

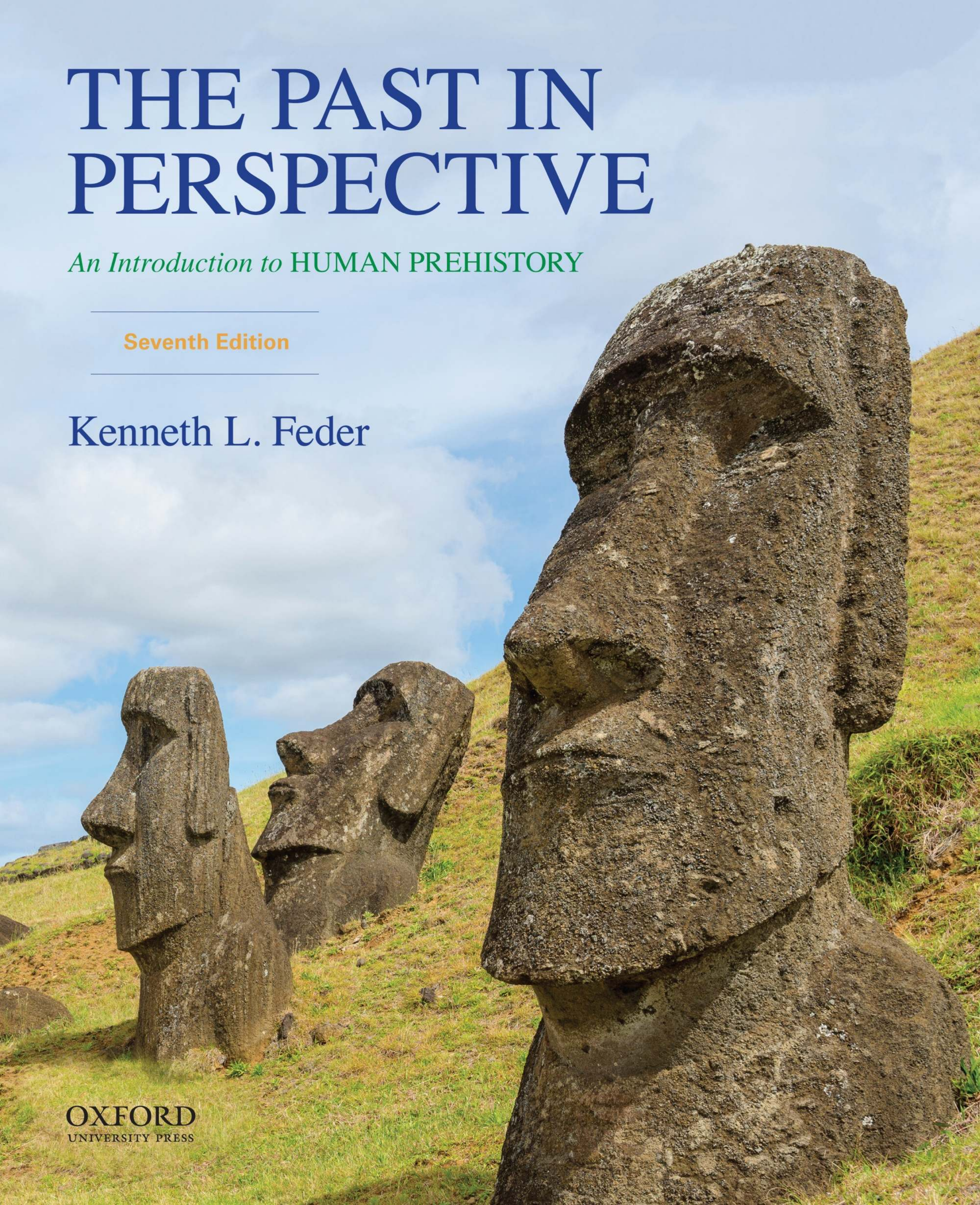
THE PAST IN PERSPECTIVE

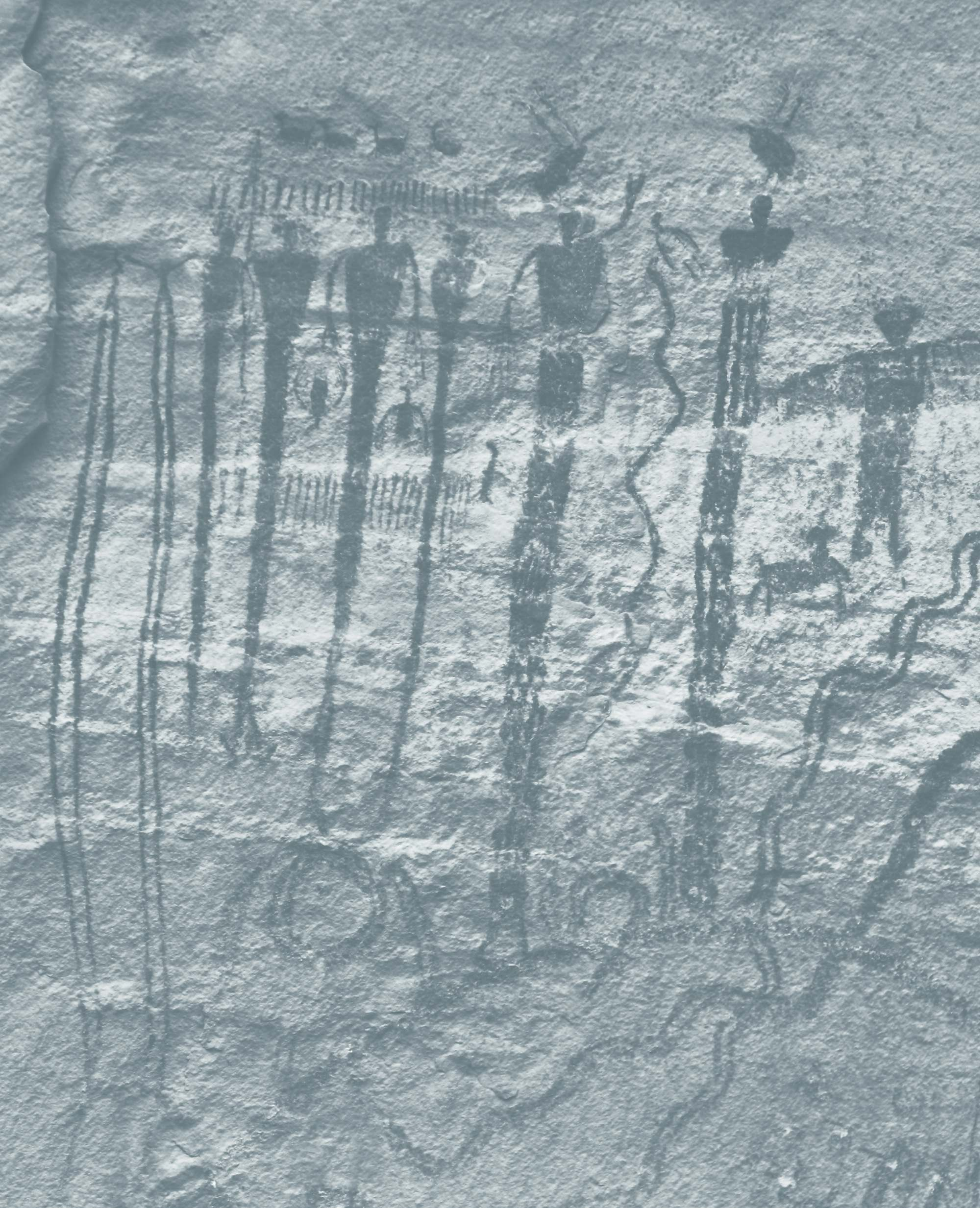
An Introduction to HUMAN PREHISTORY

Seventh Edition

Kenneth L. Feder

OXFORD
UNIVERSITY PRESS





THE PAST *in*
PERSPECTIVE
An Introduction to Human Prehistory

KENNETH L. FEDER
Central Connecticut State University

SEVENTH EDITION

New York Oxford
OXFORD UNIVERSITY PRESS

Oxford University Press is a department of the University of Oxford. It furthers the University's objective of excellence in research, scholarship, and education by publishing worldwide. Oxford is a registered trade mark of Oxford University Press in the UK and certain other countries.

Published in the United States of America by Oxford University Press
198 Madison Avenue, New York, NY 10016, United States of America.

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Library of Congress Cataloging-in-Publication Data

Names: Feder, Kenneth L., author.

Title: The past in perspective : an introduction to human prehistory /
Kenneth L. Feder (Central Connecticut State University).

Description: Seventh edition. | New York : Oxford University Press, [2017] |
Includes bibliographical references and index.

Identifiers: LCCN 2016010129 | ISBN 9780190275853 (paperback : acid-free
paper) | ISBN 9780190275891 (instructor edition : acid-free paper) | ISBN
9780190275860 (electronic)

Subjects: LCSH: Prehistoric peoples—Textbooks. | Human evolution—Textbooks.
| Fossil hominids—Textbooks. | Human remains (Archaeology)—Textbooks.

Classification: LCC GN740 .F43 2017 | DDC 569.9—dc23 LC record available at
<https://lcn.loc.gov/2016010129>

9 8 7 6 5 4 3 2 1

Printed by R. R. Donnelley, United States of America



for
JOSH and JACOB



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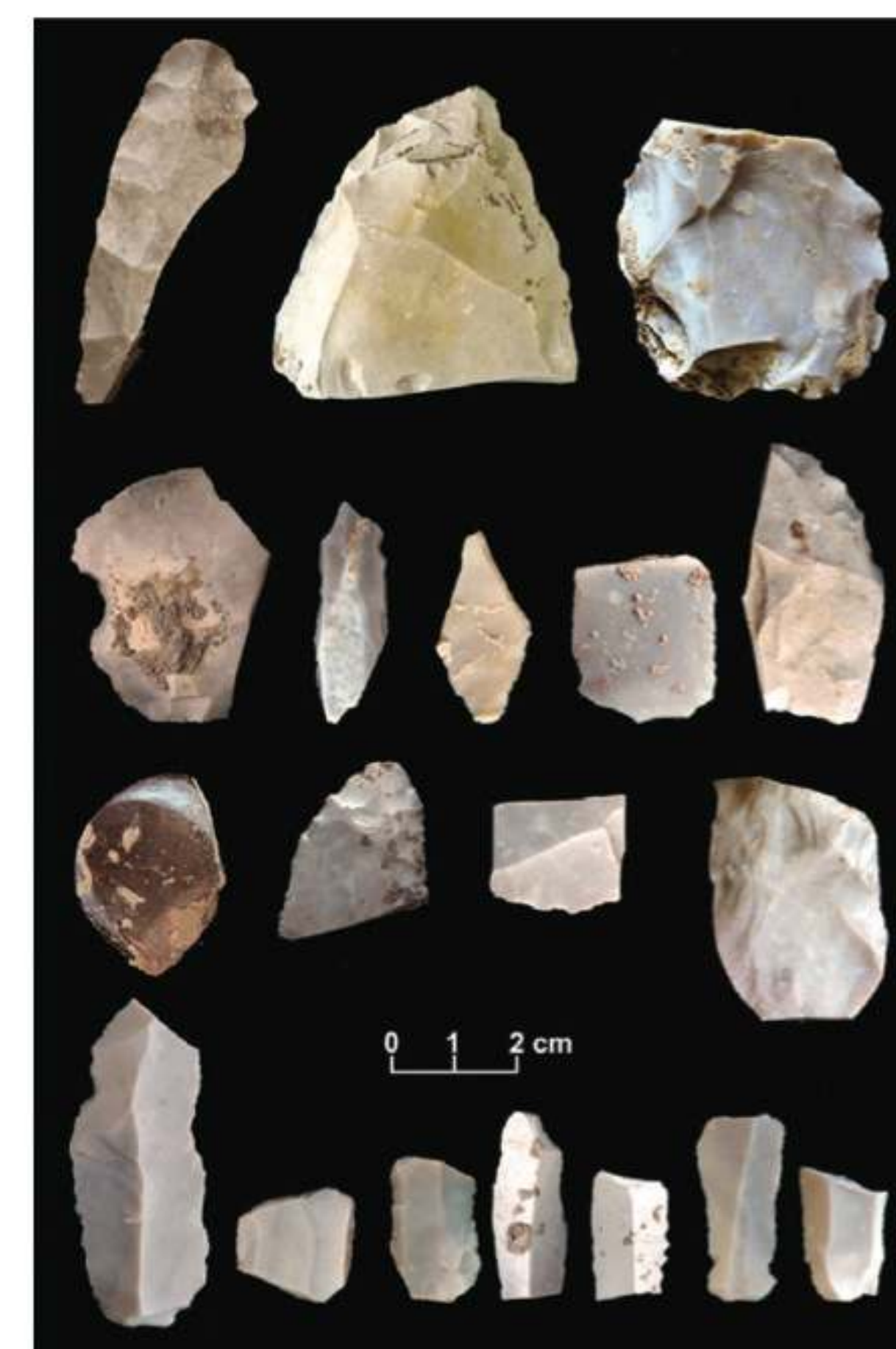
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PREFACE

Wait; you're actually reading the Preface? Nobody reads the Preface. I mean, it's not like there's anything in here that's going to be on the test. Well, if you're that interested, proceed.

Mid-twentieth-century British author L. P. Hartley begins his novel *The Go-Between* with the now-iconic phrase: "The past is a foreign country: they do things differently there." Now, in the context of that book, Hartley's reference is to an elderly man inspired to think about the trajectory of his own life while going through some of his old junk. I am not the first person to use Hartley's phrase as a metaphor for the broader pursuit of historians and archaeologists who, through reference to the old junk in the world's attic or basement, think about the trajectory of the broader human story. Indeed, the human past is like a foreign country where things are done differently than they are in the present. In this book we will visit that foreign country. I will be your tour guide. Keep your arms and legs inside the vehicle at all times.

The Past in Perspective: An Introduction to Human Prehistory focuses on the dim echoes of the human past, presenting an accessible chronicle of human physical and cultural evolution. The readers of this text are undergraduates with no previous coursework in archaeology; for many it will be their only academic exposure to our prehistoric past. Rather than overwhelm beginning students with an all-inclusive, detailed, or encyclopedic survey of human antiquity, this text focuses on the major themes of the human evolutionary story. It begins with the evolution of our earliest hominin ancestors, traces the evolution of the modern human species, and follows the various pathways our ancestors took in the development of food-producing societies and complex civilizations. My goal throughout is to instill in readers an appreciation for the long chronicle of humanity and the ongoing processes we use to construct and assess that story.

HOW THE TEXT IS ORGANIZED

Chapters 1 and 2 provide context and background for the discussion of human prehistory. Chapter 1 places the study of the human past in the context of science, specifically the science of anthropology. Chapter 1 also explains how a scientific approach to the study of prehistory developed. Chapter 2 is a brief overview of key methodologies employed by archaeologists and paleoanthropologists in their study of the human past. It represents a brief introduction to archaeology.

Following these introductory chapters, Chapters 3 through 14 go on to present a chronological survey of the human past. Each chapter follows a consistent format with these headings: Prelude, Chronicle, Issues and Debates, Messages From the Past, Case Study Close-up, Summary, and To Learn More. A consistent format provides a pedagogical advantage, and the trajectory of human physical and cultural evolution becomes far more apparent and connected. What we know, what we don't know, and what are still topics of vigorous debate will be clear to the reader.

PRELUDE



The **PRELUDE** represents a conscious attempt on my part to provide a pedagogical “hook” for each chapter. Personal anecdotes or fascinating historical incidents, for example, immediately engage students in the key issue or issues of the chapter, whether it is upright locomotion, the origins of artistic expression, or the power of ancient civilizations.

CHRONICLE



The **CHRONICLE** presents in narrative form a consensus view of that part of the human past that is the chapter's focus. It represents the heart of each chapter, providing our current understanding of the time period covered, the hominins discussed, and the cultural evolutionary developments reflected in the time period.

ISSUES AND DEBATES



ISSUES AND DEBATES discusses the answers we have been able to provide for key questions about human physical and cultural evolution as well as the unresolved issues that remain and the ongoing debates. These sections provide differing—and sometimes competing—perspectives. Students are thus exposed to the sometimes messy, always exciting,

and inevitably human process of science fraught with disagreements, reassessments, shifting paradigms, and only hard-won consensus.

MESSAGES FROM THE PAST



MESSAGES FROM THE PAST is new to this edition and represents my attempt to address a common criticism of archaeology; that while the study of human antiquity might be interesting, it's a pretty esoteric discipline with little relevance in the modern world. Nothing could be further from the truth. Many, most, maybe all of the challenges

facing humanity in the modern world—warfare, ethnic violence, environmental degradation—have roots deep in the history of our species. Indeed, there are valuable messages for modern human beings that can be gleaned from archaeology and paleoanthropology.

**CASE STUDY
CLOSE-UP**

The **CASE STUDY CLOSE-UP** is a detailed examination of one or more sites considered diagnostic or emblematic of the time period or primary issue of the chapter.

Each chapter's **Summary** provides a brief recapitulation of the key issues in the chapter.

To Learn More provides suggestions for further reading in professional journals, academic texts, and trade books.

ADDITIONAL FEATURES

In addition to a consistent chapter format, I've included a number of other features that make this text a more useful learning tool.

A timeline opens every chapter and helps place the key events and sites mentioned in the body of the chapter within a global historical context.

To help students better orient themselves on the world stage, I've included abundant maps throughout the book. Each chapter (3–14) presents a map or, in some cases, multiple maps in which each of the sites mentioned in the chapter is located. Chapters 3 through 14 also include a list of sites—broken out by continent, region, or country—that are mentioned in the chapter, along with the page number where they can be found.

A list of Key Terms at the end of each chapter provides an alphabetical listing of important terms that appear in boldfaced type within the chapters and includes page numbers for where they can be found. Definitions can be found in the margins of the page on which the terms first appear and in the end-of-book Glossary.

The text's visual appeal enhances its readability. Full-color photographs are cross-referenced to pertinent text discussions. Detailed, colorful charts and drawings, as well as abundant color photographs, underscore significant points in the text. Captions add information rather than simply label the art.

The Glossary, References, and a comprehensive Index make information readily accessible.

WHAT'S DIFFERENT ABOUT THE SEVENTH EDITION?

I get it: textbooks are crazy expensive. It makes perfect economic sense for you to purchase used copies at a fraction of their original cost and then sell them back to the bookstore at the end of the semester to save some money. I also understand your frustration when you go to purchase your textbooks and find that used copies are not yet available because the publisher has just released a new edition, a fact that also renders worthless older editions of books that you'd like to recycle for some cash. You don't have to be paranoid to suspect that there's a cynical strategy on the part of publishers to release relatively minor updates of textbooks in an attempt to increase their bottom line. Publishers—and, okay, authors—make money on only the first sale of a book, so it makes sense for them to frequently come out with new editions.

I do wonder about updating books on subjects like algebra. I mean, have there been a bunch of great discoveries in algebra since the previous edition of your algebra textbook was published, discoveries sufficient to warrant the release of an updated and more expensive new edition?

I'm not sure about algebra, and perhaps it sounds self-serving, but I think it makes sound pedagogical sense to frequently update texts in paleoanthropology and archaeology. These are fields in which the expansion of knowledge continues at a breathtaking pace. Since the publication of the sixth edition of this book in 2013, there have been absolutely revolutionary discoveries and, in many instances, what we know about the human past has significantly and even dramatically changed. Bottom line: as a result of these remarkable new data, the sixth edition of *The Past in Perspective* is, at least in part, significantly out-of-date and there is ample justification for the existence of this new edition. Here is only a small sample of some of the more significant updates:

- **Chapters 2–14** contain a new section, “Messages from the Past.” In these sections, I show how knowledge about the human past gathered through archaeology and paleoanthropology may help inform us about the modern human condition. Archaeological evidence of ancient warfare, examples of economic inequality, and data showing how human beings in antiquity responded to environmental changes and challenges are fundamentally relevant to our understanding of the present. The famous George Santayana aphorism, “Those who cannot remember the past are condemned to repeat it,” certainly applies. And, since most of human “history,” in the broadest definition of that term, actually happened before there was writing, we can update that phrase to read, “Those who cannot remember prehistory are condemned to repeat it.” I’m not sure that this book will save humanity from repeating previous mistakes, but at least with the knowledge revealed through archaeology, we’ll recognize those mistakes when we repeat them.
- **Chapter 2:** If you were hoping that this book would let the cat out of the bag concerning ancient aliens, Atlantis, or the Nephilim, sorry. All of those things are nonsense and I’ve added a discussion of fake archaeology to this chapter.
- **Chapter 3:** It’s stunning, actually. Since the last edition of *The Past In Perspective*, researchers have discovered stone tools at the Lomekwi 3 site more than half-a-million years older than those previously deemed the oldest, as well as a vast assemblage of hominin remains (*Homo naledi*) at a cave in southern Africa. Both of these discoveries are game-changing.
- **Chapter 4:** We used to think that the earliest art produced by human beings dated to no more than about 30,000 years ago. Then, evidence of symbolic expression was found in southern Africa dating to more than 70,000 years ago. Now, a new analysis of a shell found at Trinil, on the island of Java, suggests that *Homo erectus* produced a form of art that may date to close to a million years ago.
- **Chapter 5:** The recovery of genetic material from ancient hominin bones has fundamentally altered paleoanthropology, perhaps especially

as the analysis of ancient genetic material has been successfully performed on Neandertal skeletal remains. In truth, the pace of discovery in this form of analysis is so rapid, by the time you read Chapter 5, much more will be known.

- **Chapter 6:** In most art history texts and courses, the art of the European Upper Paleolithic is rightfully highlighted. But Europe is not the only place where ancient cave paintings have been found. Cave art at least as old as the oldest found in Europe has been found in Indonesia.
- **Chapter 7:** The recovery of ancient genetic material and its analysis has also revolutionized the study of human migration to the New World. As an example, the genetic analysis of the Anzick boy from Montana may be the most important application of molecular archaeology performed in the New World. The Anzick remains are compared to the Mal'ta skeleton—found in Siberia—in this chapter.
- **Chapter 8:** I think there are two kinds of people in the world: people who own dogs and people who would like to. There have been significant recent discoveries in terms of the domestication of not only dogs, but rice, and cattle, all of which are discussed here.
- **Chapter 9:** There are lots of new data about Stonehenge and Çatal Höyük, including the discovery of more than 100 large, buried stones at Durrington Walls near Stonehenge.
- **Chapter 10:** The rulers of the great civilizations of antiquity were the original “one-percenters.” I put the wealth and power of those rulers in a modern context in this chapter.
- **Chapter 11:** I present here an expanded and updated discussion of societal collapse. What is collapse? How does it occur? What may cause it? And how do people reorganize their societies after a collapse?
- **Chapter 12:** I have updated the discussion of the origins of the Maya, the collapse of their civilization, and the use of isotopic analysis to trace the geographic origins of Maya rulers.
- **Chapter 13:** The Inca practiced human sacrifice. I have updated and expanded the discussion of this practice.
- **Chapter 14:** I have updated the discussion of the mound-building societies of the American Midwest and Southeast, and I have done the same with the cultures of the American Northwest Coast.
- **Epilogue:** This brand-new epilogue is, essentially, an expanded “Messages From the Past” section, focused on the combined, compounded, and cumulative changes to our planet wrought through human technological evolution.

SUPPLEMENTARY MATERIAL FOR STUDENTS AND INSTRUCTORS

A companion website for *The Past in Perspective* is available at www.oup.com/us/feder. On the website, students will find multiple-choice quizzes, chapter summaries, web links, and vocabulary flashcards.

A personal goal of mine in writing this book has been to inspire among its readers a lifelong interest in the past. As a result, I have included a resource in the accompanying website called “Visiting the Past.” In it, I provide information about actually visiting some of the sites featured in the text. I have always found it terrifically gratifying when I hear from past students a year, five years, or even longer after taking one of my courses that as a result of interest kindled there, they have visited archaeological sites open to the public—often sites I highlighted in class and of which I showed photos from my own visits. I realize that the vast majority of this book’s readers will not go on to careers in archaeology, but I hope that many will be similarly inspired by the material presented here to personally experience some of the significant sites discussed in its pages. Of course, I have an ulterior motive; I hope that students who visit sites like the ones discussed in this book recognize their significance on multiple levels and become citizens committed to their protection and preservation.

For instructors, an Instructor’s Manual, Computerized Test Bank, and Power-Point presentations are available on the Ancillary Resource Center and include multiple-choice and short-answer/essay questions, as well as chapter overviews, lists of key words, and suggested sources for videos and websites. To access these materials, register at www.oup-arc.com.

ACKNOWLEDGMENTS

The Past in Perspective was originally published by Mayfield Publishing, which is now, lamentably, gone. It was Jan Beatty, my developmental editor at Mayfield, who came up with the idea for the book in the first place and encouraged me throughout the writing process. The entire thing was her idea, so if you don’t like this book, you should blame her. She is, in many ways, responsible for its existence. In truth, I can’t thank her enough for her support.

A million thanks to Sherith Pankratz, Meredith Keffer, and Keith Faivre at Oxford University Press. This book was truly a collaborative effort, and they deserve recognition for all of the work they put into making it look great and, I think, read so well. Writing a book is both a glorious and a terrifying journey. It’s great to have an amazing team along with you for the ride. Thanks, guys!

The relationship between an author and a copy editor can be difficult; I mean, after all, why would anyone need to change my already perfect writing? Ha! It has been a genuine pleasure working with Carrie Crompton on the manuscript, and I owe her a debt of gratitude for the many corrections and improvements she has made.

I am also extremely grateful to many colleagues and students, as well as to my late father, who have shared their thoughts, suggestions, and, yes, pointed criticisms of *The Past in Perspective*. Also, I continue to be both grateful for and amazed by the generosity of so many colleagues who have generously provided me with photographs to use in *The Past In Perspective*. In particular, I would like to thank Maxime Aubert, Lee Berger, Jarrod Burks, Nick Conrad, Jenn Davis, Jon Erlandson, Sonja Gray, Sonia Harmand, Jose Joordens, Christopher Kleihege, Chris Lepre, Jason Lewis, Kurt Rademaker, Brian Siegel, Pierre-Jean Texier, Liz

Throop, Paola Villa, and Michael Waters. The photographs and art they supplied are useful, instructive, and beautiful.

A special shout-out and genuine thanks to Jeanette Cooper for her suggestions about improving my discussion of Minoan Crete. I will never—I repeat, never—use the word “temple” again with reference to the monumental structures of that civilization. Also, thanks to Jonathan Kent for helping me tighten up my discussion on the use of slaves in ancient Egyptian construction.

I would also like to thank the reviewers of the seventh edition: Lauren Ann Sullivan, University of Massachusetts at Boston; Ian Lindsay, Purdue University; Jeb J. Card, Miami University; Sean Rafferty, University at Albany-SUNY; Maria Masucci, Drew University; Mark A. Rees, University of Louisiana at Lafayette; Timothy L. Bober, Western Michigan University; and two anonymous reviewers. I took their counsel seriously and am in their debt for the many useful suggestions they made.

In the area of personal thanks, I am grateful to have a colleague and friend like Dr. Michael Alan Park. And yes, it will be “terribly strange to be seventy,” but that’s still a long way away. For me, anyway.

My sense of excitement about the world around me was kindled by my parents, and I must thank them both. My dad is gone now and sorely missed, but I know that he reveled in the work I did in my research and publications.

Just like life on the planet and human societies, our individual sagas exhibit enormous change through time. Mine has been no different. What never changes is the enjoyment I get from impressing my two now adult and accomplished sons, Josh and Jacob, with the work that I do. At the same time, all of the kitties I have had in my life—Randolph, Harpo, Groucho, Busterella, Aslan, Xander, and now Sedona and Dodger—have shown me that it’s important to look away from the computer screen every once in a while to scratch a friend behind the ear, rub an exposed belly, or fill the damn food dish.

And while my love, Jenn Davis, isn’t the kind of person to admit it out loud, I think she’s kind of impressed by the work that I do. Anyway, she puts up with all the time I devote to this and my other projects, so I guess she’s okay with it. But don’t tell her I know that. It would annoy her.

THE PAST *in*
PERSPECTIVE

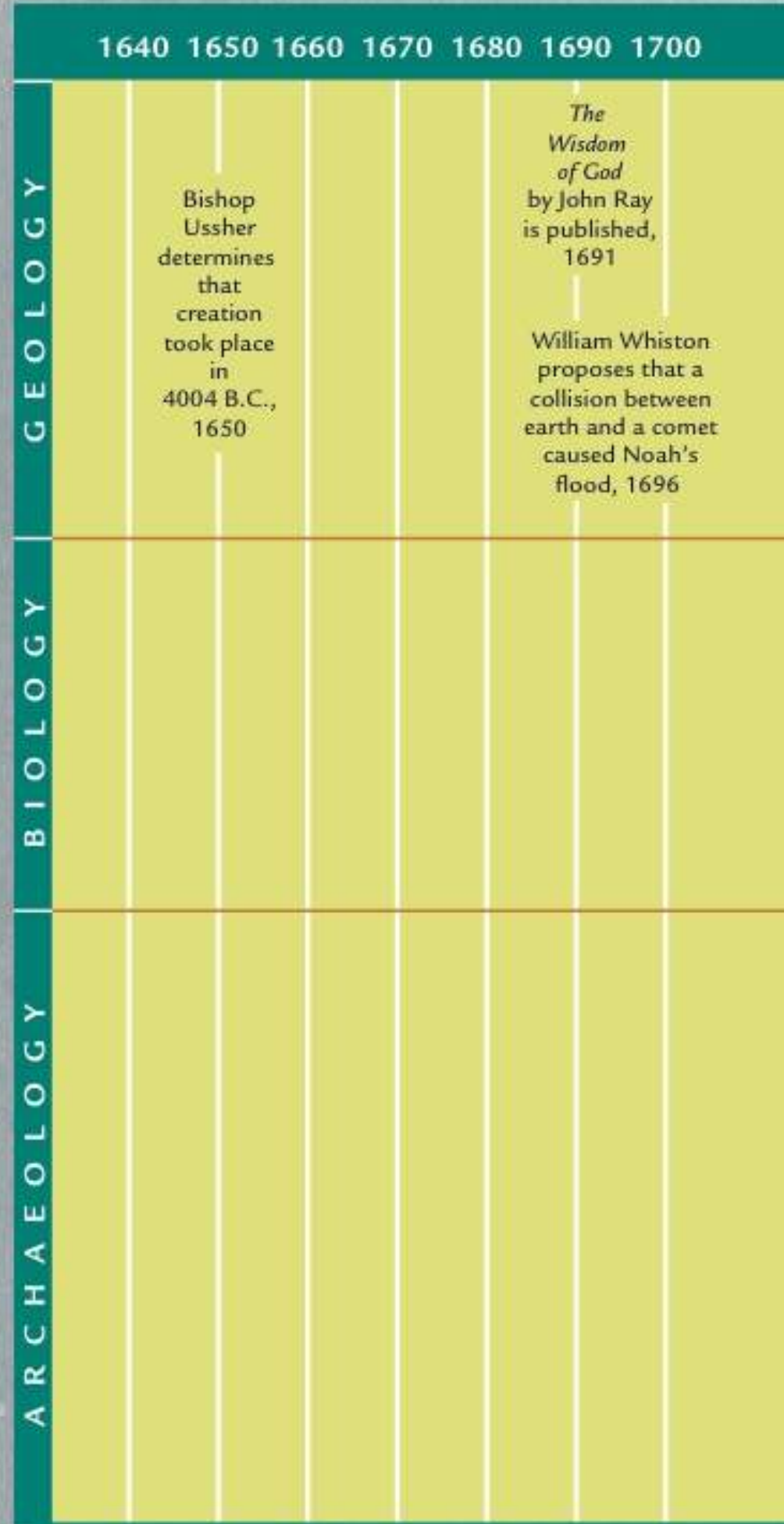
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Encountering the Past

CHAPTER OVERVIEW

This book focuses on the work of archaeologists. Archaeology is a subdiscipline within the broader field of anthropology—the study of humanity. Whereas other anthropologists study living people, archaeologists concentrate on the cultural evolution of past human beings. Archaeologists accomplish this through the study of our ancestors' biological remains and, especially, the analysis of the physical objects that they made, used, and left behind.

Recognizing that the world and humanity were ancient, and understanding that elements of this ancient past were preserved and could be studied in the present, was difficult for past thinkers whose concepts of time were constrained by their traditional beliefs. Some viewed the world as the static product of a relatively recent, divine creation. Others came to understand that the earth is the result of slow-acting, natural causes that continue to operate in the present. In this now-accepted view, the world and all of its inhabitants, including human beings, have a lengthy history and are ever changing. Only by recognizing that the world is vastly ancient and characterized by change can the lengthy archaeological record of an ancient humanity be accommodated.



1710 1720 1730 1740 1750 1760 1770 1780 1790 1800 1810 1820 1830 1840 1850 1860 1870 1880

Theory of the Earth by James Hutton published, 1788

William Smith's stratigraphic tables first circulated, 1799

William Smith's stratigraphic tables published, 1815

Principles of Geology by Charles Lyell published, 1830

Linnaeus publishes his taxonomy for all living things, 1758

Philosophie Zoologique by Jean-Baptiste Lamarck published, 1809

Darwin begins his voyage on the *Beagle*, 1831

Darwin writes a synopsis of his theory of evolution, 1844

The Origin of Species by Charles Darwin published, 1859

The Descent of Man by Charles Darwin published, 1872

John Frere finds flint tools in soil layer deep in quarry in Hoxne, England, 1797

Flint tools and bones of extinct animals found in Kent's Cavern, England, 1824

C. J. Thomsen publishes museum guide and introduces three-age system, 1836

Primitive skull found in Neander Valley, Germany, 1856

Ancient Society by Lewis Henry Morgan published, 1877

Human bones found with bones of extinct animals in French cave, 1828

Geological Evidences of the Antiquity of Man by Charles Lyell published, 1863

Jacques Boucher de Perthes finds ancient flint axes, 1837

Researches in the Early History of Mankind by Edward Tyler published, 1865

PRELUDE



THE PAST IS DEAD AND GONE. At least that's what we usually think and say. Surely there is nothing much left of it beyond our dim memories. Perhaps the past is like the faces of people in an old printed photograph, people we once knew—people we once were. The image is crisp soon after the photo is taken but gradually fades as time hurries on, blurring into indistinct splotches of color on photo paper. Ultimately, the past, like these images, grows faint, becoming little more than an indecipherable haze. Indeed dead. Indeed gone. But is this common impression entirely accurate?

In fact, it isn't. In a very real way, the past sometimes and unexpectedly endures into the present. When we are lucky, its image can be brought back into sharp focus.

For example, take a walk out toward the margins of just about any modern town. Follow a trail into the desert or deep into the piney woods and recognize that, in a sense, the trail conveys the hiker back through time.

Consider the town of Simsbury, Connecticut. In the rural, northwest corner of town, out beyond the beautiful homes with their splendid views of the valley below, a trail meanders through the McLean Game Refuge, a 4,000-acre sanctuary for animals, fish, birds, and trees. The trail into the refuge surges downhill, propelling the hiker past stands of hemlock, white and red pine, maple, and oak. As you gaze around the curiously broad trail and scan the higher ground on either side, you notice that this uninhabited woodland bears witness to something far different in its past. Low-lying stone walls demarcate the edges of the wide path, and that in itself is a puzzle (Figure 1.1). No one in living memory built these walls, yet there they stand, mysteriously lining the edges of a hiking trail far wider than it needs

to be, in the middle of a game refuge. And there is more. Look beyond the walls that border the trail and you will notice a web of more stone walls, often rather elaborate and well made, in some cases stretching for more than 100 feet before intersecting with yet other fieldstone walls. These walls serve to enclose segments of land, each several acres in size, as if demarcating the property holdings of invisible homesteads. But whose property? Whose homesteads?

Again, mysterious. Why would anyone feel compelled to do all the work necessary to segregate sections of land by piling up thousands of heavy fieldstones in the middle of what now is a thickly treed, uninhabited game refuge?

As you continue farther along the trail into the woods, the stone walls seem to loom larger around you. They are taller, more elaborately made, and increasingly out of place in the apparent long-standing wilderness that surrounds you. Then, in the distance, along the trail, an opening in the trees becomes apparent. Arriving at the clearing, you spy a complex, well-made, fieldstone foundation of a large structure with a substantial square block of stones presenting fireplaces on each of its four faces (Figure 1.2, top). It is the remnant of the center chimney of a house whose superstructure, likely wood-framed and sheathed in clapboard



FIGURE 1.1

Now deep in the forest, stone walls like this one once lined the roadways and gridded the fields used by the inhabitants of Pilsfershire and hundreds of other communities scattered throughout New England. (K. L. Feder)

siding, is gone now, but whose stone-piled foundation clearly indicates its size and configuration. Walking around the foundation, it is easy to locate the well. Sprinkled about you on the ground, mixed in with oak and maple leaves, pine cones and needles, are bits and pieces of ceramic vessels; large chunks of thick-walled, utilitarian stoneware crocks; more delicate shards of plain, white-glazed dishes; spalls of oddly thick, green glass; and deeply rusted iron nails, not round like our modern ones but squared off, looking more like small metal spikes than nails (Figure 1.2, bottom; the Swiss Army knife is for scale).



FIGURE 1.2

This stone foundation (top) is all that remains of one of the structures that made up the long-since-deserted Pilershire community located in north-central Connecticut. Stone walls, foundations, and wells, along with the objects used and then lost, abandoned, or discarded by the inhabitants of the community, represent that part of the past which endures into the present (bottom). This book presents what we know about the grand sweep of human history through the analysis of the enduring physical remains of the past. (K. L. Feder)



Curious enough that this foundation sits in the middle of the woods, a healthy walk from the nearest inhabited home, but even more curious when you continue past the large foundation and realize it is but one of several embedded deeply in the woods, some distance from the modern neighborhood of elegant homes.

What was this place? When was it inhabited? Who lived here? What happened to their seemingly once thriving small community? Why was it abandoned? Where did the inhabitants go? These are vexing questions, but one thing is certain: The past is not dead and gone here. Though now little more than a collection of stone walls and cellar holes in the middle of the woods, 200 years ago, in fact, this was the nucleus of a thriving community called Pifershire, with homes, cleared fields, farms, barns, a cider mill, a school, various small industries, and shops. The children of Pifershire once ran along village paths that are now hiking trails in a wildlife sanctuary. The path taken to get to this place, curiously broad for a simple hiking trail and mysteriously bounded by stone walls, is what remains



FIGURE 1.3

Hidden in a niche in a cliff in northern Arizona, Montezuma Castle was not really a fortress of the Aztec king Montezuma. It was, instead, a small community of Native Americans of the Sinagua culture (see Chapter 14) who inhabited the area more than 600 years ago (left). This Easter Island moai (right) was never completed and still rests in the quarry where it was being sculpted nearly a thousand years ago. Ancient communities and places of work, like quarries, mines, hunting grounds, and so forth, can all become part of the archaeological record. (Left, K. L. Feder; right, Sonja Gray)

of the old coach road that conveyed people and goods to and from the village. People worked, prayed, laughed, loved, lived out their lives, and ultimately died at this place. Now they are ghosts, and their community is little more than a point of interest in a nature trail guide. Oh, and one more thing: What was once their community is now an **archaeological site**, an enchanted place where the past has not evaporated, is not dead and gone, but continues to reside in the present.

A FOREIGN COUNTRY

In the wonderful title of David Lowenthal's (1988) book whose wording he took from the English novelist L. P. Hartley, it is phrased in this way: *The Past Is a Foreign Country*. With that literary image in mind, we might say that the site where the remnants of the Pilershire community can be found today represents a place where we in the present can visit that exotic land that is the past.

In a sense, Pilershire represents an abandoned, forgotten part of human history, but it is not unique. All over Connecticut, throughout New England, scattered around the United States, and, in fact, dispersed across the globe, there are innumerable "lost villages," places where the detritus of past people lies abandoned in the woods, nestled under meters of sand, ensconced in ancient layers of soil, hidden deep in the recesses of dark caverns, and even embedded in rock (Figure 1.3). The pasts reflected in these lost villages—and lost quarries, encampments, fishing stations, sacred places (see Figure 1.4), trading posts,

Archaeological Site: A site is a place where people lived and/or worked and where the material objects that they made, used, lost, or discarded can yet be recovered and analyzed.

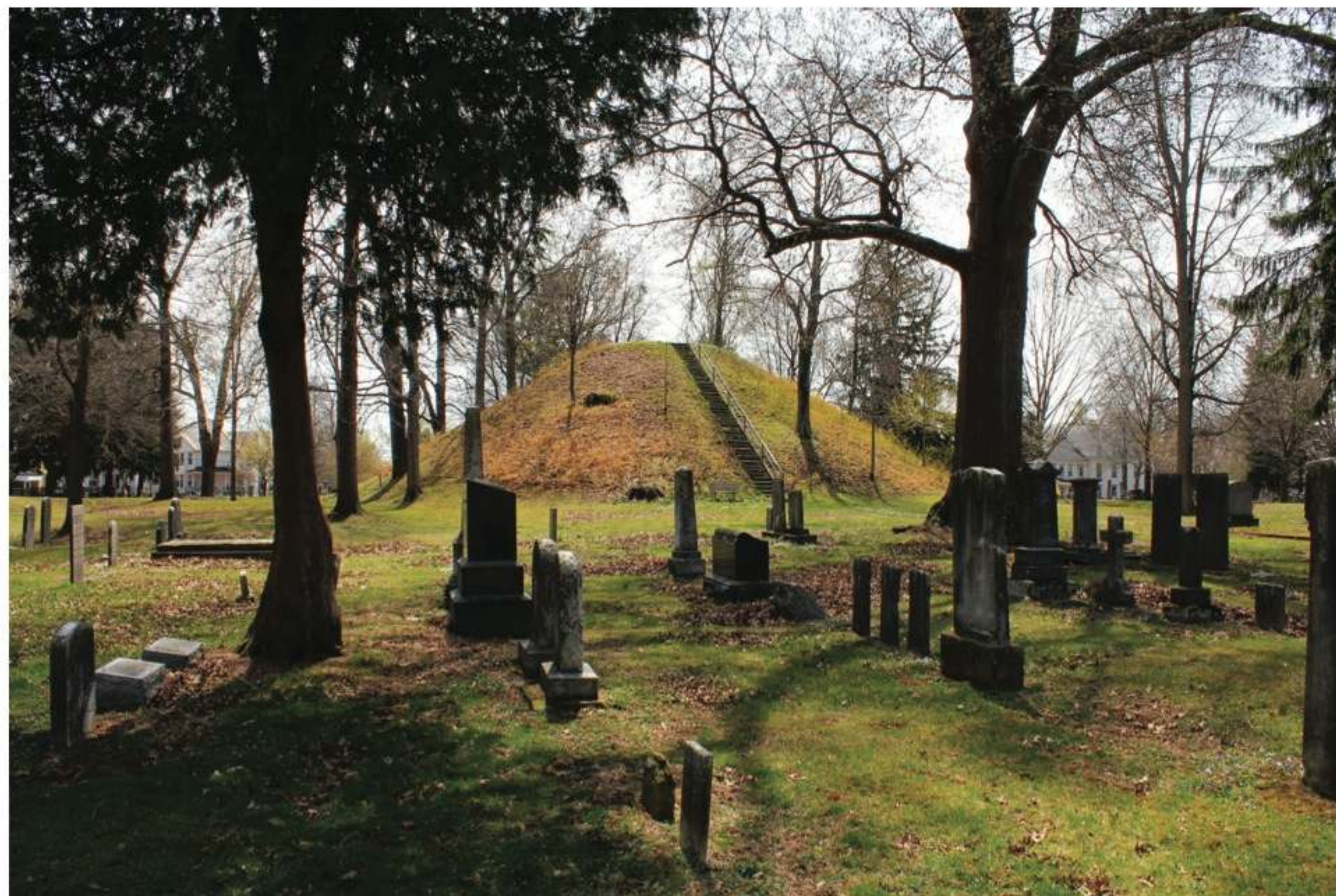


FIGURE 1.4

Quartzite picks used to quarry soapstone at 3,000-year-old site located in northwest Connecticut (left; and see Figure 2.1, middle, for examples of the quarrying process from the same site). (right) The spectral images shown here are among more than two dozen unique anthropomorphic pictographs—greater than life-sized, human-like painted images—located in the Great Gallery, an isolated and protected alcove in Horseshoe Canyon in southeastern Utah. The art is more than 2,000 years old. (K. L. Feder)

FIGURE 1.5

People in both the distant and recent past left memorials to those they loved and respected and for whom they grieved. Here, at the same location in Marietta, Ohio, but at entirely different times, Native Americans constructed a burial mound (about 2,000 years ago) and much more recently, eighteenth- and nineteenth-century Euro-American settlers interred their dead in the shadow of that mound. Those more recent people recognized the sacredness of the place, left the older burials intact, and then continued the practice of using the site as a graveyard. (K. L. Feder)



mines, hunting camps, and burial grounds (Figure 1.5)—reside in our present in the form of material remains left behind by human beings who lived their lives centuries, millennia, and even millions of years ago. The remnants of their homes and possessions—even the remains of their own bodies—continue their slow descent into oblivion, but at least for some of them, we have arrived before they have become dust, before they are, in fact, dead and gone. In these providential instances, we have arrived in time to tell their stories.

This book strives to accomplish that task of storytelling through the application of the sciences of **paleoanthropology** and **archaeology**. This book is not about a single time or place but of all the times and all the places of humanity. It is a travelogue, of sorts, in which together we will visit the “foreign country” that is our species’ enduring past.

AN ANTHROPOLOGICAL PERSPECTIVE

Paleoanthropology and archaeology are subfields within the broader discipline of **anthropology** (Figure 1.6). Contemporary anthropology is the study of people. Of course, the other social sciences—economics, political science, psychology, sociology—also study people but from very particular perspectives, focusing on specific aspects of human behavior. Anthropology, on the other hand, attempts to be **holistic** and **integrative** in its approach. If other social scientists specialize in the workings of specific systems within human society, anthropologists tend to be generalists who want to know how human society, with all its interrelated parts, works as a whole and how it came into existence.

Some anthropologists—called **ethnographers**—study humans by residing in particular societies and observing the behaviors of the people living in them. For example, projects conducted by ethnographers in my anthropology department

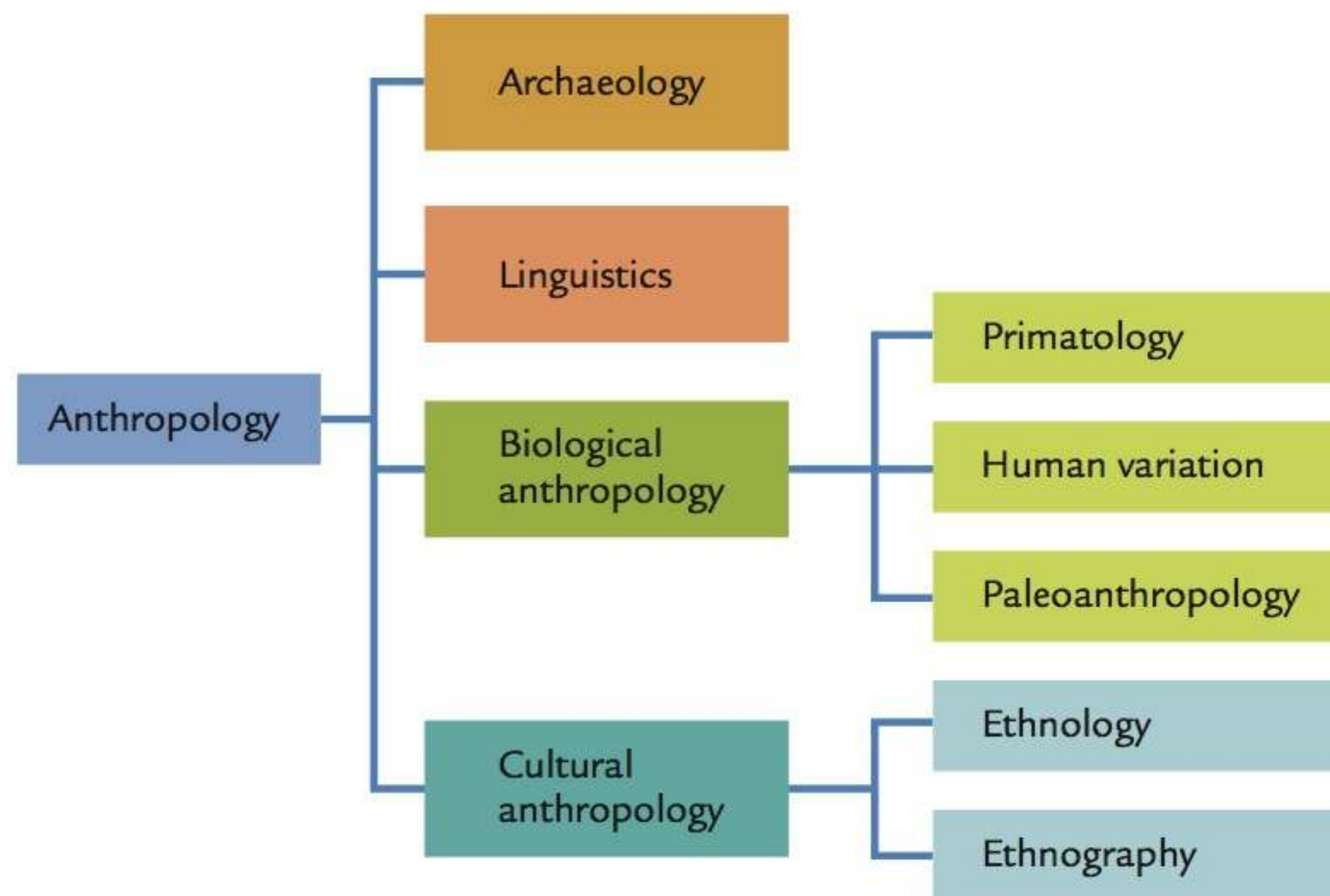
Paleoanthropology:

Anthropological study of the evolution of our species.

Archaeology: The study of humanity through the analysis of the material remains of human behavior: the study of the things that people made and used in the past and that have been fortuitously preserved.

Anthropology: The study of humanity. A broad social science with varied foci on human biological and cultural adaptations, human origins, and biological and cultural evolution as well as modern cultures.

Holistic: The approach in modern anthropology to view human biology and behavior together, as a whole, to understand our species.

**FIGURE 1.6**

The major subdivisions of the field of anthropology, including the two that are the focus of this book: paleoanthropology and archaeology. While these subdivisions represent distinct approaches, there is a great amount of connectivity among them. Each of these subdivisions can, in turn, be further subdivided into various anthropological specialities.

have included the investigation of the religion of the modern Maya people of Mexico, the economy of Viet Nam, and African American hairdressers in Connecticut. Researchers who go beyond examining a particular group of people to compare the behaviors of different cultures are conducting **ethnology**. An ethnologist might take the work of several ethnographers who have conducted detailed studies of specific human groups and investigate, for example, how those various peoples deal with death, discipline their children, choose a mate, or build their houses. A highly specialized subfield of anthropology is **anthropological linguistics**. Here, the focus is language—how it evolved and the historical relationships among the known languages.

Primatologists also live with the groups they study. Instead of living among and studying people, these anthropologists focus their attention on the group of animals called the nonhuman **primates**. Prosimians (like lemurs), monkeys, apes, and humans are all primates (see Chapter 3). Primatologists aim to better understand our nearest living relatives. Believing that all primates share a common evolutionary heritage, primatologists hope to gain insights into our ancestral line. Jane Goodall (Figure 1.7), who has devoted much of her life to living among and learning about chimpanzees in the wild, is perhaps the best-known primatologist. Dian Fossey lived and worked with gorillas in the African nation of Rwanda. Her life and work as a primatologist was the subject of a biography by Farley Mowat, *Woman in the Mists* (1987), and the Hollywood movie *Gorillas in the Mist* (Phelan 1988).

If you watch the popular TV show *Bones*, you see the work of another kind of biological anthropologist: a **forensic anthropologist**. “Forensic” literally means the application of scientific procedures in the solution of a crime. *Bones* is based on the work of a real forensic anthropologist, Kathy Reichs. Using their knowledge of the human skeleton, especially skeletal trauma and pathology, forensic anthropologists work with law enforcement in investigating crimes. For example, a Connecticut colleague of mine, Al Harper (1999), was able to contribute to the solution of a murder in which a woman’s body was run through a wood chipper by her husband. Though the vast majority of the murdered woman’s skeleton had been pulverized, using standard techniques applied by archaeologists and

Integrative: Within a holistic approach, anthropologists recognize that human behavior can be broken down into a series of component parts that work together to allow people to survive.

Ethnographer: Cultural anthropologist who lives among a group of people or a cultural group.

Ethnology: The comparative study of culture. Ethnologists study human behavior cross-culturally, looking for similarities and differences in how people behave.

Anthropological Linguistics: Subfield of anthropology that focuses on language.

Primatologist: A person who studies primates: prosimians, monkeys, or apes.

Primate: Members of the taxonomic order Primates. Animals possessed of grasping hands and feet, stereoscopic vision, and relatively large brains (in proportion to body size).

Forensic Anthropologist: A biological anthropologist who specializes in the identification of the human skeleton, often in the investigation of a crime.