

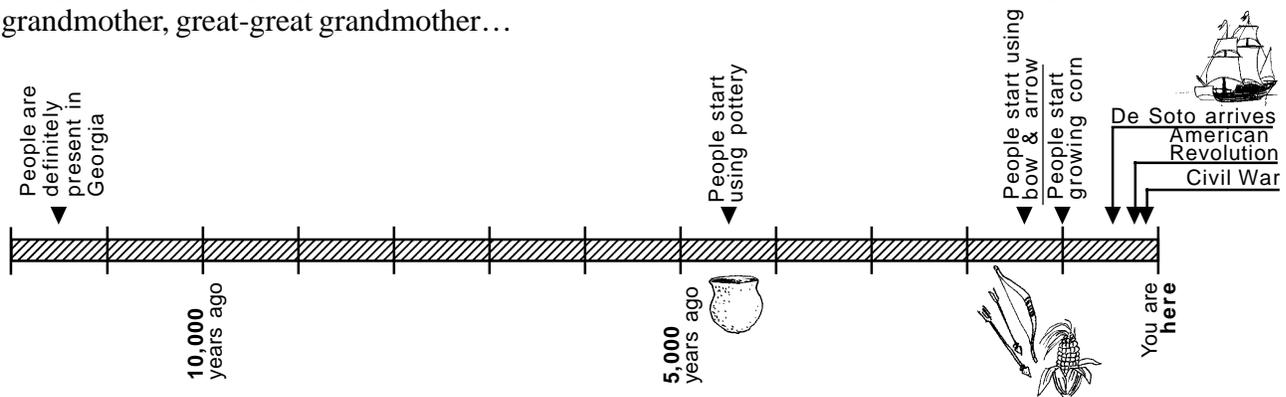
LESSON 1: WHAT IS PREHISTORIC ARCHAEOLOGY?

Anthropology is the study of how different people live. **Archaeology** is a kind of anthropology that asks questions about how people lived in the past.

In North and South America, **Prehistoric Archaeology** is concerned with people that lived before A.D. 1540, the year that the Spanish explorer Hernando DeSoto arrived in the southeastern United States and began to describe how the native people lived.

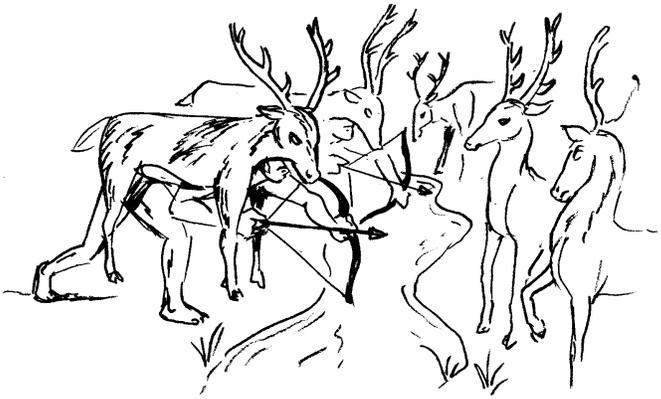
Prehistoric people left no written record about themselves for us to read today. So archaeologists must learn about them by finding and studying the things they left behind or threw away. This is a challenging task. Imagine trying to learn about your school by studying only the things you find in the trash cans, or on the floors! But, despite the difficulties, archaeologists have learned a great deal about the people who lived in Georgia before DeSoto's arrival.

People have been living in Georgia for more than 11,000 years! They came to Georgia at least 10,000 years before Columbus even set sail. If you consider a generation to be 25 years, there have been about 440 generations of people in Georgia in the last 11,000 years. Let's see...mother, grandmother, great grandmother, great-great grandmother...



For most of that time, the people who lived in Georgia had a very different lifestyle than we have today. Their food did not come from a grocery store and they did not buy their clothes at the mall. Instead, Georgia's first people were **hunters and gatherers**. This means that everything they needed to live came directly from the **environment** around them. They gathered plants, hunted and trapped in the forests and marshes. Prehistoric people fished in natural lakes, rivers, and the ocean; they also collected shellfish from those environments. Later, long before the arrival of Europeans, they began farming, and grew a number of native plants as well as some crops that you would recognize: corn, beans, squash, gourds, and sunflowers. But they still hunted and gathered a variety of wild foods. Living off of the local environment would be hard to do today. But, Georgia's prehistoric people knew their environment well, and took advantage of the rich and varied **resources** available to them.

*We can get an idea of how Georgia's first people may have lived by looking at other people in the world who are hunter/gatherers. Anthropologists call this **ethnographic analogy**.*



Wherever they live, people need to invent ways to survive in their environment. They need to make and use the tools that allow them to hunt and gather resources successfully. They need to build houses that protect them from bad weather, and they must plan their activities in a way that gets them through lean times.

Would an Eskimo dressed in a fur parka be comfortable in Florida? What purpose would a canoe have for a person in the Mojave desert?

The tools, behaviors, and knowledge that people use to survive in their environment are called their **adaptation**. Because environments are different, people have different adaptations. Also, because environments change over time, people too must be able to change their adaptation in order to survive.

Georgia's first people also had to adapt to their environment. Because the environment provided everything they needed, they probably had a very keen knowledge of the natural world. We can be sure they knew the habits of the animals they hunted for food and clothing, and they knew where to find the plants that they used for food, medicine, and shelter. They probably traveled around their territory with the seasons taking advantage of resources as they became available. To plan for parts of the year when food was more scarce, Georgia's native people likely stored some of the things they collected in the summer and fall away for the winter and spring. The houses they made were not like our houses. In the earliest times, houses were probably light and not meant to stay in one place for very long. This allowed people to pick up and travel around their territory with ease. By the time people began farming, they were living in villages with more substantial houses that were meant to last. But these houses were made of poles set into the ground with mud (called daub) plastered over the walls, and thatched roofs. They were nothing like the typical twentieth-century farmhouses you might see driving around in Georgia's countryside.



The Georgia that you live in today is very different from the way it was for much of the last 11,000 years. Georgia's prehistory is a story of how people lived, worked, and played in an environment that changed through time. By finding and studying the **sites** and **artifacts** that have been left behind, archaeologists can learn much about Georgia's first people and the world in which they lived.



LESSON 2: **ARCHAEOLOGICAL SITES AND ARTIFACTS**

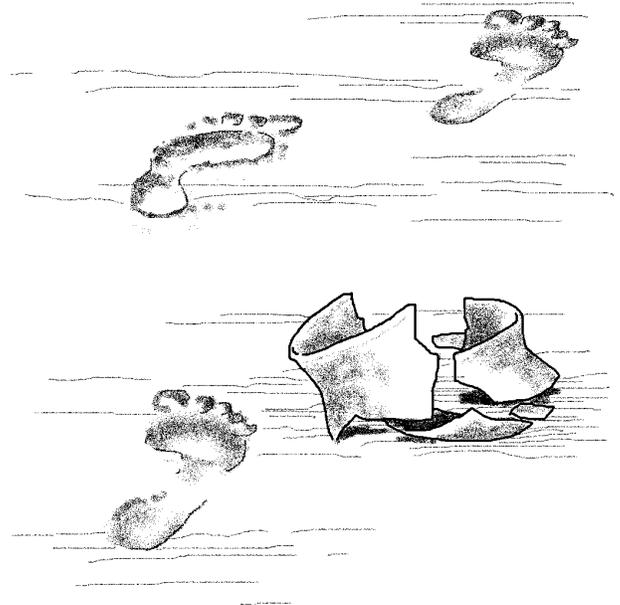
Archaeologists try to tell a story that has never been told. It is the story of the people who lived before us. It is the story of people who did not leave written histories to tell us about their lives. It is the story of a changing environment in which climates warmed and cooled, rivers changed courses, and in which plants and animals flourished and died. It is the story of societies that developed new leadership structures, beliefs, and economies. It is the story of people who long ago disappeared, taking with them the knowledge that helped them survive in a world unlike the one we live in today.

To learn this story, archaeologists must find and study the things that prehistoric people left behind. These things usually fall into two groups. Archaeologists find and study the objects, or artifacts, that people made and used. They also find and study the places, or sites, where people once lived. The two often go together. People who live at a site make, use, and throw away artifacts. However, archaeologists can study artifacts alone, and sometimes important sites can be studied that contain few artifacts.

Try This: How many artifacts can you name in your classroom?

An archaeological site is any place where people once lived, worked, or played, and left behind traces of their activities. Archaeological sites can be very old or they can be very recent. Archaeological sites in Georgia have been found that are over 11,000 years old. As you have learned, the people who lived at these sites were very different from the people who live in Georgia today.

Fortunately for archaeologists, people are not very neat! Wherever we go, if we look carefully, we will find things that have been dropped or thrown away—sometimes accidentally and sometimes on purpose. Look at the classroom floor. There may be a paper clip here, a broken pencil there, a bit of eraser, paper, or a piece of gum. If we collected every artifact on the floor, what would we learn about your classroom? What could we learn about the things you do in school? What could we learn about your family? Some questions are easy to answer. Others are very hard indeed. This is the job of the archaeologist. Using bits and pieces of things that have been left behind, the archaeologist tries to learn something about the people who once lived in Georgia.



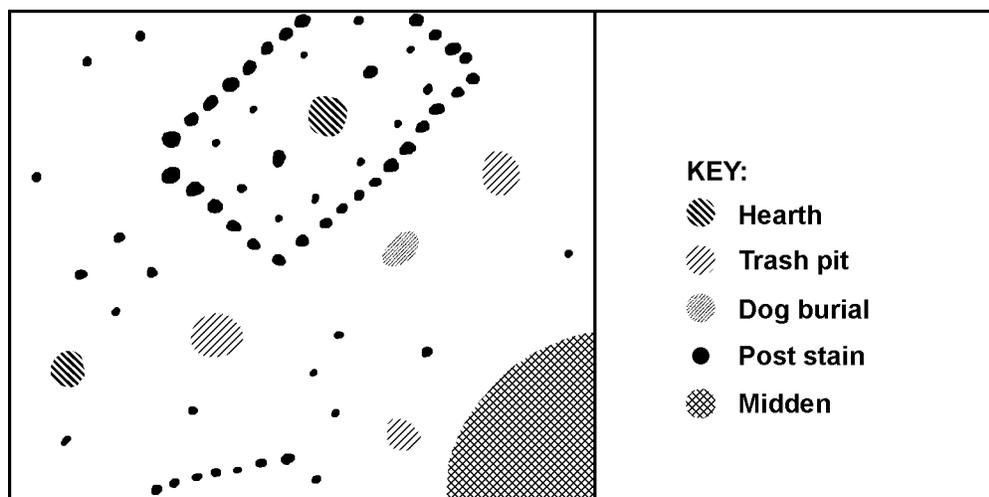
Different activities leave different kinds of things in the ground for archaeologists to discover. At a place where people lived, an archaeologist might find the stones from a fire hearth or the fragments of a broken cooking pot. The burned bones of animals may show us where people roasted game, while a ring of holes in the ground may be where a house once stood. A pile of stone chips may mark the spot where someone made a tool, while a pile of oyster shells may be all that's left of a family feast! The archaeologist must carefully excavate and examine the artifacts that have been left at a site and determine what the people who left these things behind were doing.

Where would you find more pencil shavings - below the pencil sharpener or in the cafeteria? Would the bathroom be a likely place to find a chalkboard eraser? By looking at the kinds of things found at a site, archaeologists can sometimes figure out what people did there.



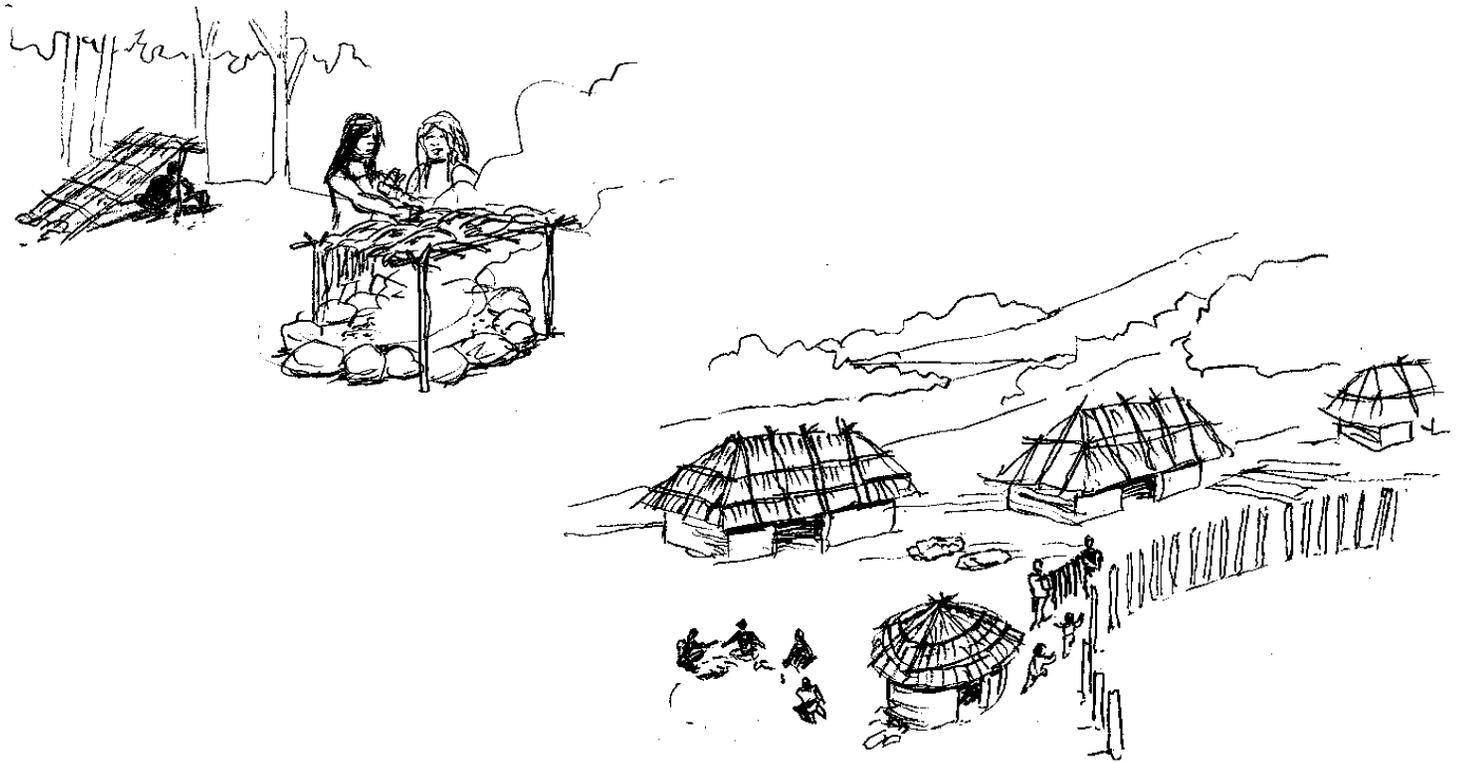
How artifacts are scattered around a site can often tell a lot about how people lived and what they did. Archaeologists will always make a careful map of where everything at a site was found. This helps them figure out how people used the space they lived in.

There is often more than just artifacts at a site that educate archaeologists about past people. The process of living day after day in one place will leave different traces on and in the ground that archaeologists can see. Think of footprints in the sand. You can't pick them up and hold them, but you know that somebody who came before you made them. These traces are called **cultural features**. They are traces of people's activity that cannot be removed from a site but that help tell us about what people did. Some common cultural features that archaeologists might see at a site include charcoal-stained soil, rings of broken stones, organic stains where posts once planted in the ground rotted, and deep trash pits filled with decayed refuse, artifacts, bone, and burned plant material.



LESSON 3: KINDS OF SITES

Archaeologists often group sites according to the kinds of things people did at them. Places where people lived are called ***habitation sites***. Habitation sites may have been occupied for a long time, perhaps for a season or even several years, or they could be sites where people lived temporarily. Your house is a habitation site; would an archaeologist be able to recognize it as a habitation site if the house was removed—what traces might be left in the ground? Two types of prehistoric habitation sites in Georgia include ***camp sites*** and ***village sites***. Camp sites are places where people lived for brief periods of time—perhaps one or a few days. People occupied camp sites while they hunted, gathered, or traveled from one place to another. Village sites not only were inhabited longer, but they typically contain structures inhabited by more than one family unit. Because people intended to use them for longer periods of time, they invested more effort into building houses and other facilities. What differences would an archaeologist observe between a camp site and a village site?

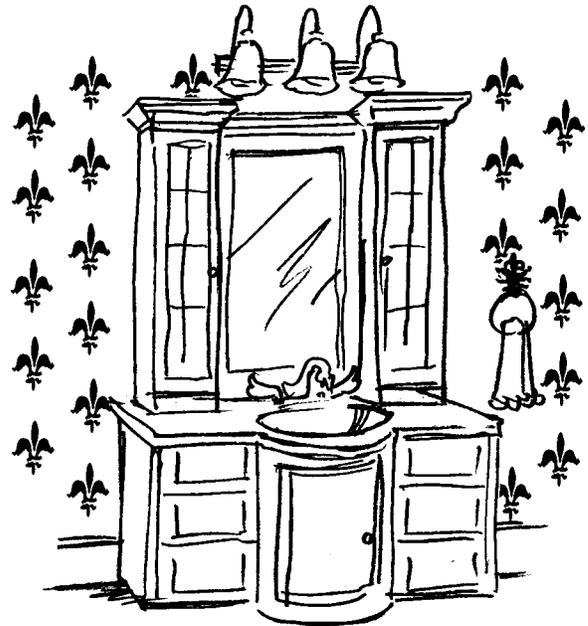
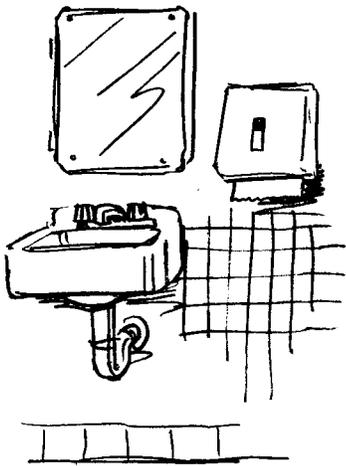


It's fun to think about how a camp site created today might look compared to one created 5,000 years ago. How might it be the same? How might it be different?

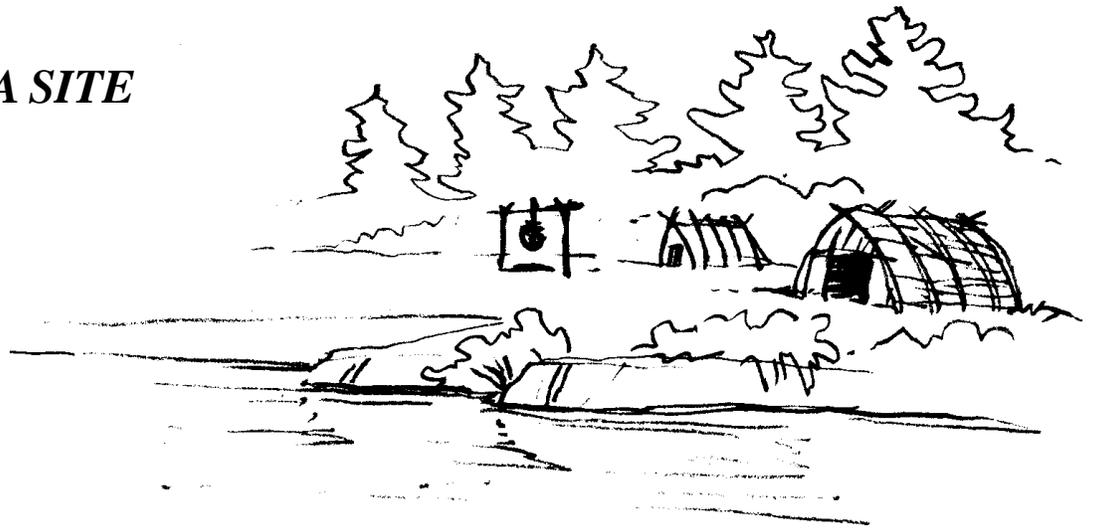
Other types of prehistoric habitations in Georgia include special purpose areas such as quarries or with rock art. During the later part of the prehistoric period, there were also some civic-ceremonial centers in Georgia, such as Etowah and Ocmulgee, with large earthen mounds.

Archaeologists learn about prehistory from all kinds of sites. Each represents one example of the full range of activities and lifestyles that belonged to Indians in the prehistoric period. Sites of different types contain artifacts and features related to the activities that occurred there.

Think about the types of artifacts that you would find in your school classroom versus the artifacts found in your bedroom. Do they distinguish the activities carried out in each place? What about artifacts in your kitchen versus ones in your bathroom? Are the artifacts in one bathroom similar to artifacts in another bathroom? Are they similar enough to allow archaeologists to define a modern site type of “bathroom,” just on the basis of the sets of artifacts found? What differences might you observe in the artifacts from one bathroom versus another? What can those differences tell us about the people who use the different bathrooms, where the bathrooms are found, and when the bathrooms were built?

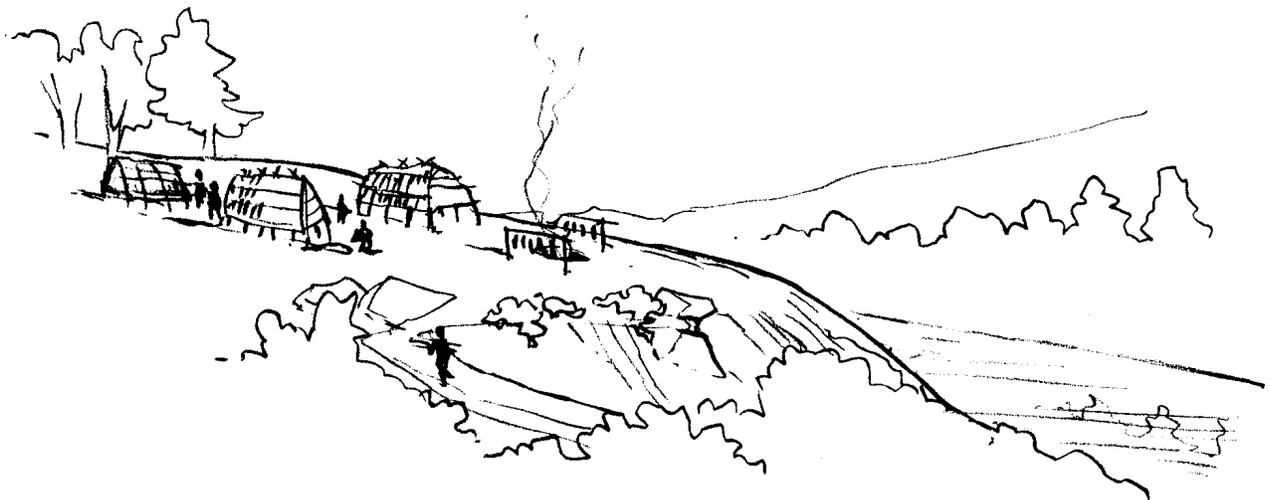


LESSON 4: CHOOSING A SITE



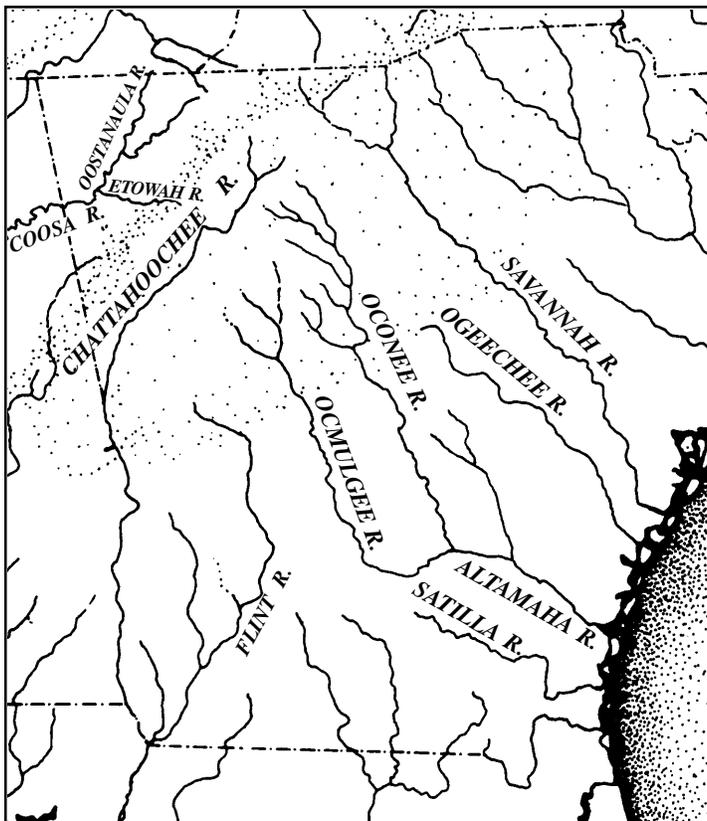
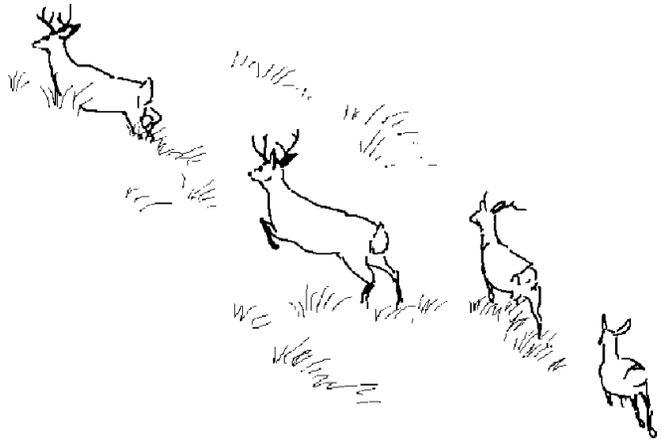
Just as we do today, the prehistoric people of Georgia lived in all parts of the state. Archaeological sites have been found on the coast, along the shores of rivers and streams, and in the hills and mountains.

Prehistoric people lived in a variety of places for a variety of different reasons. This is not surprising. The choices people make are based on their activities. For example, when looking for a temporary camp site, people may have needed only a good vantage point to see the game they planned to hunt and a nearby place to get drinking water. However, a long-term habitation may have required good drinking water and high level ground on which to build houses that would not become flooded in the rain. Another important consideration was a site's proximity to such resources as shell fish, nut-bearing trees, fruit, and other plants.



The seasons played a role in choosing a site, too. A good place to camp in the summer may have been a terrible spot in the winter. Camping on a high, exposed ridge may have provided occupants with a cool, steady breeze and fewer bugs in the summer. But in the winter, the same location would have been frigid.

There are many other reasons that people have for picking a place to stop or stay. We can be sure that many prehistoric sites were picked for no other good reason than simply a feeling on the part of the people. It could be that a group, weary from traveling all day, spotted a good place to land a canoe. Or it could be that a band of hunters found a good spot downwind of a deer herd. Or it could be that people returned to the same spot year after year because it was sacred to them. Many of these reasons do not leave evidence in the ground for archaeologists to find.



Despite all the things that determine where people might have lived, archaeologists have found that the largest number and largest-sized sites tend to be found closer to bodies of water (rivers or coastal marshes and inlets). This is probably because a number of valuable resources could be found in such areas. Many kinds of plants and animals used by Native Americans live in and near water—fish, shellfish, waterfowl, turtles, animals coming to drink, seed plants growing in backswamps of rivers, etc. Water itself was needed for drinking and cooking. Plus, like today’s highways and roads, Georgia’s rivers and streams linked people and places, and made traveling from place to place easier.



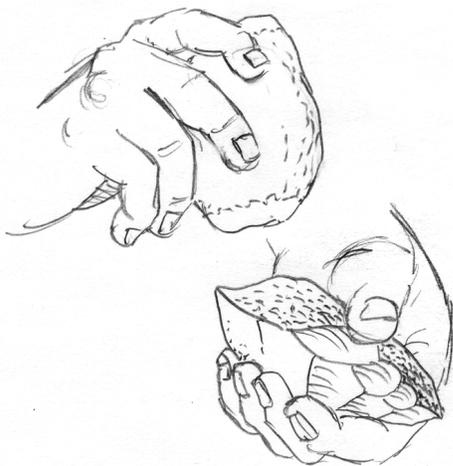
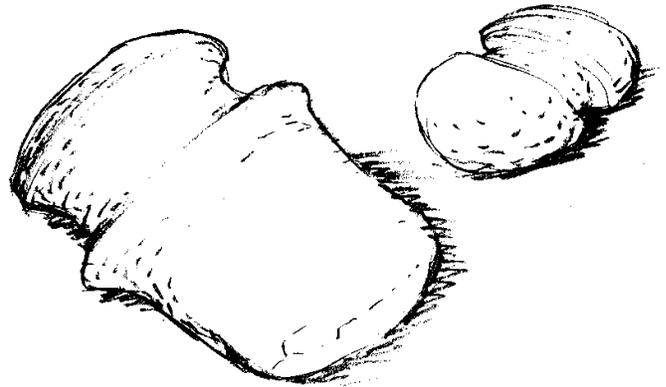
LESSON 5: ARTIFACTS

Along with sites, another way archaeologists learn about the past is by studying the *artifacts* that people left behind. An artifact is any object that has been made or used by people. That's a lot of stuff! Look around you—almost everything you see has been made or used by people.

Archaeologists trying to learn about Georgia prehistory depend on the artifacts they find. Unfortunately, not all of the artifacts that were used by Native people have survived up to the present. Probably most of the things Georgia's Native people made and used have rotted away, or have been destroyed. Artifacts, then, can give us only a small glimpse of the people who lived in the past.

Stone lasts well in the ground, and so it should not surprise you that most of the artifacts that archaeologists have found in Georgia are made of stone. Stone artifacts come in a variety of forms and are made from a variety of rocks. Many of the artifacts we find were used as tools, or somehow helped people make a living from their environment.

There are two kinds of stone tools found in Georgia. One kind is called *ground stone*. These tools have been made by pecking at a soft rock with a harder rock to form a basic shape. Then the rough tool is ground and polished until it reaches its final form. Some ground stone tools are thought to have been used for woodworking because they resemble the axes and chisels woodworkers use today. Other examples of ground stone tools include net sinkers, weights for spear-throwers, and various types of ornaments.

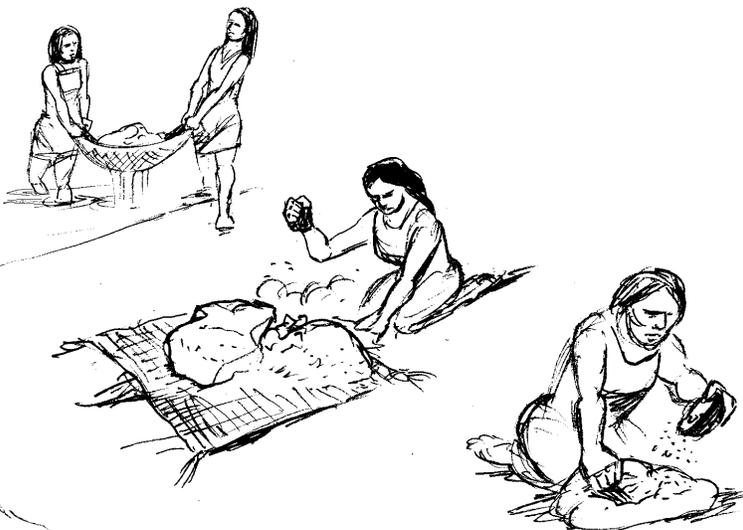


Most stone artifacts in Georgia are not ground stone, however. The majority are *chipped stone* artifacts. Chipped stone tools were made by repeatedly hitting the edge of a rock with another rock, causing chips, or *flakes*, to be removed from the opposite side. This may sound easy, but it required a great deal of skill, special kinds of rocks, tough hands, and a good eye. Projectile points, knives, scraping tools, drills, and other tools were made in this way. Making one such tool could produce hundreds—even thousands—of flakes. Can you guess what is the most common artifact archaeologists find in prehistoric sites?

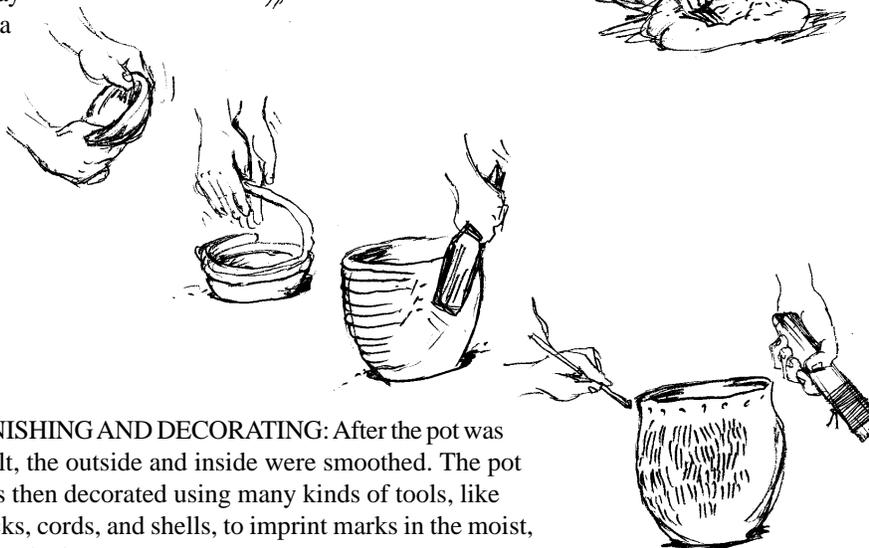
Beyond stone tools, the second most common prehistoric artifact type is pottery. Pottery first appears in Georgia around 2500 B.C. on the coast. Ceramic vessels were an improvement over previous liquid cooking methods, which included the use of heated stones placed in wooden vessels, sealed baskets, or—in some areas—soapstone bowls. Making soapstone bowls was time-consuming, however, and the bowls are heavy and difficult to transport. Pottery could be made almost anywhere, as suitable clay is readily available across the state. Pots could be placed directly over a fire for cooking, which was an important benefit to people who were eating more starchy seeds, which were probably cooked into a kind of porridge. Archaeologists normally find ceramics as broken potsherds, after broken vessels were discarded. But it is often possible to determine the original vessel form from certain broken pieces.

POTTERY MAKING-
done nearly the same way
4,500 years later

PREPARING THE CLAY: After the clay was dug, it was dried, powdered, and sifted. Finely crushed stone or shell was then added to temper the clay, and keep it from sagging. The clay was kneaded like bread dough to evenly mix the tempering.



BUILDING THE POT: A small ball of clay was pinched into a cup shape to make a base for the pot. This base was placed into a hole in the ground to support it. Many ropes, or coils, of clay were stacked atop each other forming the walls of the pot. Last, the coils were smoothed with a paddle or smoothing tool.



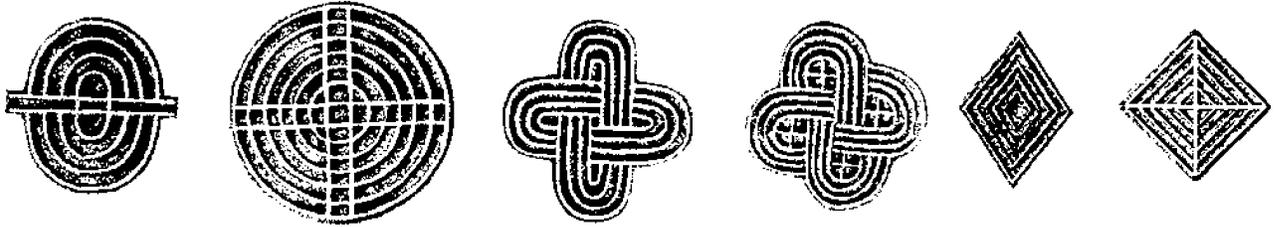
FINISHING AND DECORATING: After the pot was built, the outside and inside were smoothed. The pot was then decorated using many kinds of tools, like sticks, cords, and shells, to imprint marks in the moist, smooth clay.



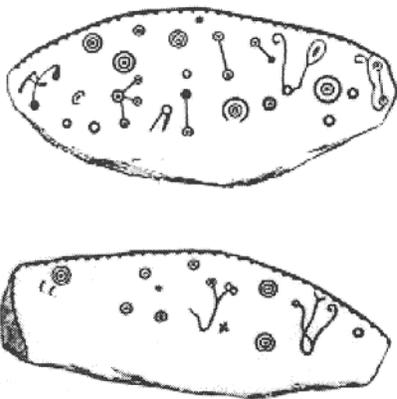
FIRING THE POT: After the clay had dried, a small fire was built and allowed to burn to embers. The pot was turned upside down on the embers, and more kindling was added over the top. After the fire had died down, the fired pot was removed from the embers and slowly cooled.



LESSON 6: ART AND DECORATION



If you look around at your classmates, you might see that many (especially considering the girls and boys separately) are wearing very similar styles of clothes and shoes, and many have similar haircuts. Even though there are thousands of kinds of pants, shoes, and hair styles, you will probably not see big differences within your room, or even your school. This is because people living in groups tend to share similar styles, which is a way of saying that they belong to that group.



Prehistoric rock art in Georgia and elsewhere in the Southeast offers a tantalizing glimpse into the spiritual and symbolic world of Native Americans. In some cases, images can be interpreted by reference to beliefs recorded for Indians in the later historic period. However, abstract symbols, like these from a granite boulder in Forsyth County, are more difficult to understand.

People around the world and throughout time have developed styles particular to their culture and their point in history. These styles are displayed in the way people dress, in the way they build their houses, and in the styles and decoration of the everyday objects they surround themselves with. Archaeologists use art and decoration to help them identify groups of people who lived during different times in the past.

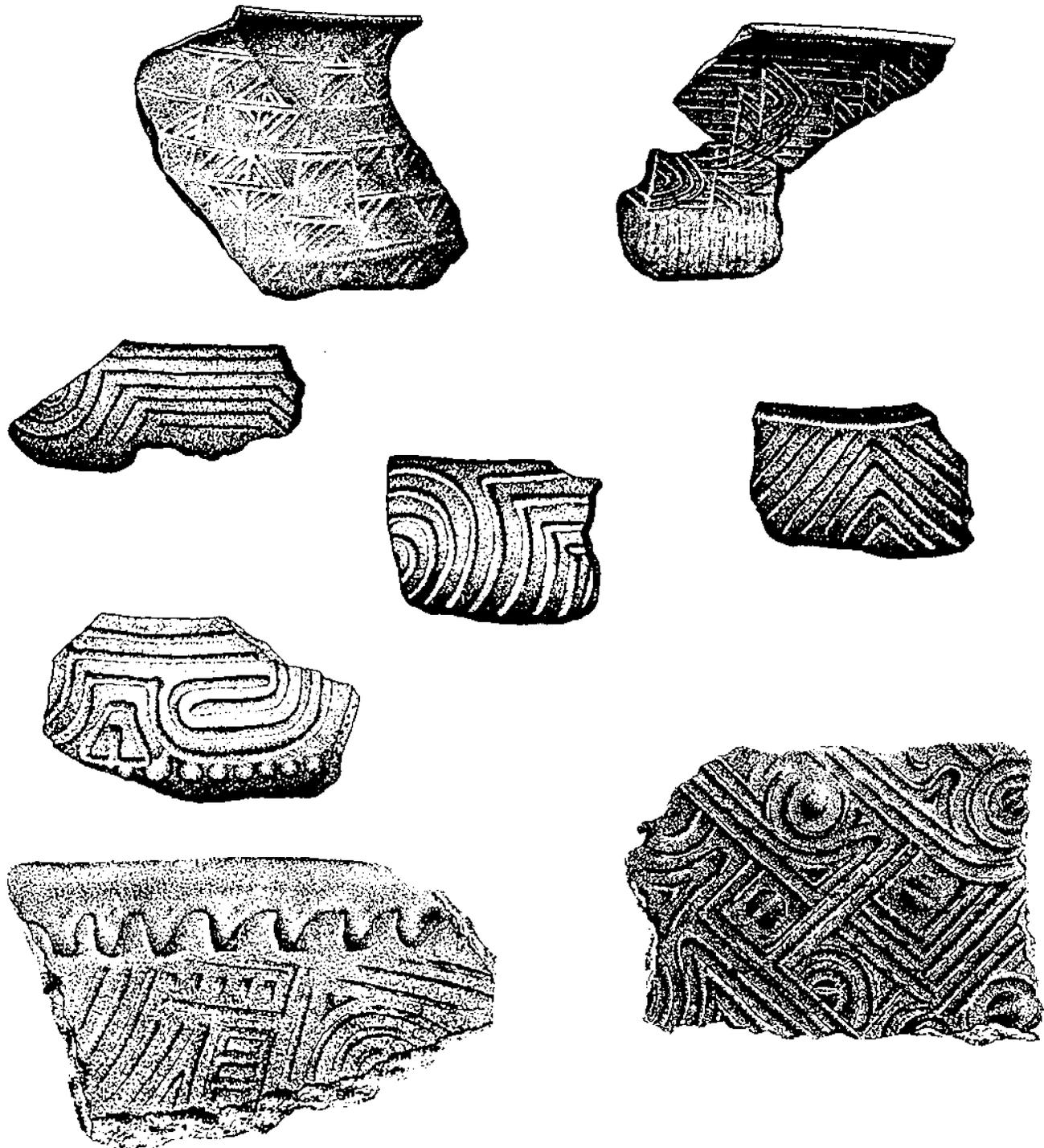
Try This: Ask your parents to let you look at an old high school yearbook or some pictures from when they were in school. Do you notice anything strange? How do the styles of dress, hairstyles, and various objects compare to those of the present?



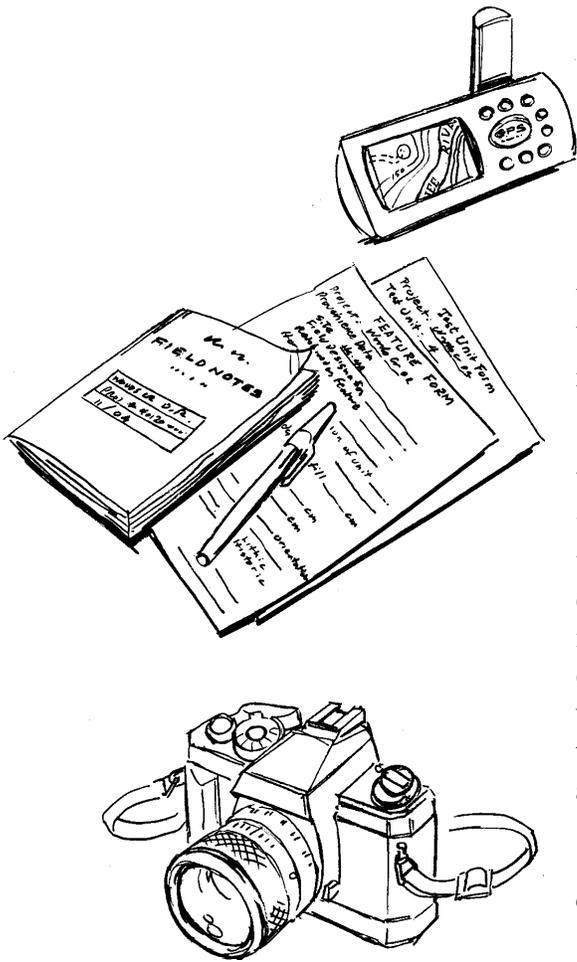
Prehistoric people in Georgia also expressed themselves in art and decoration. Many ceramic, stone, shell, bone, and copper objects were sculpted, etched, or impressed with designs or images meaningful or pleasing to the people who made them. The styles and images changed through time, reflecting changes in the societies that people were living in, and changes in their aesthetic ideals—what they thought was beautiful.



One of the most common and enduring pieces of evidence for decoration by prehistoric Indians in Georgia comes from pot fragments, or sherds, that have been found all over Georgia. From the time that people began making ceramics in Georgia (around 2500 B.C.), they produced different styles through time (although some persisted for long periods, and several styles were used at any given point in time) and different styles in different parts of the state. By studying the designs people impressed into the soft clay of their vessels, archaeologists are able to identify groups of people over space and through time.



LESSON 7: DIGGING A SITE

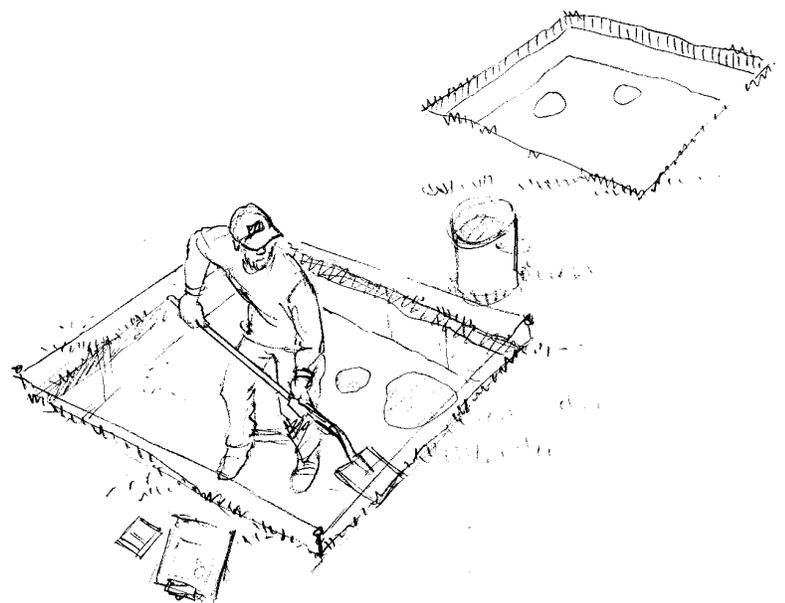


Archaeologists, like all scientists, are very careful about how they do things. They must take care as they are excavating a site, because the very process of digging destroys it. Once a site has been excavated, and the artifacts and bits of evidence have been removed from the ground, they can never be returned to the exact spot where they were found.

When an archaeologist digs a site, she usually does so in a systematic way. Being systematic means having a strict set of rules and following them step by step. At every step along the way, the archaeologist carefully describes what is happening. The exact location of artifacts is drawn on a map, photographs are taken, field notes record the day-by-day progress of the dig, and even video cameras can be used to document the site as it is being excavated. In this way, even though things are being removed from their original context, the archaeologist will know how it once looked in the ground.

What would happen if you were not systematic when you baked a cake, and did not follow the recipe and instructions step by step?

The first thing an archaeologist does is to divide the site into a number of small squares. These squares are usually 1 or 2 meters on a side, big enough for one person to work in. Wooden or metal stakes are driven into the corners of the squares (called “*units*”), and string is used to mark the boundaries. Each square is given a number and everything found in that square is given the same number. In this way, archaeologists maintain *horizontal control* over where things are found across the site. The smaller the squares, the more detailed is the information about where things were found across the site.

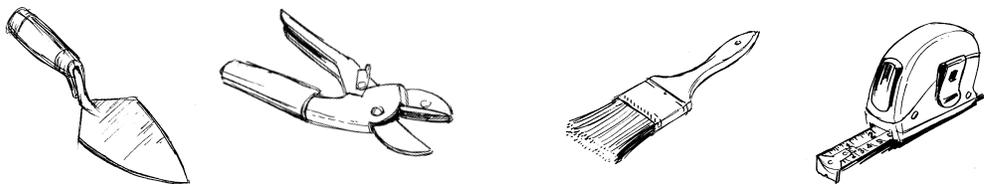


Archaeologists are also very careful in how they go about digging into the full depth of a site. The archaeologist will only dig a certain thickness of soil at a time—usually 10 centimeters, or according to where an identifiable layer of soil ends. For example, archaeologists often dig the **plowzone** as a single layer, because that is the top part of most sites that has been all mixed up from plows digging and dragging the soil. Archaeologists also might dig a certain layer (or **stratum**) as one level if it is an identifiable cultural entity, like a layer of **midden** (refuse), or an occupation zone buried under flood deposits. Everything from one excavation level is collected separately and described before the next level is dug. Going deeper into the site, one level at a time, gives the archaeologist **vertical control** over where things are found beneath the surface of a site.

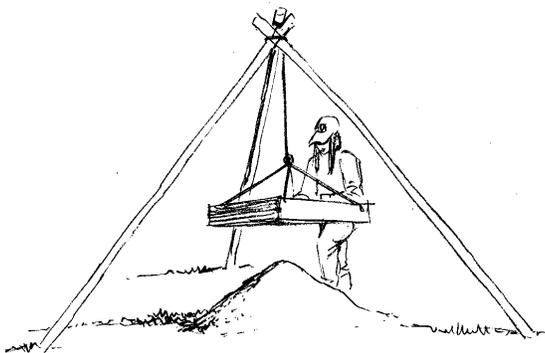


For many reasons, a site is usually not completely excavated. One challenge for the archaeologist is to decide which parts of the site to dig, or **sample**, in order to obtain the most valuable information. When only a small portion of the site is sampled, it is like trying to imagine what the whole puzzle picture looks like after seeing only a few pieces.

Try This: Take a picture from a magazine and cut it into 25 equal sized squares. Mix them up well, and ask a friend to select pieces randomly, one at a time, laying each out on the table. How many pieces must you lay down before your friend can tell you what the picture is?



The archaeologist uses many tools to dig a site, depending on what she wants to learn. Usually some combination of shovels and trowels are used, but archaeologists might also use picks and brushes (for small delicate objects), augers (for deep coring of the site's stratigraphy), and even backhoes—usually to remove plowzone or to excavate a deep trench to see the site's stratigraphy. All of the dirt that is excavated is either screened through mesh that allows archaeologists to collect the artifacts, or it is collected in bags and processed in water (through a technique called **flotation**) so that even tiny artifacts, bone, and charred plant materials like seeds can be collected. Everything that is collected from a unique location within the site—unit, level, even feature—is collected in a bag labeled with the location.



Once the artifacts and other bits of evidence have been carefully collected at the site, the archaeologist brings everything back to the laboratory to study. In the lab, like the field, careful, step-by-step methods are used to clean, measure, and analyze information about the artifacts. By following strict guidelines in both digging a site and working with the things discovered at the site, archaeologists can learn from the information they have gathered and preserve it for future scientists.

LESSON 8: CLEAN, CATALOG, MEASURE, AND RECORD



Now the site is dug! You've carefully sifted through 50 square meters of dirt and you have collected thousands of artifacts. In the process, you have found and made a map of many cultural features. The artifacts have been tucked into thousands of plastic bags, put into boxes, and carried back to your laboratory. The written notes and photographs you have made have been placed in several notebooks. What next?

The first thing you need is a big table, because this part of archaeology usually takes a lot of room! The archaeologist begins by washing the artifacts from each unique location within the site (called *provenience*), and laying them out together to dry. It is important that artifacts from one provenience don't get mixed up with artifacts from another provenience. When the artifacts are dry, the material from each provenience is sorted according to artifact type, raw material, and other characteristics the archaeologist deems important for this site, or this investigation. The artifacts are then counted and some are weighed, with the information entered on catalog sheets and into an electronic database. The electronic database allows the archaeologist to manipulate the information from the site and learn things by examining the big picture. For example, a database allows an archaeologist to easily find every location on a site where fabric-impressed pottery was found. Archaeologists also

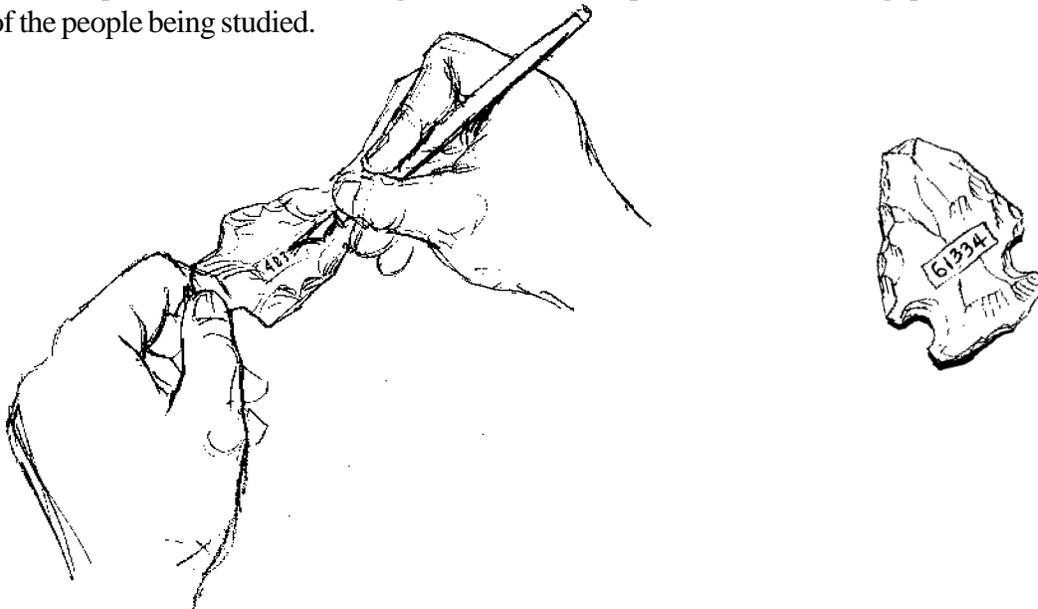


often use statistics to make sense of large quantities of data, and to find patterns among many different pieces of information. For example, an archaeologist might want to use statistics to determine if there is a non-random association of fire-cracked rocks and nutting stones at proveniences within the site.

Also at this time, some or all of the artifacts are labeled with a unique accession number that identifies the artifact according to the provenience from which it was found. Labeling artifacts in this way allows the archaeologist to remove individual artifacts from their provenience bag for analysis, photography, even for loan to museums, without losing track of its precise location within the site.

Artifact Inventory for Phase III Data Recovery at KCLAP										
BAG	FLAT	TS	BT	SURFACE/OTHER	LEVEL/DEPTH/BL/PZONE	DESCRIPTION	RAW MATERIAL	COUNT	WT (g)	COMMENTS
285	2				General cleaning around F2	Flint cracked rock	Quartz	1	88.8	
285	2				General cleaning around F2	Flake fragment	Quartz	6		
285	2				General cleaning around F2	Proforma	Quartz	1		
285	2				General cleaning around F2	Shatter	Quartz	2		
285	2				General cleaning around F2	Thinning flake	Quartz	5		
285	2				General cleaning around F2	Flake fragment	Ridge & Valley chert	1		
285	2				General cleaning around F2	Crude poph	Ridge & Valley chert	1		
285	2				General cleaning around F2	Thinning flake	Ridge & Valley chert	1		
285	2				General cleaning around F2	Checked stamp/body	Sand	1		
285	2				General cleaning around F2	Indeterminate decorated/body	Sand	2		
285	2				General cleaning around F2	Ceremonial debris	Sand	1		
285	2				General cleaning around F2	Unidentified insulator	Sand	1		
237	2				N1/2	Endof/body	Grt	2		
237	2				N1/2	Indeterminate ceramic	Grt	2		
237	2				N1/2	Simple stamp/body	Grt	4		
237	2				N1/2	Blade fragment	Quartz	1		Pph tip
237	2				N1/2	Bilaterally attached flake	Quartz	1		
237	2				N1/2	Flint cracked rock	Quartz	61	571.1	
237	2				N1/2	Flake fragment	Quartz	77		
237	2				N1/2	Shatter	Quartz	16		
237	2				N1/2	Thinning flake	Quartz	26		
237	2				N1/2	Blade fragment	Ridge & Valley chert	4		
237	2				N1/2	Flake fragment	Ridge & Valley chert	31		
237	2				N1/2	Shatter	Ridge & Valley chert	4		
237	2				N1/2	Thinning flake	Ridge & Valley chert	5		-50% cortex
237	2				N1/2	Thinning flake	Ridge & Valley chert	10		1 HA
237	2				N1/2	Checked stamp/body	Sand	2		
237	2				N1/2	Ceremonial debris	Sand	7		
237	2				N1/2	Endof/body	Sand	14		
237	2				N1/2	Fabric impressed/body	Sand	17		
237	2				N1/2	Indeterminate ceramic	Sand	54		
237	2				N1/2	Indeterminate decorated/body	Sand	8		
237	2				N1/2	Indeterminate decorated/straight rim	Sand	1		
237	2				N1/2	Plain/body	Sand	6		
237	2				N1/2	Flint stamped rim	Sand	2		
237	2				N1/2	Simple stamp/body	Sand	1		coll break
237	2				N1/2	Shatter	Sand	7		
237	2				N1/2	Ceremonial debris	Sand	4	1.5	
237	2				N1/2	Indeterminate ceramic	Sand	6		
167	2				N1/2	Flint cracked rock	Quartz	50	4750	
167	2				N1/2	Unmodified stone	Quartz	12	3000	
455	2			Zone B and C	S 1/2	Triangular poph	Quartz	1		
205	2				S1/2	Flint cracked rock	Quartz	38	380	
205	2				S1/2	Flake fragment	Quartz	18		
205	2				S1/2	Shatter	Quartz	11		
205	2				S1/2	Thinning flake	Quartz	2		
205	2				S1/2	Shatter	Ridge & Valley chert	1		
205	2				S1/2	Thinning flake	Ridge & Valley chert	1		
205	2				S1/2	Unifacial and bifacial attached flake	Ridge & Valley chert	1		
205	2				S1/2	Indeterminate ceramic	Sand	3		
205	2				S1/2	Plain/body	Sand	1		
205	2				S1/2	Ceremonial debris	Sand	3		
162	2				S1/2 walls location	Flint cracked rock	Quartz	4	23.5	
162	2				S1/2 walls location	Flake fragment	Quartz	5		
162	2				S1/2 walls location	Shatter	Quartz	1		
162	2				S1/2 walls location	Flake fragment	Ridge & Valley chert	5		
162	2				S1/2 walls location	Endof/body	Sand	2		
162	2				S1/2 walls location	Shatter	Sand	1	0.1	
162	2				S1/2 walls location	Ceremonial debris	Sand	1		
205	2				Top	Core fragment	Quartz	1		
205	2				Top	Flint cracked rock	Quartz	28	714.6	
205	2				Top	Flake fragment	Quartz	7		
205	2				Top	Shatter	Quartz	12		
205	2				Top	Thinning flake	Quartz	2		
205	2				Top	Unappreciated flake	Quartz	1		
205	2				Top	Flake fragment	Ridge & Valley chert	1		
205	2				Top	Thinning flake	Ridge & Valley chert	8		

Sorting, cleaning, and cataloging all the artifacts that have been found at a site is the first step in studying the people who made and used them in the past. This tedious work is necessary so that important information is preserved and archaeologists can ask more specific and interesting questions about the lives of the people being studied.

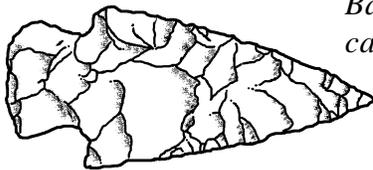


LESSON 9: WHAT'S THE POINT?

What if your friend got a chance to work on an archaeological site and discovered a very special artifact. When your friend returned to school, you might ask her to tell you about the artifact she found. Suppose she said, "I found this thing. It was kind of long and pointy, and had this do-hickey on the end." Would you have a good idea of what your friend found? Probably not!



Archaeologists who find things left by prehistoric people must identify and describe exactly what they found. We do this for many reasons. First, we want to know what the artifact was used for. Was this a knife for butchering an animal, a scraper for taking fur off a hide when making leather, or a chisel for carving wood? Second, archaeologists describe things so that other people can get a good picture of what they found. Most importantly, archaeologists describe things so that they can make comparisons with other things. Comparing things that look the same, or that are made in the same fashion, is one way archaeologists identify groups of prehistoric people and differentiate them from other groups. Similar objects also look different when made by people during different time periods.

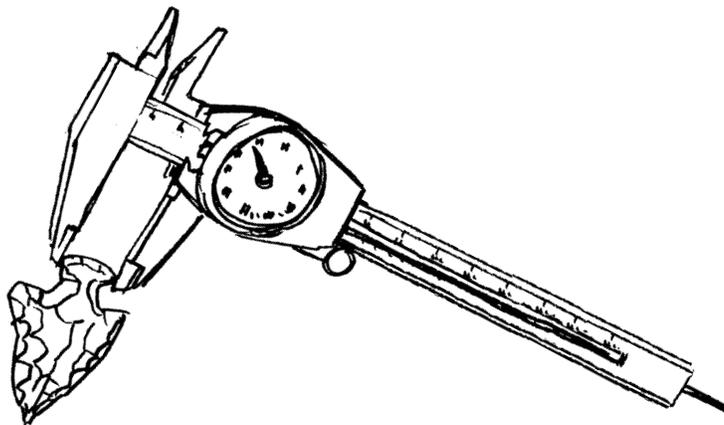


*Baker's Creek point -
ca. 800 A.D.*



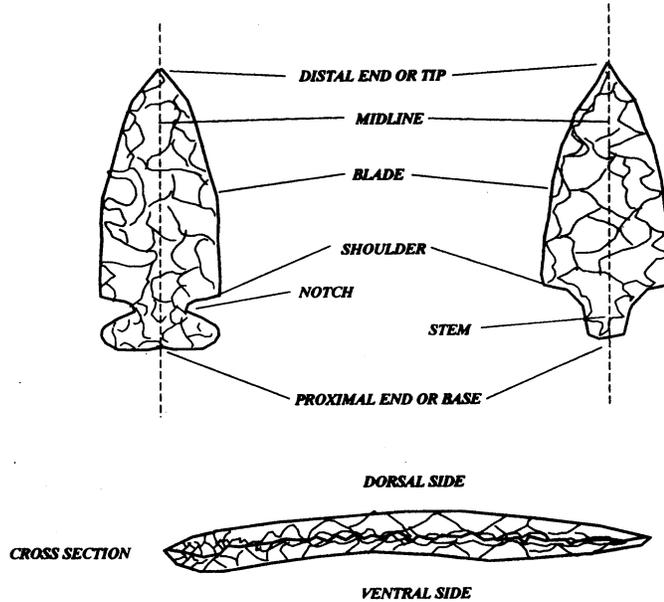
*Triangular point -
ca. 1300 A.D.*

An important part of description is measurement, or *metrics*. There are all sorts of things archaeologists measure. They can measure how long, wide, thick, and heavy an artifact is. They can measure angles, colors, chemical composition, and percentages. In fact, archaeologists often think up new things to measure on an artifact in order to answer new questions.

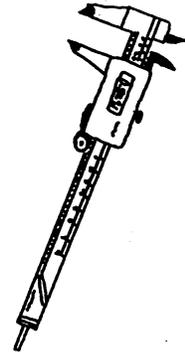


To give you an idea of how thoroughly archaeologists describe and measure things, look at the picture on the next page. Don't worry if you don't understand all the words. Like all scientists, archaeologists use a special vocabulary that helps them efficiently communicate with each other.

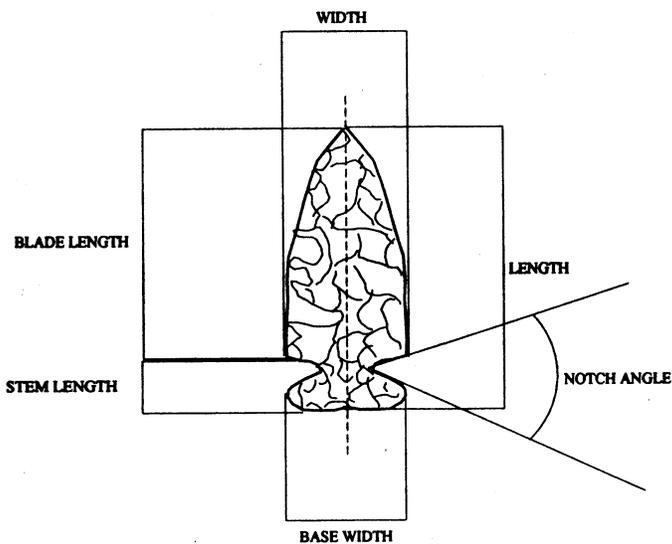
PARTS OF A SPEAR POINT



To measure artifacts in the lab, archaeologists often use a tool called a caliper. The "jaws" of the caliper slide apart, and the measurement is read off the scale.



MEASUREMENTS ON A SPEAR POINT



Observation	Measurement
WEIGHT	53.6 gms
WIDTH	2.161 cm
LENGTH	5.021 cm
NOTCH ANGLE	46.23 deg
BASE WIDTH	2.072 cm
STEM LENGTH	0.954 cm
BLADE LENGTH	4.096 cm
THICKNESS	0.879 cm

gms = grams
 cm = centimeters
 deg = degrees

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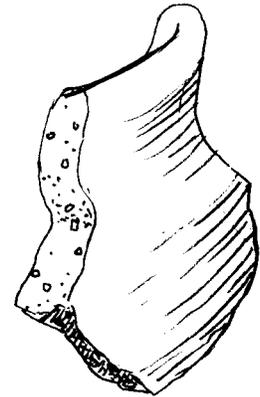
LESSON 10:

MAKE AN IMPRESSION!

As another example of how archaeologists describe and compare artifacts, let's consider pottery. Below are many attributes of prehistoric ceramics that archaeologists have found ways to measure and describe. The potsherds found on prehistoric sites can tell us many things about the pots they came from and the people who made them. Can you think of other things to describe on ceramic sherds?

Temper

Various things, called temper, were added to the clay to make it more firm while it was being shaped and more resistant to breakage when it was used. The earliest material added as temper in Georgia pottery was plant fiber (like Spanish moss) which burned out when the pots were fired, leaving voids in the vessel wall in the shape of the fiber. Later sand or crushed quartz was added instead. Crushed limestone, crushed shell, or crushed ceramic sherds (called grog) was also used as temper in various locations and during particular time periods. The size of temper also varied. Archaeologists record not only the kind of temper, but also the size of the particles. This helps differentiate ceramics that date to different periods.

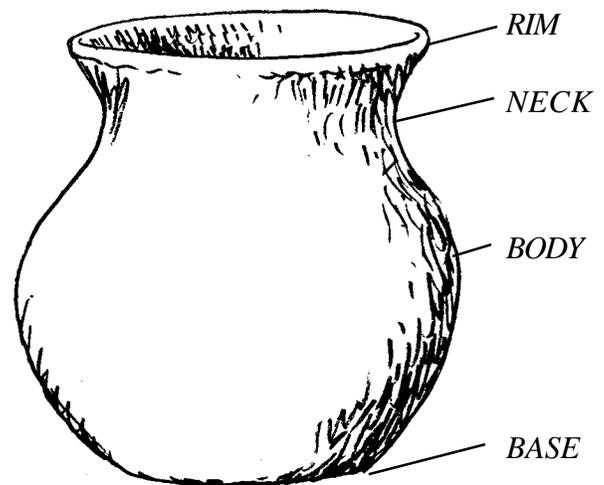


Wall Thickness

The thickness of prehistoric ceramic vessels walls was variable, depending on a number of factors. Sometimes wall thickness was related to the overall size of the pot. Thickness in some cases may have related to the techniques used to make and finish a pot. It has also been learned that wall thickness related to the function of the vessel, and therefore was connected to cooking techniques, storage practices, and ways of serving food that changed through time along with people's diet. Therefore, measuring wall thickness on sherds with no datable decoration can help with dating.

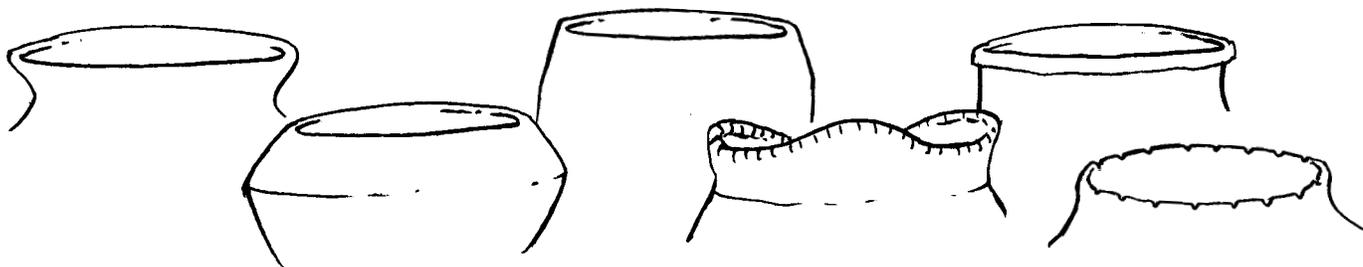
Vessel Portion

Clay pots are *vessels*. Vessels can be divided into different parts. For example, there is a base, a body, a rim, and sometimes other parts such as a neck or appendage. These parts can be created in different shapes and sizes to create different finished pots. One pot may have a very pointed base, another might have a rounded base, and another might have a flat base. A body can have relatively straight walls, or be globular, or expanding (like a bowl). Rims can be straight, out-flaring, or incurving. Archaeologists describe these distinctions rather than measuring them. Some attributes related to vessel parts can be measured, however. For example, by comparing a rim sherd to a chart of sized arcs, archaeologists can estimate the diameter of the pot from which it came.



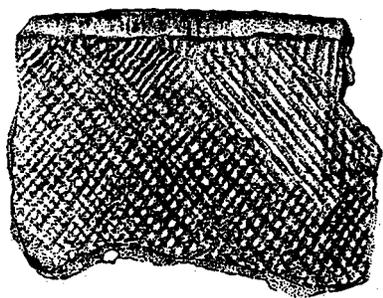
Rim Shape

The tops, or rims, of a vessel are often shaped differently. Rims can be straight or they can curve out or in. They also can be folded over, flattened, notched, or added to in certain ways. Archaeologists describe rim shapes because they believe that their form was meaningful to the people who made the pottery.

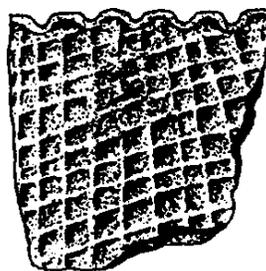


Decoration

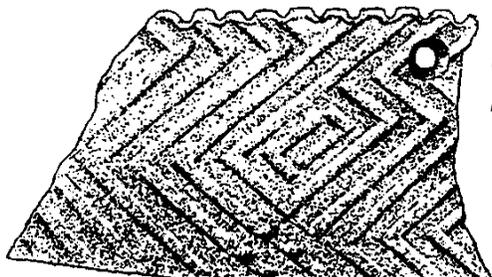
Prehistoric pots in Georgia were decorated with a variety of designs. These designs were all pressed into wet clay before it was dried and fired. Some designs were more popular at some times than at others. For example, a style of surface treatment called fabric impression was commonly used during the Early Woodland period (1000–300 B.C.) in north Georgia. Fabric-wrapped paddles were pressed into the wet clay to finish the form and surface of the pot. These impressions show us what some types of textiles looked like at the time, since most cloth does not preserve in archaeological sites in Georgia. Other types of surface treatments (cord marking and stamping) were achieved through impressions by cord-wrapped paddles and carved wooden paddles. Some pots were incised, meaning designs were drawn into the surface of the wet clay with a pointed tool. Other decoration techniques include punctation (poking an object or fingernail into the clay), and painting the surface with colored clay watered down into a solution called *slip*. Some pots were plain, but some sherds with plain surfaces come from pots with decoration only near the rim.



CORD MARKED



CHECK STAMPED



*COMPLICATED
STAMPED*



INCISED

LESSON 11:

TAPHONOMY – THE MISSING PIECES

Have you ever gone camping? Imagine or think back on a camping trip, to the moment you were all packed up and ready to leave. What did your campsite look like? Maybe there is charcoal in the fire, with sticks that have marshmallow goo on their ends nearby. Maybe there is some tin foil on the ground or some other garbage you dropped and didn't bag up—plastic bottle caps, a napkin, a couple bones from barbequed ribs, and some potato chips your little sister dropped. The broken brass zipper pull for your sleeping bag is nearby where you threw it, and your brand new pocket knife is under some pine needles where you dropped it. As you drive away—presto!—an archaeological site is born!



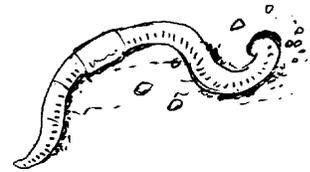
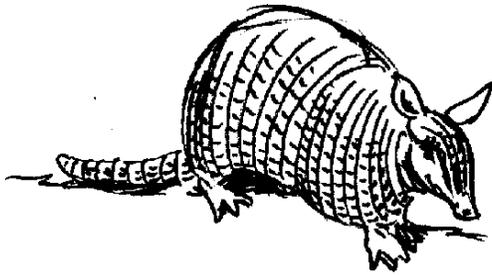
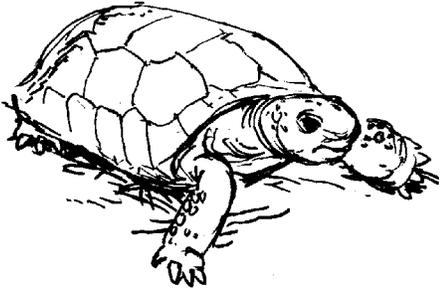
If an archaeologist were to visit your campsite the day after you left, she would probably have a good idea of the things you did while you were there. You certainly left enough evidence behind! But what happens if a week goes by, or a year, or a thousand years? What sorts of things may have happened to the site and the things you left behind? Do you think the archaeologist's job would be harder?

As you might guess, many things do happen to archaeological sites and artifacts between the time they are made and the time the archaeologist discovers them. Scientists who study these things are called *taphonomists*. Taphonomists have shown us that we must constantly be on the lookout for the things that happen to sites and artifacts over time. If we are not, we could draw the wrong conclusions from the evidence.

Think of some of the things that might happen naturally over time at your campsite. An archaeologist 1000 years from now would probably not find your gooey marshmallow sticks, the potato chips, or the napkin. These things would have rotted away or would have been eaten by animals like rodents, raccoons, and insects. Your campfire spot may still have a few pieces of charcoal on the ground, but the tin foil is gone—a crow attracted to its shiny color has taken it and



added it to a nest before it disintegrated. Maybe your campsite is in south Georgia, and a gopher tortoise has dug a burrow where you dropped a bottle cap; now that cap is 3 feet below the surface. The other bottle caps are still near the surface. The bones have been gnawed and scattered by coyotes and mice. Your broken zipper pull has succumbed to the elements, and is no more than a stain in the soil. Your pocket knife is still where you left it—the blade is mostly rusted away, but the plastic handle is intact



If your campsite was in the forest, then trees likely fell from time to time pulling up soil and mixing things up. Trees also deposit leaf litter, which can gradually add to the soil, unless it is eroding away more quickly. If your campsite is eroding, artifacts may wash down slope. Earthworms and burrowing animals like armadillos and chipmunks might impact your site (like the gopher tortoise) by disrupting the vertical integrity of artifacts. These and many other natural processes can affect archaeological evidence after it is in the ground.



Cultural processes also can affect archaeological sites. For example, people change sites simply by using them over and over. In the case of your campsite, the next people who came there might have built a new campfire somewhere else on the site. They may have dropped their own garbage. Would it be easy to tell their garbage from your garbage? If they found your pocket knife before it started rusting, do you think they would leave it there for archaeologists to find?

LESSON 12:

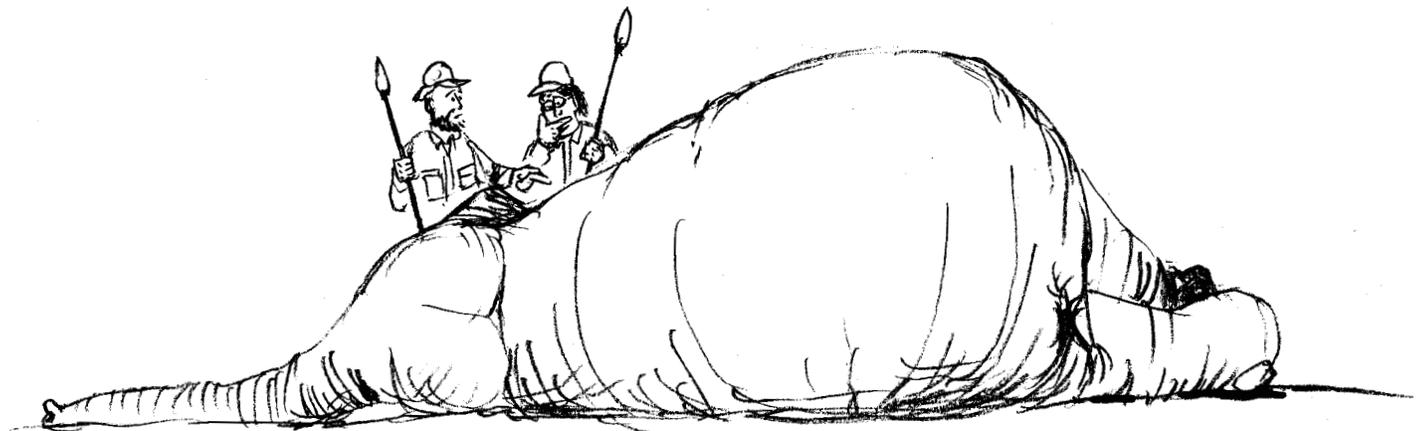
HOW DID THEY DO IT?

We have seen that one of the ways archaeologists study sites and artifacts is to describe, measure, and compare things. Another important way to learn about the past is to perform experiments. Archaeologists create experiments to discover the way Native people did things, since the technology they used is so different from our own. This helps archaeologists better understand why sites and artifacts look the way they do.



Many archaeologists (called *flintknappers*), for example, have learned how to make stone tools, like people in prehistory did. By learning this technology, archaeologists have gained a better understanding of the considerations that went into what raw materials were used, how tools were made, how they were resharpened, what flintknapping tools were needed in the process, and what by-products (different kinds of flakes) were produced in making different kinds of tools. Other archaeologists have used stone tools on different types of materials, and then examined the edges under a microscope to see what they look like after being used on specific materials. Different materials (meat, hide, bone, wood, etc.) and uses (cutting versus scraping, for example) create unique wear signatures. This type of study, called *microwear analysis*, allows archaeologists to then examine the microscopic wear on artifacts from archaeological sites, and by comparison, determine what materials they were used on.

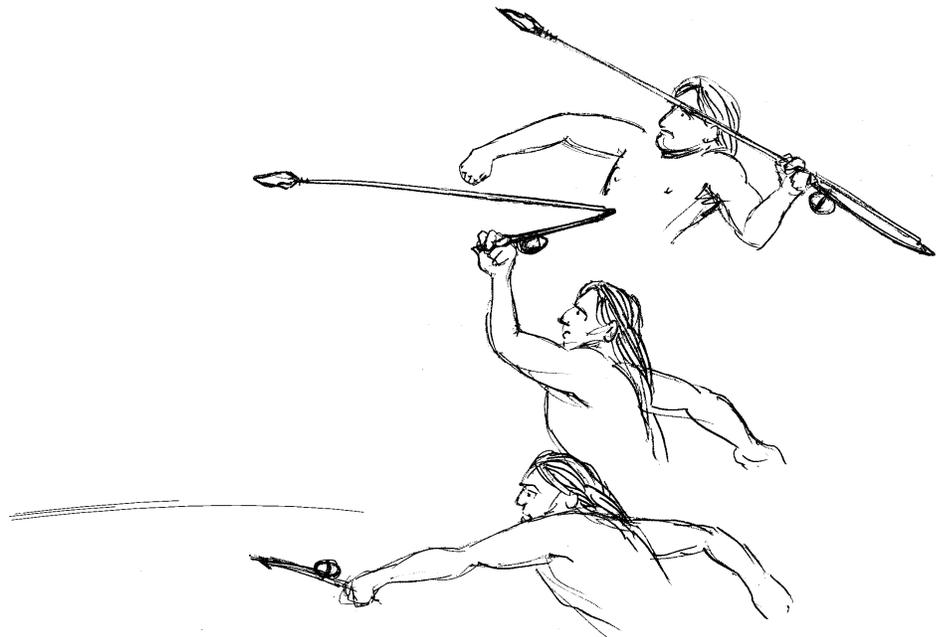
One famous experiment archaeologists conducted using stone tools was called the Ginsberg Experiment. Archaeologists wanted to know how Indians used the tools and flakes we commonly find in archaeological sites to butcher large animals, especially large extinct animals from the end of the last ice age—like woolly mammoths and mastodons. They got an elephant that had died in a zoo, and set about butchering it using only stone artifacts. They found that they worked quite well!



Experimental archaeology has also focused on ceramics. Archaeologists have reproduced pots like those the Indians made, in order to learn about the materials and techniques used to construct, shape, decorate, and fire the vessel. In addition to conducting their own experiments, some archaeologists have observed people in different parts of the world (like the Philippines, central America, and west Africa) who still use hand-made ceramic vessels for cooking and storage in order to learn things about how the pots are made, how they are used, what happens to them during use, how long they last, what happens to them when they are thrown away, and so forth. The idea is that seeing similar pots being used in a living context will yield insights into patterns observed in archaeological materials. Observing modern peoples who use a traditional technology as an analogy for understanding archaeological contexts is called *ethnoarchaeology*.



Archaeologists have experimented with a variety of technologies used by Indians in Georgia and elsewhere. For example, they have learned how to use a dart-throwing tool called an *atlatl* (rhymes with “battle-battle”), which Indians used for thousands of years prior to A.D. 700 when bow and arrow technology became widely used. They have experimented with fire-cracked rock, learning that these rocks break differently when used to heat liquids in containers rather than when water is poured on them to create steam (e.g., for steaming mussels). They have also built and lived in houses like those inhabited by prehistoric Indians, to find out how they were built, how they worked, how long they lasted, and so forth.

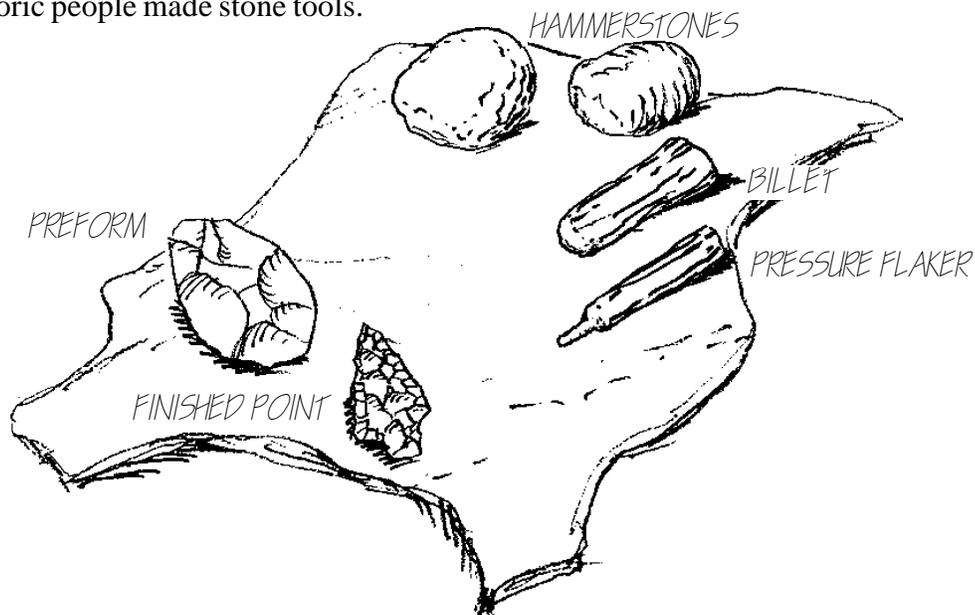


Archaeologists have also conducted experiments related to **taphonomy**—what happens to archaeological sites and materials between the time the sites are created and the time the archaeologist finds them. For example, archaeologists have created experimental settings to observe and analyze the effects of foot traffic/trampling on dirt house floors and other contexts, earthworms moving around in soil containing artifacts, and man-made lakes on shorelines containing archaeological sites.

LESSON 13: MAKING A CHIPPED STONE TOOL

If you suddenly found yourself out in the middle of the woods, and you had only the things around you to use for survival, what would you do? Knowing all that you know about how Georgia's prehistoric people lived, you might decide to make a few stone tools to help you along. That would be a good idea. But how do you begin? Where would you find your rocks? Do you think just any rock would work? And once you found a rock you thought was suitable, how would you shape it? Would you hit it with another rock, or a stick, or something else? How would you hold it? How would you keep it from breaking?

Because prehistoric people left no record of how they made their tools, archaeologists have asked the very same questions. A *flintknapper* is a person who tries to rediscover ancient ways of making chipped stone tools. Through a great deal of experimentation, modern flintknappers now know quite a bit about how prehistoric people made stone tools.



Only a few different kinds of tools are needed to make a spear point. One important tool is the *hammerstone*. Hammerstones are rounded rocks that fit comfortably in a hand. These are first used to break apart and begin to shape a piece of stone into a spear, dart, or arrow point. A hammerstone was held in one hand and the piece of stone was grasped firmly in the other hand. The flintknapper would strike the hammerstone down against the edge of the piece of stone, resulting in a flake being detached from the underside. This step would be repeated many times in the initial shaping of the spear or arrow point. Rough stones called *abraders* were used at various stages of the tool-making process to prepare the working edge for flakes to be struck off.

Pieces of deer antler or very dense wood (such as dogwood, persimmon, or live oak) that have been rounded on the end are used as “soft hammers” or *billets*. Billets can strike off flakes that are longer and thinner than those struck with a hammerstone, and they are used to further thin and shape the spear point. As the emerging spear point becomes thinner and thinner, it becomes necessary to remove very thin flakes to avoid breaking it. Billets were used in the same way as hammerstones: they struck downward into the edge of the unfinished tool, removing a flake from the underneath side. As the tool became thinner, the chances of accidentally breaking it (by striking it wrong, or because of an internal flaw in the stone) increased. Archaeologists often find broken, unfinished tools, called production failures, that were discarded before they were ever used.

A *pressure flaker* is used for the final steps. Using a pressure flaker to press off tiny flakes, the spear point's edge was straightened and a stem or notches were sometimes added, depending on how the blade was to be attached (or *hafted*) to the shaft, dart, or arrow. Pressure flakers were made from pointed pieces of antler.

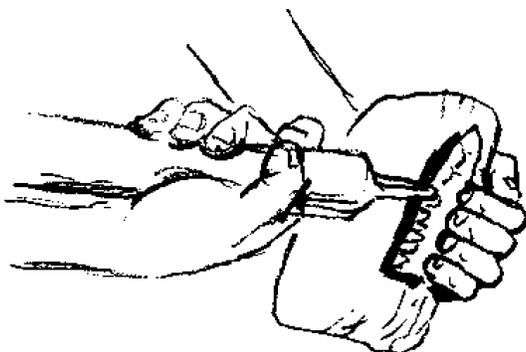
Most modern flintknappers use small pads of leather to protect their hands from being cut by the sharp stone flakes. It is likely that prehistoric flint knappers did this as well. In some archaeological sites, it has been observed that these sharp flakes were swept up into piles or covered over with clay in house floors, probably to prevent people from cutting their bare feet.



USING THE HAMMERSTONE



USING THE BILLET



USING THE PRESSURE FLAKER

LESSON 14: HOW OLD IS IT?

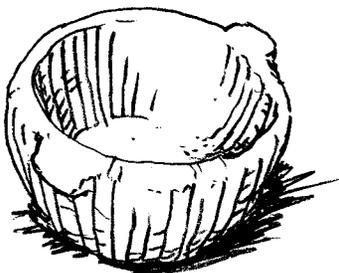
This pottery sherd is 2000 years old. This spear point might be 10,500 years old. This bone is from an animal killed 1200 years ago. This piece of wood burned 5000 years ago, give or take 50 years.

Archaeologists are forever putting dates on things. Whenever you read about a site or an artifact, it is almost always given a date. Finding out just when a tool was made, or when people lived at a site is one of the more important goals of archaeology. But did you ever wonder how archaeologists know how old something is?

There are actually many ways to find out. A common way is to look at where things are found in relation to one another. Because things tend to accumulate over time, the oldest things will be on the bottom and the newest things on top. An example of this is your laundry hamper: on Monday you threw your smelly gym clothes into it. On Tuesday, you add a pair of jeans and a T-shirt. On Wednesday, you add your bedsheets. On Thursday, you add a towel. An archaeologist looking at the hamper could tell instantly that the gym clothes were put in first, because they are on the bottom. They are oldest things in the hamper. The towel is the youngest because it is on top. Judging the age of things in this way is one of the most basic methods we have.



Another simple way we determine the age of something is to look at the things that are found with it. If we find 6 things together, and we know that 5 of them are the same age, we assume that they are all the same age. For example, if you found a carved soapstone bowl next to a large stemmed projectile point and a grooved groundstone ax, and you knew that the projectile point and ax dated to around 1500 B.C., then you could assume that the soapstone bowl also dated to 1500 B.C.

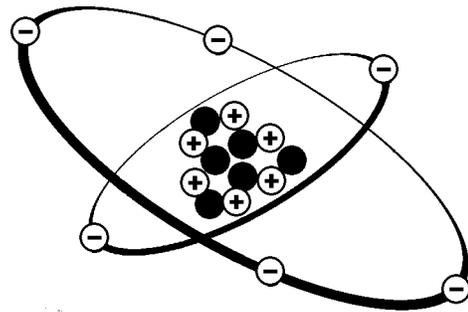


Did You Know: Soapstone (also known as steatite) is soft, easy-to-work dark green and gray rock containing talc, which gives it a slippery, greasy texture, and hence the name soapstone. There are a number of source areas for soapstone in northwest Georgia, but the largest is located on the southeast side of Atlanta: a district called Soapstone Ridge. Soapstone Ridge contains numerous quarries and workshops where outcrops and boulders were worked into bowls, which were traded across the region. These sites date to around 1500 B.C.

Still another way to date something is by comparing it with similar things of known age. If you find a potsherd, and it looks the same as one found at another site that was dated to A.D. 400, then you can estimate that it too was made around A.D. 400. This method also is used very often by archaeologists.

By far the most accurate way of dating something is **radiocarbon dating**, also called C-14 dating. Since it was invented in the 1950s, it has given archaeologists a way to determine the exact age of some things that they find. Although it is an important tool, archaeologists tend to use the technique sparingly because the process is costly. Also, only certain materials can be dated, so it is usually used in conjunction with other dating methods. For example, a garbage pit that appears to have been filled in at the same time contains some charred nutshell and a stamped ceramic sherd. The nutshell can be sent in for radiocarbon dating; the sherd cannot. But because they are found in the same context, when the nutshell is dated to A.D. 1100 +/- 50 years, we can also date the sherd to this period.

Fact: When a radiocarbon date is presented as years "Before Present" (B.P.), the date for "the present" that you are counting back from is taken to be 1950. Why? Because it is more convenient to have a standard date for the present and thus all dates can be compared, otherwise all dates would be relative to the date when the sample was analyzed and it would be necessary to keep converting dates to new timeframes whenever one wished to compare things.



Archaeologists working in Georgia rely on all of these methods to find out how old archaeological sites and artifacts are, depending on the nature of the deposits in the site and the research strategy they are pursuing.



How C-14 Works in a Nutshell!

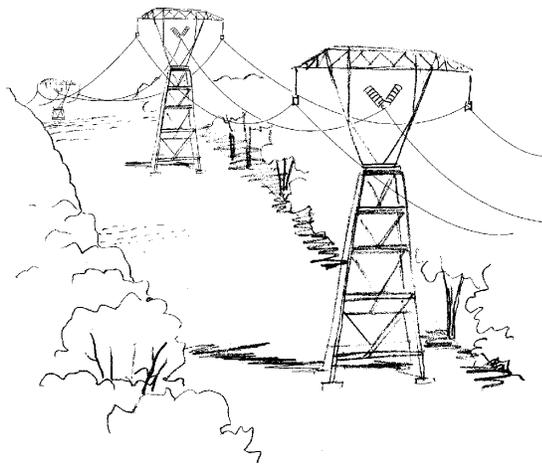
All living things take in an element called carbon as they breathe and grow. Carbon is part of the air around us, and there are two kinds of carbon—let's call them "hot carbon" and "cold carbon." When a living creature (plant or animal) dies, two things happen. First, it stops taking in carbon, and second, the hot carbon it contains in its body slowly transforms into cold carbon. This takes a long time, but it happens at a steady pace, like a clock ticking. And this is the key! Scientists have learned that it takes about 55,000 years for one-half of the hot carbon to become cold carbon. In about 110,000 years, almost all of the hot carbon will have become cold carbon. Knowing this, and using special measuring devices, scientists can determine how long something has been dead by looking at how much of its hot carbon has turned to cold carbon.

LESSON 15: ***PROTECTING THE PAST***

It should not come as a surprise that some of the best places to live in the prehistoric period are places people want to live in the present. The characteristics that made a site attractive to Indians hundreds or thousands of years ago might still make the location attractive in the present—a good vantage point overlooking a stream valley, a patch of flat ground in a mountainous area, or rich soils for farming. As a result, archaeologists often find sites in the same spots that are used by people today.

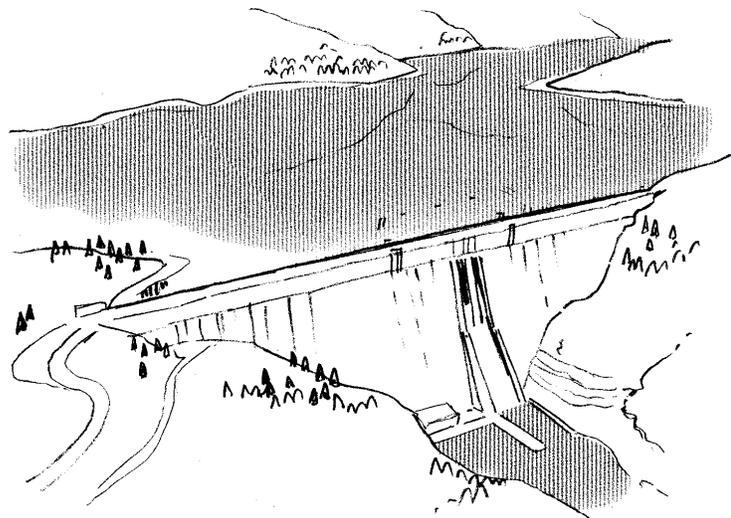
When we build things in locations containing prehistoric activity sites, we usually end up damaging or destroying the site. There are all sorts of modern construction that can damage sites: homes, businesses, industrial plants, highways, power lines, and even reservoirs, which flood entire valleys.

When a house lot or an entire subdivision is graded, all of the soil containing an archaeological site can be moved around, completely obliterating the site.

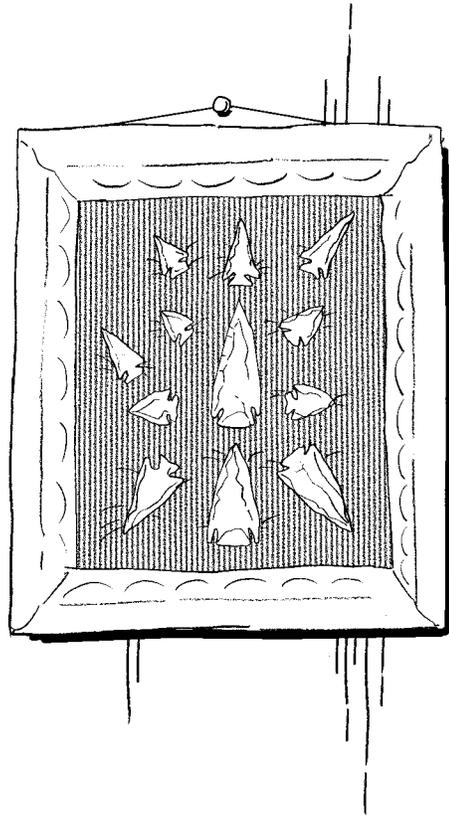


Because pipelines, powerlines, and highways travel great distances across the countryside, they often cut through many archaeological sites along the way.

When a river or creek is dammed, the water level rises behind the dam, flooding the valley and any archaeological sites located there. Beyond simply being flooded, archaeological sites in reservoirs are impacted by erosion from the water level going up and down, wave action from wind and boats, underwater currents, and people who collect artifacts when the water is low.



People who collect artifacts without recording the location where they were found take away some of the most important information from the site. Collectors usually focus on what archaeologists call “diagnostic artifacts” like projectile points that can be assigned to a particular time period. When collectors take away all of these artifacts, the ones that are left often cannot be dated. Looters are even more damaging, in that they (often illegally) dig in sites, and unlike professional archaeologists, they don’t record anything. They only want artifacts that they can keep or—more likely—sell. Selling artifacts causes additional harm because it generates interest and creates a market, which encourages more people to loot sites. The places where looters dig in sites are destroyed forever, and the artifacts they sell (like those that collectors take) cannot be associated with the site—let alone the context within the site—that they came from.

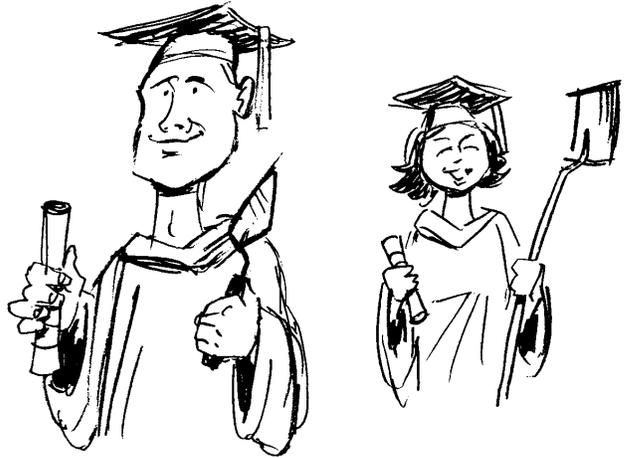


Fortunately, there are some local, state, and federal laws and regulations that help us protect archaeological sites. These laws recognize that archaeological sites are a non-renewable resource; each one is unique in its record of the prehistoric past. Because of these laws, for certain types of construction projects, it is required that a professional archaeological survey be conducted to determine if any significant archaeological sites are threatened by the project. If there are, the project can be redesigned to avoid them, or the sites can be excavated to recover information from them before they are destroyed. Much of what we know about Georgia’s prehistoric past is a result of archaeology done because of these laws. In fact, a project prompted by one of the laws requiring archaeological investigations has made possible the design of this teaching kit. This is an example of how preservation laws not only help to protect our archaeological heritage, but they also allow the public to learn about the complex and interesting story of Georgia’s prehistory.

LESSON 16: ***SO YOU WANT TO BE AN ARCHAEOLOGIST?***

You may not know it, but you've just taken your first step toward becoming an archaeologist! By studying the artifacts and hand-outs in this kit, you have begun to learn about the Native people who lived in Georgia long ago. You have also learned some of the ways archaeologists study the past. But there's still a lot to learn before you can go out and dig a site.

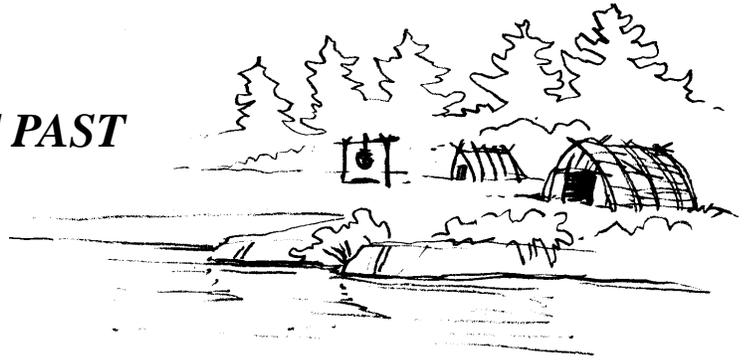
Most archaeologists go to college for at least 4 years after high school to get their training. In fact, most then go to graduate school to earn a Master's degree or a Ph.D. An advanced degree is required if you want to head up excavations, regardless of what kind of archaeology job you have—working for a private company, a state or federal agency, or in a university.



When you are in college, there are many opportunities to work on digs and to analyze artifacts in the laboratory. There are also opportunities to volunteer on archaeological projects outside of a university setting. Many organizations provide interested amateurs with the chance to work on archaeological projects in Georgia, as well as elsewhere across the country. A great resource for people interested in archaeology in Georgia is the Society for Georgia Archaeology (P.O. Box 693, Athens, Georgia 30603). When you belong to this organization, you get a newsletter and journal with information about archaeology in Georgia and volunteering opportunities. You also get to attend meetings and hear presentations on archaeology, and meet with people who share your interests.

If you think you want to become an archaeologist, get involved! Find ways to volunteer and learn more. Read about archaeology. This will not only help you learn more, but it will also help you decide if this is something you would really enjoy. The more you know, the more likely you will be successful in achieving your career goals—whether as an archaeologist or anything else.

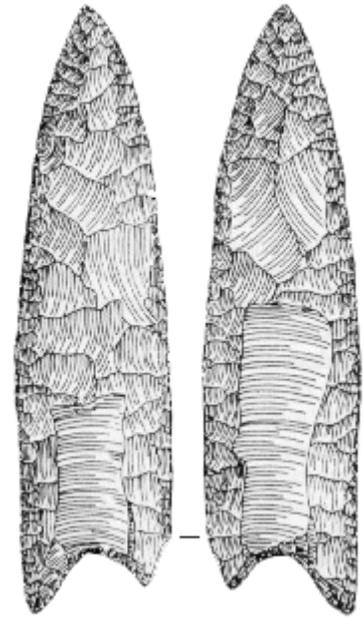
LESSON 17: GEORGIA'S PREHISTORIC PAST



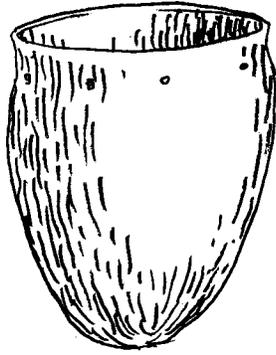
Who were they? Where did they come from? What did they bring with them? How did they get here? How did they live? Why did they change? Where did they go? The answers to questions like these are what inspire archaeologists to learn about prehistoric people.

Archaeologists have divided Georgia's prehistory into four major time periods: Paleoindian, Archaic, Woodland, and Mississippian. These periods are based on the different ways that people used the environment and related to one another through time, and the different artifacts they made during those periods.

Georgia's earliest inhabitants were the Paleoindians. These people are thought to be related to the first people who came to North America from Asia over the Bering land bridge. During the last ice age, people were able to walk across dry land from Siberia to Alaska because a lot of the earth's water was trapped in glaciers, which lowered sea levels, exposing land in places that are now underwater—like the Bering Strait. Evidence of Paleoindian culture has been found all across North America, beginning around 11,500 years ago. Paleoindians seem to have been nomadic people who followed the movements of animals, hunting and gathering in different locations throughout the year, based on the scattering of small sites that archaeologists have found. They probably relied on a variety plants and animals, but no sites in Georgia have produced detailed information about Paleoindian diet. The main diagnostic artifact that allows archaeologists to recognize Paleoindian sites is the **fluted point**. Fluted points are long spear points with concave bases and long flakes knocked off of one or both sides, running almost the length of the point.



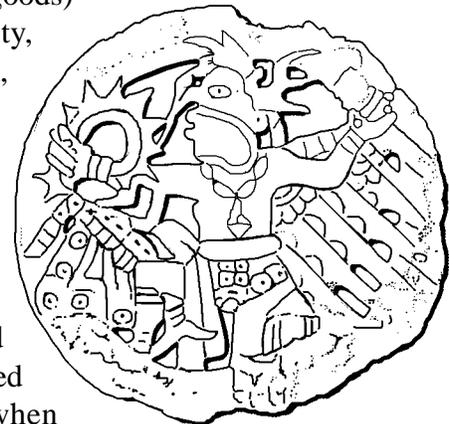
Around 10,000 years ago, people stopped making fluted points, and switched to points with side notches, corner notches, and some other forms. This was the beginning of the Archaic period. In the Early Archaic period, there was a population surge, and the number of sites archaeologists have found is much greater than Paleoindian sites. The Early Archaic was also a time of regionalization. Unlike the Paleoindian period when everyone across North America made very similar projectile points, there are many different Early Archaic projectile point forms that are unique to specific regions. Through the Archaic period, many different projectile points were made and used on spears and darts. Through this time, it appears that people began relying more on plants in their diet, as grinding stones, nutting stones, and other diverse tools begin appearing in sites. People still moved around throughout the year. By the Late Archaic, there was another population explosion, and sites from that time period are much more common. Because of this population increase, groups were restricted to smaller territories, and they began spending more time in large base camps. On the coast, ceramics appear for the first time in the Late Archaic period.



The Woodland period is characterized by the widespread adoption of ceramics by people throughout the state. The use of ceramics reflects two things—people were living in base camps long enough that they were willing to make a lot of stuff that would be difficult to carry around, and they were eating more foods that required boiling. Little by little, people began growing crops, incorporating small-scale horticulture into their hunting and gathering lifestyle. By the Late Woodland period, horticulture played a greater role, and people began growing substantial amounts of maize (corn). At that time people were living in settled villages most of the year. The Late Woodland period was also the time when use of the bow and arrow spread across North America. Although it probably made hunting easier, it also likely made it easier to attack and raid your enemies’ villages, and we see greater evidence of warfare at

this time. Through the Woodland period there appears to have been greater investment in ceremonial life, and people made more and more elaborate art and ornaments. This may reflect the emergence of social distinctions between different members of society.

The Mississippian period is defined by the emergence of ranked societies called *chiefdoms*, where some individuals were born into positions of privilege and power. The leaders in these societies could demand *tribute* (a kind of tax in the form of food or goods) and could get people to work on projects for them or the community, like building earthen mounds for the chief’s house or temple to sit on, or building huge defensive walls around the village, or going to war. Such leaders wore special ornaments and had other symbols of their rank. Well-known mound sites, like Etowah or Ocmulgee, were the centers of Mississippian chiefdoms, which encompassed smaller villages or farmsteads along all the major river valleys. Civic-ceremonial centers with mounds have yielded abundant evidence of rituals, art, and community life. Mississippian people supported themselves by growing maize and other crops, but they also continued to hunt and gather wild foods. The Mississippian period ended when Europeans arrived, bringing disease, warfare, new goods, and a whole range of other changes.



Summary of Georgia’s Prehistory.

Georgia Piedmont

Date Range	Period
A.D. 1000–1540	MISSISSIPPIAN
A.D. 500-1000	LATE WOODLAND
300 B.C.–A.D. 500	MIDDLE WOODLAND
1000–300 B.C.	EARLY WOODLAND
3000–1000 B.C.	LATE ARCHAIC
5750–3000 B.C.	MIDDLE ARCHAIC
8000–5750 B.C.	EARLY ARCHAIC
9000?–8000 B.C.	PALEOINDIAN

Georgia Coastal Plain and Coast

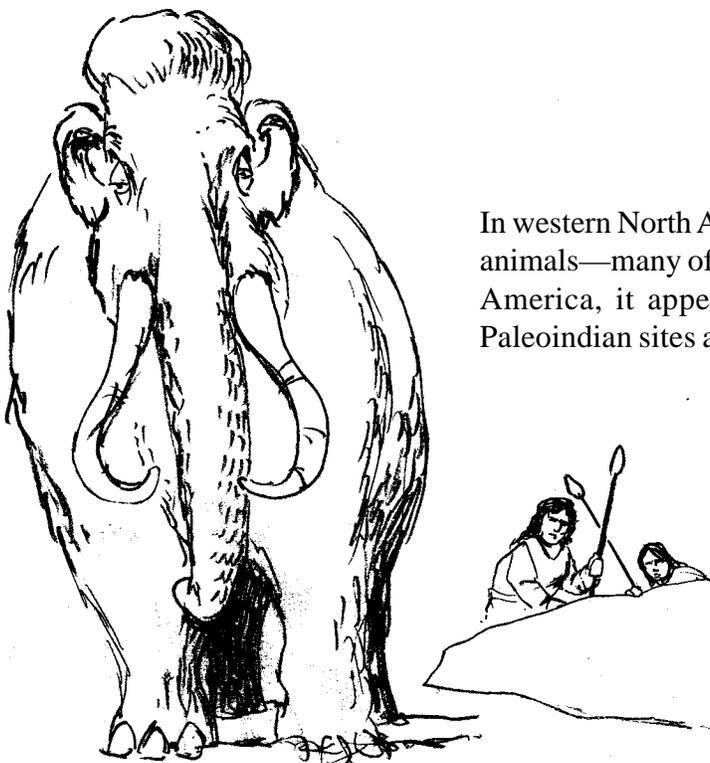
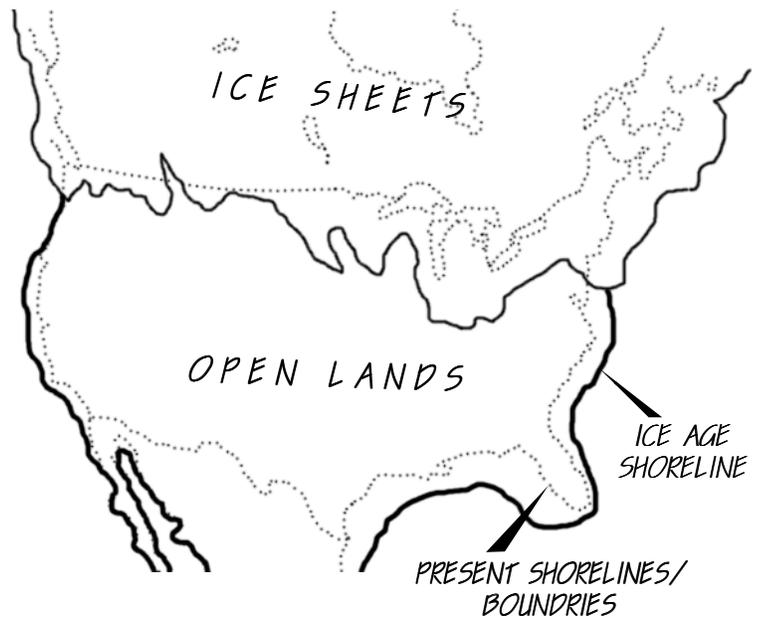
Date Range	Period
A.D. 1150–1575	MISSISSIPPIAN
A.D. 500–1150	LATE WOODLAND
600 B.C.–A.D. 500	MIDDLE WOODLAND
1000–600 B.C.	EARLY WOODLAND
3000–1000 B.C.	LATE ARCHAIC
5750–3000 B.C.	MIDDLE ARCHAIC
8000–5750 B.C.	EARLY ARCHAIC
9000?–8000 B.C.	PALEOINDIAN

LESSON 18:

THE PALEOINDIANS

Georgia's earliest people are called Paleoindians, which means "oldest" or "first people." Archaeologists have found evidence of Paleoindians all over North America, and they are presumed to be among the first people who came to North America from Asia over 12,000 years ago. Only a handful of early Paleoindian sites have been discovered in Georgia. They consist of campsites that vary in size, as well as small scatters of artifacts or even single artifact discoveries known as "spot finds." Most often, Paleoindian artifacts are found on sites jumbled with artifacts from later time periods. The small short-term appearance of Paleoindian sites suggests that small groups moved frequently across the landscape, hunting and gathering resources in different locations throughout the year.

Before Paleoindian groups arrived in Georgia, glaciers still covered parts of North America, and the climate was cooler and drier than today. In terms of the kinds of forests that were here, North Georgia looked like some parts of Canada today. Paleoindians first arrived, the climate gradually warmed and rainfall increased, and became more like modern ones.



In western North America, Paleoindian people relied heavily on large animals—many of which are now extinct—for food. In eastern North America, it appears that Paleoindians had a more diverse diet. Paleoindian sites are rare, and ones with food remains are even more rare. But those sites with bone show that some extinct large game animals (such as mastodon) were consumed, along with other animals that are still found in the region today. It is possible that Paleoindians lived both in the interior Southeast, as well as on the coast, but coastal sites (if there are any) are all submerged, as sea levels have risen with the melting of glaciers, putting the ancient shoreline deep underwater.

The best known Paleoindian stone artifact is a type of spear point called Clovis. Clovis projectile points are large, well-made blades with fluted bases, meaning that a long narrow flake was struck off each side from the base nearly all the way to the tip. Making these points required considerable skill. Paleoindian stone tools are characteristically made from fine-grained, colorful stone materials that often were obtained from distant sources. The distant sources of lithic raw materials tells archaeologists how far these groups traveled or how far away were groups they traded with.

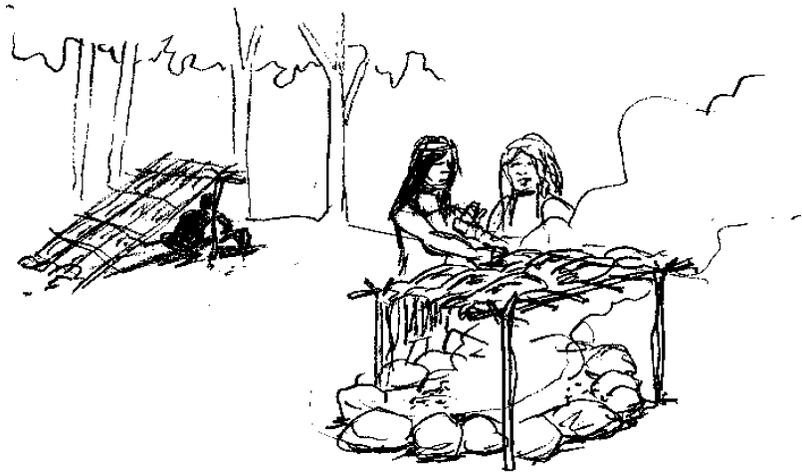


LESSON 19:

EARLY AND MIDDLE ARCHAIC PEOPLE

Around 8000 B.C., the lifestyle of prehistoric people in Georgia changed in a way that is recognizable in the archaeological remains they left behind. The Paleoindian way of life gave way to one adapted to the new environment that was emerging in the Southeast at the end of the last ice age. In the Early Archaic period (ca. 8000–6000 B.C.), environmental conditions were approaching those that the first Europeans encountered in the sixteenth century. Hardwood forests and extensive swamps provided large and small game as well as a variety of plants for medicine, subsistence, clothing, and shelter. Rivers were used as travel corridors and provided fresh water, fish, and shellfish.

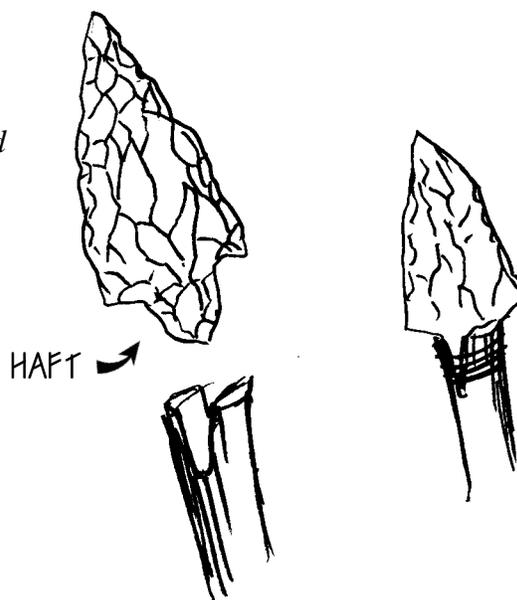
Given the greater number of Early Archaic sites, as compared with Paleoindian sites, it appears that population increased dramatically at that time. There is more diversity of projectile point types than existed in the Paleoindian period, where the same styles were found over large parts of North America. In the Early Archaic, some regionalization had been established, probably as a response to the formation of distinctive, territorially separate social groups. As in the Paleoindian period, high-quality cherts were the raw material of choice for stone tools, and people probably obtained much of this through “down-the-line” trade, where one neighbor trades with their neighbor, who trades with another neighbor, who trades with another neighbor, and so on. Two types of Early Archaic settlements have been especially noted: small, short-term “camps” and large, densely occupied base camps.



The Middle Archaic period (ca. 6000–3000 B.C.) is distinguished from the Early Archaic period by the type of artifacts prehistoric peoples made. In northwest Georgia, local raw materials (like quartz) were used almost exclusively for stone tool making, and the vast majority of tools were not specifically shaped for a purpose—often unmodified flakes were simply used as convenient cutting tools. Compared to chert, quartz is difficult to work, yields a dull edge, and requires frequent resharpening. Chert was probably not used to any great extent because of limited access to or knowledge of source areas—perhaps a by-product of an increasingly crowded landscape where people were restricted to smaller territories. Middle Archaic sites in northwest Georgia are usually small, randomly distributed occupations with more-or-less the same tools at each site. This seems to reflect a way of life in which small groups of hunter-gatherers moved around the landscape throughout the year, hunting and collecting different resources as they became available.

By contrast, many Middle Archaic sites in Georgia's Coastal Plain were longer-term base camps, especially in the latter half of the period. The difference in the settlement patterns observed in northwest versus south Georgia probably reflects the fact that important food resources in the Coastal Plain were more concentrated in particular areas, whereas resources were more evenly distributed across the landscape in northwest Georgia. As a result, people in south Georgia stayed in those resource-rich areas longer. Information about what people were specifically eating is scarce, but it is assumed that a variety of interior plant and animal resources (white-tailed deer, nuts, fish, and migratory waterfowl, for example) were used. It is probable that coastal and riverine resources were exploited to some degree—marine shellfish, freshwater shellfish, and fish, for example—but their importance is unknown due to the lack of certain types of archaeological remains. This lack of information can be partially attributed to rising sea levels and coastal submergence, which inundated previously exposed coastline and any sites from the Middle Archaic, Early Archaic, and Paleoindian that were located there.

*Archaeologists believe that the **Morrow Mountain** haft element is fashioned so it can be easily inserted into a slotted shaft. This makes it easier to replace when the tool is dull or broken.*



LESSON 20:

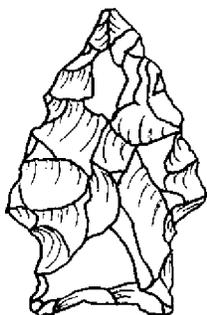
LATE ARCHAIC PEOPLE

The Late Archaic period (ca. 3000–1000 B.C.) saw a population explosion in Georgia and elsewhere in the Southeast. The number of sites dating to this period represents a dramatic increase over earlier periods. The Late Archaic also witnessed several significant changes that anticipated the cultural developments of the following Woodland period. One such development was the first appearance of pottery at some sites on the coast. Seasonal single-household occupations and special activity camps dotted the uplands throughout north-central and northeast Georgia, while large and intensively occupied base camps and multiseasonal village sites are associated with the central Savannah River basin. On the coast, dense Late Archaic shell middens suggest a relatively settled existence, where people occupied villages for large parts of the year.

The Late Archaic period provides the first archaeological evidence for architecture in Georgia, but archaeological evidence for Late Archaic houses is rare. Late Archaic houses are either rectangular or oval in plan, with wall and corner posts outlining the structure. Some have interior hearths, and some have pit features for storage or trash in the vicinity. A few were built within a shallow pit, so that the house floor was slightly below the ground surface. The greater investment of effort in constructing shelters probably reflects a more sedentary lifestyle in which villages were inhabited for long periods of time, even if trips were still made from time to time to hunt or collect resources away from the village.

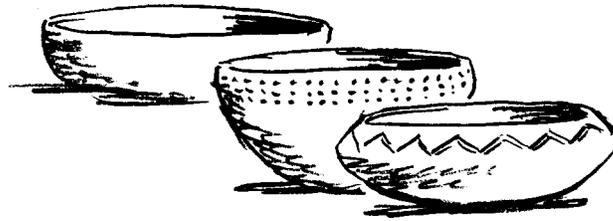


Late Archaic people were engaged in a wide range of hunting and trapping activities, as a wide variety of large and small mammals, reptiles (including sea turtle), birds, and amphibians have been recovered from Late Archaic sites. Shellfish also were very important to Late Archaic populations on the coast and along major drainages; large shell middens (heaps of shell and other garbage) have been found at many sites. The bone fishhooks recovered at these and other sites indicate that fishing also was important. A broad spectrum of plants is assumed to have been collected for food, medicine, fabric, and construction, but very little plant material has been recovered from Late Archaic sites.



The projectile point most commonly associated with the Late Archaic period in Georgia is called the Savannah River point. These points are often very large and have a straight stem, straight base, and triangular blade.

The earliest ceramics in the region appear around 2500 B.C., but on the Georgia coast, they are first documented around 2200 B.C. Vessel forms are mainly simple bowls. Plant fiber—usually Spanish moss—was added to the clay. Most of the pottery made during this time exhibits plain surfaces. Later, decorated vessels became more common.



The most famous and most intensively occupied Late Archaic site yet discovered in Georgia is on Stallings Island, located in the Savannah River. People lived at this site for extended periods of time throughout much of the Late Archaic period. One well-known type of artifact found at Stallings Island is the intricately decorated bone “pin.” A great deal has been learned from excavations at Stallings Island. Large quantities of projectile points, drills, grooved axes, perforated soapstone slabs (probably used as boiling stones—heated in a fire then placed in liquid to warm it), and other stone, bone, and antler tools have been discovered along with pottery.

While people in the Coastal Plain at sites like Stallings Island were making pottery, people in northwest Georgia were making vessels out of soapstone. The largest source area for this material is on the southeast side of Atlanta, and is called Soapstone Ridge. Soapstone vessels were time-consuming to make, as it was necessary to chip away preforms off of outcrops and boulders and then chisel, scrape, and polish finished bowls. The people who made these bowls must have been staying in one place longer, because they certainly would not want to lug them around!

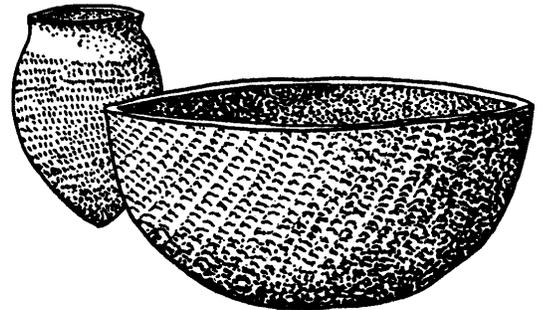


LESSON 21:

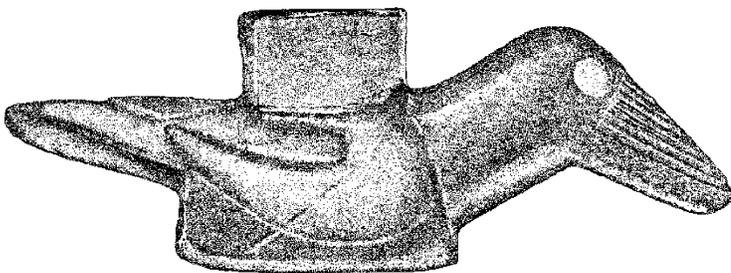
EARLY AND MIDDLE WOODLAND PEOPLE

The Woodland period is defined by the widespread adoption of an improved ceramic technology around 1000 B.C. Like the preceding Archaic, it is divided into three subperiods—Early, Middle, and Late—based upon major demarcations in general social patterns.

The Woodland period begins around 1000 B.C. when pottery was in use by nearly everyone across the Southeast. Pottery greatly expands food storage and preparation capabilities, allowed people to collect and process more nuts and seeds, and to store some for use in the winter and spring when few resources were available. Thus, people continued to spend greater lengths of time in base camps, as opposed to short-term hunting or collection camps. During the Early and Middle Woodland periods, people continued to live as hunter-fisher-gatherers; *cultigens* (domesticated plant species grown as crops) are rare in Georgia archaeological sites from these periods, but are occasionally present, suggesting that horticulture played a minor role in subsistence alongside hunting and gathering.



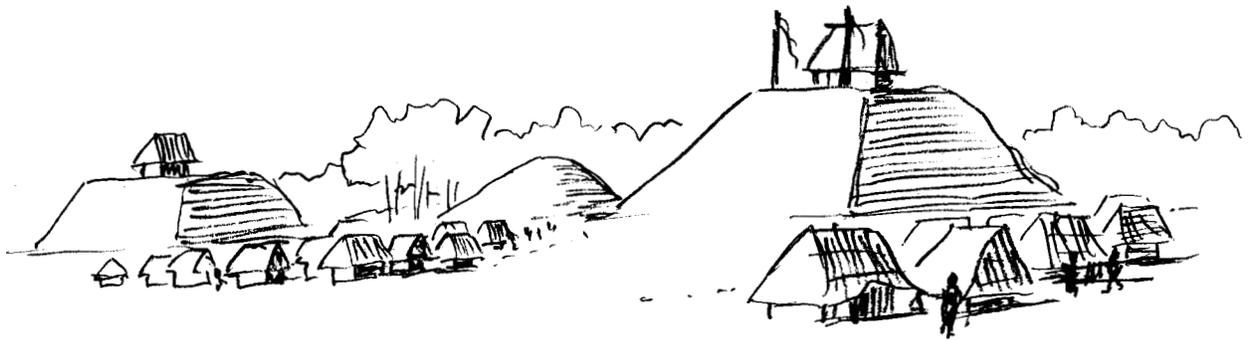
The nature of Woodland peoples' society and belief system are more accessible to modern researchers than those of earlier peoples because they involved activities, architecture, and artifacts that are more visible in the archaeological record and have more overt symbolism. For example, large mounds associated with burials, ceremonial settings, and the residences of important personages first appear by around A.D. 1. Also, large quantities of magico-religious and prestige goods made from material like stone and unsmelted metal were used at this time. The Woodland period also was a time of intensified long-distance exchange of exotic materials such as copper, mica, obsidian (volcanic glass from the Rocky Mountains), and marine shell.



Early Woodland (ca. 1000–300 B.C.) occupations are thought to reflect a more or less unchanged continuation of Late Archaic lifeways, except for the widespread adoption of a much improved ceramic technology. A variety of nuts, especially acorns, were a major dietary staple during the Early Woodland in north Georgia along with other plant foods, and people continued to hunt and trap a range of animals. Subsistence for Early Woodland groups on the coast was generalized, and the resource base was very similar to that of the Late Archaic period, except that shellfish appears to have become a less important part of the diet. White-tailed deer, bear, a variety of small mammal species, reptiles, fish, and mollusks have been recovered from these sites. Different pottery-making traditions and types of settlements emerged in northwest Georgia and the Coast. Early Woodland villages in the Piedmont were built mainly in the floodplains of large and medium-sized rivers. On the Coast, there were social changes at the end of the Late Archaic that resulted in population decentralization. Small groups disengaged from their larger communities, and created dispersed year-round settlements. Coastal sites usually contain large middens and appear to represent long-term occupations.

In the Middle Woodland period (ca. 300 B.C.–A.D. 500), horticulture is thought to have assumed an increasing role in subsistence practices; people apparently started cultivating certain starchy seed plants during this time. Maize and squash may have been added to the diet of some Middle Woodland peoples as well, but it has not yet been found in an archaeological context that did not have the possibility of contamination with later materials. Whenever it was first introduced, maize did not assume importance until later. Despite these initial forays into horticulture, subsistence still depended largely on broad-spectrum hunting, fishing, and gathering.

Sometime around A.D. 200 and A.D. 450, the Hopewell Interaction Sphere extended into extreme western Georgia. Hopewell was a phenomenon in the Midwest and Southeast that involved trade in such exotic materials as marine shell, shark teeth, copper, mica, and galena, as well as artifacts made from these and other materials. Those artifacts probably were prestige items belonging to individuals of status, and included necklaces, ear ornaments, musical panpipes, platform pipes for smoking, small, carefully-made blades, and projectile points. Earthen mounds with human burials that contain these prestige goods are common at Hopewell ceremonial centers, including two sites in Georgia. Given the fact that some people were buried with more prestige goods than others, it appears that trade was directed by only a few individuals in each village.



Little was known about Middle Woodland burials outside of ceremonial centers until the recent work at a site in Cherokee County. The large cemetery at that site contained some burials with substantial amounts of grave goods, and others with none. Grave goods included cut mica, greenstone pendants, and large, ceremonial projectile points.

Middle Woodland structures have been identified at several village sites in Georgia. They were generally round or oval with individually-set posts. No internal features have been found inside these structures. Pits for storage or garbage are often found in the nearby vicinity, however.

LESSON 22:

LATE WOODLAND PEOPLE

In the Late Woodland period (ca. A.D. 500–1000), the importance of the Hopewellian mound centers throughout the Midwest and Southeast declined, and long-distance, large-scale trade networks dissolved into more localized spheres of interaction. The most important technological innovation of the period was the introduction of the bow and arrow, and thus the appearance of very small triangular arrow points in the archaeological record around A.D. 600. The same kind of arrow points were made through the time that Europeans arrived. While the bow and arrow was a useful tool that probably made hunting a lot easier, it also gave people an easier way to attack enemies from a distance and raid their villages.

In north Georgia, Late Woodland subsistence practices continued to focus on broad-spectrum hunting, fishing, and gathering, but horticulture was practiced as well. Although cultigens such as squash and corn were being grown in the region by this time, they were not a significant source of sustenance. It was not until late in the period (ca. A.D. 700–900) that maize horticulture began to play a significant role in the region. In northern Georgia, maize does not appear to have been economically important until sometime after A.D. 1000.

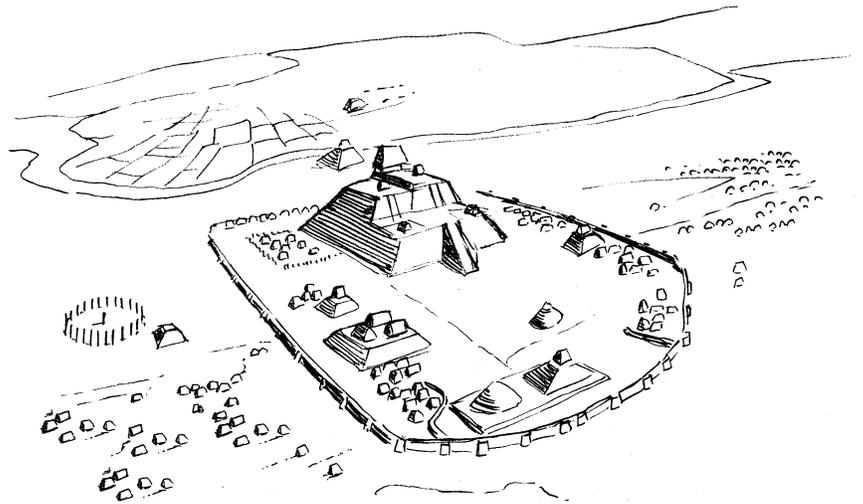


As was the case in the Early and Middle Woodland periods, the Late Woodland is associated with unique types of ceramics. In north Georgia, Late Woodland ceramics were often decorated with designs stamped into the wet clay. The designs consisted of narrowly-spaced parallel lines in geometric and swirling patterns. The decorations produced are called complicated stamping. In middle Georgia and elsewhere, plain or simple-stamped vessels (using paddles carved with straight parallel lines) can be found. On the coast, ceramics associated with the Late Woodland period include plain, cord marked, brushed, burnished (polished), and net marked. In general, stone tools are uncommon in Late Woodland assemblages on the coast. Shell and bone were used in a variety of ways, however. For example, whelk was an especially important raw material; it was used to make awls, picks, chisels, adzes, abraders, and ornaments.

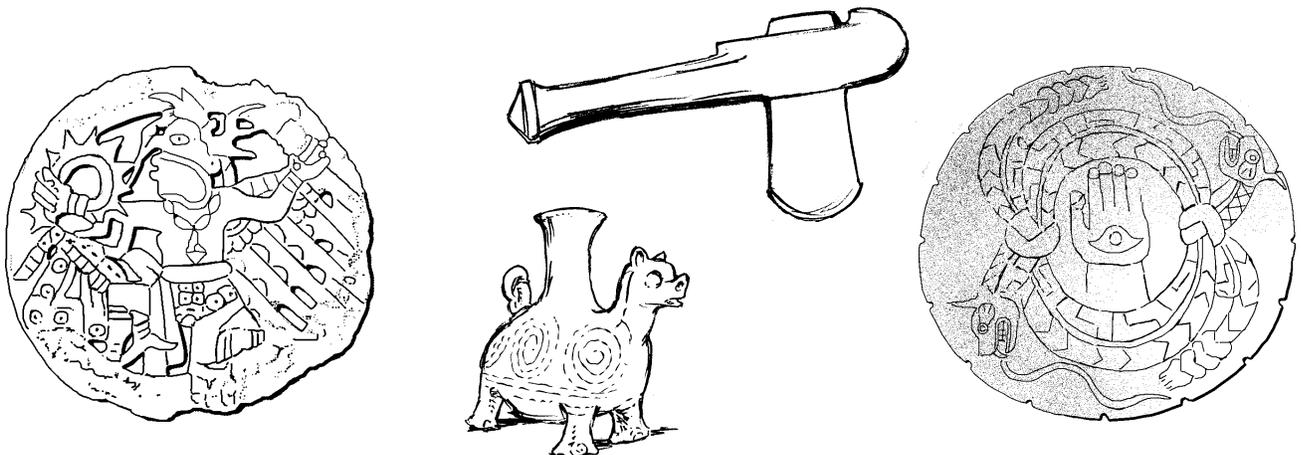


LESSON 23: ***MISSISSIPPIAN PEOPLE***

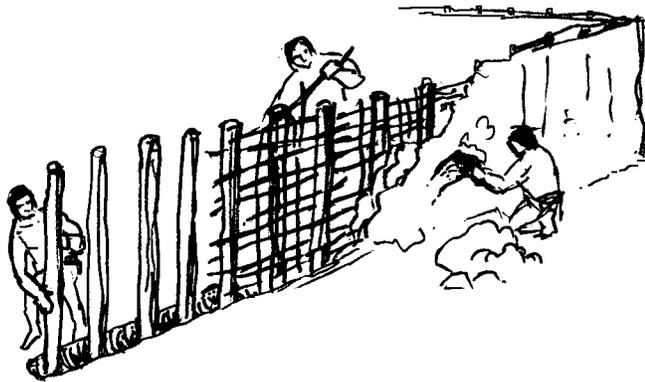
The Mississippian period (ca. A.D. 1000–1540) marks the appearance of chiefdom-level societies in the southeastern United States. Society was stratified; that is, a ruling class with inherited status exercised considerable power over the general population. That power was exercised by having people build large mounds, defensive walls, and other public architecture, having them provide foodstuffs and other goods to the leaders, and having them fight for them in conquering neighboring groups or defending their territory. A typical chiefdom consisted of a fairly large civic-ceremonial center along a major river, surrounded by smaller villages and scattered but nearby farmsteads. At the largest Mississippian sites in Georgia, population is estimated to have been around several hundred people; elsewhere in the Southeast even larger towns with several thousand inhabitants existed. Earthen platform mounds were constructed in the civic-ceremonial center, and chiefs and priests lived in buildings on top. Some mounds had large public buildings on them that appear to have been used in ceremonies and other public events. The mounds were built layer by layer with new structures built on top each time a new layer was added; each layer probably coinciding with succession of a new chief after the death of the previous one. Some mounds were used as burial places for important members of society. Chiefs enhanced their power by acquiring valuable goods, and redistributing some to members of their chiefdom to create social debts. They also increased their power by conquering neighbors, adding them to their chiefdom, and demanding tribute (akin to taxes) from them.



A wide variety of exquisitely crafted objects of materials from across eastern North America were exchanged throughout the Southeast and Midwest in the Mississippian period. Examples include marine shell beads, engraved gorgets (ornaments worn on the chest), engraved cups, cut and embossed copper ornaments (for headdresses) and beads, ceremonial groundstone celts, paint palettes, pipes, figurines, and a wide range of other goods.



The economy of Mississippian chiefdoms was based to a much greater extent on horticulture than in previous periods. Maize became a staple, and other crops were cultivated as well (squash, starchy seeds, sunflowers, and beans). But people continued to collect wild plants, especially nuts (hickory and acorns, predominantly), fruit like persimmons, grapes, passion flower fruit, blackberries, and so forth, and various seeds. They also hunted, fished, and collected shellfish. Because most people were living in permanent (year-round) communities along major drainages, aquatic resources were a large focus of hunting and gathering. People lived in square or rectangular houses with slightly depressed floors and wattle-and-daub walls and thatched roofs. Wattle and daub is a construction technique in which support posts are set into the ground, smaller wooden sticks are woven between them, and mud is plastered over this framework to form a solid wall. The mud, or daub, hardens, preserving the impressions of the sticks



and posts it was plastered over. This material can sometimes be found in archaeological sites where houses were once located. Some Mississippian houses have been found in archaeological sites that burned down, preserving timbers, sections of roofing, and sometimes even the things that were on the floor of the house. Such finds have provided information about how these houses were built. Most often, however, archaeologists find only the stains from the posts that were set in ground for the walls and roof supports, or in some cases, they find the outlines of trenches that the posts for each wall were set in.

Houses were often arranged around central plazas or small courtyard areas. People conducted some activities inside the house, and some outside the house, as features are found both inside and outside. Some household areas had cabana-style partial shelters, which may have been used for cooking (outside the house) during the summer. Hearths inside houses were probably only used during the cooler parts of the year. Post patterns scattered amongst the houses likely were used for above-ground storage facilities (corn cribs), frames for working hides, weaving cloth, drying meat, etc. Other common Mississippian features include storage pits (often reused as garbage pits), and burial pits, as it was the practice among many Indians in Georgia to bury the dead under their house floors.

