**Site Destruction:**
*Pieces of Our Past Lost Forever*

The Society for Georgia Archaeology, Georgia Archaeology Month 2014,
Lesson Plan Series, No. 17

**What is archaeology?**

Archaeology is the scientific study of how people lived in the past based on the things they left behind. In studying an archaeological site, archaeologists seek to answer questions such as these: Did someone live at this site? If so, who lived at this location? What activities took place there? How long was the site occupied? What did the environment look like when the site was occupied? How did the people interact with their environment? What did the people who stayed there eat? What types of shelter did they live in? Did a battle take place there? If so, where were the opposing forces located on the landscape? Are there remnants of defensive earthworks above ground?

Did you know that archaeology combines work from several disciplines? These study areas include paleoethnobotany, historic archaeology, prehistoric archaeology, physical anthropology, and zooarchaeology. Besides studying artifacts, historic archaeologists use diaries, letters, and other documents to help learn about the sites they are excavating. Prehistoric archaeologists study objects, such as pottery and stone tools, left behind by people having no written record of their past. Paleoenthnobotanists or archaeobotanists
study seeds, pollen, and plant remains from archaeological sites to understand past environments, wild plant use, and plant domestication. Physical anthropologists study human skeletons to determine physical and cultural traits such as size, gender, ethnic background, health, diet, social status, and cultural traditions. Zooarchaeologists study animal bones from sites to understand people’s diet, as well as their cooking and hunting practices. Can you think of other disciplines that might be associated with archaeology?

Barrel flotation machine in use at an archaeological site to separate charred plant remains from the soil. Note the two sieves attached to the outside of the barrel used to catch seeds and charcoal as the water passes through the screens. Credit: Mark Nesbitt

In many cases, archaeology is the only way we can learn about the past. Even though some people wrote about events that happened during their lives, countless others did not write their stories. In America’s not too distant past, many of the enslaved African Americans, very young children, poor people, and most females could not read and write. Archaeology can provide a voice to these people from the past. It can even help tell stories of those who were literate by providing unbiased information about the everyday life of the rich, famous, and well-educated members of society.
Archaeological excavation at the Sandy Hammock site.

What is the definition of an archaeological site?

An archaeological site is any place where artifacts (material objects made, modified, or used by a person) are found. An important thing to remember is that archaeological sites contain irreplaceable information about pieces of our past—they are nonrenewable. Archaeological sites can only be excavated once. There is no second chance to recover the important information concealed in the soil. Unfortunately, once that information is lost, it is lost forever.
What causes damage to archaeological sites?

Archaeological sites are fragile, and they are vulnerable to many different types of damage. The National Park Service (NPS) website states that some actions can “change, damage, or destroy not only the spatial and temporal relationships of archeological information, but also the self identity of groups that ascribe traditional cultural values to archeological sites. There are four general categories of forces that can damage or destroy archeological sites and their values: natural forces, human action, institutional action, and legal and regulatory procedures” (http://tps.cr.nps.gov/pad/considerations.cfm):

### Causes of Site Damage

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<thead>
<tr>
<th>Natural Forces</th>
<th>Institutional Action</th>
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<tr>
<td>Erosion from wind or water</td>
<td>Archeological excavation</td>
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<td>Flooding, inundation</td>
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<td>Weathering</td>
<td>Mining, quarrying</td>
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<td>Freezing, thawing</td>
<td>Timbering</td>
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<td>Animal action (e.g., burrowing)</td>
<td>Oil and gas exploration, extraction</td>
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<td>Vegetation</td>
<td>Land modifications</td>
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<td>Soil chemistry</td>
<td>Land reclamation</td>
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<td>Earthquake, volcanic eruption</td>
<td>Flood control</td>
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<td>Fire</td>
<td>Grading, filling, earthmoving</td>
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<tr>
<td>Landslide</td>
<td>Land development (large/small scale, private/public)</td>
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<td>Transportation (trails, highways, airports)</td>
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<table>
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<tr>
<th>Human Action</th>
<th>Legal, Regulatory Procedures</th>
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<tbody>
<tr>
<td>Looting, theft</td>
<td>Incompatible laws, regulations, procedures</td>
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<tr>
<td>Vandalism</td>
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<td>Recreation (e.g., off-road vehicles)</td>
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<td>Noise, vibration (traffic, aircraft)</td>
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<td>Ignorance, lack of knowledge</td>
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Natural forces are always at work causing some degree of change to archaeological sites. The March 2014 landslide in Washington State is an example of a major event that can destroy sites by literally carrying them away down slope. On the other hand, this action can also serve to protect other sites at the base of the landslide by covering them with thick layers of soil. The sites below the mud become a time capsule, much like the ancient city of Pompeii that was encapsulated by layers of hot ash from the eruption of Mount Vesuvius centuries ago.
Other natural forces cause minor changes to sites, such as bioturbation—disturbance or mixing of the soil by plant roots, earthworms, rodents, and other animals that burrow in the ground. Wild hogs can also cause damage to sites by rooting for food.

Wild hogs cause damage to sites by rooting for food.

High winds that uproot trees are another natural force that may cause damage to sites. In February 2014, Winter Storm Pax left a path of destruction across the state of Georgia and other parts of the South. When large trees are uprooted, the root system can dislodge large amounts of soil and any artifacts and features that lie buried in the soil beneath them. Take a look at the image below of Mound A at Etowah when a number of large trees were still growing on the mound. Consider how much of the mound might have been damaged if those trees had toppled during a storm like Pax.

Photograph of Mound A at Etowah when large trees were still growing on the mound.
Uprooted trees in the aftermath of Winter Storm Pax.

Human actions through vandalism and theft by looting, as well as institutional actions cause the most damage and destruction to archaeological sites. A looter is someone who digs on sites looking for artifacts to add to his/her personal collection or to sell for monetary gain. This haphazard digging destroys the archaeological context, thereby destroying valuable information that we could use to learn about the past. Looting is illegal on federal, tribal, and most state and local public lands. Many people are not aware of the laws regarding looting or just do not care that they are destroying knowledge that belongs to everyone. From an archaeologist’s perspective, it is comforting to note that successful prosecutions of looters have increased over the past few years.

Regarding institutional actions, archaeology itself is an action that can damage and/or destroy a site. There is no second chance to recover the important information concealed in the soil. This is why archaeologists take detailed notes in the field during the excavation process. We also draw maps and take photographs to further document our findings. Once a site is excavated, you can never put it back together exactly like it was.

Archaeologists take detailed notes during the excavation process.
Site Loss in Georgia, a special issue of the journal Early Georgia, was published by the Society for Georgia Archaeology in Spring 2005. In the first article, “When the Past is Destroyed: Loss of Archaeological Sites Due to Urbanization,” Stephen Kowalewski evaluated the state of preservation of Georgia’s archaeological sites. Kowalewski concluded:

An inadvertent consequence of Georgia’s rapid urbanization and economic development has been an equally fast destruction and degradation of its archaeological sites, their artifacts, and their information legacy. Georgia has an outstandingly rich archaeological record that extends back 12,000 years. During that long time, people left more than just a few material remains of their ways of life in places we call archaeological sites. Many archaeological sites also contain human remains—burials. The artifacts and all their relationships and contexts form a legacy that should be better understood and utilized, especially for local community heritage, tourism, recreation, and education.

The land use conversion attendant upon urbanization destroys more archaeological sites in Georgia than any other factor. Archaeological sites are destroyed inadvertently, without anyone knowing that they were present, or in many cases, “accidentally on purpose,” or, knowing a site was there but undervaluing its importance. Normal construction procedures (grading, leveling, digging, bulldozing, and scraping with heavy equipment) are the direct, immediate cause of site destruction. However, heavy equipment operators are just doing their jobs and in most cases cannot see the artifacts and soil features that make an archaeological site. The problem of site loss is not one of proximate causes or smoking guns. It is a broader issue of how to protect archaeological heritage places prior to construction, and if archaeological sites must go, then there have to be ways to salvage their information legacy.

The loss of archaeological sites is staggering. New homes, subdivisions, developments, golf courses, schools, warehouses, roads, reservoirs, waste water treatment facilities, parking lots, restaurants, doctors offices, university dorms—all the things we see around us—obliterate archaeological sites, at a rate of one site every 15 acres in some places, to one site in every 30 or 50 ac(res) in other environments. In most cases the land is graded and construction takes place without any attempt to see if archaeological sites were present or at least to save their information….we cite the most reliable estimates, which suggest that over 50,000 archaeological sites have been destroyed by urbanization and development. Since perhaps only a hundred sites have had extensive scientific excavations, this means that the people of Georgia have destroyed 500 times as much information about the past as they have salvaged.
Laws and regulations may require or prohibit individual or institutional actions that unintentionally cause archeological damage or loss. For example, in many local communities the major legal mechanism for protecting historic properties is the historic district ordinance. Only a handful of these ordinances, however, have provisions that consider archeological sites. In those communities whose historic district ordinance lacks such a provision, archeological sites can easily be overlooked as actions approved under the ordinance are carried out. Many local governments manage future growth of their communities through a comprehensive or master plan. When archeological sites and other historic properties are not considered in such a plan, local government decisions about
land use and development can lead to the loss of archaeological sites. Regulatory procedures, such as those for approving grading or construction permits, can also have the same effect if the presence of archeological sites is not considered.

**What are the laws regarding archaeological site protection in Georgia?**

Many people think of artifact collecting as just another hobby. Did you know that there are laws that govern artifact collecting in Georgia? The Council on American Indian Concerns produced a brochure called “Artifact Collecting and the Law in Georgia: What’s Legal and What’s Not” to educate the public about the importance of protecting archaeological sites. Information from this brochure is available on the Council’s website at: [http://www.georgiaindiancouncil.org/Documents/artifact_collecting.html](http://www.georgiaindiancouncil.org/Documents/artifact_collecting.html).

This brochure lists “three fundamental principles (that) guide all state and federal laws dealing with human remains, artifacts, archeological sites and collecting.” These principles are as follows:

1) Respect for religious beliefs of all Americans, including American Indians.
2) Respect for the dead.
3) Protection of archeological sites for the benefit of all Americans, not just a few, because these sites are part of our common heritage.

As stated above, many of Georgia’s archaeological sites have been lost to urbanization and economic development. It is important that the public realizes that many sites are also being destroyed by looters. This issue is also addressed in the Council’s brochure:

> These untrained, unqualified persons (meaning looters), digging only for personal gain, are nearly as destructive as bulldozers. As unique and non-renewable resources, these sites are important as places in our local, state, and national histories as well as resources of information about past lifeways of Indians, explorers, pioneers, and others. Thus laws have been passed to consider these sites in planning change and to protect them from looters. In this way, important sites reflecting our common heritage may be preserved and scientifically studied. These laws do recognize personal property rights, acknowledging that privately owned artifact collections can be useful to archaeologists and researchers.

[Damage to a site caused by looting. Credit: George Wingard]
What can you do to help protect archaeological sites?

Be a good steward by standing up for archaeological sites. Discourage looting and explain why the archaeological excavation of sites using scientific methods is important. Encourage leaders in your local community to consult an archaeologist if development is going to threaten a site in your area. Protect archaeological sites on your own property and record those sites with the Georgia Archaeological Site File (GASF). The GASF is the official repository for information about archaeological sites that have been reported in Georgia. Visit the GASF website at http://shapiro.anthro.uga.edu/GASF/ to access a form to fill out in order to report a site. You may contact the GASF by mail at: The Georgia Archaeological Site File, UGA Laboratory of Archaeology, 110 Riverbend Road, Athens, GA 30602-4702; by calling 706.542.8737; or by email at gasf@uga.edu. You can also encourage the representative in your congressional district to make and pass tougher laws protecting archaeological sites.

Conclusion

Archaeological sites offer unique and important information about our past through not only the tangible artifacts they contain, but through clues in the soil called features. When soil on sites is disturbed, then these valuable clues are destroyed, along with the stories they contain. Sites are destroyed every day in Georgia due to a variety of factors: natural forces, human action, institutional action, and legal, regulatory procedures. The information from a site can be saved by careful scientific excavation, interpretation, and report production. Artifacts recovered and notes from excavations are curated (saved forever) so they can be studied by future researchers and/or displayed in exhibits to educate the public.
Resources at Risk: Defending Georgia’s Hidden Heritage is a special issue of Early Georgia that was published in May 2001. The articles in this journal, as well as this lesson plan, were crafted to send a message regarding the importance of preservation and stewardship of Georgia’s archaeological resources. As Charlotte A. Smith (2001), author of “Georgia’s Hidden Heritage at Risk,” the introductory article in Resources at Risk, notes:

All around Georgia, archaeological sites are being destroyed or are under threat of destruction. While it can be argued that “development” is the natural progress of things, obliterating the past before it’s been recorded and understood is not “natural,” nor does it have to be an inevitable by-product of progress.

In Georgia we lack sufficient infrastructure to implement a large-scale systematic project to record archaeological resources before they disappear forever. That infrastructure cannot be constructed without public support, and that support will not emerge without public understanding. And public understanding, in turn, stems from outreach by professionals and those committed to archaeological preservation.

Remember that you can make a difference in your community. We hope that you have enjoyed this lesson plan and learned some interesting information about archaeology in Georgia and what you can do to protect our common heritage!
Questions

1. Why is it important to study archaeology?

2. Explain the difference between prehistoric and historic archaeology. Provide an example of each in Georgia.

3. What is an artifact?

4. What are some actions that cause damage to archaeological sites?

5. What is looting?

6. What are some examples of archaeological stewardship? Why is it important to be a good steward?

7. Assuming there is 1 archaeological site in every 15 acres, how many sites might be discovered in a 450-acre tract of land?

8. If an archaeological site covers an area that is 40 meters in length by 55 meters in width, how many square meters does the site cover?

9. If an archaeologist excavates a trench that is 6 meters long, 1 meter wide, and 0.75 meter deep, what is the volume of the trench?

10. If an archaeologist excavated a unit measuring 100 centimeters by 200 centimeters, what is the perimeter of the unit in centimeters? What is the perimeter of the unit in meters?

Activities

1. Visit an historic site in your local community. Ask if an archaeological excavation has been conducted on the property. What information, if any, did the excavation provide that might not have otherwise been known?

2. Make Christmas ornaments by creating a beautiful design on self-hardening clay. Research the types of designs used on pottery by Native Americans in your area. Use the designs to decorate your ornaments. Examples include check stamped, complicated stamped, cord marked, incised, and simple stamped. Make a hole at the top of the ornament before it dries. Thread a piece of string through the hole to hang the ornament on the tree.

3. Plot the artifacts. An archaeologist excavated a site and found eight artifacts. Plot the location where each artifact or group of artifacts was found at the site using the graph below. Once you find each coordinate on the graph, circle the point. Draw a picture of the artifact by the circle.
Bone (N9, E8)     Bottle (N11, E11)     Button (S10, E9)
Coin (N3, E5)     2 Oyster Shells (N3, W3)
Prehistoric Pottery Sherd (N9, W10)    Projectile Point/Arrowhead (S6, W7)

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### Resources and Recommended Reading

Dickens, Roy S., Jr. and James L. McKinley

**NOTE:** This book is a must have for any educator interested in teaching about archaeology. Learn about the time periods of history recognized here in Georgia, how an archaeological excavation takes place, and activities you can try. *Frontiers in the Soil*
may be purchased at http://thesga.org/2011/04/order-frontiers-in-the-soil-now/ for $16.95 plus shipping/handling or check it out at your local library.

Dickens, Roy S., Jr. and James L. McKinley

NOTE: This handbook may be purchased through the Society for Georgia Archaeology for $9.95 plus shipping/handling or check it out at your local library.

King, Adam (Editor)
2001 Early Georgia, Special Issue, Resources at Risk: Defending Georgia’s Hidden Heritage, 29(1).

King, Adam (Editor)
2005 Early Georgia, Special Issue, Site Loss in Georgia, 33(1).

Kowalewski, Stephen
2005 When the Past is Destroyed: Loss of Archaeological Sites Due to Urbanization. Early Georgia, 33(1):1-44.

National Park Service

Smith, Charlotte A.

Urban Ghosts: Hidden History and Offbeat Travel

White, John R.

White, Max E.

Wikimedia Commons

Wikipedia
Websites of Interest

Archeological Institute of America: http://www.archaeological.org/
The AIA is a non-profit organization that was established in 1879 and chartered by the U.S. Congress in 1906. The AIA is the nation’s “oldest and largest organization devoted to the world of archaeology.” The Education section of the website offers an Introduction to Archaeology, Lesson Plans, announcements about Archaeology Fairs taking place across the country, and more. In case you need a definition of an archaeological term, the AIA website has a great glossary at http://www.archaeological.org/education/glossary.

Council on American Indian Concerns: www.GeorgiaIndianCouncil.org
The council was created by the Georgia legislature in 1992 to help protect Indian graves and burial objects from accidental and intentional desecration. The Council is the only state entity specifically authorized to address the concerns of Georgia's American Indians. Visit this website to learn more about Native American resources.

Georgia Department of Natural Resources—Historic Preservation Division, Archaeology: http://georgiashpo.org/archaeology
“The Historic Preservation Division (HPD) is Georgia’s state historic preservation office, or SHPO.” The mission of the HPD “is to promote the preservation and use of historic places for a better Georgia.” Visit this website to learn more about Georgia’s historic preservation efforts, archaeological site protection, and stewardship.

National Park Service: http://www.nps.gov/history/
- Archeology in the Parks: http://www.nps.gov/history/archeology/sites/parks.htm
- Archeology Nationwide:
  http://www.nps.gov/history/archeology/sites/nationwide.htm
- Preventing Looting and Vandalism:
  http://www.nps.gov/history/archeology/sites/PROTECT.HTM
- Teacher Resources: http://www.nps.gov/history/archeology/PUBLIC/teach.htm
The NPS “invites you to discover American history in all its diversity, from ancient archeological places to the homes of poets and Presidents to the sobering stories of Civil War soldiers and civilians to the legacy of a courageous woman who refused to give up her seat on a bus. Our history is part of who we were, who we are, and who we will be….We invite you to explore historic preservation and the tools we use to help preserve and protect the places where history happened.”

Society for American Archaeology: www.saa.org
The SAA website features a great educational webpage through “Archaeology for the Public.” It includes Teacher Training & Fieldwork Opportunities, Educational Resources for Educators, Archaeological Law & Ethics, Frequently Asked Questions About Archaeology and Archaeologists, Mystery Artifact, and much more!
Teaching with Historic Places: http://www.nps.gov/nr/twhp/
This website “uses properties listed in the National Park Service’s National Register of Historic Places to enliven history, social studies, geography, civics, and other subjects. TwHP has created a variety of products and activities that help teachers bring historic places into the classroom.” By visiting the “Preserve America” section of the website, you can view examples of how historic sites have been preserved in Georgia.

The Archaeological Conservancy: http://www.archaeologicalconservancy.org/
This national non-profit organization was established in 1980 and is the only organization of its kind in North America “dedicated to acquiring and preserving the best of our nation’s remaining archaeological sites.”

The Archaeology Channel:
http://www.archaeologychannel.org/content/TR_Group.asp?category=276640&name=Lesson%20Plans
Visit this website to learn more about archaeology all over the world and receive information on lesson plans.

The New Georgia Encyclopedia: http://www.georgiaencyclopedia.org/
Learn about Georgia’s heritage. This is a great resource for history and archaeology buffs.

The Society for Georgia Archaeology (SGA): www.thesga.org
Interested in learning more about Georgia archaeology and how you can preserve it? Visit the SGA website to learn more about upcoming events and resources. Several local chapters exist throughout the state, so find information about where a chapter meets near you and attend a meeting to learn about archaeology that is being conducted in your area.

“Site Destruction: Pieces of Our Past Lost Forever” is one of a series of educational packets produced annually by The Society for Georgia Archaeology for Archaeology Month activities in May. The series reflects new themes annually and is available free-of-charge via the website, along with a calendar of events occurring throughout the state during the month of May. An associated poster is distributed to all middle/junior high public schools in the state, as well as to archaeology month co-sponsors, event sponsors, and other entities. With the exception of the Event Calendar, the posters and educational packets are timeless. Librarians at schools are encouraged to catalog these materials so that they may be used in the future by educators and patrons. The 2014 issue was created by Tammy Herron and represents the 17th in the series. We hope you enjoy it!
thesga.org