

Designing the 2003 Poster

Note: The 2003 Archaeology Month poster was designed by staff members of Gannett Fleming, Inc. The theme is Education, particularly educating the public about archaeology and how it is done. Below is the brochure written by John Martin with assistance from Alice Guerrant. This goes with the poster, to expand on the activities you see pictured there.

ARCHAEOLOGY

SCIENCE * ART * DISCOVERY

Archaeology is the study of past people through the things they left behind – the tools they worked with, the pots they cooked in, all the things that people made and used. Broken pieces of these things were thrown away and left in the ground. Archaeologists call these things that they find **artifacts**. The dictionary says that an artifact is “an object produced or shaped by human craft.” But archaeologists do more than just look for artifacts.

Archaeologists also look at what’s left of the things people built and the ways they changed the places where they lived and worked. Archaeologists call these places **sites**, and the remains of buildings, holes in the ground, and changes to the area are called **features**. Sometimes a feature can be seen as easily as the ruins of a brick building. Sometimes it can be as hard to see as the changes in soil color that mark where the posts of a Native American’s house were driven into the ground.

Archaeologists also need to know what kinds of plants and animals were in that place, and what the weather was like. This is called the site’s **environment**. They also need to know if past people wrote things down about the area or made pictures of the things important to them. This is called the site’s **history**. Archaeologists look for information about these things in many ways to build a picture of past lives. Archaeologists rely on both science and art to understand their discoveries.

Finding out all these things is called **research**. Archaeologists do research before, during, and after digging a site, or **excavation** as archaeologists call it. In turn, what they find at that site will help future researchers.

Before the **field work**, -- going out into the area to look for and excavate sites -- archaeologists look for what is already known about the area and its environment. This helps them to decide where and what kinds of sites may be found. Archaeologists look at historic maps and at locations where sites were found before. Other places to look are land deeds, wills, historical accounts, and archaeology reports. Archaeologists will also talk to people in the area and see what they know about its history and where artifacts are found. With this information, archaeologists plan their work. Once something new is found, more research may be needed to answer questions about the artifacts and other finds.

Field work includes a variety of **methods** – set ways to do something. It all starts with paying careful attention to where things are found. Archaeologists lay out a **grid** – two sets of lines crossing each other at right angles – on the top of the ground before any digging is done. This helps them map the locations of any finds. This is important because the excavation removes the finds from their original locations. Descriptions of that location – **field records** – are all that will tie the artifacts to the spot where they were found.

While many people are familiar with the digging that archaeology does, many other methods can be used to explore archaeological sites. **Ground -penetrating radar**, which shows changes in how the soil and bedrock reflect radar signals, **soil resistivity meter**, which shows changes in the soil's electrical resistance, and **magnetometers**, which measures changes in the site's magnetic field, can all look below the surface without digging. Archaeologists also take small samples of the soil in different parts of the site and send them to a laboratory to identify chemicals in the soil, the kinds of wood and metals found, and to determine the age of the site. Field work relies on science and previous knowledge, but there is an art in deciding how and where to dig to get the most information from a site.

Next, the archaeologists go into their own laboratory. Here **analysis** – the very careful study of all the artifacts and field records – is the next step to understanding the past. While most people think of digging as the main part of archaeology, work in the laboratory is just as important, and takes three times as long. The artifacts are first cleaned and identified. Microscopes are used to look at very small objects, such as seeds, or nearly invisible marks that show how the object was used. Some artifacts need **conservation** – a way to protect and restore an object that could fall apart after being removed from the ground or water. Special chemicals or treatments clean them so they

can be analyzed better, and preserve them so they can be put on display. All of the information about the artifacts is recorded in a **catalogue** – a written list.

Other kinds of collected materials may get a special analysis. Charcoal can be used for **radiocarbon dating**, which measures how much is left of a radioactive kind of carbon to show how old the wood is. The less there is, the older the wood is. The **chemistry** of artifacts – examining the metals and other materials that make up a thing – can tell how or where they were made. Many other scientific disciplines can be used for the analysis of archaeological findings. One thing that archaeologists do to understand how artifacts are made and used is to try to make them themselves. This is called **replication** – the process of making a copy of something. Some archaeologists have learned to make stone tools like the Native Americans made. Others have worked on making pots by coiling and paddling the coils together. This helps archaeologists understand the skills that Native Americans had and how they used those skills to solve problems.

Interpretation – explaining what the site and its artifacts tell us about the people that lived there – is the step in archaeology that makes the site come alive again. This is where science and art truly mix. While archaeologists seem to paint pictures artfully about the people they study, those pictures are based on solid research and science. All of the information collected from the field work, historic research, artifact replication, and special analyses becomes the foundation for interpreting who lived at the sites, how they lived, and what they did. To take a piece of pottery, make it part of a pot, and place it within a village where it was used for cooking, archaeologists have to look into the past through thoroughly modern glasses. At the same time, because human nature is not always predictable, archaeologists need imagination to complete the pictures.

Education – letting people know what was found and what it means – is the last step and a very important part of archaeology. Showing how objects were used or how archaeologists excavate is interesting for everybody. Museum displays, site tours and activities, and talks by archaeologists are all ways to find out about archaeology and what archaeologists do.

Delaware Archaeology Month is sponsored by a committee of the Archaeological Society of Delaware, partnered with professional and avocational archaeologists living and/ or working in Delaware, and concerned about preserving Delaware's rich heritage of archaeological sites. Contact Craig Lukezic or Alice Guerrant at 302-736-7400, for further information.

The committee includes members from the Archaeological Society of Delaware, City of Wilmington Department of Planning, Delaware Department of Transportation, Delaware

Division of Historical and Cultural Affairs, Delaware State Parks, Delaware State Historic Preservation Office, Delaware State Museums, GAI Consultants, Inc., Gannett Fleming, Inc., Greenbank Mill Associates, Inc., Hunter Research, Inc., Iron Hill Museum of the Delaware Academy of Science, John Milner Associates, Inc., MAAR Associates, Inc., McCormick, Taylor and Associates, Inc., Preservation Delaware, Inc., The Louis Berger Group, Inc., Thunderbird Archeological Associates, Inc., University of Delaware Department of Anthropology, and USDA Natural Resources Conservation Service. This celebration of the past would not be possible without the generous participation of the speakers, festival volunteers, and sponsors.