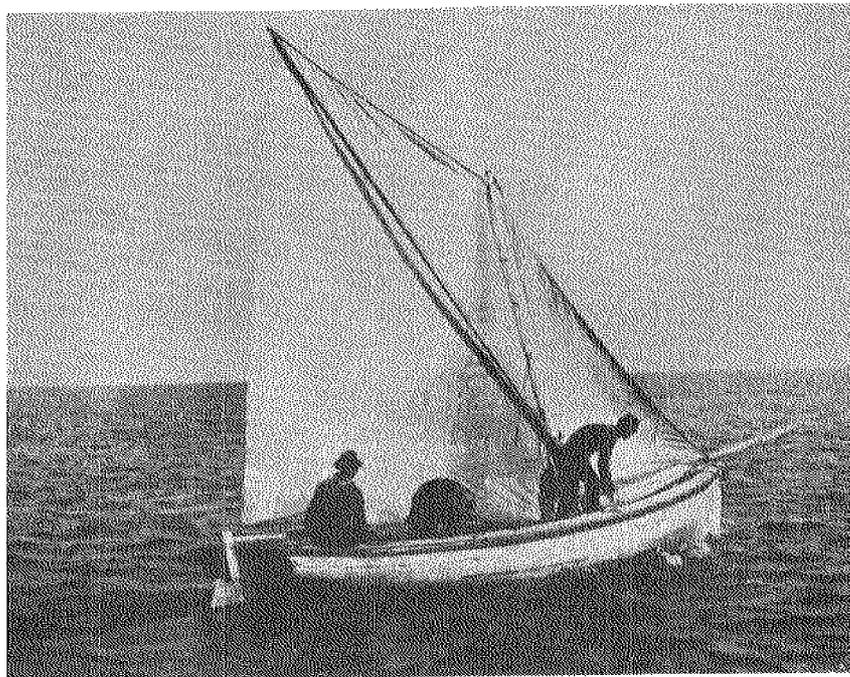


Figure 15. Spritsail skiff--windward side. Note spritsail pole and bow sprit. Photograph by David Cavett.

Albemarle Shad Boat

The Albemarle Shad Boat is perhaps the only working sailing craft indigenous to North Carolina. Most of the boats were built in the Roanoke Island area. George Washington Creef from East Lake was the most famous shad boat builder and is given credit for the original design shortly after the Civil War. The Albemarle Shad Boat as its name implies was used both in the Albemarle and Pamlico Sounds for fishing the shad which were caught as they migrated in huge schools. The sail rigging was spritsail which made for easy furling. Boat lengths ranged from 24-35 feet. All of the boats were carvel, i.e., smooth planked, built of rather heavy construction.

The basic problems which Creef tried to cope with were the extent of shallow water, which necessitated a shallow draft boat, and the extreme and rapid changes in wind velocity in the sounds, which called for the use of a large amount of sail during the calm periods and of practically none when squalls came up. Creef designed a round-bottom boat with a square stern, a sharply-pointed bow, and a shallow keel. He fitted it with a large sprit mainsail and a jib--not an unusual rig in those days--and then added a topsail which could be raised and lowered independently of the others. In calm weather all three sails would be employed, and the boat proved to be an exceptionally fast sailer; when sudden squalls came up the topsail could be lowered in a few seconds and sometimes even was allowed to fall overboard to be picked up later. To compensate for this extra canvas the boat was designed to carry ballast, usually twenty to forty sandbags weighing sixty pounds each which could be shifted when tacking.

Because Creef's boat was used in the shad fisheries it became known as a "shad boat" or "Pamlico Sound Fisherman." One of its distinctive features was that the frames were made from naturally-curved cypress-tree roots; and in almost all instances the remainder of the boat was made of native juniper or white cedar. The average length of the shad boats was twenty-three to twenty-six feet.

A number of Albemarle Shad Boats are still in use although they are now motorized. One example is located at the North Carolina Marine Resources Center at Roanoke Island and the Hampton Mariner's Museum plans to obtain a full scale rigged model. (Figure 18)

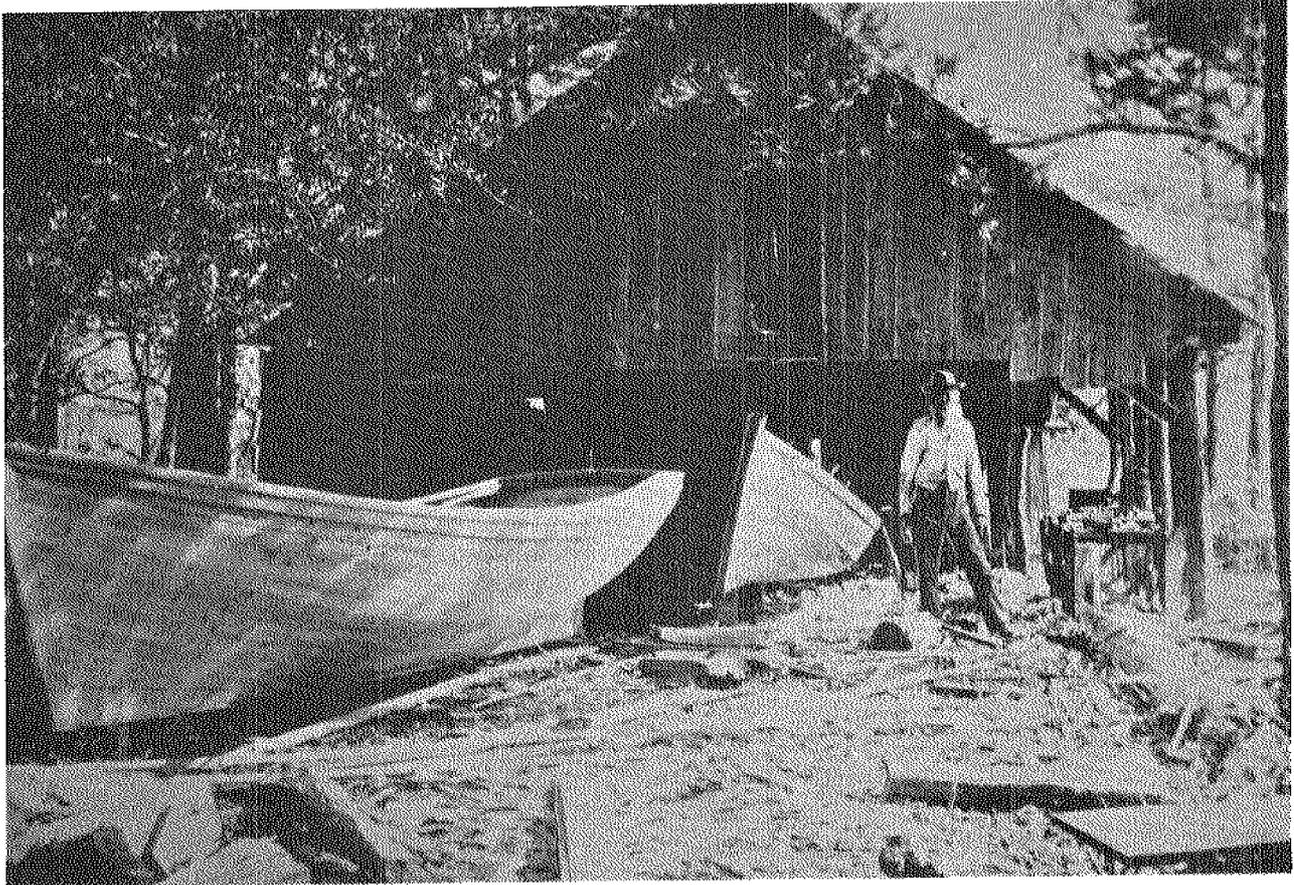


Figure 16. A shad boat under construction at the boat yard owned by George Washington Creef near Wanchese, North Carolina--late 19th century.

CREDIT: Smithsonian Institute

c. Activity

Shipwrecks off North Carolina, 1526-1838

Objective: To identify shipwrecks that occurred off the North Carolina coast between 1526 and 1838.

Teacher

Preparation: Background information for this activity is found in Graveyard of the Atlantic by David Stick.

Obtain the map, "Ghost Fleet of the Outer Banks," Hamptons Mariner's Museum, Turner Street, Beaufort, NC 28516, include \$1 to cover cost and postage.

Make copies for students of the map found on page 128 of this unit.

Prepare an overhead transparency or copies for students of

1. the shipwreck chart
2. rigging types (cover of the Graveyard of the Atlantic)

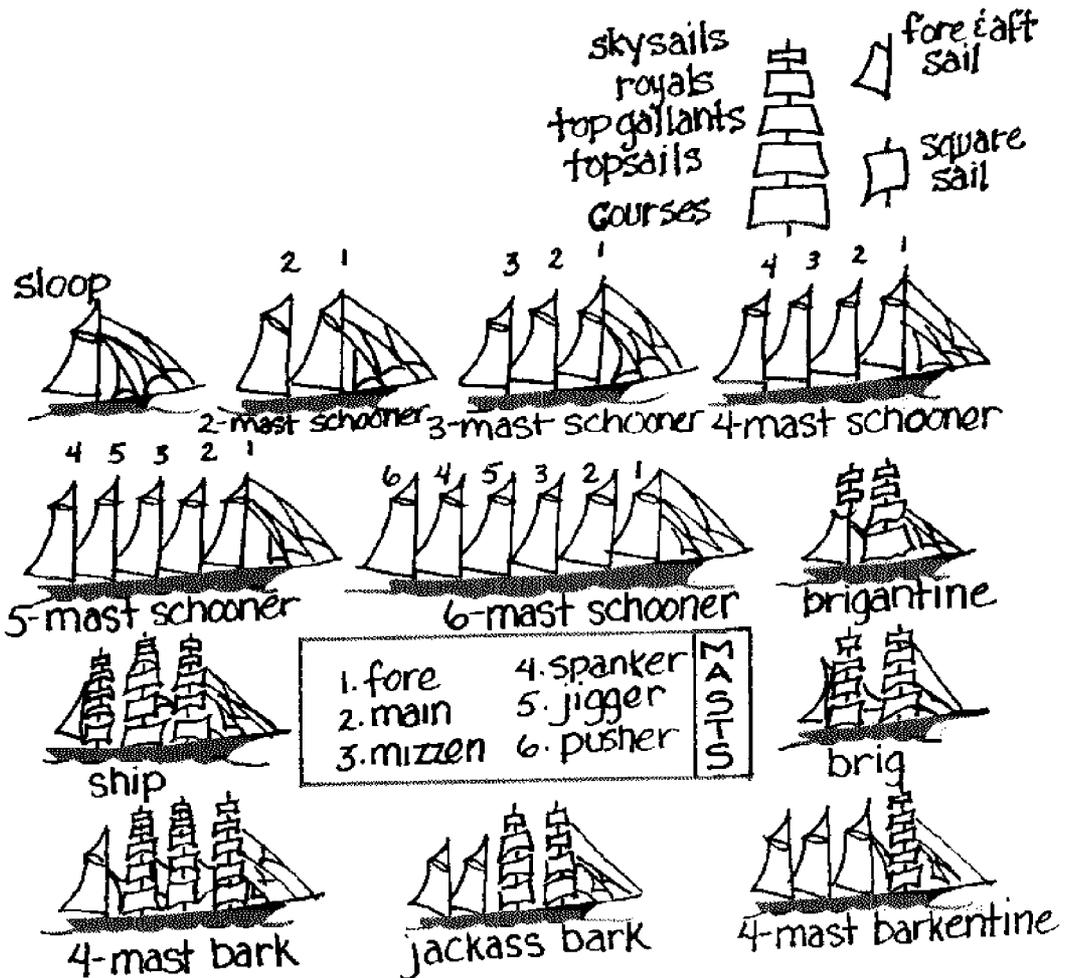
Procedure: Mount shipwreck map (or maps) on bulletin board.

Have students choose five shipwrecks.

For each shipwreck, students should locate it on their map and fill in the following chart using the shipwreck and rigging charts.



Ship, Mast & Rigging Types



Adapted from David Stick's, Graveyard of the Atlantic, Shipwrecks of the North Carolina Coast.

Ship's Name	Type	Sketch	Date	Place

c. Activity

Ports of North Carolina

Objective: To make students aware of the location of early North Carolina ports and of present major North Carolina ports.

Teacher

Preparation: Student copy of map of coastal North Carolina
Figure 17.

Transparency of the following map to use on overhead projector.
Background material from manual

Procedure: Have students label the North Carolina ports on their maps.

- Discussion:
1. Why was Bath a pirate haven?
 2. Why did activities decline at inland ports during the 20th century?
Answer: Development of other forms of transportation.
 3. Why are some rivers less navigable than others?
Answer: Sand bars, depth.
 4. Why are Wilmington and Morehead City our only major ports today?
Answer: Only deep water ports in North Carolina.

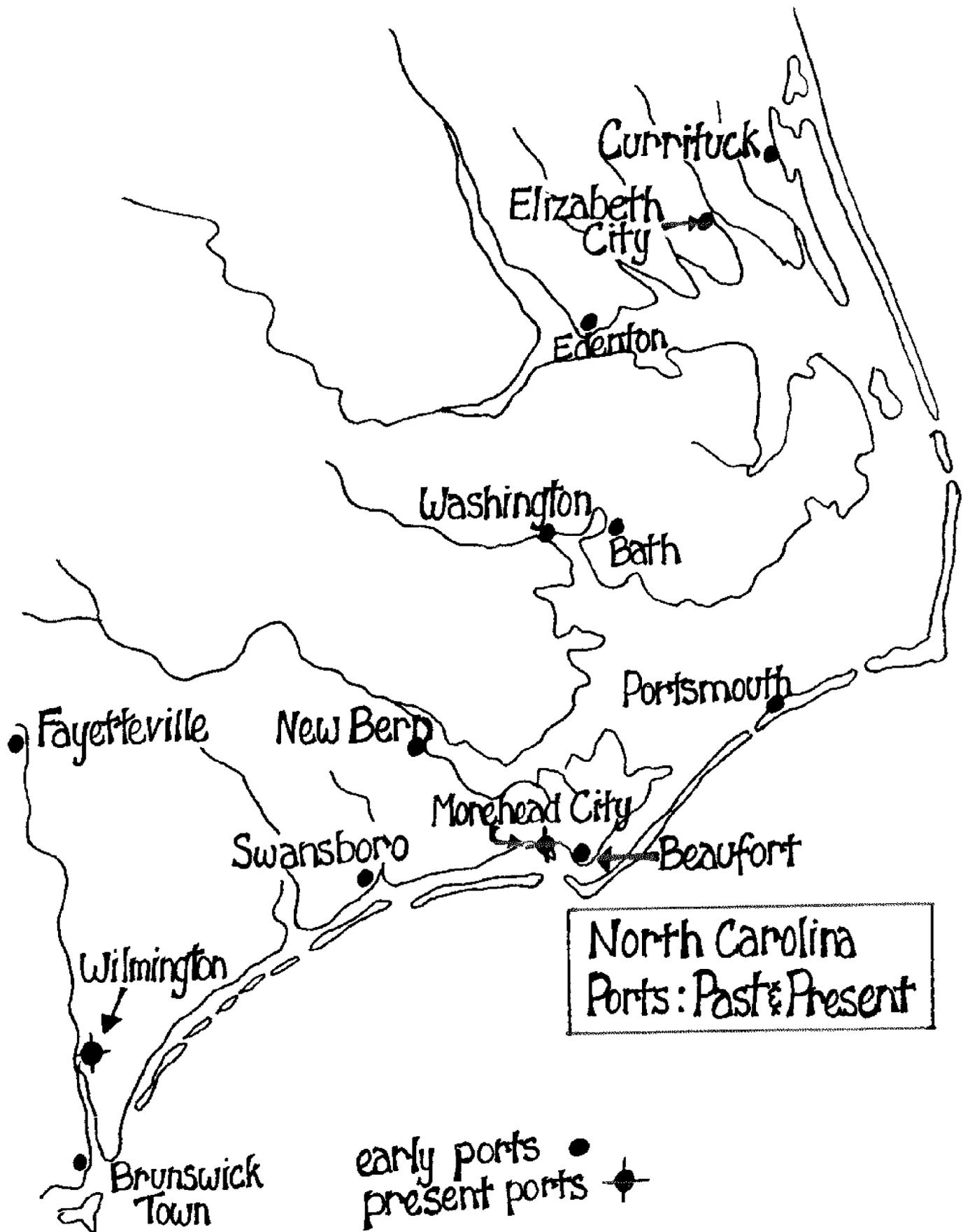


Figure 17.

c. Activity

Colonial Ports

Objective: To review the names of and important facts about the colonial ports of North Carolina.

Teacher

Preparation: Duplicate the following puzzle and definitions.

Procedure: Instruct the students to use the clues at the bottom of the puzzle to find the names of the North Carolina colonial ports. One letter will fit into each blank. If necessary, give the students a list of the cities.

KEY: N O R T H C A R O L I N A

1. E D E N T O N

2. W I L M I N G T O N

P O R T S

3. N E W B E R N

4. B R U N S W I C K

5. B A T H

6. H A L I F A X

NORTH CAROLINA

1 _____ O _____

2 _____ L _____

PORTS

3 _____ N _____

4 _____ I _____

5 _____ A _____

6 _____ L _____

Clues

1. City named for Governor Eden.
2. Southern-most N.C. port.
3. First N.C. colonial capitol.
4. Most important colonial port.
5. Oldest town in N.C.
6. Where N.C.'s first constitution was adopted.

c. Activity

"Pirates of North Carolina" A Crossword Puzzle

Objective: To familiarize students with the history of piracy in North Carolina.

Teacher

Preparation: Use the following information on pirates or obtain a copy of Hugh Rankin's pamphlet "The Pirates of North Carolina" (see Resources).

Pirates "The Golden Age of Piracy, 1689-1718"

The "rough and ready" aspects of North Carolina are reflected by coastal piracy. Shallow waters, numerous coves and inlets, and large tracts of deserted land along the coast became havens for pirates. Piracy was partially condoned since smuggling was prevalent and engaged many "respectable" people. Several North Carolina governors during this period had "connections" with pirates. Governor Archdale was charged with sheltering pirates, while Governor Eden and his secretary, Tobias Knight, were charged with sharing in pirate booty (1718).

The most famous of North Carolina pirates were Blackbeard (Edward Teach) and Major Stede Bonnet. Blackbeard was a native of Bristol, England and had been a privateer during Queen Anne's War before becoming a pirate (1718). He located at Bath, North Carolina after a British crackdown in the Bahamas. From Bath, Teach terrorized commercial shipping of North Carolina, Virginia, and South Carolina. Not only were American vessels involved but so were French, Spanish, and other foreign ships. The situation became intolerable and uncontrollable. The British King offered to pardon all pirates who would desist from their trade. Edward Teach promptly took the offer, settled in Bath, but continued pirating. Suspicions of North Carolinians were raised when, after going on a trading voyage, Blackbeard returned home with a disabled French vessel he claimed he found adrift. Teach continued to bring in "salvaged" ships to the dismay and anger of North Carolina citizens. The booty from Blackbeard's voyages was found in a warehouse belonging to Tobias Knight, the secretary to Governor Eden. Eden's actions only made things worse when he arrested the two men who had discovered the booty, and they were fined \$300 for "unlawful breaking and entering." Knight meanwhile was tried by the Council, with which the Governor had great influence, and was found not guilty.

After this, a delegation of North Carolinians petitioned Governor Spotwood of Virginia for help in dealing with Blackbeard. As a result, Captain Ellis Brand was sent with a force of Royal Marines

overland to Bath, and Lieutenant Robert Maynard was sent with two sloops down the Carolina coast in search of Blackbeard. Encountering Blackbeard near Ocracoke Inlet, Maynard trapped him. After fierce hand to hand combat, Blackbeard received mortal wounds, fell, and was beheaded; Maynard was able to capture the remaining pirate crew. After the death of Blackbeard, North Carolina's age of piracy had come to an end.

ANSWER KEY:

- | <u>Across</u> | <u>Down</u> |
|-------------------------|-------------------|
| 1. Spotswood | 8. smuggling |
| 2. Bristol | 9. Ocracoke Inlet |
| 3. Bahamas | 10. Blackbeard |
| 4. sounds | 11. booty |
| 5. Queen Anne's Revenge | 12. Tobias Knight |
| 6. Bath | 13. privateer |
| 7. Edward Teach | 14. Stede Bonnet |
| | 15. Governor Eden |

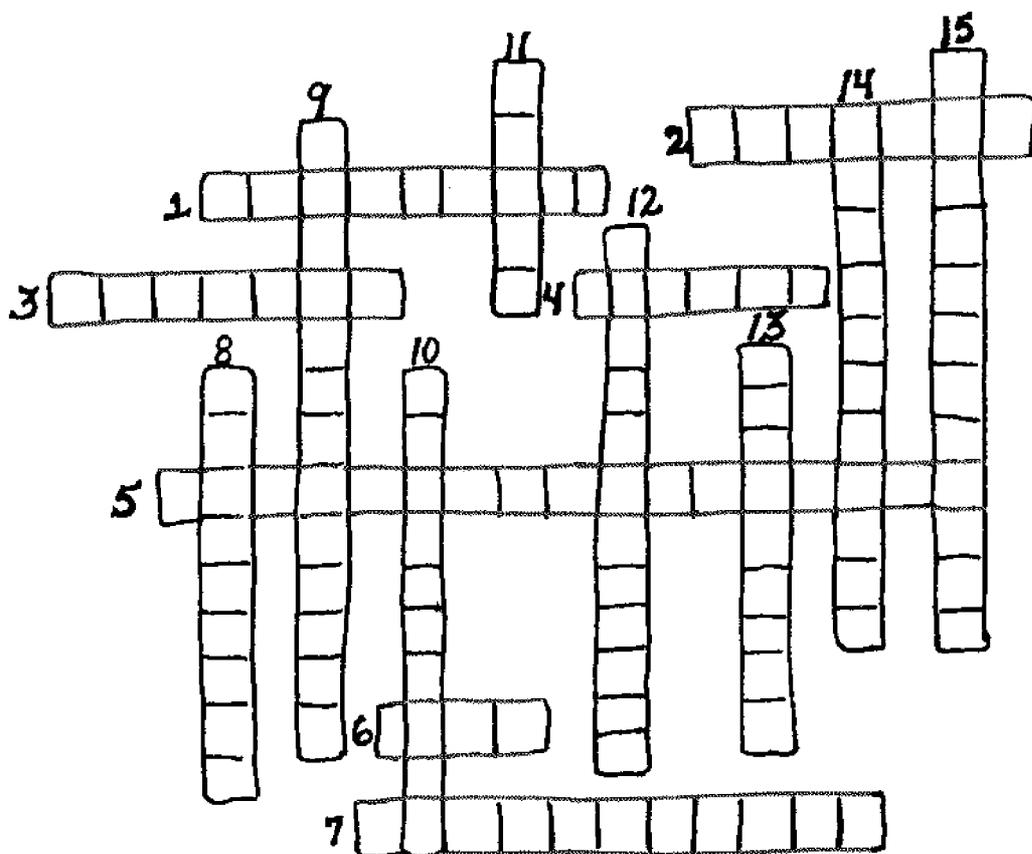


Pirates of North Carolina

across

down

1. Governor of Virginia who helped capture Blackbeard.
2. Where Blackbeard was born.
3. Where Blackbeard pirated before coming to NC.
4. Large bodies of water behind the Barrier Islands.
5. Blackbeard's ship.
6. Where Blackbeard finally settled.
7. Blackbeard's real name.
8. A "nice" word for pirating.
9. Where Blackbeard was finally trapped.
10. North Carolina's most famous pirate.
11. Pirates loot.
12. Secretary to the Governor of NC in 1718.
13. A person paid to loot enemy ships.
14. A famous North Carolina pirate.
15. Corrupt Governor of NC who shared Blackbeard's booty.



c. Activity

"Treasure Map"

Objective: To follow simple directions on a map.

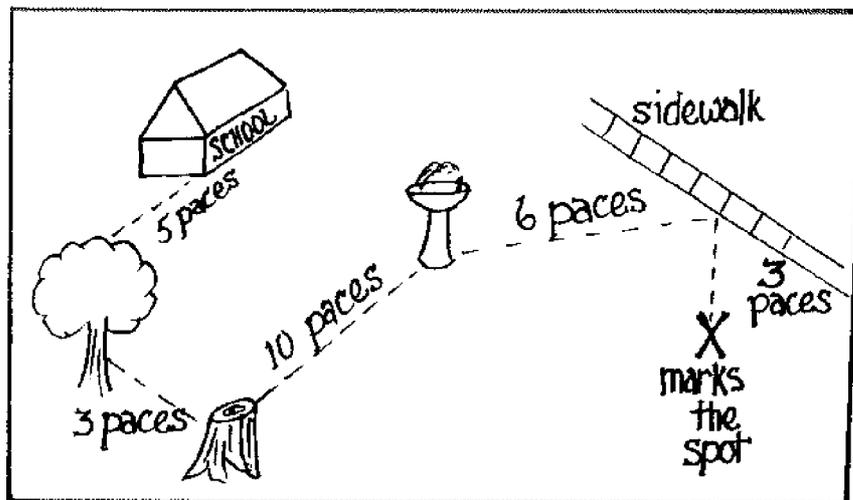
Teacher

Preparation: Using the outside playground as a location for an unknown treasure, bury some treasure prior to this exercise (candy, book, toy). Make up one or more maps for children to follow to find the treasure. Use directions (left and right or north, south, east, west) and distances (number of "paces") for older children and a simple drawing for younger children.

Sample Directions:

1. Leaving the school door, turn north and walk 20 paces to swing set.
2. Turn west walk 10 paces to rock.
3. Face the parking lot, walk 5 paces and dig 5 inches deep.

Sample Map



Additional Activity: Read some of the Blackbeard stories which indicate that many of the outer islands of North Carolina are supposed to have Blackbeard's treasure buried on them. e.g., Ocracoke, Topsail, Bath.

c. Activity

Where's My Beard

*This activity is designed for primary grades.

Objective: To learn some facts about Blackbeard the pirate.

Teacher

Preparation: Use the following picture of Blackbeard or draw a large poster. Copy and cut out braids. Copy the following questions on 3 x 5 cards. Familiarize students with Blackbeard the pirate by using the following information or the pamphlet; "The Pirates of North Carolina" by Hugh Rankin. (See Resources)

Procedure: Give all students an equal number of braids. The object of the game is to put all the braids on the board. To do this, the players must draw a card and correctly answer the question. The first person to put all his braids on the board is the winner.

Background Information:

Pirates are often thought to be dashing, handsome, romantic figures when actually, pirates murdered, robbed and burned ships.

There were many pirates in North Carolina primarily because of the availability of hiding places; barrier islands, narrow inlets, and shallow coves. The pirate's small ships could dart out, attack the larger ships and sail back into hiding. There were many pirates based in North Carolina; "Calico Jack" Rackman; Nathaniel Jackson; Stede Bonnet, the "Gentleman Pirate," there were even two women, Anne Bonny and Mary Read. However, Edward Teach (or Edward Drummond) better known as "Blackbeard" was the most famous. Born in Bristol, England, Blackbeard became a pirate at an early age. His first ship was a French merchant ship, which he captured and renamed "Queen Anne's Revenge."

Teach also needed a new name, one that would be feared so he used his physical features. Edward Teach was a tall, powerfully built man with a long, bushy, pitch-black beard. He was very proud of his beard, which he braided and tied with colorful ribbons. During a battle, to make himself look more fierce, he would place the slow-burning matches that were used to fire cannons, under the brim of his hat. This would cause a smoky haze to drift around his head, making him look very fierce. To add to this, Blackbeard was always ready to fight. In his waist sash, he wore pistols, daggers and his cutlass. Across his chest, he wore a bandoleer, or sling, in which he had three brace (pairs) of pistols, all primed, cocked and ready to fire. He was awesome!

Blackbeard and his crew of pirates robbed and burned many ships. He became very "sure" of himself! Just the sight of his flag, the "Jolly Roger" sent fear into the hearts of the people.

Blackbeard even blockaded the important harbor of Charleston, South Carolina for medical supplies. He held hostages that he had captured from ships heading into Charleston and said he would kill them if the people of Charleston did not give him medicine. He could have asked for many things, but Blackbeard just wanted to prove that he could do any thing, even make important cities pay! This of course, embarassed the people of Charleston, but they had to do what Blackbeard asked!

The King of England granted all pirates a pardon if they would pledge their allegiance to England. Blackbeard decided to do this. He went to his friend, Governor Charles Eden of North Carolina and agreed to stop being a pirate. (Governor Eden and his secretary, Tobias Knight, supposedly were receiving part of the loot that Blackbeard stole, so that they would leave Blackbeard alone.) Blackbeard moved into a big house in Bath. He also married for the 13th time! Blackbeard was not very nice to his wife or his neighbors. In a short time, he became bored with a life of leisure and began to sneak out and rob his neighbors. He had a new ship, the "Adventure." Finally leaving his wife and fine home, Blackbeard again became a full-time pirate.

By 1718, the people of North Carolina and the neighboring states of Virginia and South Carolina became very tired of the pirates. The people of North Carolina pleaded with Governor Spotswood of Virginia to help them rid the waters of Blackbeard. They did not go to Governor Eden because they knew of his friendship with Blackbeard. Governor Spotswood agreed to help. He sent two ships to Ocracoke inlet to capture Blackbeard. One of the ships ran aground. The second ship, the "Ranger" under the command of Lt. Robert Maynard, battled Blackbeard. In the end, Maynard and Blackbeard came face to face! Maynard shot Blackbeard, but he continued to fight. When another crew member slashed Blackbeard's throat, he finally fell. He had over 25 body wounds, 5 of which were pistol shots.

Maynard beheaded Blackbeard and hung his head from the bowsprit of the Ranger and sailed for Bath. The pirates who weren't killed were tried for piracy; some were hung, some jailed. With the death of Blackbeard and his crew, the "Golden Age of Piracy" in North Carolina came to an end.

1. A person who murdered, robbed, and burned ships was a . . .
 - A. governor
 - * B. pirate
 - C. farmer

2. The pirate who is pictured here has been known by at least two real names. Which of the following is NOT one of his names?
 - A. Edward Teach
 - B. Edward Drummond
 - * C. Edward Maynard

3. The pirate pictured here was known by a much more familiar name than his real name. What was he called?
 - A. Smokey
 - * B. Blackbeard
 - C. Curls

4. Blackbeard and his crew were the only pirates in North Carolina.
 - A. True
 - * B. False

5. All pirates were not men. There were at least two known women pirates who were as feared as any man. Which of the following is NOT a pirate?
 - * A. Nell Cropsey
 - B. Mary Read
 - C. Anne Bonny

6. People of North Carolina like pirates.
 - A. True
 - * B. False

7. One man became a pirate after he was quite old. He had been a wealthy planter and was known as the "Gentleman Pirate" his real name was. . .
 - A. Jean Bart
 - B. "Calico Jack" Rackham
 - * C. Stede Bonnet

8. "Blackbeard" was very proud of his beard. He combed it often and put it into. . .
 - * A. braids
 - B. curls
 - C. waves

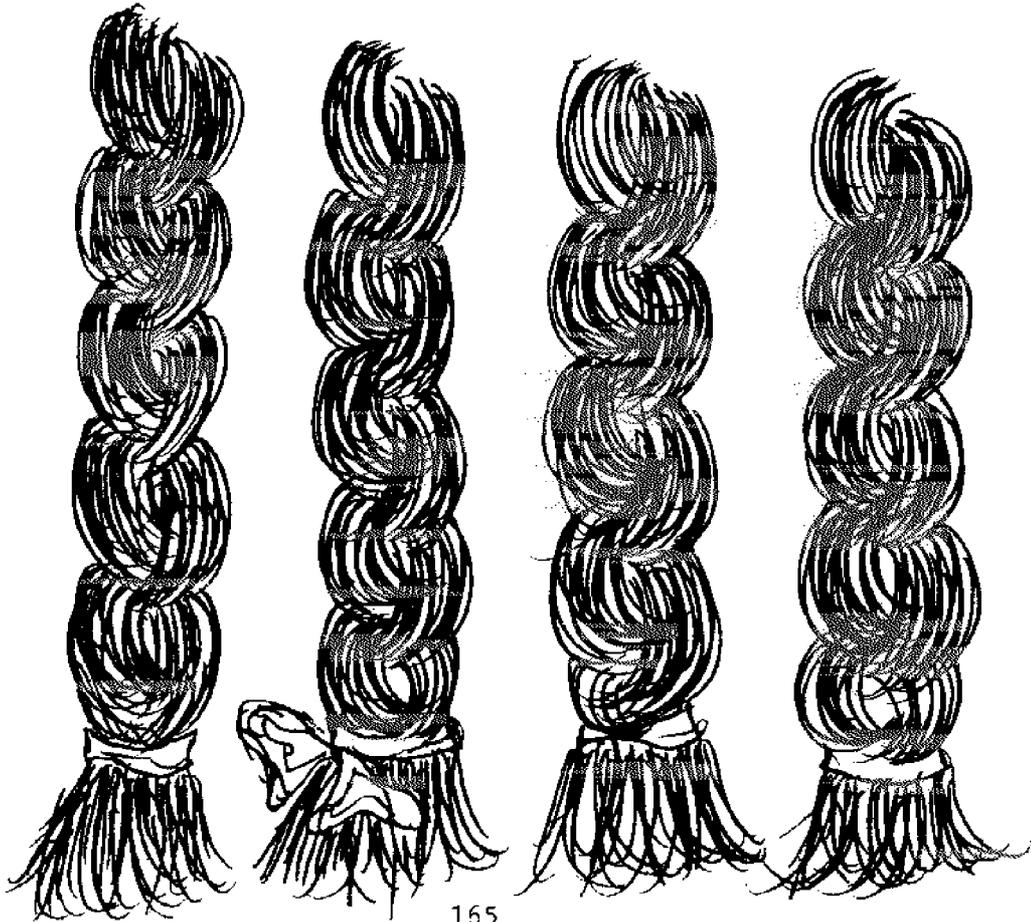
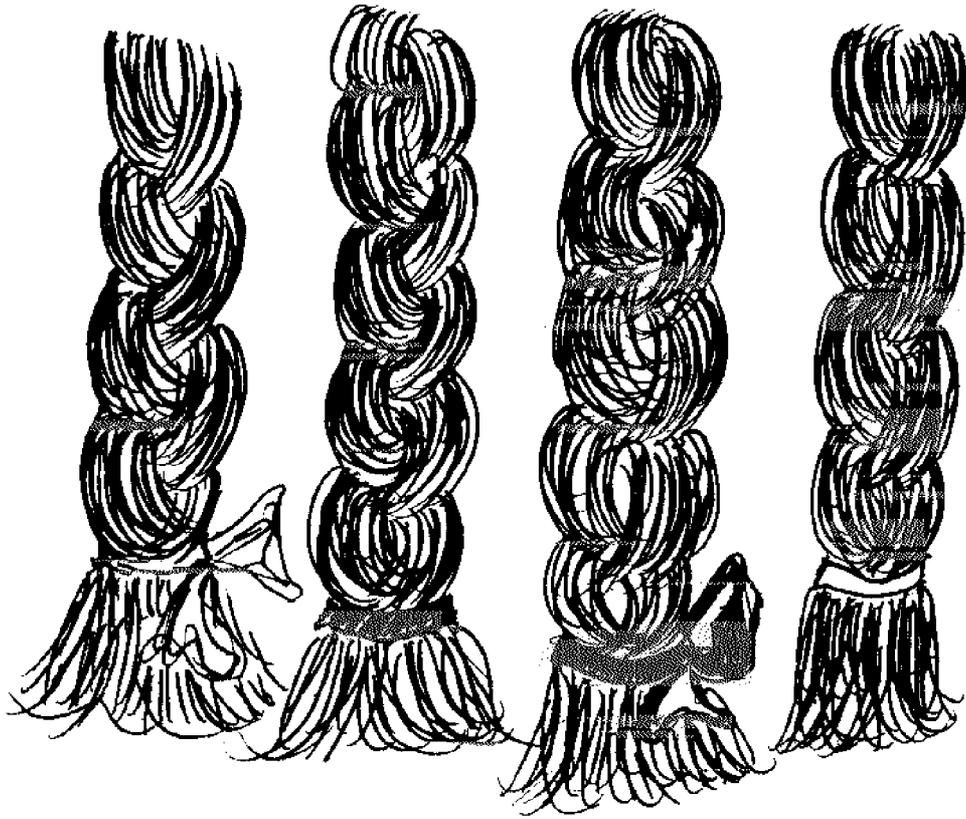
9. There were two ships that "Blackbeard" is known to have sailed. Which of the following was NOT one of his ships?
 - * A. Ranger
 - B. Adventure
 - C. Queen Anne's Revenge

10. Blackbeard once lived in a fine house in Bath, North Carolina.
 - * A. True
 - B. False
11. Blackbeard liked to make himself look very fierce. To add to this, he would put _____ under his hat brim causing a smoky haze to form around his head!
 - A. burning ribbons
 - * B. slow-burning matches
 - C. smoking cigars
12. Which of the following did Blackbeard NOT wear in his belt?
 - * A. hatchets
 - B. daggers
 - C. a cutlass
13. Blackbeard was always ready to fight. He wore a bandoleer across his chest in which he had six primed, cocked pistols.
 - * A. True
 - B. False
14. Where was Blackbeard born?
 - A. Bath, North Carolina
 - B. Charleston, South Carolina
 - * C. Bristol, England
15. Blackbeard had more than ten wives.
 - * A. True
 - B. False
16. When Blackbeard became tired of a wife, he would kill her and bury the body.
 - A. True
 - * B. False
17. Blackbeard's fine beard was tied with colorful. . .
 - A. strings
 - B. yarn
 - * C. ribbons
18. A city in South Carolina was blockaded by Blackbeard. He held hostages until the city gave him medicine. The city was. . .
 - A. Charlotte
 - * B. Charleston
 - C. Columbia
19. Blackbeard supposedly shared his "loot" with several important people. Which one of the following was NOT one of these people?
 - A. Secretary to the Governor, Tobias Knight
 - B. Governor Charles Eden of North Carolina
 - * C. Governor Spotswood of Virginia

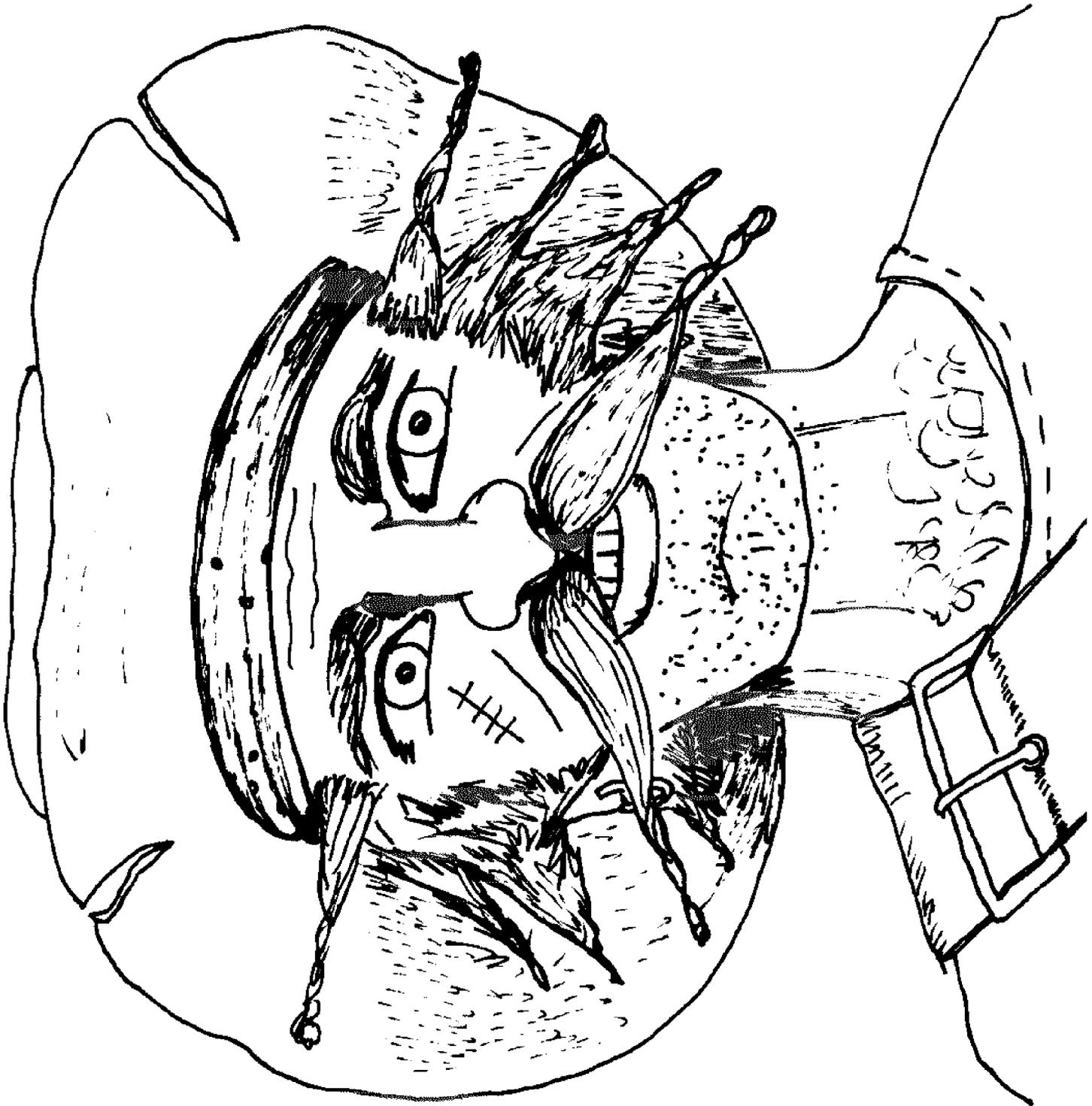
20. Blackbeard was killed in a battle near. . .
- A. Charleston
 - B. Swansboro
 - * C. Ocracoke
21. What was the year of Blackbeard's death?
- * A. 1718
 - B. 1818
 - C. 1918
22. How was Blackbeard killed?
- * A. shot, stabbed, beheaded
 - B. hung, drawn, quartered
 - C. drowned
23. Which of the following men is credited with killing Blackbeard?
- A. Tobias Knight
 - * B. Robert Maynard
 - C. James Evans
24. The men who killed or captured Blackbeard and his pirates were from . . .
- A. North Carolina
 - B. South Carolina
 - * C. Virginia
25. To prove that the horrible Blackbeard was really dead, his head was hung from . . .
- * A. the bowsprit of "Ranger"
 - B. the mast of "Adventure"
 - C. a tree
26. Pirates chose North Carolina as a place to hideout because of. . .
- * A. barrier islands, inlets and coves
 - B. good harbors
 - C. tall trees to make ships
27. Being a pirate was glamorous and fun.
- A. True
 - * B. False
28. Which of the following would a pirate be most likely to do?
- A. buy a ship
 - B. sell a ship
 - * C. burn a ship
29. Pirates had flags to identify themselves from others. Which of the following flags was the one that Blackbeard flew above his ship?



30. Blackbeard's death ended the "Golden Age of Piracy" in North Carolina.
- * A. True
 - B. False



Blackbeard's Braids



c. Activity

"Blackbeard's Travels"
A Board Game

Objective: To learn some facts about the life of Edward Teach, "Blackbeard," and to learn some new words.

Teacher

Preparation: Duplicate the game board or draw a similar one on a piece of poster board, make up question cards with questions on one side and answers on the other similar to ones provided here. Have one die and a marker for each player. Read the story about Blackbeard for facts.

Procedure: Go over facts with children and read story about Blackbeard for facts. See "Where's my Beard" activity.

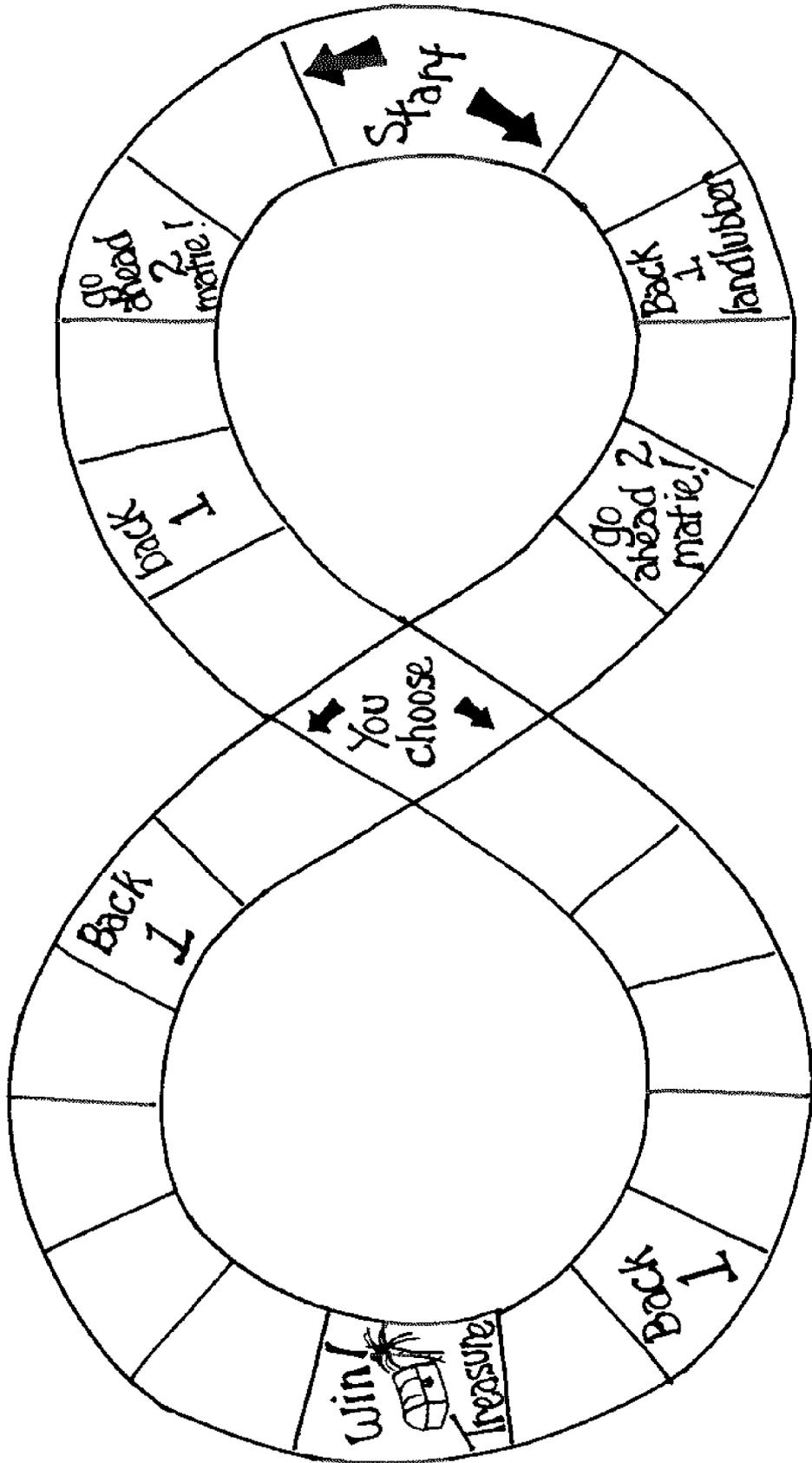
Rules: Put markers at "Go." Marker can move either way. Child must pull a card and successfully answer its question. Then the child rolls the die and move the mark the specified number of spaces. First marker to the treasure wins.

Questions:

<u>Front of Card</u>	<u>Back of Card</u>
1. Blackbeard was killed in (year) _____.	1718
2. Blackbeard wore _____ in his beard.	Ribbons/Candles
3. Blackbeard wore his beard in _____.	Braids
4. His flag on his ship was called the _____.	Jolly Roger
5. His flag had on it the skull and _____.	crossbones
6. Blackbeard's ship was called _____.	Queen Anne's Revenge
7. Blackbeard was killed _____.	Ocracoke/North Carolina
8. He was killed, then _____.	Beheaded
9. Blackbeard was defeated by _____.	Lt. Maynard
10. Blackbeard's real name was _____.	Edward Teach
11. Blackbeard stole from ships off the coast of _____, _____, and _____.	Virginia, North and South Carolina
12. A pirate's treasure is called his _____.	booty

*This activity is intended for primary grades.

- | | |
|---|---------|
| 13. Blackbeard hid his ship in _____
behind the Outer Banks. | Sounds |
| 14. Blackbeard was born in _____. | England |
| 15. Blackbeard was a sea outlaw called
a _____. | Pirate |



Blackbeard's Treasure!

c. Activity

"Sailing Ships"

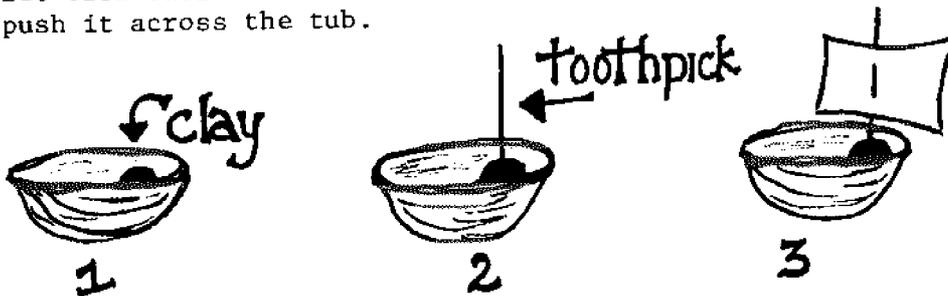
Objective: To show to students how wind can move boats and that our early ships depended on wind power.

Teacher

Preparation: Tub or pans of water, walnut shell halves, toothpicks, small squares of paper, clay.

Activity: Let children make their own sailboat, following directions in the pictures.

Let each child float his boat and by blowing on the sails push it across the tub.



- Discussion:
1. On what did the boat's speed depend? (How hard you blew, quality of your work on the boat.)
 2. Could you make the boat move another way other than blowing? (oars, motor)
 3. Would it go as fast if you had a larger sail-- a smaller sail?
 4. When could you not use a sailboat?
 5. When early colonists came to Roanoke Island and Jamestown, they used sailboats. How do people come to America now?

Additional

Activity: Show pictures of early sailboats like the galleons and square rigged sailboats of colonial days and have children draw them.

*This activity is designed for primary grades.

c. Activity

"Milk-Jug Pirate"

Objective: To use art to describe the pirate using a milk-jug.

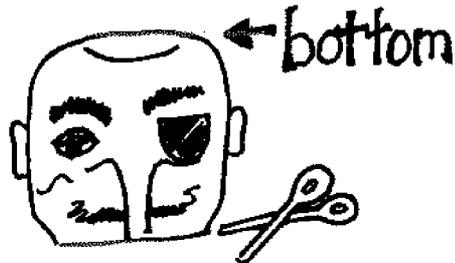
Teacher

Preparation: Each child needs a gallon milk jug, black construction paper and white construction paper, magic markers, scissors, glue, yarn, other decorative extras.

Activity: Make a pirate hat from two pieces of construction paper. Out of white paper, draw and cut out the "skull and crossbones" and paste onto front of hat.



Cut off top of milk jug and invert. Draw on eyes, mustache, eye-brows, ears, etc. Cut out eye patch and paste over one eye.



Place hat on head and display your Buccaneer!



*This activity designed for primary grades.

d. Resources to Use

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e. Historic Sites in North Carolina

For additional information written on North Carolina, write for free pamphlet "Publication of the Division of Archives and History" Historical Publications Section, Division of Archives and History, North Carolina Department of Cultural Resources, 109 East Jones Street, Raleigh, North Carolina 27611.

1. Bath

First incorporated in 1705, Bath is home of three proprietary governors and notorious Edward Teach, the pirate. Three open homes. Write Historic Bath, Bath, North Carolina 27808.

2. Edenton

James Iredell House ca. 1759
107 East Church Street
Edenton, North Carolina
919/482-2637 (\$1.00 adult, 25¢ children)

Iredell, an Englishman, was Deputy Collector for the Port of Roanoke and later, Attorney General of North Carolina and Associate Justice of U.S. Supreme Court.

Barker House

Orientation point and visitor center for Historic Edenton Tour
(\$2.00 adult, 50¢ children)

3. Kinston

Governor Richard Caswell Memorial
Visitor Center and Museum, Box 3043, Kinston, North Carolina 28501

Caswell (1729-1798) was first governor of independent state of North Carolina.

C.S.S. Neuse

Civil War ironclad warship.

4. New Bern

Tryon Palace Complex
Tryon Palace was capitol and residence of governor of royal colony from 1770 to 1776 and then state capitol. Gardens are of 18th century design.
John Wright Stanly House and Stevenson House are also on the complex site. (Tours \$2.00 adult, \$1.00 student)

Old New Bern Historic Homes and Gardens Tour

Over 18 private homes of 18th and 19th century. Tour held in the spring, contact Historic Homes Tour, P.O. Box 1007, New Bern, North Carolina 919/638-5109 for information.

5. Halifax

Historic Halifax--early river port town of the Roanoke Valley. Founded in 1760, Halifax became focal spot of valley life, both commercial and social.
Write Post Office Box 406, Halifax, North Carolina 27839 for information.

6. Sanford

House in the Horseshoe, 1772 riverfront plantation and home of Governor Benjamin Williams. Situated on Deep River, this country retreat bears numerous scars and bullet holes from a Revolutionary War skirmish. Architectural style follows that of coastal lowlands.

Write to Route 3, P.O. Box 924, Sanford, North Carolina 27330.

7. Windsor

Hope Plantation ca.1800, home of Governor David Stone.

Architectural style combining Georgian and Federal styles with an outstanding collection of period furnishings.

More westerly are the historic sites of Fort Dobbs, a French and Indian War fort built on the western frontier.

Write to Route 9, Box 415, Statesville, North Carolina 28677. and Reed Gold Mine Route 2, Box 101, Stanfield, North Carolina 28163.

