

# ARCHAEOLOGY

5/E



A BRIEF INTRODUCTION

BRIAN M. FAGAN

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# ARCHAEOLOGY

## A BRIEF INTRODUCTION

FIFTH EDITION

Brian M. Fagan  
University of California, Santa Barbara



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 HarperCollinsCollegePublishers

## TO

Lucia, Karen, and other friends at Whittier College who first gave me the idea for this book.

And, as usual, to our cats, who were as subversive as ever. They did everything they could to prevent me from revising the manuscript by stepping on it with muddy paws and by dancing intricate pas de deux on the computer keyboard. As you can see, they failed!

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# ARCHAEOLOGY

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## TO THE READER

Archaeology—a romantic subject, redolent of lost civilizations and grinning skeletons dripping with gold, the realm of pith-helmeted men and women who are adventurers and scholars at the same time. But is this reality? Most archaeologists have never worn a pith helmet, have never discovered gold, and will never unearth a long-forgotten civilization. Nor do most archaeological sites yield rich treasure, or even human remains. This book explores the world of modern archaeology in all its fascinating diversity, and it is designed to give you some idea of how archaeologists go about studying human behavior in the past. We cover the basic concepts and methods of archaeological research—excavation, survey, analysis of artifacts and food remains, and such topics as dating and the dimensions of time and space. *Archaeology: A Brief Introduction*, Fifth Edition, ends with a look at career prospects in archaeology and at ways in which individuals—like you—can help save the past for future generations. References for more detailed readings are given at the end of the book.

I hope this brief volume will give you new insights into the fascinating world of the past. Good luck with your adventures in archaeology!

BRIAN M. FAGAN

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# TO THE INSTRUCTOR

*Archaeology*, Fifth Edition, is designed as a brief introduction to the fundamental principles of method and theory in archaeology, beginning with the goals of archaeology, going on to consider the basic concepts of culture, time, and space, and discussing the finding and excavation of archaeological sites. The last four chapters summarize some of the ways in which archaeologists order and study their finds. Throughout the book, I emphasize the ethics behind archaeology and end with a discussion of how nonarchaeologists should relate to the finite resources that form the archaeological record. In my experience this subject is often neglected in introductory anthropology courses.

Our assumption is that this small book will act as supplementary reading for a general course on anthropology, and that your students will spend two or three weeks on the subject matter. Every attempt has been made to keep technical jargon to a minimum. Inevitably, a book of this length and scope glosses over many complex problems or smoldering controversies. I have proceeded on the assumption that at this stage of learning, a positive overstatement is better than a complex piece of inconclusive reasoning. Errors of overstatement can always be corrected in class or at a more advanced stage.

If there is a theme to this volume, it is that the patterning of archaeological artifacts we find in the ground can provide valuable insights into human behavior in the past. In pursuing this theme, I have attempted to focus on the basic concepts of archaeology and leave you to impose your own theoretical viewpoints on the various chapters that follow. My assumption is, too, that you will fill in such additional details as you feel your students need. For this reason, I have drawn again and again on a few well-known sites from New World and Old World archaeology, such as Olduvai Gorge and Teotihuacán, rather than distracting the reader with a multitude of site names. At the suggestion of several users, I have added brief descriptions of these major sites in a special "Sites and Cultures" information section at the back of the book.

The fifth edition of *Archaeology* has been revised throughout to reflect the latest advances in the field, and includes suggestions by dozens of instructors and students who have used the book, as well as my own updatings. I have retained the organization of the fourth edition, but added material on Geographic Information Systems, many new examples, and discussions of gender and ethnic diversity. Both topics offer exciting new

directions for archaeology in coming years, ones that probably will receive much inspiration from historic sites research. It is here that one can develop methods that look at such topics as changing gender roles and interactions, with the added dimension, and control, of historical documents. In time these methods will be employed on earlier sites, part of a trend toward more "people-oriented" research, rather than just the anonymous study of culture change and cultural process that has characterized the discipline in recent years. In general, the book remains much the same, because the basic principles of archaeology remain the same through the years, whatever new and sophisticated theoretical approaches or high-tech scientific methods are brought to bear on the past. These principles provide the foundation for all the multifarious research projects that archaeologists carry out, whether close to home or far afield.

I am very grateful to all those who have written with comments or criticisms of previous editions of the book. It is particularly satisfying when students write in while they are using the book, making their comments even more useful and immediate. Believe me, they are greatly appreciated. Many colleagues have sent me information or read portions of the revised manuscript. I am especially grateful to George Michaels, who is a constant source of information and encouragement about the difficult subject of archaeology for beginners. My grateful thanks, too, to:

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As always, I welcome letters from readers with suggestions for improving future editions of this book.

BRIAN M. FAGAN



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CHAPTER 1

THE BIRTH OF  
A SCIENCE



Chinese terra-cotta soldier from the Royal Sepulcher  
of the Emperor Xiang Ti of China, c. 221 B.C.

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*The advance of science is not comparable to the changes of a city, where old edifices are pitilessly torn down to give place to new, but to the continuous evolution of zoologic types which develop ceaselessly and end by becoming unrecognizable to the common sight, but where an expert eye finds always traces of the prior work of the past centuries.*

Jules Poincaré, 1904

"I contrived to sit; but when my weight bore on the body of an Egyptian, it crushed like a bandbox . . . I sank altogether among the broken mummies, with a crash of bones, rags, and wooden cases, which raised such a dust as kept me motionless for a quarter of an hour, waiting until it subsided again." Giovanni Battista Belzoni, circus strongman turned tomb robber, explored and ravaged ancient Egyptian sepulchers in 1817. Belzoni was adept with levers, ropes, and gunpowder, but by no stretch of the imagination could he be called an archaeologist. He was an adventurer of restless ambition, who thought the ancient Egyptians would be a way to fame and fortune.

**U**nsolved mysteries, lost civilizations, and great treasures—these are the stereotypes of archaeology in the popular imagination. We **archaeologists** are seen as eccentric, pith-helmeted professors, perpetually deciphering ancient inscriptions. This image is long gone, for late twentieth-century archaeology is a highly sophisticated, scientific discipline. But the roots of archaeology lie in the adventures and excavations of yesteryear. In this chapter, we take a brief look at how archaeology began, at some of the exciting discoveries made by our early predecessors, and at some of the theories they developed to explain the past. This is a good starting point for this book, for every science, be it archaeology or zoology, is a creation not only of its modern-day practitioners, but of the pioneers who began research in the field.



## EARLY SPECULATIONS AND EXCAVATIONS

People have speculated about human origins and the remote past for centuries. As early as the eighth century B.C. the Greek writer Hesiod wrote that humanity had passed through five great ages of history. The earliest was an Age of Gold, when "people dwelt in ease," the last an Age of War, when everyone worked terribly hard and experienced great sorrow. In the sixth century B.C. the Babylonian monarch Nabonidus dug deep into ancient city mounds near the Tigris and Euphrates rivers. His workmen uncovered the foundations of the temple of the goddess Ishtar at Agade near Babylon. The find, says an ancient tablet, "made the king's heart glad and caused his countenance to brighten." In later centuries, the Greeks and Romans were intensely curious about their primitive ancestors, about Scythian "barbarians" living on the northern plains who drank from cups made from human skulls, and the Britons far to the northwest who painted themselves blue.

The centuries of the Renaissance saw quickened intellectual curiosity, not only about the world beyond the narrow confines of Europe, but about the Classical civilizations as well. People of leisure and wealth began to follow the path of Renaissance scholars, traveling widely in Greece and Italy, studying antiquities, and collecting examples of Roman art. The same travelers were not above some illicit excavation to recover statuary from ancient temples and Roman villas. Soon the cabinets of wealthy collectors bulged with fine art objects and the study of Classical lands became a major scholarly preoccupation. In 1738, Italy's King Charles III commissioned Spanish engineer Rocque Joaquin de Alcubierre to excavate the famed Roman city of Herculaneum, buried under deep layers of volcanic ash by an eruption of Vesuvius in A.D. 79. Alcubierre blasted and tunneled his way through rock-hard ash, tunneling sideways into underground galleries where he found jewelry, statues of well-known Herculaneans, and fragments of bronze horses. Visitors were lowered down narrow shafts to walk through the buried theater, marble-columned houses, and frescoed rooms. Hundreds of men, including prisoners, labored below ground, recovering bronze busts, hundreds of texts written on papyrus scrolls, and copies of now-lost Greek masterpieces. Toxic gases, slime, and collapsing tunnels brought an end to this glorified treasure hunt.

Many **antiquarians** were not wealthy enough to travel to Classical lands, so they stayed at home and searched for antiquities in their own backyards. Stonehenge on the uplands of southern England was the most famous curiosity, a place where "stones of wonderful size have been erected after the manner of doorways." The antiquarians indulged their insatiable curiosity by digging into burial mounds and river gravels, recovering all manner of prehistoric finds—clay vessels, stone axes and adzes, bronze implements, even occasional gold ornaments. Their digging methods were brutally crude, usually little more than a hasty pit sunk into the

center of a mound to recover a skeleton and its grave goods as quickly as possible. Some expert diggers would open two or three mounds a day. The accounts of their excavations frequently include complaints that a delicate find “crumbled to dust before their eyes,” a common complaint on Victorian excavations. Until well into the nineteenth century, archaeology was little more than a glorified treasure hunt, even a sport. Not only that, but the archaeological record of prehistoric times was a complete jumble. “All that has come down to us . . . is wrapped in a thick fog,” complained one Danish antiquarian in 1806.

### THE THREE AGES AND THE ANTIQUITY OF HUMANKIND

While some eighteenth-century antiquarians were content to display their finds in cabinets, others puzzled over the people who had made their artifacts. Were they hunter-gatherers and farmers like the American Indians, or little more than animals? Had they developed more complex societies as time passed? What was needed was some way of classifying and dating the past.

The first breakthrough came in 1807, when Danish archaeologist Christiansen Jurgensen Thomsen opened the National Museum of Antiquities in Copenhagen to the public. For years, philosophers and antiquarians had talked of three ages—a Stone Age when people had no metals, a Bronze Age, and an Iron Age. A man with a passion for order, Thomsen took the confusing jumble of artifacts in his museum and laid them out in different rooms. In one gallery he displayed implements of the Stone Age, “when little or nothing at all was known of metals.” In another he showed those with stone and bronze but no iron, and in a third, grave finds belonging to the Iron Age. His new scheme soon became known as the **three-age system**, a system still used to this day for classifying the prehistoric past. Thomsen knew that his scheme was mere theory, but one of his assistants, Jens Jacob Worsaae, went out and excavated more burial mounds and other sites, and proved that Stone Age occupations did, in fact, underlie Bronze Age levels, and that Iron Age sites were the latest of all. The validity of the three-age system was now soundly established and it was in widespread use by the 1860s.

How long had human beings lived on earth? Between Medieval times and the late eighteenth century, everyone believed in the literal historical truth of the Scriptures. Genesis 1:1 stated that God had created the world and its inhabitants in six days. The story of Adam and Eve provided an entirely consistent explanation for the creation of humankind and the world’s population. In the seventeenth century, Archbishop James Ussher used the genealogies in the Old Testament to calculate that the world was created on the night preceding October 23, 4004 B.C. These bizarre calculations soon became theological dogma and were defended with