

# Pre-Visit Lesson: People and Place

## Enduring Understanding

Our use of natural resources shapes the environment.

## Essential Questions

How do we affect our environment when we chose the location to build homes or change the landscape?

Can we explain the condition of the Chesapeake Bay today by looking at past patterns of land use?

## What Students Will Learn

There is a direct correlation between land use patterns and changes in environment.

The land use patterns we see today follow a historical precedent.

## What Students Will Do

Students will use written descriptions of the Chesapeake Bay watershed to help them create a description of what they believe Chesapeake Tidewater would have looked like when Europeans first arrived.

Students will use pictorial reconstructions of Jamestown and Werowocomico in order to compare Native Americans and European land use patterns.

Students will use maps to view settlement and land use patterns over time.

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### Materials Needed

Students will need -

Program Notebook and Pencil

Teachers will need -

Computer with Internet Access

LCD Projector

White or Chalk Board

Teacher will need to access the following websites during this lesson -

National Geographic Jamestown Interactive -

[ngm.nationalgeographic.com/2007/05/jamestown/jamestown-standalone](http://ngm.nationalgeographic.com/2007/05/jamestown/jamestown-standalone)

Maryland State Archives - Charts and Maps Used by the Early Settlers of Maryland - Augustine Herrman *Maryland and Virginia*, 1670

<http://www.msa.md.gov/msa/educ/exhibits/images/fig18.jpg>

Chesapeake Bay Program - Bay Resource Library - Maps - Land & People

<http://www.chesapeakebay.net>

### Background Information

Within this series of classroom lessons and on-site programs, students will gain an understanding of how something as simple as an oyster shell or a piece of charcoal can tell us more about the changes in our environment than one would ever imagine. This lesson asks students to use models and maps to attempt to reconstruct the amount of human impact on the Chesapeake Bay watershed before European colonization and after as well as discuss how our increasing population and resource use is affecting our environment today.

When Captain John Smith explored the Chesapeake Bay watershed in 1607 and 1608, he was surrounded by a landscape that had not seen the same level of human impact as his British homeland. Old growth forests covered the landscape as said by Father Andrew White, “*as a coach and fower (four) horses may travale without molestation.*” The impact of colonization on the Chesapeake Bay Watershed is profound and increasingly archaeologists are producing a more detailed picture of what that past looked like based on the clues they find.

When discussing the environmental impacts of the Native Americans, it is important to understand the lifeways of the people living within the Chesapeake Bay watershed. For thousands of years, extensive forests had covered the east coast of North America. At the time of European contact, the Native groups that lived here depended on the forests for many

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resources and were also changing their environment to accommodate their agricultural practices. Fire was used to clear fields for raising crops and to remove underbrush in other areas to improve hunting.

Most of what we know about the Native American groups in Maryland comes from early colonial accounts and archaeological investigations. Both indicate that the typical settlements built between 400 - 600 years ago included small round houses (wigwams) and oval or rectangular longhouses. These structures were created by building a framework of saplings, the ends buried 18 - 24 inches into the ground, and bent into the shape of the structure. Once that frame is in place, it can then be covered with a variety of materials ranging from mats of cattails or grasses to sheets of bark that have been stripped from the trees in the spring. Those coverings are then fastened into place by an external framework. Groups of these structures were located among agricultural fields in villages or hamlets.

The Native people harvested their food from the forest, from freshwater or tidal rivers, and marshes as well as their agricultural fields of corn, beans and squash. Locations of archaeological sites from this time period document a preference for settling along the large rivers on the best agricultural soils.

Even though the Woodland Indians were successful farmers, they continued to take advantage of their environment as hunter-gatherers. Women gathered berries, nuts, roots and other plant materials for food as well as making baskets and mats. Men hunted rabbit, raccoon, deer, turkey and a variety of other local wildlife and caught fish and shellfish from the local waterways using tools crafted from wood, stone and bone.

The Algonquian groups found along the Chesapeake Bay were organized as tribes or chiefdoms. Family was the core of social life, and extended family members often lived together in the same house or hamlet. Here in the Chesapeake Bay region, social ties and clan identification were traced through the mother's family in a matrilineal system. Children belonged to their mother's clan, and their uncles were the main authority figures in their lives.

Around the time of European contact, chiefdoms were developing out of the earlier tribal organization. Chiefs controlled the villages within a territory and ruled with a council of priests and war chiefs. In Southern Maryland, the largest chiefdom was the Piscataway on the Potomac River drainage. A smaller chiefdom, the Patuxent, occupied the Patuxent River drainage. Scholars estimate that there may have been about 10,000 Native Americans living the Chesapeake Bay area at this time.

The founding of Maryland in 1634 was a turning point in the history of the Chesapeake Bay. As more and more European colonists and enslaved Africans arrived in Maryland, the

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number of settlements increased. In the 1600's, tobacco became the dominate crop in Maryland. Grown by farmers and plantation owners alike, tobacco was grown in the colony and then shipped to markets in Europe. Often, merchants would sail from English and European ports with various house wares, tools and other sundries directly to the plantations, which had their own landings along the rivers and the bay. Crops were exchanged for the imported items and orders were placed with the merchants using the next year's crop as credit. Money was calculated in terms of pounds of tobacco. Because of this direct trade with merchants and the labor and time intensive nature of tobacco farming, towns did not thrive in Colonial Maryland. Instead, planters built their farms and plantations close to the rivers for ease of trade and travel. The large forests were gradually all cut down for lumber and to clear fields for tobacco agriculture.

While farming continued to play an important role in the economy of the Tidewater region, water related industries also became strong components of the economy. Shipbuilding and seafood harvesting became important economic industries for the people living around the Chesapeake Bay. Even with the introduction of new economic aspects, travel continued to be centered along the Chesapeake Bay and its tributaries. In the 20<sup>th</sup> century a network of inland roads gradually replaced the dependence on water travel. Recreational boating and fishing replaced industry so that even today, we see evidence of this in the concentration of Maryland's population along the shores of the Chesapeake Bay.

Population remained low during the early colonial times. Many of the Europeans and Africans died from their exposure to New World diseases, while large numbers of Native Americans were killed by Old World diseases. Approximately 150 colonists arrived in Maryland in 1634. It is estimated that about 1000 colonists lived in Maryland in 1650. After this time, the population grew rapidly and there were about 4000 inhabitants in 1660 and over 300,000 residents were counted in the 1790 U.S. Census. Records indicate that there were 341, 548 Maryland residents in 1800, 1,188,044 in 1900 and 5,296,486 in 2000.

Much of this information is known through first-hand accounts or documents written during these time periods. However, many things were not written down or were lost through time. This is where archaeology plays a role. Archaeologists study the remains left behind by the people who once lived on this land. Broken pottery, stone arrowheads, glass fragments, and iron nails all tell the stories of the past. In addition to the broken tools and dishes left behind, there are other materials that can inform archaeologists about the former inhabitants and their cultures. Animal bones that are thrown in the trash after a meal can be identified, thus providing the menus of ancient meals. Sometimes pollen and phytoliths (tiny silica plant parts) can be recovered from the soils on an archaeology site. These microscopic clues provide information about the foods being grown and the season activities were taking place. Sometimes the plants and animals represented in the archaeological deposits show that there

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were different varieties in the area than are found today. This may indicate that the climate was different - either warmer or colder than modern times.

Four hundred years ago, the extensive forests provided a seemingly endless supply of wood. Both the Native Americans and the colonists built their homes by placing wood posts into the ground and constructing a wooden frame on these posts. When the posts rotted in the ground they left a stain of dark soil that archaeologists excavating today can see. While plain wood placed in the ground will rot, when wood is burnt it changes into charcoal. Sometimes remnants of charcoal are found in ancient fireplaces or, if a house burnt, in the holes left by the burned structure posts.

### Suggested Sources

Grumet, Robert, *Bay, Plain, and Piedmont: A Landscape History of the Chesapeake Heartland from 1.3 billion years ago to 2000*, National Park Service, Annapolis, Maryland, 2000 - available on the Chesapeake Bay Program website.

*Penn State University, John Smith's Voyages of Exploration*  
<http://johnsmith.psu.edu/code/ExhibitDB.aspx?s=8>

### Understanding Changing Landscapes

- A. Ask students to write responses to the following questions on page 2 in their notebooks.
  1. Write a brief description of what your neighborhood and home might look like to someone seeing it for the first time.
  2. Describe how this might be different from what someone would see if they arrived 100 years ago. Would they still see sidewalks, roads, malls, stores, or even homes? Would things like homes and stores look the same?
- B. As a class, address what changes may have occurred during the last 400 years and what may have led to those changes, including new technologies, new land uses such as growing suburbs, new military installations, and population increases.
- C. Have the students read Father Andrew White's description of Maryland in 1634 and John Smith's description of the Patuxent River in 1612. This reading is on page 3 in the Program Notebook.

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- D. After reading this description, compare and contrast the older landscape with what we see today in the Chesapeake Bay region.

## Same Area, Different View

- A. Bring up the National Geographic - Interactive Jamestown website to show to the students. Before comparing the digital recreations of Jamestown and Werowocomico, remind the students about the founding of Virginia in 1607, the creation of Jamestown and the explorations of Captain John Smith. Briefly discuss the roles of archaeology and historical documentation in informing us about the past.
- B. As a class discuss the basic aspects of both Jamestown and Werowocomico.
- According to the model, what materials were used to build the structures found in Jamestown? Werowocomico?
  - Looking at the model in front of you, which town seems to use the most natural resources in its development?
  - What appears to be the primary modes of transportation? Are there any visible roads? How might the use of ships and boats as the primary form of transportation affect the development of Virginia and Maryland?
  - Could this pattern of land and resource use pose a problem as the population grows and technology advances?
- C. Now, pull up the Augustine Herrman Map *Maryland and Virginia* 1670 from the Maryland Archives website and the 2005 Population Map from the Maps - Land & People section of the Chesapeake Bay Program website.
- D. Ask the class if they can determine a pattern in where people are settling in the Chesapeake Bay region.
- Along what geographical features are most of the houses and towns situated?
  - Does the use of boats and ships as transportation affect where people are settling?
  - How are people earning a livelihood in 1670? Could growing and shipping tobacco affect where people settle?
  - What other trades are historically plied in Maryland that may require people to live close to the water?

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- How many houses or plantations can you count along the Patuxent River and Chesapeake Bay in what is today Calvert County?

### E. Switch to the 2005 Population Density Map.

- How does the population of Calvert County in 2005 compare to what was estimated for the area on the 1670 map?
- Ask the students if the land use pattern that they saw on the Augustine Herrman map holds true on the 2005 Population Density Map.
- Do we, as a region, still rely heavily on farming for our livelihood? What about harvesting seafood?
- Why might we still settle so close to the water?
- Think about all the things we do in a day, from washing dishes, driving to work, throwing trash in landfills, even tilling and plowing fields to grow food. What effects could these actions, multiplied by the millions of people who live along the Chesapeake Bay watershed, have on the Bay?

## What does it all mean?

Have the students answer the following questions on pages 4-5 in their Notebooks.

1. As our population continues to grow and we build more towns, cities and farms along the Chesapeake Bay watershed, how might simple things like rain washing chemicals off of the roads or washing dirt off of a farmer's field possibly affect the Bay? Does the increasing number of people building and living by the Bay create more problems?
2. Could we as a region ever restore the Chesapeake Bay to the way it looked when John Smith explored it in 1607-08 or when Father Andrew White saw it in 1634? Why or why not?