Eighth Edition

ANTHROPOLOGY

A GLOBAL PERSPECTIVE

Raymond Scupin | Christopher R. DeCorse

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A Global Perspective

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Preface

Educational Goals and Orientation of This Text

The world has become a small place. Global communications, international trade, geopolitical events, and ease of travel have brought people from different cultures into more intimate contact than ever before, forcing this generation of students to become more knowledgeable about societies other than their own. This textbook is grounded in the belief that enhanced global awareness is essential for people preparing to take their place in the interconnected world of the twenty-first century. Anthropology is ideally suited to introduce students to this global perspective. Through exploring the range of human diversity, the subfields of anthropology help liberate students from narrow, parochial views and enable them to appreciate the full sweep of the human condition.

The anthropological perspective, which stresses critical thinking, the evaluation of competing hypotheses, and the skills to generalize from specific data, is fundamental to a well-rounded education. This text engages readers in anthropology by delving into both classic and current research. It reflects a commitment to anthropology's holistic and integrative approach, demonstrating how the four basic subfields of anthropology—biological anthropology, archaeology, linguistics, and cultural anthropology—together yield a comprehensive understanding of humanity. Insights from each of the subfields are woven together to reveal how anthropologists unlock the working of a particular society or discover the threads that unite human societies in the past and present. In examining anthropological research, this text often draws on research from other disciplines, including an array of findings from biology, paleontology, history, psychology, sociology, political science, religious studies, and research in other areas that shed light on anthropological inquiry. Exploring interactions between anthropology and other fields further underscores anthropology's unique, holistic perspective that sparks the critical imagination that brings the learning process to life.

The comparative approach, another cornerstone of anthropology, is also highlighted throughout the text. When anthropologists assess fossil evidence, artifacts, languages, or cultural beliefs, they weigh the evidence from a comparative perspective, even as they acknowledge the unique elements of each case, society, or culture. Anthropologists draw on examples from across both time and space. The text consequently casts an inquiring eye on materials from numerous geographical regions and historical eras to enrich student understanding. In evaluating human evolution, prehistoric events, language divergence, or developments in social structure, anthropologists must rely on a diachronic approach, and draw on models that accommodate change through time.

Three Unifying Themes of This Text

In the previous edition of this textbook, we emphasized three unifying themes that structured the material presented. These have been retained and expanded in this eighth edition. The first two themes we introduce students to are the *diversity of human societies* and cultural patterns the world over and the *similarities that make all humans fundamentally alike*. To achieve these two objectives, we pay as much attention to universal human characteristics as we do to local cultural contexts and conditions. We emphasize the growing interconnectedness of humanity and both the positive and negative consequences of this reality. We draw on anthropological studies to discover how people are responding to the process of globalization.

The third theme, which we emphasize more prominently in this edition, focuses on the interconnections between the sciences and humanities within anthropology. We call this the *synthetic-complementary approach*, which views the scientific method and the methods in the humanities as complementary and suggests that one is incomplete without the other. This theme had been mentioned in previous editions, but we make it much more of a centerpiece in this one. This third important theme dovetails with the two other themes, demonstrating how human behavior is unique to a specific culture, and yet is also universal. This point resonates with an observation made by the late Eric Wolf. In another anthropology textbook published decades ago, Wolf emphasized that anthropology has always had one foot in the sciences and the other foot in the humanities. This observation is even truer today. Wolf said, "Anthropology is both the most scientific of the humanities and the most humanistic of the sciences" (1964, 88). Wolf was kind enough to give us suggestions in developing this textbook, and we would like to carry on the tradition that he emphasized in his work.

Some anthropologists have argued that the scientific approach is not suitable for assessing and interpreting

human behavior and culture, whereas others believe that the humanistic approach is not appropriate for developing general cross-cultural and causal explanations about human behavior and culture. This has led to textbooks that focus on either one approach or the other. In this book, we highlight how the interpretive-humanistic perspective is complementary to the scientific method, which seeks general cross-cultural and causal explanations for human behavior and culture. The interpretive-humanistic perspective provides insight into the specifics of human behavior within different cultures, whereas the scientific approach offers a method to test causal explanations that allow for insight into universal aspects of human behavior.

What's New to This Edition

- Learning objectives and summaries added to all chapters.
- New discussion of obsidian hydration and revised discussion of archaeological and paleoanthropological methods.
- Substantially revised presentation of primate and hominin classification integrating genetic data.
- Updated information on new fossil and archaeological evidence on early hominin origins, including the Denisovans.
- Revised and expanded discussion of the genetic evidence and evolutionary models for the emergence of *Homo sapiens* with new illustrations.
- New Critical Perspectives box in the Human Variation chapter called "Joseph Arthur de Gobineau and the Aryan Master Race" that explores the use of Nazi pseudoscience to meet political ends.
- Revised and expanded discussion of modern human variation, including epigenetic and cultural factors.
- Updated discussion of the new evidence for the FOX2P gene in Neandertals in the Critical Perspectives box "Could Early Hominins Speak? The Evolution of Language."
- New and expanded discussions of domestication and early agriculture in different world areas.
- New and expanded discussions of the theories of state formation and the origins of civilizations in different world areas.
- New Anthropologist at Work boxes illustrating current research directions of a linguistic anthropologist who explores race and ethnicity issues and corporate culture and a cultural anthropologist who is examining the world of hackers and geeks dealing with the Internet.
- New discussions of Pierre Bourdieu on agency and forms of economic, social, and cultural capital.
- New discussion of the ethics of anthropological research in war zones and its controversies.
- New reorganization of chapters 14–19 to highlight the different environments, subsistence and demographic conditions, technology, economics, social structures including family, gender, and age, politics, warfare, law, religion, art, and music found in different forms of societies throughout the world.
- New discussion of the research on human cooperation and the development of prosocial norms in economics and religious traditions.
- New discussion of polyandry based on recent cross-cultural research.
- New discussion of universalistic religious traditions including Hinduism, Buddhism, Judaism, Catholicism, Protestantism, and Islam.
- New discussions of art and music as studied by anthropologists and ethnomusicologists in different societies, including agricultural, industrial, and postindustrial states.
- New discussions of the recent research on the *burakumin* people of Japan.
- New discussion of John Hartigan's research on the Mexican genome reflecting a different concept of race compared to the U.S. folk model.
- New Anthropologists at Work box on Akbar Ahmed and his research on globalization and the Islamic World.
- New discussion of John Bowen's research on secularization and Islam in France.
- New discussions of "Engaged Anthropology" within the context of Applied Anthropology.
- New discussions of cardiac disease in India and acupuncture in the United States as research topics in medical anthropology.

Features of This Text

Boxes

Critical Perspectives boxes highlight specific anthropological questions, focusing on how information is collected and evaluated. Students are placed in the role of an anthropologist and engaged in the analysis of particular problems and their interpretation. A popular feature since the first edition, Critical Perspectives boxes push students to critically evaluate evidence when considering scientific and philosophical questions that have no easy answers. We have added a new Critical Perspectives box

for this eighth edition. By probing beneath the surface of various assumptions and hypotheses, students discover both the excitement and challenge of anthropological investigation.

Anthropologists at Work boxes, profiling prominent anthropologists, humanize many of the issues covered in the chapters. These boxes—another carryover from the first edition—go behind the scenes to trace the personal and professional development of some of today's leading anthropologists. We have added three new boxes in this area focusing on Bonnie Urciuoli's work as a linguistic anthropologist, Gabriella Coleman's fascinating ethnographic research on hackers and geeks on the Internet, and Akbar Ahmed's research on globalization and the Islamic world.

Pedagogical Aids

For sound pedagogical reasons, we have retained some features in this eighth edition of *Anthropology: A Global Perspective*. Each chapter opens with a Chapter Outline and Learning Objectives that will help guide students to the most important issues addressed in that chapter. And each chapter ends with Summary and Learning Objectives that address issues covered in it; students can use these to help comprehend the material they have read. In addition, each chapter ends with a list of Key Terms that will help students focus on important concepts introduced in the chapter.

Support for Instructors and Students

Instructor's Manual: For each chapter in the text, this valuable resource provides a detailed Chapter Outline, Learning Objectives from the text, Lecture and Discussion Topics, Classroom Activities, and Research and Writing Topics. For easy access, this manual is available for download at **www.pearsonhighered.com/irc**

Text Bank: Test questions in multiple-choice, true/false, and essay formats are available for each chapter. For easy access, this test bank is available for download at **www.pearsonhighered.com/irc**

MyTest: This computerized software allows instructors to create their own personalized exams, edit any or all of the existing test questions, and add new questions. Other special features of the program include random generation of test questions, creation of alternate versions of the same test, scrambling question sequence, and test preview before printing. For easy access, this software is available at **www.pearsonhighered.com/irc**.

PowerPoint Presentation Slides for Anthropology: These PowerPoint slides combine text and graphics for each chapter to help instructors convey anthropology principles in a clear and engaging way. For easy access, they are available for download at **www.pearsonhighered.com/irc**.

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A textbook like this one requires the enormous effort of many people. First, we would like to offer thanks to our colleague Christina Dames, who is a recent graduate of the University of Missouri, Columbia anthropology program and a faculty member at Lindenwood University. She provided in-depth research assistance on the production of this textbook, helping to update the materials in many areas.

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Anyone with comments, suggestions, or recommendations regarding this text is welcome to send e-mail messages to the following addresses: *rscupin@lindenwood.edu* or *crdecors@maxwell.syr.edu*.

Raymond Scupin

Christopher R. DeCorse

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About the Authors

Raymond Scupin is Professor of Anthropology and International Studies at Lindenwood University. He is currently the Director at the Center for International and Global Studies at Lindenwood. He received his B.A. degree in history and Asian studies, and anthropology, from the University of California—Los Angeles. He completed his M.A. and Ph.D. degrees in anthropology at the University of California—Santa Barbara. Dr. Scupin is truly a four-field anthropologist. During graduate school, he did archaeological and ethnohistorical research on Native Americans in the Santa Barbara region. He did extensive ethnographic fieldwork in Thailand with a focus on understanding the ethnic and religious movements among the Muslim minority. In addition, Dr. Scupin taught linguistics and conducted linguistic research while based at a Thai university.

Dr. Scupin has been teaching undergraduate and graduate courses in anthropology for more than 30 years at a variety of academic institutions, including community colleges, research universities, and a four-year liberal arts university. Thus, he has taught a very broad spectrum of undergraduate students. Through his teaching experience, Dr. Scupin was prompted to write this textbook, which would allow a wide range of undergraduate students to understand the holistic and global perspectives of the four-field approach in anthropology. In 1999, he received the Missouri Governor's Award for Teaching Excellence. In 2007, Dr. Scupin received the Distinguished Scholars Award at Lindenwood University.

Dr. Scupin has published many studies based on his ethnographic research in Thailand. He returned to Thailand and other countries of Southeast Asia to update his ethnographic data on Islamic trends in that area, an increasingly important topic in the post-9/11 world. He is a member of many professional associations, including the American Anthropological Association, the Asian Studies Association, and the Council of Thai Studies. Dr. Scupin has recently authored *Religion and Culture: An Anthropological Focus, Race and Ethnicity: The United States and the World*, and *Peoples and Cultures of Asia*, all published by Pearson Prentice Hall.

Christopher R. DeCorse received his B.A. in anthropology with a minor in history from the University of New Hampshire, before completing his M.A. and Ph.D. degrees in archaeology at the University of California—Los Angeles. His theoretical interests include the interpretation of ethnicity and culture change in the archaeological record, archaeology and popular culture, and general anthropology. Dr. DeCorse has excavated a variety of prehistoric and historic period sites in the United States, the Caribbean, and Africa, but his primary area of research has been in the archaeology, history, and ethnography of West Africa. Dr. DeCorse has taught archaeology and general anthropology in undergraduate and graduate programs at the University of Ghana, Indiana University of Pennsylvania, and Syracuse University, where he is currently professor and past chair of the Department of Anthropology. His academic honors and awards include: the Daniel Patrick Moynihan Award for Outstanding Teaching, Research and Service; the William Wasserstrom Award for Excellence in Graduate Teaching; and the Syracuse University Excellence in Graduate Education Faculty Recognition Award.

Dr. DeCorse is particularly interested in making archaeology more accessible to general audiences. In addition to the single-authored physical anthropology and archaeology textbook *The Record of the Past: An Introduction to Physical Anthropology and Archaeology*, he coauthored with Brian Fagan, the eleventh edition of *In the Beginning: An Introduction to Archaeology*, both published by Prentice Hall. Dr. DeCorse's academic publications include more than 60 articles, book chapters, and research notes in a variety of publications, including *The African Archaeological Review*, *Historical New Hampshire*, *Historical Archaeology*, the *Journal of African Archaeology*, and *Slavery and Abolition*. A volume on his work in Ghana, *An Archaeology of Elmina: Africans and Europeans on the Gold Coast 1400–1900*, and an edited volume, *West Africa during the Atlantic Slave Trade: Archaeological Perspectives*, were published in 2001. His most recent book (2008), *Small Worlds: Method, Meaning, and Narrative in Microhistory*, coedited with James F. Brooks and John Walton, deals with the interpretation of the past through the lense of microhistory.

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Chapter 1

Introduction to Anthropology

Chapter Outline

Learning Objectives

After reading this chapter you should be able to:

1.1 Compare and contrast the four major subfields of anthropology.

1.2 Describe how the field of anthropology is holistic, interdisciplinary, and global.

1.3 Explain how the scientific method is used in anthropological explanations.

1.4 Discuss how the field of anthropology bridges both the sciences and the humanities.

1.5 Describe why any student should study anthropology.

First contact. To science-fiction writers, *first contact* refers to the first meeting between humans and extraterrestrial beings. To anthropologists, the phrase refers to the initial encounters between peoples of different societies. For thousands of years, peoples throughout the world have had first contacts with each other. Today, "first contacts" are happening at every moment—through e-mail, smartphones, and the Web, as well as by the ease of international travel. What do we observe at these "first contacts"? How do we understand diverse peoples of the world? How can we explain human behaviors? In a globalized world, these questions are growing more and more important. As we shall see in this chapter, anthropology incorporates four major subfields that seek to understand different aspects of humanity in much the same way that future space travelers might investigate extraterrestrials.

Anthropologists use a variety of field methods, techniques, and theoretical approaches to conduct their investigations, which have two major goals: to understand the *uniqueness and diversity* of human behavior and human societies around the world and to discover the *fundamental similarities* that connect human beings throughout the world in both the past and the present. To accomplish these goals, anthropologists undertake systematic case studies of human populations across the globe.

These studies have broadened our understanding of humanity, from the beginning of human societies to the present. This chapter introduces the distinctive approaches used in anthropology to achieve these goals.

Anthropology: The Four Subfields

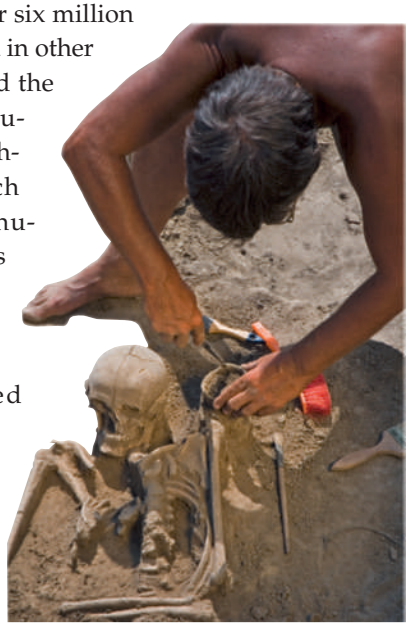
1.1 Compare and contrast the four major subfields of anthropology.

The word *anthropology* is derived from the Greek words *anthropo*, meaning "human beings" or "humankind," and *logia*, translated as "knowledge of" or "the study of." Thus, we can define **anthropology** as the study of humankind. This definition in itself, however, does not distinguish anthropology from other disciplines. After all, historians, psychologists, economists, sociologists, and scholars in many other fields systematically study humankind in one way or another. Anthropology stands apart because it combines four subfields that bridge the natural sciences, the social sciences, and the humanities. These four subfields—biological anthropology, archaeology, linguistic anthropology, and cultural anthropology—constitute a broad approach to the study of humanity the world over, both past and present. Figure 1.1 shows these subfields and the various specializations that make up each one. A discussion of these subfields and some of the key specializations in each follows.

The subfields of anthropology initially emerged in Western society in an attempt to understand non-Western peoples. When Europeans began exploring and colonizing the world in the fifteenth century, they encountered native peoples in the Americas, Africa, the Middle East, and Asia. European travelers, missionaries, and government officials described these non-Western cultures, providing a record of their physical appearances, customs, and beliefs. By the nineteenth century, anthropology had developed into the primary discipline for understanding these non-Western societies and cultures. The major questions that these nineteenth-century anthropologists sought to answer dealt with the basic differences and similarities of human societies and cultures and with the physical variation found in peoples throughout the world. Today, anthropologists do not solely focus their attention on non-Western cultures: They are just as likely to examine cultural practices in an urban setting in the United States as to conduct fieldwork in some far-off place. However, anthropologists continue to grapple with the basic questions of human diversity and similarities through systematic research within the four subfields described below.

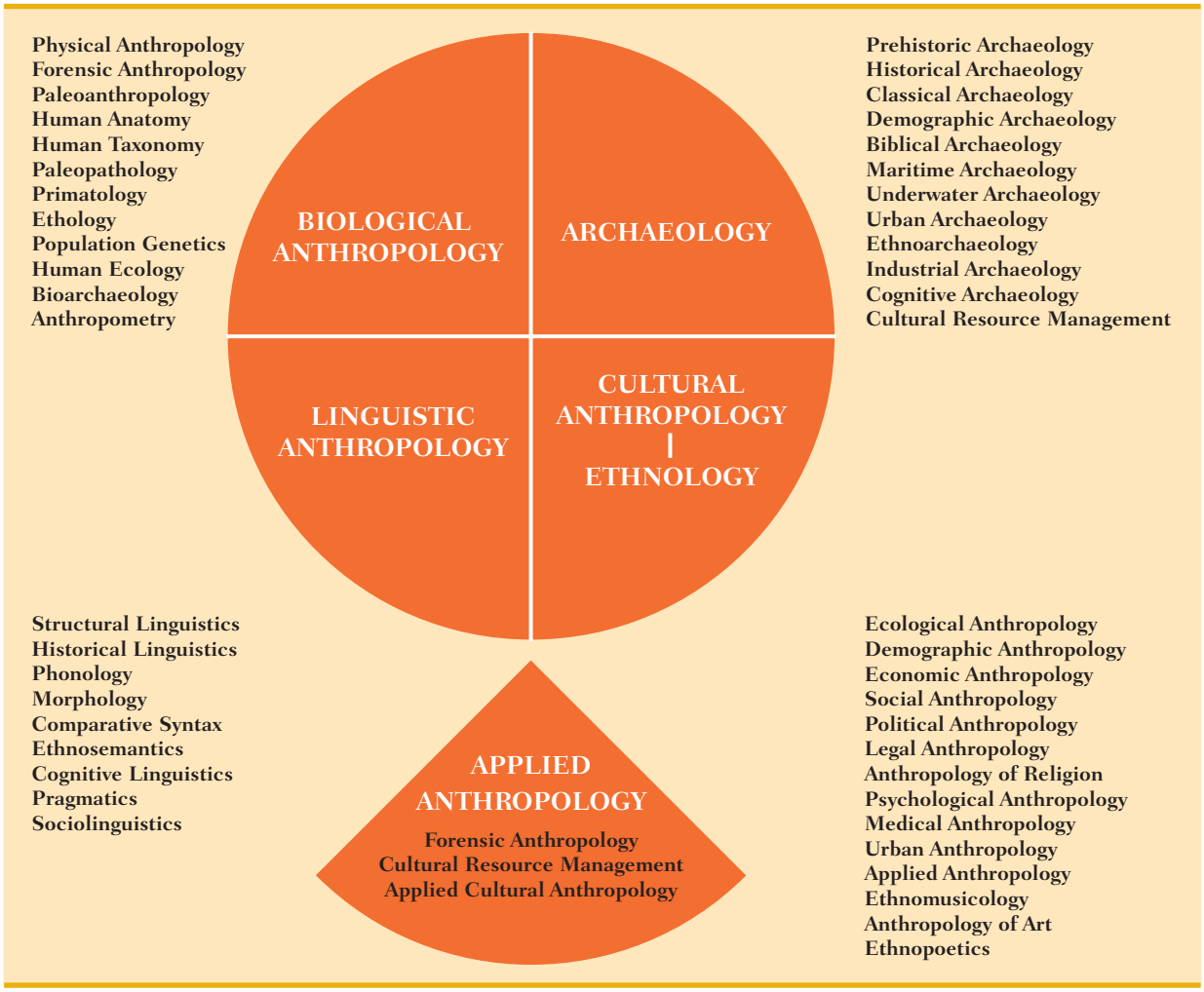
Biological Anthropology

Biological anthropology, (also referred to as physical anthropology) is the branch of anthropology concerned with humans as a biological species. As such, it is the subfield most closely related to the natural sciences. Biological anthropologists conduct research in two major areas: human evolution and modern human variation. The investigation of human evolution presents one of the most tantalizing areas of anthropological study. Research has now traced the African origins of humanity back over six million years, while fieldwork in other world areas has traced the expansion of early human ancestors throughout the world. Much of the evidence for human origins consists of **fossils**, the fragmentary remains of bones and living materials preserved from earlier periods. The study of human evolution through analysis of fossils is called **paleoanthropology** (the prefix *paleo* from the Greek word



Excavation of a human skull from an ancient burial

Figure 1.1 The four core subfields of anthropology and applied anthropology.



palaios means "old" or "ancient"). Paleoanthropologists use a variety of scientific techniques to date, classify, and compare fossilized bones to determine the links between modern humans and their biological ancestors. These paleoanthropologists may work closely with archaeologists when studying ancient tools and activity areas to learn about the behavior of early human ancestors.

Other biological anthropologists explore human evolution through **primatology**, the study of primates. **Primates** are a diverse order of mammals that share an evolutionary history with humans and, therefore, have many physical characteristics in common with us. Many primatologists observe primates such as chimpanzees, gorillas, gibbons, and orangutans in their natural habitats to ascertain the similarities and differences between these other primates and humans. These observations of living primates provide insight into the behaviors of early human ancestors.

Another group of biological anthropologists focuses their research on the range of physical variation within and among different modern human populations. These anthropologists study human variation by measuring physical characteristics—such as body size, variation in blood types, or differences in skin color—or various genetic traits. Their research aims at explaining *why* such variation occurs, as well as documenting the differences in human populations.

Skeletal structure is also the focus of anthropological research. Human *osteology* is the particular area of specialization within biological anthropology dealing with the study of the human skeleton. Such studies have wide-ranging applications, from the identification of murder victims from fragmentary skeletal remains to the design of ergonomic airplane cockpits. Biological anthropologists are also interested in evaluating how disparate physical characteristics reflect evolutionary adaptations to different environmental conditions, thus shedding light on why human populations vary.

An increasingly important area of research within biological anthropology is *genetics*, the study of the biological

"blueprints" that dictate the inheritance of physical characteristics. Genetics research examines a wide variety of questions. It has, for example, been important in identifying the genetic sources of some diseases, such as sickle-cell anemia, cystic fibrosis, and Tay-Sachs disease. Recent genetics research has also focused on how human populations living in the Himalayan Mountains are adapting to new environmental conditions and low oxygen levels found at the altitude of 4,000 meters above sea level. Research revealed that the gene or genes that determine high-oxygen blood count for women gave survival and adaptive capacities in this high mountain altitude, demonstrating a case of natural selection and human evolution within a particular localized environment (Beall, Song, Elston, and Goldstein 2004).

Genetics has also provided important clues into human origins. Through the study of the genetic makeup of modern humans, biological anthropologists have calculated the genetic distance among modern humans, thus providing a means of inferring rates of evolution and the evolutionary relationships within the species. The Genographic Project is gathering samples of DNA from populations throughout the world to trace human evolution. Labs analyzing DNA have been established in different regions of the world by the Genographic Project. As DNA is transmitted from parents to offspring, most of the genetic material is recombined and mutated. However, some mutated DNA remains fairly stable over the course of generations. This stable mutated DNA can serve as "genetic markers" that are passed on to each generation and create populations with distinctive sets of DNA. These genetic markers distinguish ancient lineages of DNA. By following the pathways of these genetic markers, genetic paleoanthropologists can blend

Anthropologists at Work

JOHN HAWKS, Biological Anthropologist

John Hawks is a biological anthropologist who works on the border between paleoanthropology and genetics. He got his start teaching evolution in his home state of Kansas, followed by doctoral training and teaching in Michigan, Utah, and his current home, the University of Wisconsin. He studies the relationships between the genes of living and ancient people, to discover the ways that natural selection has affected them. In 2007, Hawks and his co-workers scanned the genome, finding evidence for widespread selection on new, advantageous mutations during the last 40,000 years (Hawks et al. 2007). The breadth of this selection across the genome indicated that human evolution actually accelerated as larger populations and new agricultural subsistence exerted strong pressures on ancient people. Far from slowing down our evolution, culture had created new opportunities for adaptive change in the human population.

Hawks made substantial contributions examining the Neandertal genome. The availability of genetic evidence from ancient bones has transformed the way we study these ancient people. By comparing Neandertal genes with humans and chimpanzees, it will become possible to expand our knowledge of evolution beyond the skeletal record, finding signs from the immune system, digestion, and pigmentation, to traits like hearing and ultimately, the brain itself.

Hawks is probably most widely known for his blog, which is visited by several thousand readers every day. Describing new research from an expert's perspective, he has shown the power of public outreach as an element of the scientific process. This element of his work has made him a leader in the "open science" movement, trying to expand public accessibility to scientific research and open access to scientific data.

Hawks says that a biological anthropologist has to use evidence from the fossil record and has to be trained in human anatomy—especially *bone* anatomy, or osteology. Biological anthropologists have to know the anatomical comparisons between humans and other primates, and the way these anatomies relate to habitual behaviors. The social and ecological behaviors of primates vary extensively in response to their unique ecological circumstances. Understanding the relationship of anatomy, behavior, and environment gives biological anthropologists a way to interpret ancient fossils and place them in their environmental context. However, Hawks' scientific work hasn't been limited to genetics and fossils. He has become more and more interested in the problems of cultural transmission and information theory.

John Hawks

Hawks welcomes everyone who is interested in human evolution based on a scientific approach to go to his blog at http://johnhawks.net/weblog/hawks/hawks.html.

Children of different nationalities and cultures

archaeology, prehistoric, and linguistic data with paleoanthropological data to trace human evolution. The Genographic Project traces both mitochondrial DNA (passed from mother to offspring in long lineages of maternal descent) and the Y chromosome (passed from father to son). These data have helped provide independent evidence for the African origins of the modern human species and human ancestors. This evidence will be discussed in later chapters on the evolution of modern humans. Individuals can join the project and submit samples of their own DNA to trace their genetic linkage to ancient populations at https://genographic.nationalgeographic.com.

Archaeology

Archaeology, the branch of anthropology that examines the material traces of past societies informs us about the culture of those societies—the shared way of life of a group of people that includes their values, beliefs, and norms. **Artifacts**, the material products of former societies, provide clues to the past. Some archaeological sites reveal spectacular jewelry like that found by the film character Indiana Jones or in the treasures of a pharaoh's tomb. Most artifacts, however, are not so spectacular. Despite the popular image of archaeology as an adventurous, even romantic pursuit, it usually consists of methodical, time-consuming, and—sometimes—somewhat tedious research. Archaeologists often spend hours sorting through ancient trash piles, or **middens**, to discover how members of past societies ate their meals, what tools they used in their households and in their work, and what beliefs gave meaning to their lives. They collect and carefully analyze the broken fragments of pottery, stone, glass, and other materials. It may take them months or even years to fully complete the study of an excavation. Unlike fictional archaeologists, who experience glorified adventures, real-world archaeologists thrive on the intellectually challenging adventure of systematic, scientific research that enlarges our understanding of the past. While excavation, or "scientific digging," and fieldwork remains the key means of gathering archaeological data, a host of new techniques are available to help archaeologists locate and study archaeological sites. One innovative approach increasingly used in archaeology employs the GIS (Geographic Information Systems), a tool that is also increasingly used by environmental scientists and geologists, as well as geographers. Archaeologists can use the GIS linked to satellites to plot the locations of ancient settlements, transportation routes, and even the distribution of individual objects, allowing them to study the patterns and changes represented (Tripcevich and Wenke 2010).

Archaeologists have examined sites the world over, from campsites of the earliest humans to modern landfills. Some archaeologists investigate past societies whose history is primarily told by the archaeological record. Known as *prehistoric archaeologists*, they study the artifacts of groups such as the ancient inhabitants of Europe and the first humans to arrive in the Americas. Because these researchers have no written documents or oral traditions to help interpret the sites they examine and the artifacts they recover, the archaeological record provides the primary source of information for their interpretations of the past. *Historical archaeologists*, on the other hand, work with historians in investigating the societies of the more recent past. For example, some historical archaeologists have probed the remains of plantations in the southern United States to gain an understanding of the lifestyles of enslaved Africans and slave owners during the nineteenth century. Other archaeologists, called *classical archaeologists*, conduct research on ancient civilizations such as in Egypt, Greece, and Rome.

There are many more areas of specialization within archaeology that reflect the geographic area, topic, or time period on which the archaeologist works (see Figure 1.1). Examples of these specializations include industrial archaeology, biblical archaeology, medieval and postmedieval archaeology, and Islamic archaeology. Underwater archaeologists are unique in being distinguished from other archaeologists by the distinctive equipment, methods, and procedures needed to excavate under water. They investigate a wide range of time periods and sites throughout the world, ranging from sunken cities to shipwrecks. Another field of archaeology is called ethnoarchaeology.

Archaeologists excavating the site of Elmina in coastal Ghana.

Ethnoarchaeology is the study of artifacts and material record of modern peoples to understand the use and symbolic meaning of those artifacts.

In another novel approach, still other archaeologists have turned their attention to the very recent past. For example, in 1972, William L. Rathje began a study of modern garbage as an assignment for the students in his introductory anthropology class. Even he was surprised at the number of people who took an interest in the findings. A careful study of garbage provides insights about modern society that cannot be ferreted out in any other way. Whereas questionnaires and interviews depend upon the cooperation and interpretation of respondents, garbage provides an unbiased physical record of human activity. Rathje's pioneering "garbology project" is still in progress and, combined with information from respondents, offers a unique look at patterns of waste management, consumption, and alcohol use in contemporary U.S. society (Rathje 1992).

Linguistic Anthropology

Linguistics, the study of language, has a long history that dovetails with the discipline of philosophy, but is also one of the integral subfields of anthropology. **Linguistic anthropology** focuses on the relationship between language and culture, how language is used within society, and how the human brain acquires and uses language. Linguistic anthropologists seek to discover the ways in which languages are different from one another, as well as how they are similar. Two wide-ranging areas of research in linguistic anthropology are structural linguistics and historical linguistics.

Structural linguistics explores how language works. Structural linguists compare grammatical patterns or other linguistic elements to learn how contemporary languages mirror and differ from one another. Structural linguistics has also uncovered some intriguing relationships between language and thought patterns among different groups of people. Do people who speak different languages with distinct grammatical structures think and perceive the world differently from each other? Do native Chinese speakers think or view the world and life experiences differently from native English speakers? Structural linguists are attempting to answer this type of question.

Linguistic anthropologists also examine the connections between language and social behavior in different cultures. This specialty is called **sociolinguistics**. Sociolinguists are interested both in how language is used to define social groups and in how belonging to a particular group leads to specialized kinds of language use. In Thailand, for

Anthropologists at Work

KELLEY HAYS-GILPIN, Archaeologist

Kelley Hays-Gilpin

Conservation of the past, the deciphering of gender in the archaeological record, and the meaning of rock art are just a few of the intriguing topics that Kelley Hays-Gilpin has addressed in more than two decades of research. Hays-Gilpin is an archaeologist with a research focus on the prehistoric American Southwest, particularly the history and archaeology of the Pueblo peoples. Like many modern archaeologists, her career has included work in both cultural resource management and university teaching (see Chapter 25). Her doctoral work focused on early decorated ceramics in the Four Corners region in the Southwest, and she began her career with the Navajo Nation Archaeology Department in Flagstaff, Arizona. Hays-Gilpin worked on collections salvaged from archaeological sites destroyed by development projects or threatened by construction. Currently, she teaches archaeology, ceramic analysis, and rock art courses at Northern Arizona University in Flagstaff, located just hours from the Petrified Forest National Park and significant rock art sites.

Although concerned with the interpretation of past technology and adept at ceramic classification, Hays-Gilpin has consistently sought to push the interpretation of archaeological data to extract deeper meaning than archaeologists usually propose. Beginning with her doctoral work, she became increasingly interested in the study of ideology, symbols, and gender in the archaeological record. Through the comparative study of pottery, textiles, and rock art, she used ancient art as a means of understanding cultural continuity and change. This research furthered her understanding of modern Native American perceptions of, and concerns about, the past. For Hays-Gilpin, the significance of ancient objects to contemporary indigenous people—having conversations about ancestors and making connections between the past and present—is of crucial importance. It is about being able to glean messages from the past that help us live better lives in the present, including such matters as how to grow food in the desert and how to help others understand and appreciate their heritage.

Hays-Gilpin co-authored an interdisciplinary study of *Prehistoric Sandals from Northeastern Arizona: The Earl H. Morris and Ann Axtell Morris Research*, published in 1998. It draws on the research of three generations of women engaged in the study of essentially the same group of archaeological materials from sites in northeastern Arizona. While it provides a detailed examination of a particular collection, the study also affords insight into changing perceptions of archaeological interpretation. Also published in 1998 was Hays-Gilpin's co-edited volume, *Reader in Gender Archaeology*, which helped establish the legitimacy of gendered approaches to the study of the archaeological record.

For archaeologists, rock art—paintings and engravings—provides a unique source of information, offering clues to prehistoric subsistence, ideology, and religion. Yet the interpretation of these prehistoric creations is challenging, and they have often received less attention than they deserve. Hays-Gilpin's *Ambiguous Images: Gender and Rock Art* (2004), which won the Society for American Archaeology's 2005 book prize, provides a significant contribution to the relatively unexplored field of gender in rock art. Hays-Gilpin demonstrates that rock art is one of the best lines of evidence available to understand the ritual practices, gender roles, and ideological constructs of prehistoric peoples.

In addition to her current academic position, Hays-Gilpin holds the Edward Bridge Danson Chair of Anthropology at the Museum of Northern Arizona, where she is director of the Hopi Iconography Project. This project, a collaborative effort between the museum and the Hopi Tribe's cultural preservation office, explores Hopi cultural continuity over centuries, if not millennia, through pottery, rock art, mural painting, baskets, and textiles. More important, the project is exploring ways in which Hopi traditions can help shape a sustainable future for Hopi communities through subsistence farming, craft production, public health programs, and cultural revitalization.

For Hays-Gilpin, the study of archaeology must emphasize teamwork and reward team players. She feels that archaeologists are not in competition with one another, but rather in competition with the forces that are destroying the archaeological record faster than it can be studied. Her research and career epitomize this approach to archaeology. Hays-Gilpin advocates monitoring and reporting on sites that have been threatened with destruction, and she continues work on many collections that have resided in museums for as much as a century. Her work has led her to collaborate with a network of archaeologists, cultural anthropologists, art historians, linguistic anthropologists, and Hopi artists. Her interdisciplinary approach to the past exemplifies modern archaeology's holistic and inclusive requirements—quite a contrast to its more narrowly specialized traditions. With this new approach, Hays-Gilpin has helped to redefine the discipline of archaeology.

Anthropologist Christina Dames doing linguistic research in West Kalimantan, Borneo, Indonesia

example, there are 13 forms of the pronoun *I*. One form is used with equals, other forms come into play with people of higher status, and some forms are used when males address females (Scupin 1988).

Another area of research that has interested linguistic anthropologists is historical linguistics. **Historical linguistics** concentrates on the comparison and classification of different languages to discern the historical links among them. By examining and analyzing grammatical structures and sounds of languages, researchers are able to discover rules for how languages change over time, as well as which languages are related to one another historically. This type of historical linguistic research is particularly useful in tracing the migration routes of various societies through time by offering multiple lines of evidence—archaeological, paleoanthropological, and linguistic. For example, through historical linguistic research, anthropologists have corroborated the Asian origins of the Native American populations.

Cultural Anthropology

Cultural anthropology is the subfield of anthropology that examines contemporary societies and cultures throughout the world. Cultural anthropologists do research in all over the world, from the tropical rainforests of the Democratic

Anthropologists at Work

BONNIE URCIUOLI, Linguistic Anthropologist

Bonnie Urciuoli completed her B.A. in English at Syracuse University. She completed her M.A. and Ph.D. at the University of Chicago. Her doctorate combined the study of both anthropology and linguistics. She has done research in New York City as a linguistic consultant on a Columbia University-sponsored project with Puerto Rican and African-American teenagers; with grants from the Ford Foundation and the Spencer Foundation. In this project she studied Puerto Rican families in Manhattan and the Bronx, examining patterns of Spanish-English bilinguals and related language ideologies. She has taught linguistics and anthropology at Indiana University and, since 1988, at Hamilton College in Clinton, New York. Based on her research on Puerto Rican bilingualism in New York City, Urciuoli began examining the intersection of race, class and linguistic identity, which resulted in several articles and a 1996 book recently re-issued and entitled *Exposing Prejudice: Puerto Rican Experiences of Language, Race, and Class*. In this book Urciuoli describes how Puerto Rican migrants struggle to adjust to the mainly English-speaking majority. She discusses the history and relationship of the United States and Puerto Rico, in which Puerto Rico has often been referred to as a "backward" and "undeveloped" society. These negative characterizations have consequences for the Puerto Rican migrants who come to the United States and find themselves as a discriminated racial underclass. With Urciuoli's focus on language, she notes how Puerto Rican English is often described as "broken" or "ungrammatical" and how prejudice connects to language and influences discrimination in obtaining jobs and achievements in education. The Puerto Rican migrants are urged to get rid of their accent in order to succeed in business and in education. When Puerto Rican migrants do speak English with teachers, employers, and others, their experience is often fraught with fear and anxiety. Urciuoli studies how "accents," "pronunciation," "tone," and "word choice'" are perceived by people of various ethnic backgrounds, including the Puerto Ricans. Her book indicates that language prejudices are prevalent in the United States and have a definite influence on how ethnic minorities are treated.

Bonnie Urciuoli

Urciuoli's current research began when she met Latino students from working-class backgrounds at the rural and the largely white affluent student population at Hamilton College in upstate New York. These Latino students were very similar to the Puerto Rican teenagers she encountered in New York City, who were the topic of her book *Exposing Prejudice*. Urciuoli has

been publishing articles about how colleges market *multiculturalism* and *diversity* as part of their image, while Latino students and those of other minority groups who provide that diversity often experience social and academic struggles. At times, these Latino students are categorized and diagnosed as having "language interference," or "learning disorders" (Urciuoli 2003). Currently, Urciuoli is conducting in-depth interviews with these Latino students about their educational experiences, which will become her new book on this topic.

Urciuoli has also contributed some unique linguistic anthropological research of the Internet. In an essay entitled "Skills and Selves in the New Workplace" published in the *American Ethnologist*, Urciuoli analyzes the language of Internet corporate Web sites that market skills-related services. She investigates the language that the corporate world uses in which students or workers have to position themselves when seeking and performing their jobs. Corporations include key terms such as *skills*, *communication*, *team*, and *leadership* in their advertisements, workshops, and literature on the Internet. Urciuoli seeks to understand how students and workers are supposed to manage their "selves" in the corporate environment. The corporate world presents "skills" as quantifiable, testable, and subject to ratings. In the early days of the industrial revolution, "skills" were related to the tasks that were needed to perform in the factory. However, currently, the corporate language used tends to construct diverse "soft skills" as easily assessed and unproblematic for evaluating the market value of one's own self in relation to leadership, teamwork, or other management performance criteria. Educational institutions in the United States have been influenced by what the corporate world deems important for skill development. Students and workers have to market themselves as having a "bundle of skills" in order to become successful. Corporate Web sites and workshops emphasize how students and workers are responsible for developing these "soft skills." However, in reality these diverse skills are not as easily tested and assessed as presented in these corporate advertisements and literature. It is important to realize that this essay was published in 2008, just as the American economy was entering a devastating recession. Since that time, many students have been striving to market themselves for the American economy by developing and presenting these "bundles of skills" for success. Bonnie Urciuoli has contributed toward an understanding of this process with her linguistic anthropological analysis of the Internet.

Republic of the Congo and Brazil to the Arctic regions of Canada, from the deserts of the Middle East to the urban areas of China. The first professional cultural anthropologists conducted research on non-Western or remote cultures in Africa, Asia, the Middle East, Latin America, and the Pacific Islands and on the Native American populations in the United States. Today, however, many cultural anthropologists have turned to research on their own cultures in order to gain a better understanding of their institutions and cultural values.

Cultural anthropologists (sometimes the terms *sociocultural anthropologist* and *ethnographer* are used interchangeably with *cultural anthropologist*) use a unique research strategy in conducting their fieldwork in different settings. This research strategy is referred to as **participant observation** because cultural anthropologists learn the language and culture of the group being studied by participating in the group's daily activities. Through this intensive participation, they become deeply familiar with the group and can understand and explain the society and culture of the group as insiders. We discuss the methods and techniques of cultural anthropologists at greater length in Chapter 14.

The results of the fieldwork of the cultural anthropologist are written up as an **ethnography**, a description of a society. A typical ethnography reports on the environmental setting, economic patterns, social organization, political system, and religious rituals and beliefs of the society under study. This description is based on what anthropologists call *ethnographic data*. The gathering of ethnographic data in a systematic manner is the specific research goal of the cultural anthropologist. Technically, **ethnology** refers to anthropologists who focus on the cross-cultural aspects of the various ethnographic studies done by the cultural anthropologists. Ethnologists analyze the data that are produced by the individual ethnographic studies to produce cross-cultural generalizations about humanity and cultures. Many cultural anthropologists use ethnological methods to compare their research from their own ethnographic fieldwork with the research findings from other societies throughout the world.

Applied Anthropology

The four subfields of anthropology (biological anthropology, archaeology, linguistic anthropology, and cultural anthropology) are well established. However, anthropologists also recognize a fifth subfield. **Applied anthropology** is the use of anthropological data from the other subfields to address modern problems and concerns. These problems may be environmental, technological, economic, social, political, or cultural. Anthropologists have played an increasing role in the development of government policies and legislation, the planning of development projects, and the implementation of marketing strategies. Although anthropologists are typically trained in one of the major subfields, an increasing number are finding employment outside of universities