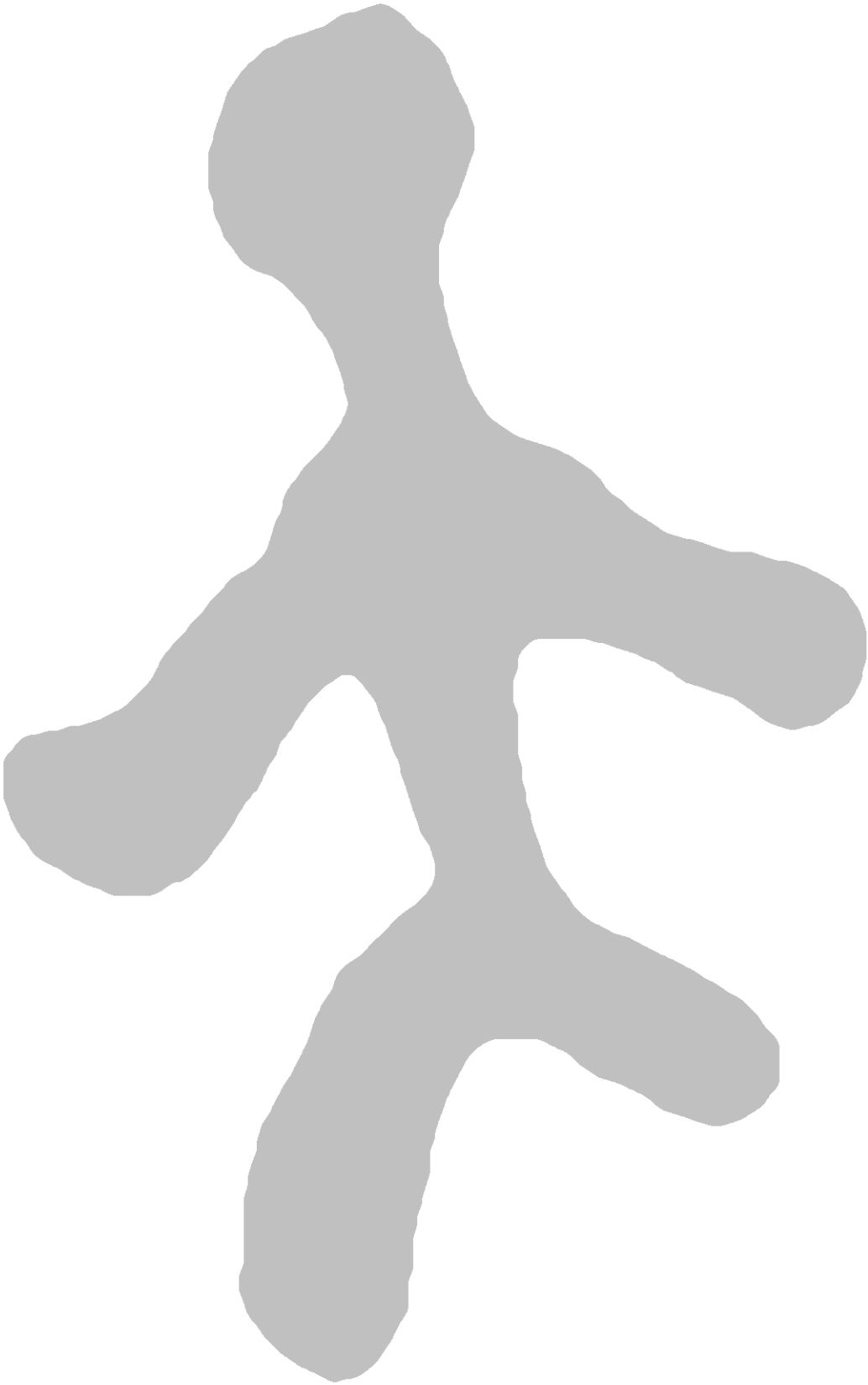


Part 1

**FUNDAMENTAL
CONCEPTS**



Part 1

INTRODUCTION



Conch-shell gorget from Stokes County,
North Carolina, AD 1450–1600.

British archaeologist Stuart Piggott once called archaeology “the science of rubbish.” There is truth to his statement. Archaeologists spend lifetimes investigating the abandoned remains of ancient societies. Contrary to popular images about archaeologists, what intrigues them is not spectacular treasure, but the buried and mundane pieces of daily life. Today’s archaeologists are as interested in *why* people lived the way they did, as in the objects they made and the buildings they erected. Today’s archaeology is guided by scientific methods. It is a rigorous and demanding discipline, requiring a broad range of skills and techniques.

Archaeology: Then and Now

In the early 1900s, most archaeologists were self-trained. They merely had to like the past, have some experience in excavation and be able to classify artifacts. Their predecessors of the 1800s were often mere treasure hunters who ravaged sites for collectibles. Tackling sites from Neolithic burial barrows in England to Hopewell mounds in Ohio, they wielded spades for adventure, fun, and curiosity. Even those tempered by intellectual curiosity, like Heinrich Schliemann who discovered Homer’s Troy in 1873, left a mixed legacy. With little regard for preservation, he, like other early archaeologists, destroyed almost as much as he discovered. Excavation techniques were brutal as hired laborers shoveled out dirt to search for precious objects to display in museums or private collections.

Modern archaeology, however, is a complex process that has two facets. One comprises the *techniques*—like precise excavation, accurate recording, and laboratory analysis—that archaeologists use to recover, order, and describe data. The other is *interpretation* of this evidence to gain insights into the events, livelihoods, environments, and landscapes that compose the unwritten history of the people who once lived in the places archaeologists investigate.

Modern archaeologists must tuck an array of specialized skills and scientific methods under their belts. They must be versed in *theoretical skills* in order to form precise research hypotheses to test and specific objectives to achieve. As research progresses, they must be proficient in *methodological skills* so they can select appropriate ways to collect and analyze data. In the field, it is not enough just “to dig” in a careful way. Archaeologists must decide what sampling and trenching systems to use, develop recording strategies, deal with preservation conditions for fragile objects, select and work with specialists in other disciplines, such as botanists and geologists, and do myriad other things.

Technical skills overlap with methodological skills. As archaeologist Brian Fagan puts it, knowing about something “in theory” is quite different from putting it into practice under working conditions. Archaeological excavations require precise implementation of find-recovery

systems that keep artifacts in order from the moment they are found until they are taken to the laboratory for analysis. Keeping track of provenience is crucial. In other words, the sense of what went on at a site can only be gleaned when the exact location and relationship of things like artifacts, botanical remains, and dwellings in the site is known. This means archaeologists have to be comfortable assuming roles like photographer, digger, surveyor, recorder, soil scientist, and supervisor.

Both in the field and in the laboratory, archaeologists rely on *analytical and writing skills* as well. Because excavation destroys a site's original configuration, archaeologists have the responsibility to analyze finds and prepare detailed field-work reports that form part of a permanent research record. Perhaps the least favorite but nonetheless important set of skills archaeologists must hone are *administrative and managerial*. Not only must archaeologists be able to coordinate research and excavation activities with the various skilled, unskilled, and sometimes temperamental people involved, but also they must raise and administer research funds, set up field camps, and arrange for items ranging from permits to stationery.

All these skills—theoretical, methodological, technical, administrative, managerial, analytical, and writing—are essential to archaeology. But the discipline's fundamental identifier as a science is this: Like scientists of any field, archaeologists obtain knowledge using the scientific method, based on the principle that knowledge about the world is cumulative and subject to constant rechecking.

As scientists, archaeologists learn about past human societies by observing objects, events, and phenomena. In assessing observations, they use either inductive or deductive reasoning. *Inductive reasoning* takes specific observations and makes generalizations from them. For instance, archaeologists observed that some items found in North Carolina sites dated 1,000 years ago either came from or were made from material not locally available, like copper from the Great Lakes region or conch shell from the Gulf Coast. They inferred that the American Indians living in those places then benefitted from extensive trade networks.

When archaeologists use *deductive reasoning*, on the other hand, they start with a generalization and then deduce specific implications. For example, based on certain theories about how people choose where to live, an archaeologist might deduce where ancient settlements might be located. These areas could then be searched for archaeological sites, to test whether these theories hold up.

As archaeology has become more sophisticated, archaeologists have developed standard approaches to investigation. First they make decisions about a research question and a geographic area they want to study. Once these are identified, archaeologists do background research, involving both library and field work. This preliminary work helps them refine (and sometimes re-define) the initial question so specific research objectives can be set. These generally include testing hypotheses that are either related to prior research or are new ones that emerge from the background work. Once the hypotheses are refined, archaeologists locate and survey suitable sites and excavate selected ones. All materials and records from the excavations are taken to the laboratory where archaeologists do detailed analyses that include not just classifying artifacts and identifying materials from which they were made, but also studying food remains, pollen samples, and other kinds of information. Specialized tests, like radiocarbon dating, may be done. After they synthesize the information, archaeologists test the hypotheses they formed at the project's start to help explain the history of the site or region. Publishing the research results is the archaeologists' final responsibility.

Archaeology: Breadth and Goals

Archaeology has many subfields. Broad categories include classical archaeologists who study Greece and Rome; prehistoric archaeologists who study human history before written records; and historic archaeologists who use archaeology in conjunction with written records. Because no one can be expert for the entire time span covered by archaeology, archaeologists specialize. For example, prehistoric archaeologists are either New or Old World scholars. Among those, some study pottery, some study the origins of agriculture, and some study animal bones or other remnants of past life. Among those, some study North Carolina coastal pottery dating between 3,000 to 2,000 years ago, some study what Eastern seed plants Indian people domesticated, and so on. Collaboration lets archaeologists put their pieces of the past's puzzle together.

Regardless of specialization, archaeologists generally agree their research has three broad goals: to study human history, to reconstruct past lifeways, and to generalize about human cultures and how they change. The human history of a place emerges by studying sites and the artifacts, structures, and other debris people left there. Context, both in time and space, is crucial because archaeologists piece together local history by building up sequences of human activity that extend over hundreds or thousands of years. Among questions archaeologists ask are: How did particular cultures evolve? How did they change over time?

Archaeologists can reconstruct the lifeways of people who lived in a place by investigating how their lives changed and played out against complicated backgrounds of changing environments. As archaeologists learn about the ways in which people made their livings in the past, they can understand the interplay among where people lived, what they ate, and the environment. Generalizing about human cultures, sometimes called the study of "cultural process," usually involves archaeologists' concern with explaining *why* and *how* cultures changed and adapted. To explore this facet, archaeologists devise a framework of testable propositions (i.e., inferences based on observations) that can be supported, modified, or rejected when they review excavated and analyzed archaeological data.

Archaeology: Window on Time

Archaeologist Brian Fagan summed up archaeology's relevance this way: Archaeology is the only viable way to discover the history of many of the world's societies whose documented past began only in recent times. To peoples whose window to their past opens only onto sketchy or nonexistent written and oral records, it offers support for fostering cultural identity. Most American Indian groups, for example, adopted writing only in the past three centuries. For eons before contact, Indian history consisted mostly of oral traditions handed down from generation to generation. Through archaeology, knowledge is gained that adds perspective on that history.

In the following lessons, students will be introduced to some of the fundamental concepts archaeologists use. Working through the lessons' activities, students will begin to discover why archaeologists study the past and, importantly, why they approach it as they do.

Sources

Ward, H. Trawick, and R. P. Stephen Davis, Jr. 1999. *Time Before History: The Archaeology of North Carolina*. Chapel Hill: University of North Carolina Press. [The image in this chapter's main heading is taken from Figure 4.18.]