An aerial photograph of a village with a mix of traditional thatched-roof houses and modern buildings with corrugated metal roofs. The village is situated in a valley with terraced rice fields on the surrounding hillsides. The scene is captured from a high angle, showing the layout of the buildings and the agricultural landscape.

EIGHTH EDITION

# HUMAN EVOLUTION AND CULTURE

Highlights of Anthropology

CAROL R. EMBER

MELVIN EMBER

PETER N. PEREGRINE

# Human Evolution and Culture

## Highlights of Anthropology

**EIGHTH EDITION**

**Carol R. Ember**

Human Relations Area Files

**Melvin Ember**

**Peter N. Peregrine**

Lawrence University and the Santa Fe Institute

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## For Mel-

Always the optimist, who believed that there were laws governing human behavior that could be found if you thought hard enough, worked hard enough, and tested ideas against the anthropological record.



1933-2009

# Brief Contents

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## Part I

### Introduction

- 1 What Is Anthropology? 1
- 2 Research Methods in Anthropology 17

---

## Part II

### Human Evolution: Biological and Cultural

- 3 Genetics and Evolution 44
- 4 Human Variation and Adaptation 64
- 5 Primates: Past and Present 85
- 6 The First Hominins and the Emergence of *Homo* 107
- 7 The Emergence of *Homo sapiens* and the Upper Paleolithic World 133
- 8 Food Production and the Rise of States 158

---

## Part III

### Cultural Variation

- 9 Culture and Culture Change 188
- 10 Communication and Language 223
- 11 Economics 254
- 12 Social Stratification: Class, Ethnicity, and Racism 286
- 13 Sex and Gender 309
- 14 Marriage, Family, and Kinship 333
- 15 Political Life: Social Order and Disorder 364
- 16 Religion and Magic 390
- 17 The Arts 414

---

## Part IV

### Using Anthropology

- 18 Global Problems 432
- 19 Practicing and Applying Anthropology 452

# Contents

BOXES ix

PREFACE xi

ABOUT THE AUTHORS xvi

## Part I Introduction

### Chapter 1 What Is Anthropology? 1

What Is Anthropology? 2

The Scope of Anthropology 2

The Holistic Approach 3

Anthropological Curiosity 3

Fields of Anthropology 3

Specialization 12

The Relevance of Anthropology 13

### Chapter 2 Research Methods in Anthropology 17

Explanations 18

A Brief History of Anthropological Theory 20

Evidence: Testing Explanations 23

Types of Research in Anthropology 27

Studying the Distant Past 32

Ethics in Anthropological Research 40

## Part II Human Evolution: Biological and Cultural

### Chapter 3 Genetics and Evolution 44

The Evolution of Evolution 45

The Principles of Natural Selection 47

Heredity 49

Sources of Variability 54

The Origin of Species 58

Natural Selection of Behavioral Traits 59

### Chapter 4 Human Variation and Adaptation 64

Processes in Human Variation and Adaptation 65

Physical Variation in Human Populations 67

“Race” and Racism 76

The Future of Human Variation 83

## Chapter 5 Primates: Past and Present 85

- Common Primate Traits 86
- The Various Living Primates 87
- Distinctive Hominin Traits 94
- The Emergence of Primates 96
- The Emergence of Anthropoids 101
- The Emergence of Hominoids 103
- The Divergence of Hominins from the Other Hominoids 104

## Chapter 6 The First Hominins and the Emergence of *Homo* 107

- The Evolution of Bipedal Locomotion 108
- The Transition from Hominoids to Hominins 111
- The First Definite Hominins 112
- Early *Homo* Species 117
- Trends in Hominin Evolution 121
- Homo erectus* 124
- Lower Paleolithic Cultures 127

## Chapter 7 The Emergence of *Homo sapiens* and the Upper Paleolithic World 133

- The Transition from *Homo erectus* to *Homo sapiens* 134
- Middle Paleolithic Cultures 137
- The Denisovans 140
- The Emergence of Modern Humans 140
- What Happened to the Neandertals? 143
- The Upper Paleolithic World 143
- Upper Paleolithic Europe 144
- Upper Paleolithic Cultures in Africa and Asia 149
- The Earliest Humans and Their Cultures in the New World 150
- The End of the Upper Paleolithic 153

## Chapter 8 Food Production and the Rise of States 158

- Preagricultural Developments 160
- The Domestication of Plants and Animals 165
- Why Did Food Production Develop? 170
- Consequences of the Rise of Food Production 172
- Archaeological Inferences About Civilization 174
- Cities and States in Southern Iraq 175
- Cities and States in Mesoamerica 176
- Cities and States in Other Areas 177
- Theories About the Origin of the State 180
- The Consequences of State Formation 181
- The Decline and Collapse of States 183

## Part III Cultural Variation

### Chapter 9 Culture and Culture Change 188

- Defining Culture 189
- Cultural Constraints 192
- Attitudes That Hinder the Study of Cultures 193
- Cultural Relativism 194
- Describing a Culture 196
- Culture Is Patterned 199
- How and Why Cultures Change 200
- Culture Change and Adaptation 211
- Globalization: Problems and Opportunities 213
- Ethnogenesis: The Emergence of New Cultures 216
- Cultural Diversity in the Future 218

**Chapter 10 Communication and Language 223**

- |                         |     |  |     |
|-------------------------|-----|--|-----|
| Communication           | 224 | The Processes of Linguistic Divergence     | 241 |
| The Origins of Language | 229 | Relationships Between Language and Culture | 242 |
| Descriptive Linguistics | 233 | The Ethnography of Speaking                | 246 |
| Historical Linguistics  | 237 | Writing and Literacy                       | 250 |

**Chapter 11 Economics 254**

- |  |     |  |     |
|--|-----|--|-----|
| Foraging   | 255 | The Allocation of Resources                  | 267 |
| Food Production  | 259 | The Conversion of Resources                  | 270 |
| Environmental Restraints on Food-Getting                   | 265 | The Distribution of Goods and Services       | 274 |
| The Origin, Spread, and Intensification of Food Production | 266 | The Worldwide Trend Toward Commercialization | 278 |

**Chapter 12 Social Stratification: Class, Ethnicity, and Racism 286**

- |  |     |                                 |     |
|--|-----|---------------------------------|-----|
| Variation in Degree of Social Inequality | 287 | Racism and Inequality           | 299 |
| Egalitarian Societies                    | 288 | Ethnicity and Inequality        | 302 |
| Rank Societies                           | 290 | The Emergence of Stratification | 304 |
| Class Societies                          | 291 |                                 |     |

**Chapter 13 Sex and Gender 309**

- |   |     |                                  |     |
|---|-----|----------------------------------|-----|
| Gender Concepts                                 | 311 | Political Leadership and Warfare | 318 |
| Physique and Physiology                         | 311 | The Relative Status of Women     | 320 |
| Gender Roles                                    | 312 | Personality Differences          | 322 |
| Relative Contributions to Work: Who Works More? | 315 | Sexuality                        | 326 |

**Chapter 14 Marriage, Family, and Kinship 333**

- |                                     |     |  |     |
|-------------------------------------|-----|--|-----|
| Marriage                            | 334 | The Importance of Kinship  | 348 |
| Why Is Marriage Nearly Universal?   | 335 | Patterns of Marital Residence                                    | 349 |
| How Does One Marry?                 | 337 | Types of Affiliation with Kin                                    | 351 |
| Whom Should One Marry or Not Marry? | 340 | Explaining Variation in Residence                                | 357 |
| How Many Does One Marry?            | 342 | Explaining the Emergence of Different Systems of Kin Affiliation | 359 |
| The Family                          | 346 |  |     |

**Chapter 15 Political Life: Social Order and Disorder 364**

- |  |     |                                |     |
|--|-----|--------------------------------|-----|
| Variation in Types of Political Organization | 365 | Variation in Political Process | 377 |
| The Spread of State Societies                | 376 | Resolution of Conflict         | 379 |



## Chapter 16 Religion and Magic 390

The Universality of Religion	391	Religion and Adaptation	405
Variation in Religious Beliefs	395	Religious Change	406
Variation in Religious Practices	400		

## Chapter 17 The Arts 414

Body Decoration and Adornment	416	Artistic Change, Culture Contact, and Global Trade	428
Explaining Variation in the Arts	417		
Viewing the Art of Other Cultures	427		

## Part IV Using Anthropology

### Chapter 18 Global Problems 432

Natural Events, Disasters, and Famine	433	War	445
Inadequate Housing and Homelessness	435	Terrorism	447
Family Violence and Abuse	439	Making the World Better	449
Crime	442		

### Chapter 19 Practicing and Applying Anthropology 452

Ethics of Applied Anthropology	453	Museum Anthropology	463
Evaluating the Effects of Planned Change	454	Forensic Anthropology	465
Difficulties in Instituting Planned Change	456	Medical Anthropology	466
Environmental Anthropology	458	Cultural Understandings of Health and Illness	466
Business and Organizational Anthropology	459	Political and Economic Influences on Health	472
Cultural Resource Management	462	Health Conditions and Diseases	472

GLOSSARY 483

NOTES 489

BIBLIOGRAPHY 497

CREDITS 525

INDEX 527

# Boxes

## Applied Anthropology

- Who Owns Your DNA? 53
- The Use of “Race” in Forensic Anthropology 78
- Endangered Primates 88
- Studying Biodiversity 99
- Who Were the First Americans? 151
- Raised Field Agriculture 169
- Development Programs and Culture Change:  
A Bedouin Case Study 208
- Can Languages Be Kept from Extinction? 230
- Impact of the World System—Deforestation of the  
Amazon 279
- Unequal in Death: African Americans Compared with  
European Americans 301
- Economic Development and Women’s Status 323
- Democracy and Economic Development 374
- Religion: A Force for Cooperation and  
Harmony? 399
- Rock Art: Preserving a Window into the Past 416
- Climate Change: What Can Anthropologists Contribute  
to Research and Policy? 437
- Getting Development Programs to Include Women  
Farmers 455
- General Motors: Creating a Better Business  
Culture 461
- Eating Disorders, Biology, and the Cultural  
Construction of Beauty 475

## Current Research and Issues

- Researcher at Work: Alyssa Crittenden 6
- Researcher at Work: Timothy G. Bromage 10
- Evaluating Alternative Theories 22
- Molecular Anthropology 60
- Environmental Changes and Evolutionary  
Consequences in Hominins 109
- Was Cahokia a State? 179
- Culture Change and Persistence in China 202
- Global Inequality 297
- Love, Intimacy, and Sexual Jealousy in Marriage 344
- Do Masks Show Emotion in Universal Ways? 424
- Ethnic Conflicts: Ancient Hatreds or Not? 446

## Migrants and Immigrants



Physical Differences Between Natives and Immigrants	81
The First Migrants	123
Increasing Cultural Diversity Within the Countries of the World	217
Why are “Mother Tongues” Retained, and for How Long?	232
Food on the Move	263
Working Abroad to Send Money Home	280
Arranging Marriages in the Diaspora	341
The Growth of Cities	371
Colonialism and Religious Affiliation	407
The Spread of Popular Music	421
Refugees Are a Global Social Problem	439

## Perspectives on Gender



Researcher at Work: Elizabeth M. Brumfiel	8
Women in the Shell Mound Archaic	36
Depictions of Women in Upper Paleolithic Art	149
Does the English Language Promote Sexist Thinking?	248
Why Do Some Societies Allow Women to Participate in Combat?	319
Women’s Electoral Success on the Northwest Coast	321
Variation in Residence and Kinship: What Difference Does It Make to Women?	355
New Courts Allow Women to Address Grievances in Papua New Guinea	383

# Preface

This eighth edition of *Human Evolution and Culture* has a major redesign. Its purpose is the same—it is designed for those who want a shorter version of the four-field *Anthropology* book, now in its fourteenth edition. We have 19 chapters rather than 27. We have shortened the text by eliminating a few chapters and by combining some related chapters into one by reducing discussion, examples, and illustrations. However, in contrast to the last edition, where almost all of the chapters were shortened, we have only shortened and combined about a third of the chapters. Perhaps most noticeable is the full-color format. The changes go far beyond style. To add interest, we have added 23 new boxes. As always, we spend considerable time updating the research.

We have always tried to go beyond descriptions to explain not only *what* humans are and were like but also *why* they got to be that way, in all their variety. This edition is no different. An important part of updating the text is finding new explanations, and we try to communicate the necessity to evaluate these new explanations logically as well as on the basis of the available evidence. Throughout the book, we try to communicate that no idea, including ideas put forward in textbooks, should be accepted even tentatively without supporting tests that could have gone the other way.

## What's New to This Edition

### Engaging Pedagogically-Driven Design

**NEW!** Learning Objectives have been added to each chapter helping readers to focus on the material ahead. Chapter-ending summary materials have been completely revised to link back to the Learning Objectives presenting a more clear overview of the important material covered in the chapter.

### A Clear Understanding of Humans

**NEW! Application of major topics.** *Applied Anthropology* Boxes provide students a better understanding of the vast range of issues to which anthropological knowledge can be usefully applied. These boxes offer an additional way to show how anthropology helps people lead better lives.

### Focus on Contemporary issues

**NEW! Environmental issues.** An expanded focus on environmental issues is presented.

### Chapter-by-Chapter Changes

#### Part I: Introduction

**Chapter 1: What Is Anthropology?** Three new boxes on individual anthropologists—an ethnographer, an archaeologist, and a physical anthropologist—and their work.

**Chapter 2: Research Methods in Anthropology** In a new section we provide a brief introduction to some of the major ideas that have guided this history of anthropology in the United States. A new box explains how alternative theories are evaluated.

#### Part II: Human Evolution: Biological and Cultural

**Chapter 3: Genetics and Evolution** We incorporate a brief history of evolutionary thought to give context to the extensive review of genetics and the processes of evolution, including natural selection and what it means, that follows. There are two new box features—one on ownership of DNA and the second on the emerging field of molecular anthropology.

**Chapter 5: Primates: Past and Present** There are two new boxes in this chapter. The first is on endangered primates and the second is on studying biodiversity.

**Chapter 6: The First Hominins and the Emergence of *Homo*** This chapter has been revised to include discussions of new species and information on early hominin diets. One box feature, discusses what we know about the first hominins to leave Africa. A new box feature discusses ideas about how environmental change contributed to hominin evolution.

**Chapter 7: The Emergence of *Homo sapiens* and the Upper Paleolithic World** In this edition, we discuss the new hominin species from Denesovia Cave in southern Siberia, and update the discussion of modern human origins based on new DNA evidence. We revised the section on human colonization of North and South America, based on new archaeological sites and genetic research. The first of two new boxes is on depictions of women in Upper Paleolithic art and the second is on the controversy over whether fossil remains of the earliest humans to reach North America are related to contemporary Native populations.

**Chapter 8: Food Production and the Rise of States** A new box feature discusses the question of whether Cahokia, a pre-Columbian city located near present-day St. Louis, Missouri, was a state.

#### Part III: Cultural Variation

**Chapter 9: Culture and Culture Change** This chapter has been revised considerably to make it more engaging. New examples on food preferences and taboos are used to illustrate that culture is learned. The section on controversies about the concept of culture has been rewritten. A new section and figure on baby names in the United States illustrates random copying of neutral traits. A broader and more historical view of globalization is introduced. The revolution section now contains a discussion of the Arab Spring and the difficulties of bringing about change by revolution. Both boxes in the chapter are new. The first is on culture change and persistence in China and the second is a case study of Bedouin development programs.

**Chapter 10: Communication and Language** In an extensively rewritten section on nonverbal human communication, we include new research on handshaking, pheromones, and other communication such as whistle communication. There are two new boxes. The first is on whether languages can be kept from extinction and the second is on why “mother tongues” are retained longer for some immigrant groups.

**Chapter 11: Economics** We have introduced a body of experimental and observational research providing evidence

that sharing and cooperation may be universally associated with pleasure. Three boxes are new. The first is on the global movement of food. The second is on working abroad to send money home and the third is on the impact of the world system on the deforestation of the Amazon.

**Chapter 12: Social Stratification: Class, Ethnicity, and Racism** We have expanded our section on caste, adding a discussion of occupational caste in Africa. The section on “race” is extensively expanded with a new section on the concept of race in biology. We have introduced a new box on global inequality and the rising gap between countries. The second box updates the discussion of why there are disparities in death by disease between African Americans and European Americans.

**Chapter 13: Sex and Gender** This chapter has been extensively rewritten to be more engaging and easier to read with more subheadings for clarity. Two new boxes have been added. The first is on why some societies have allowed women in combat. The second is on women’s electoral success on the U.S. Northwest Coast.

**Chapter 14: Marriage, Family, and Kinship** Two of the boxes are new. The first is on arranging marriages in the diaspora and the second is on love, intimacy, and sexual jealousy in marriage.

**Chapter 15: Political Life: Social Order and Disorder** We have added a new section that discusses the concepts of nation-states, nationalism and political identity, pointing out that people living in states may not identify with the state they live in nor have their notion of nationhood correspond to political boundaries. In the warfare section we also discuss the controversy about whether violence has increased or decreased in human history. Two of the three boxes are new. The first is on the growth of cities; the second is on how new courts in Papua New Guinea allow women to address grievances.

**Chapter 16: Religion and Magic** We have added a new theoretical discussion on the need for human cooperation and the recent research that supports that theory. Also added is new research on the relationships between religiosity and stress and anxiety as well as a new discussion on how most religions began as minority sects or cults. The first box, which is updated, raises the question of whether and to what degree religion promotes moral behavior, cooperation, and harmony. The second box is new and is on the impact of colonialism on religious affiliation.

**Chapter 17: The Arts** In a new section we discuss the problematic and fuzzy distinctions made in labeling some art negatively as “tourist” art versus more positively as “fine” art. We have added two new boxes—one is the importance of preserving rock art and the second is on the spread of popular music.

## Part IV: Using Anthropology

**Chapter 18: Global Problems** We have extensively updated the research in this chapter. In revising the section on natural disasters and the famines that frequently result from them, we give increasing attention to the inequalities that contribute to them. New research on relationships to gender equality is included in the family violence section. In the section on war, we discuss changes over the long course of history, the complex relationship between disasters and war, and the increasing attention to how the vulnerability of populations to disasters can be reduced. Two new boxes have been added. One is on climate

change and what anthropologists might be able to contribute. The second is on ethnic conflicts.

## Chapter 19: Practicing and Applying Anthropology

This chapter is considerably expanded with new sections. We have updated the ethics section with an extended discussion of displacement projects, their risks, and whose lives are actually improved. The sections on environmental anthropology and business and organizational anthropology, business and organizational anthropology, and museum anthropology are new to this chapter. The first box is new to this chapter and is about how to get development programs to include more women. The second box is new and is about anthropological work to help a car company improve its business culture.

# Organization of the Text

## Part I: Introduction

We see anthropology as a unified discipline that combines the insights of ethnographers, linguists, archaeologists, and physical anthropologists to create a holistic understanding of humans. In this section, we introduce the discipline of anthropology, outline its history and its major theoretical perspectives, and give an overview of the methods employed by anthropologists.

**Chapter 1: What Is Anthropology?** Chapter 1 introduces the student to anthropology. We discuss what we think is distinctive about anthropology in general, and about each of its subfields in particular. We outline how each of the subfields is related to other disciplines such as biology, psychology, and sociology. We direct attention to the increasing importance of applied anthropology and the importance of understanding others in today’s more globalized world. To emphasize the excitement of research we include three boxes on individual researchers (an ethnographer, an archaeologist, and a physical anthropologist).

**Chapter 2: Research Methods in Anthropology** In this chapter, we begin by discussing what it means to explain and what kinds of evidence are needed to evaluate an explanation. We provide a brief introduction to some of the major ideas that have guided the history of anthropology in the United States. We then turn to the major types of study in anthropology—ethnography, within-culture comparisons, regional comparisons, worldwide cross-cultural comparisons, and historical research. We follow this with a brief introduction to the unique methods that archaeologists and biological anthropologists use and end with a discussion of ethics in anthropological research. There are two boxes: the first box evaluates alternative theories and the second explores changes in gender roles during the Shell Mound Archaic period in the southeastern United States.

## Part II: Human Evolution: Biological and Cultural

This section of the book focuses on the evolution of humans from early primates to the present. We emphasize evolution as both a foundational and potentially unifying perspective within anthropology. We also emphasize the fact that humans continue to adapt to their environments both physically and culturally. Thus, anthropology must combine biological understanding and cultural understanding if we wish to develop an accurate understanding of humans.

**Chapter 3: Genetics and Evolution** This chapter discusses evolutionary theory as it applies to all forms of life, including



humans. We have incorporated a brief history of evolutionary thought to give context to the extensive review of genetics and the processes of evolution, including natural selection and what it means, that follows. We also discuss how natural selection may operate on behavioral traits and how cultural evolution differs from biological evolution. We provide a thorough discussion of creationism and intelligent design. The first box features the emerging issue of who owns DNA samples. The second box feature introduces the emerging field of molecular anthropology.

**Chapter 4: Human Variation and Adaptation** We bring the discussion of human genetics and evolution into the present, dealing with physical variation in living human populations and how physical anthropologists study and explain such variation. We examine how both the physical environment and the cultural environment play important roles in human physical variation. In a section on “race” and racism, we discuss why many anthropologists think the concept of “race” as applied to humans is not scientifically useful. We discuss the myths of racism and how “race” is largely a social category in humans. One box feature explores the use of “race” in forensic anthropology, and another box examines physical differences between native and immigrant populations.

**Chapter 5: Primates Past and Present** In this chapter, we describe the living nonhuman primates and their variable adaptations as background for understanding the evolution of primates in general and humans in particular. After describing the various kinds of primates, we discuss the distinctive features of humans in comparison with the other primates. We then go on to discuss the evolution of the primates. One box feature deals with how and why many primates are endangered and how they might be protected. Another box feature discusses the importance of studying the diversity of primates, both ancient and modern, for understanding our planet’s biodiversity.

**Chapter 6: The First Hominins and the Emergence of *Homo*** This chapter discusses the evolution of bipedal locomotion—the most distinctive feature of the group that includes our genus and those of our direct ancestors. We discuss the various types of early hominins and how they might have evolved. One box feature discusses ideas about how environmental change contributed to hominin evolution. A second box discusses what we know about the first hominins to leave Africa.

**Chapter 7: The Emergence of *Homo sapiens* and the Upper Paleolithic World** This chapter examines the transition between *Homo erectus* and *Homo sapiens* and the emergence of modern-looking humans. We give special consideration to the Neandertals and the question of their relationship to modern humans. We also discuss the new hominin species from Denisova Cave in southern Siberia. This chapter then considers the cultures of modern humans in the period before agriculture developed—roughly 40,000 years to 10,000 years ago. We examine their tools, their economies, and their art—the first art made by humans. We discuss the human colonization of North and South America, based on new archaeological sites and genetic research. The first box considers how women are depicted in Upper Paleolithic art. The second box discusses the evidence that the first colonists of the Americas may have died out and may be only distantly related to modern Native Americans.

**Chapter 8: Food Production and the Rise of States** This chapter deals with the emergence of broad-spectrum collecting and settled life, the domestication of plants and animals, the rise and fall of cities and states, and what may explain those developments. One box describes the work of archaeologists

who are re-creating ancient agricultural systems in the Andes and elsewhere to help local populations produce more food. A second box explores the question of whether Cahokia, an ancient city located near St. Louis, Missouri, was the capital of a state.

## Part III: Cultural Variation

In the chapters that follow, we try to convey the range of cultural variation with ethnographic examples from all over the world. Wherever we can, we discuss possible explanations of why societies may be similar or different in regard to some aspect of culture. If anthropologists have no explanation as yet for the variation, we say so. If we are to train students to go beyond what we know now, we have to tell them what we do not know, as well as what we think we know.

**Chapter 9: Culture and Culture Change** After introducing the concept of culture and some of the controversies surrounding the concept, we emphasize that culture is always changing. Throughout the chapter we discuss individual variation and how such variation may be the beginning of new cultural patterns. We also discuss attitudes that hinder the study of culture, cultural relativism and the issue of human rights, patterning of culture, culture and adaptation, and mechanisms of culture change, before getting to the emergence of new cultures and the impact of globalization. The first box is on culture change and persistence in China. The second box discusses an applied anthropologist’s attempts to accommodate Bedouin needs in designed change programs with the Oman government. The third box discusses the increasing cultural diversity within countries of the world as a result of immigration and migration.

**Chapter 10: Communication and Language** To place language in perspective, the chapter begins with a discussion of communication more broadly, including nonverbal human communication and communication in other animals. We discuss how language differs from other forms of communication and ideas about the origins of language. We then turn to some fundamentals of descriptive linguistics, the processes of linguistic divergence, and postulated relationships between language and other aspects of culture. Toward the end of the chapter we discuss the ethnography of speaking, and writing and literacy. The first box, an applied box, discusses language extinction and what some anthropologists are doing about it. The second box discusses the varying retention of “mother tongues” amongst immigrant groups in North America. And to stimulate thinking about the possible impact of language on thought, we ask in the last box whether the English language promotes sexist thinking.

**Chapter 11: Economics** This chapter begins with a discussion of how societies vary in getting their food, how they have changed over time, and how that variation seems to affect other kinds of cultural variation. We then discuss how societies vary in the ways they allocate resources, convert or transform resources through labor into usable goods, and distribute and perhaps exchange goods and services. The first box discusses the global movement of food around the world. The second box discusses the impact of working abroad and sending money home. The third illustrates the impact of the world system on local economies, with special reference to the deforestation of the Amazon.

**Chapter 12: Social Stratification: Class, Ethnicity, and Racism** This chapter explores the variation in degree of social stratification and how the various forms of social inequality may develop. We point out concepts of how “race,” racism,

and ethnicity often relate to the inequitable distribution of resources. The first box discusses the degree of global inequality and why the gap between rich and poor countries may have widened. The second box discusses why there are disparities in death by disease between African Americans and European Americans.

**Chapter 13: Sex and Gender** This chapter opens with a section on culturally varying gender concepts, including diversity in what genders are recognized. After discussing universals and differences in gender roles in subsistence and leadership, we turn to theories about why men dominate political leadership and what may explain variation in relative status of women and men. In the second part of the chapter we discuss variation in attitudes and practices regarding heterosexual and homosexual sexuality. In the first box, we examine cross-cultural research about why some societies allow women to participate in combat. A second box discusses research on why women's political participation may be increasing in some Coast Salish communities of western Washington State and British Columbia now that they have elected councils. The last is a box that examines the impact of economic development on women's status.

**Chapter 14: Marriage, Family and Kinship** After discussing various theories and evidence about why marriage might be universal, we move on to discuss variation in how one marries, restrictions on marriage, whom one should marry, and how many one should marry. We explain variation in family form, including the phenomenon of couples choosing to live together, and to better prepare students for understanding kinship charts in the chapter that follows, we have a diagram explaining different types of family structures. In discussing variation in marital residence and kinship structure, we emphasize how understanding residence is important for understanding social life in all societies. Our first box discusses arranged marriage and how it has changed among South Asian immigrants in England and the United States. The second box discusses variation in love, intimacy, and sexual jealousy. The third box discusses the impact of different residence and kinship structures on the lives of women.

**Chapter 15: Political Life: Social Order and Disorder** We look at how societies have varied in their levels of political organization, the various ways people become leaders, the degree to which they participate in the political process, and the peaceful and violent methods of resolving conflict. We emphasize change, including what may explain shifts from one type of organization to another, such as colonialization and other outside forces have transformed legal systems and ways of making decisions. We then discuss the concepts of nation-states, nationalism, and political identity. The first box is on the role of migrants in the growth of cities. The second box deals with the cross-national and cross-cultural relationship between economic development and democracy. The third box deals with how new local courts among the Abalam of New Guinea are allowing women to address sexual grievances.

**Chapter 16: Religion and Magic** The chapter opens with a discussion of how the concepts of the supernatural and natural have varied over time and space and then turn to theories about why religion is universal. We go on to discuss variation in the types, nature, and structure of gods, spirits, and forces; human/god interactions, concepts of life after death; ways to interact with the supernatural; and the number and types of

religious practitioners. A major portion of the chapter deals with religious change, religious conversion and revitalization, and fundamentalist movements. The first box, raises the question of whether and to what degree religion promotes moral behavior, cooperation, and harmony. The second discusses the role of colonialism in religious change.

**Chapter 17: The Arts** After discussing how art might be defined and the appearance of the earliest art, we discuss variation in the visual arts, music, and folklore, and review how some of those variations might be explained. In regard to how the arts change over time, we discuss the myth that the art of "simpler" peoples is timeless, as well as how arts have changed as a result of European contact. We address the role of ethnocentrism in studies of art in a section on how Western museums and art critics look at the visual art of less complex cultures. Similarly we discuss the problematic and fuzzy distinctions made in labeling some art negatively as "tourist" art versus more positively as "fine" art. The first box explores ancient and more recent rock art and the methods that can be used to help preserve it. The second box discusses the global spread of popular music. The last box deals with universal symbolism in art, particularly research on the emotions displayed in masks.

## Part IV: Using Anthropology

Anthropology is not a discipline that focuses on pure research; rather, most anthropologists believe their work is truly valuable only if it can be used to improve the lives of others. In this section we examine how anthropological knowledge is used in a variety of settings and towards a variety of ends.

**Chapter 18: Global Problems** We begin this chapter with a discussion of the relationship between basic and applied research, and how research may suggest possible solutions to various global social problems, including natural disasters and famines, homelessness, crime, family violence, war, and terrorism. There are three boxes. The first now emphasizes climate change and ways anthropologists can contribute to understanding solutions. The second box is on how the problem of refugees has become a global problem. The last box describes ethnic conflicts and whether or not they are inevitable.

**Chapter 19: Practicing and Applying Anthropology** This chapter explores some of the many subfields of practicing and applied anthropology. It begins with a discussion of the increasing importance of applied anthropology, some of the ethical issues. We move on to an expanded section on ethics, evaluating the effects of planned change, and difficulties in bringing about change. Since most of the examples in the first part of the chapter have to do with development, the remainder of the chapter gives an introduction to a number of other specialties; environmental anthropology, business and organizational anthropology, museum anthropology, cultural resource management, and forensic anthropology. The second half of the chapter is devoted to medical anthropology, including cultural understandings of health and illness, political and economic influences on health, and we discuss approaches to a few selected diseases and illnesses. The first box examines what anthropologists can do to help inform policy on climate change. The second box is a case study of an applied project to create a better business culture at General Motors. And the third box is on eating disorders and the cultural construction of beauty.

## Features

**Applied Anthropology Boxes.** Anthropology is not a discipline focused on pure research. Most anthropologists want their work to be actively used to help others. And in our increasingly interconnected world, it would seem that anthropological knowledge would become increasingly valuable for understanding others. For these reasons, in the last few editions we have emphasized applied anthropology. Fourteen of the 19 chapters have an applied anthropology box in each chapter. We hope this will provide students a better understanding of the vast range of issues to which anthropological knowledge can be usefully applied.

**Current Research and Issues Boxes.** These boxes deal with current research, topics students may have heard about in the news, and research controversies in anthropology. Examples include molecular anthropology, variation in love, intimacy, and sexual jealousy in the husband-wife relationship; increasing global inequality; and whether ethnic conflicts are ancient hatreds.

**Migrants and Immigrants Boxes.** These boxes deal with humans on the move, and how migration and immigration have impacted recent and contemporary social life. Examples include why some immigrant groups retained their “mother tongues” longer than others, the spread of foods in recent times, arranging marriages in the diaspora, and the problem of refugees.

**Perspectives on Gender Boxes.** These boxes involve issues pertaining to sex and gender, both in anthropology and everyday life. Examples are sexism in language, women in Upper Paleolithic art and why some societies allow women in combat.

## Student-Friendly Pedagogy

**Readability.** We derive a lot of pleasure from trying to describe research findings, especially complicated ones, in ways that introductory students can understand. Thus, we try to minimize technical jargon, using only those terms students must know to appreciate the achievements of anthropology and to take advanced courses. We think readability is important not only because it may enhance the reader’s understanding of what we write but also because it should make learning about anthropology more enjoyable! When new terms are introduced, which of course must happen sometimes, they are set off in boldface type and defined in the text, set off in the margins for emphasis, and of course also appear in the glossary at the end of the book.

**Learning Objectives.** Learning objectives are new to this edition. Each chapter begins with learning objectives that indicate what students should know after reading the material. The learning objectives are reinforced with specific questions at the end of each chapter that unite the topics, help students gauge their comprehension, and signal what topics they might have to reread.

**Key Terms and Glossary.** Important terms and concepts appearing in boldface type within the text are defined in the margins where they first appear. All key terms and their definitions are repeated in the Glossary at the end of the book.

**Summaries.** In addition to the learning objectives provided at the beginning of each chapter, each chapter has a detailed summary organized in terms of the learning objectives that will help students review the major concepts and findings discussed, along with review questions to reinforce and to complement the summary.

**End of Book Notes.** Because we believe in the importance of documentation, we think it essential to tell our readers, both professionals and students, what our conclusions are based on. Usually the basis is published research. The abbreviated notes in this edition provide information to find the complete citation in the bibliography at the end of the book.

## Supplements

This textbook is part of a complete teaching and learning package that has been carefully created to enhance the topics discussed in the text.

**Instructor’s Resource Manual with Tests:** For each chapter in the text, this valuable resource provides a detailed outline, list of objectives, discussion questions, and classroom activities. In addition, test questions in multiple-choice and short-answer formats are available for each chapter; the answers to all questions are page-referenced to the text.

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

**PowerPoint™ Presentation Slides:** These PowerPoint slides combine text and graphics for each chapter to help instructors convey anthropological principles in a clear and engaging way.

**Strategies in Teaching Anthropology, Sixth Edition (0-205-71123-5):** Unique in focus and content, this book focuses on the “how” of teaching anthropology across all four fields and provides a wide array of associated learning outcomes and student activities. It is a valuable single-source compendium of strategies and teaching “tricks of the trade” from a group of seasoned teaching anthropologists, working in a variety of teaching settings, who share their pedagogical techniques, knowledge, and observations.

**The Dorling Kindersley/Prentice Hall Atlas of Anthropology (0-13-191879-6):** Beautifully illustrated by Dorling Kindersley, with narrative by leading archaeological author Brian M. Fagan, this striking atlas features 30 full-color maps, timelines, and illustrations to offer a highly visual but explanatory geographical overview of topics from all four fields of anthropology. Please contact your Prentice Hall representative for ordering information.

## Acknowledgments

Over the years we have had many editors, but we especially want to thank Nancy Roberts for her long and steadfast stewardship over many editions, her insightful suggestions, and especially her passionate interest in the educational enterprise. We also want to thank Nicole Conforti and Jenna Vittorioso for seeing the manuscript through the production process. Carol Ember thanks Kathy Ember Levy for her suggestions



on combining and shortening three of the cultural chapters. She especially wants to thank Tulin Duda for her extensive research help and her thoughtful and inquisitive editing to make the book more accessible to students.

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Thank you all, named and unnamed, who gave us advice.  
*Carol R. Ember, Melvin Ember,  
 and Peter N. Peregrine*

## About the Authors

**CAROL R. EMBER** started at Antioch College as a chemistry major. She began taking social science courses because some were required, but she soon found herself intrigued. There were lots of questions without answers, and she became excited about the possibility of a research career in social science. She spent a year in graduate school at Cornell studying sociology before continuing on to Harvard, where she studied anthropology, primarily with John and Beatrice Whiting.

For her PhD dissertation, she worked among the Luo of Kenya. While there, she noticed that many boys were assigned “girls’ work,” such as babysitting and household chores, because their mothers (who did most of the agriculture) did not have enough girls to help out. She decided to study the possible effects of task assignment on the social behavior of boys. Using systematic behavior observations, she compared girls, boys who did a great deal of girls’ work, and boys who did little such work. She found that boys assigned girls’ work were intermediate in many social behaviors compared with the other boys and girls. Later, she did cross-cultural research on variation in marriage, family, descent groups, and war and peace, mainly in collaboration with Melvin Ember, whom she married in 1970. All of these cross-cultural studies tested theories on data for worldwide samples of societies.

From 1970 to 1996, she taught at Hunter College of the City University of New York. She has served as president of the Society of Cross-Cultural Research and was one of the directors of the Summer Institutes in Comparative Anthropological Research, which were funded by the National Science Foundation. She has recently served as President of the Society for Anthropological Sciences and is currently the Past President. Since 1996, she has been at the Human Relations Area Files, Inc., a nonprofit research agency at Yale

University, first serving as Executive Director, then as Acting President, and is currently President of that organization.

**MELVIN EMBER** majored in anthropology at Columbia College and went to Yale University for his PhD. His mentor at Yale was George Peter Murdock, an anthropologist who was instrumental in promoting cross-cultural research and building a full-text database on the cultures of the world to facilitate cross-cultural hypothesis testing. This database came to be known as the Human Relations Area Files (HRAF) because it was originally sponsored by the Institute of Human Relations at Yale. Growing in annual installments and now distributed in electronic format, the HRAF database currently covers more than 385 cultures, past and present, all over the world.

Melvin Ember did fieldwork for his dissertation in American Samoa, where he conducted a comparison of three villages to study the effects of commercialization on political life. In addition, he did research on descent groups and how they changed with the increase of buying and selling. His cross-cultural studies focused originally on variation in marital residence and descent groups. He has also done cross-cultural research on the relationship between economic and political development, the origin and extension of the incest taboo, the causes of polygyny, and how archaeological correlates of social customs can help us draw inferences about the past.

After four years of research at the National Institute of Mental Health, he taught at Antioch College and then Hunter College of the City University of New York. He served as president of the Society for Cross-Cultural Research. From 1987 until his death in September, 2009, he was president of the Human Relations Area Files, Inc., a nonprofit research agency at Yale University.

**PETER N. PEREGRINE** came to anthropology after completing an undergraduate degree in English. He found anthropology’s social scientific approach to understanding humans more appealing than the humanistic approach he had learned as an English major. He undertook an ethnohistorical study of the relationship between Jesuit missionaries and Native American peoples for his master’s degree and realized that he needed to study archaeology to understand the cultural interactions experienced by Native Americans before their contact with the Jesuits.

While working on his PhD at Purdue University, Peter Peregrine did research on the prehistoric Mississippian cultures of the eastern United States. He found that interactions between groups were common and had been shaping Native American cultures for centuries. Native Americans approached contact with the Jesuits simply as another in a long string of intercultural exchanges. He also found that relatively little research had been done on Native American interactions and decided that comparative research was a good place to begin examining the topic. In 1990, he participated in the Summer Institute in Comparative Anthropological Research, where he met Carol R. Ember and Melvin Ember.

Peter Peregrine is professor of anthropology at Lawrence University in Appleton, Wisconsin and external professor at the Santa Fe Institute in Santa Fe, New Mexico. He also serves as research associate for the Human Relations Area Files. He continues to do archaeological research, and to teach anthropology and archaeology to undergraduate students.

# Human Evolution and Culture



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# What Is Anthropology?

# 1

CHAPTER



## LEARNING OBJECTIVES

Explain the general definition and purpose of anthropology.

1.1

Describe the scope of anthropology.

1.2

Explain the holistic approach.

1.3

Explain anthropology's distinctive curiosity.

1.4

Differentiate among the five major fields of anthropology.

1.5

Explain the ways in which anthropologists specialize within their fields of study.

1.6

Communicate the relevance of anthropology.

1.7

**1.1** Explain the general definition and purpose of anthropology.

**Anthropology** A discipline that studies humans, focusing on the study of differences and similarities, both biological and cultural, in human populations. Anthropology is concerned with typical biological and cultural characteristics of human populations in all periods and in all parts of the world.

**1.2** Describe the scope of anthropology.

## What Is Anthropology?

**Anthropology**, by definition, is a discipline of infinite curiosity about human beings. The term comes from the Greek *anthropos* for “man, human” and *logos* for “study.” Anthropologists seek answers to an enormous variety of questions about humans. They are interested in both universals and differences in human populations. They want to discover when, where, and why humans appeared on the earth, how and why they have changed, and how and why the biological and cultural features of modern human populations vary. Anthropology has a practical side too. Applied and practicing anthropologists put anthropological methods, information, and results to use in efforts to solve practical problems.

The study of human beings is not an adequate definition of anthropology, however, since it would appear to incorporate a whole catalog of disciplines: sociology, psychology, political science, economics, history, human biology, and perhaps even the humanistic disciplines of philosophy and literature. Most of the disciplines concerned with human beings have existed longer than anthropology, and each has its distinctive focus. There must, then, be something unique about anthropology—a reason for its having developed and grown as a separate discipline for over a century.

•••

## The Scope of Anthropology

Anthropologists are generally thought of as individuals who travel to little-known corners of the world to study exotic peoples or dig deep into the earth to uncover the fossil remains, tools, and pots of people who lived long ago. Though stereotypical, this view does suggest how anthropology differs from other disciplines concerned with humans. Anthropology is broader in scope, both geographically and historically. Anthropology is concerned explicitly and directly with all varieties of people throughout the world, not just those close at hand or within a limited area. Anthropologists are also interested in people of all periods. Beginning with the immediate ancestors of humans, who lived a few million years ago, anthropology traces the development of humans until the present. Every part of the world that has ever contained a human population is of interest to anthropologists.

Anthropologists have not always been as global and comprehensive in their concerns as they are today. Traditionally, they concentrated on non-Western cultures and left the study of Western civilization and similarly complex societies, with their recorded histories, to other disciplines. In recent years, however, this division of labor among the disciplines has begun to disappear. Now anthropologists work in their own and other complex societies.

What induces anthropologists to choose so broad a subject for study? In part, they are motivated by the belief that any suggested generalization about human beings, any possible explanation of some characteristic of human culture or biology, should be shown to apply to many times and places of human existence. If a generalization or explanation does not prove to apply widely, anthropologists are entitled or even obliged to be skeptical about it. The skeptical attitude, in the absence of persuasive evidence, is our best protection against accepting invalid ideas about humans.

Because anthropologists are acquainted with human life in an enormous variety of geographic and historical settings, they are also often able to correct mistaken beliefs about different groups of people.

For example, when American educators discovered in the 1960s that African American schoolchildren rarely drank milk, they assumed that lack of money or education was the cause. But evidence from anthropology suggested a different explanation. Anthropologists had known for years that people do not drink fresh milk in many parts of the world where milking animals are kept; rather, they sour it before they drink it, or they make it into cheese. Why they do so is now clear. Many people lack the enzyme lactase that is necessary for breaking down lactose, the sugar in milk. When such people drink regular milk, it actually interferes with digestion. Not only is the lactose in milk not digested, but other nutrients are less likely to be digested as well. In many cases, drinking milk will



cause cramps, stomach gas, diarrhea, and nausea. Studies indicate that milk intolerance is found in many parts of the world.<sup>1</sup> The condition is common in adulthood among Asians, southern Europeans, Arabs and Jews, West Africans, Inuit (Eskimos), and North and South American native peoples, as well as African Americans.

## The Holistic Approach

In addition to its worldwide and historical scope, anthropology has the distinguishing feature of having a **holistic** approach to the study of human beings. Anthropologists study the many aspects of human experience as an integrated whole. For example, an anthropologist's description of a group of people is likely to encompass their physical environment, a history of the area, how their family life is organized, general features of their language, their settlement patterns, their political and economic systems, their religion, and their styles of art and dress. The goal is not only to understand these aspects of physical and social life separately but to glean connections among them. Throughout this book, you will see that these seemingly separate factors in a culture regularly co-occur; that is, they form patterns of traits. Anthropologists want not only to identify those patterns but to explain them.

**1.3** Explain the holistic approach.

**Holistic** Refers to an approach that studies many aspects of a multifaceted system.

## Anthropological Curiosity

Thus far, we have described anthropology as being broader in scope, both historically and geographically, and more holistic in approach than other disciplines concerned with human beings. But this statement again implies that anthropology is the all-inclusive human science. How, then, is anthropology really different from the other disciplines? We suggest that anthropology's distinctiveness lies principally in the kind of curiosity it arouses.

Anthropologists tend to focus on the *typical* characteristics of the human populations they study rather than on individual variation or variation in small groups. Why do some populations have lighter skin than others? Why do some societies practice polygamy whereas others prohibit it? Where and when did people first start to farm rather than collecting and hunting wild resources? Anthropologists want to know why the characteristics that others might take for granted exist. Whereas economists take a monetary system for granted and study how it operates, anthropologists ask how frequently monetary systems occur, why they vary, and why only some societies have had them during the last few thousand years. It is not that anthropologists do not concern themselves with individuals. For instance, in studying political systems, anthropologists might want to know why certain people tend to be leaders. But when they study individual traits of leaders in order to answer the question, it may be because they want to better understand the political process in a larger social group, such as a society. Or, anthropologists might ask an even broader question, such as whether certain qualities of leaders are universally preferred.

Because anthropologists view human groups holistically, their curiosity may lead them to find patterns of relationships between seemingly unrelated characteristics. So, for example, the presence of the ability to digest lactose (a physical trait) in a population seems to be found in societies that depend heavily on dairying. In recent times, as more anthropologists work in larger and more complex societies, the focus of inquiry has shifted from looking at a whole society to smaller entities such as neighborhoods, communities, organizations, or social networks. But the focus on the whole entity is still strong.

**1.4** Explain anthropology's distinctive curiosity.

## Fields of Anthropology

In the past, an anthropologist covered as many subjects as possible. Today, as in many other disciplines, so much information has accumulated that anthropologists tend to specialize in one topic or area (see Figure 1.1). Some are concerned primarily with the *biological* or *physical characteristics* of human populations; others are interested principally in what we call *cultural characteristics*. Hence, there are two broad classifications of subject

**1.5** Differentiate among the five major fields of anthropology.

**Biological (physical) anthropology**

The study of humans as biological organisms, dealing with the emergence and evolution of humans and with contemporary biological variations among human populations.

**Cultural anthropology**

The study of cultural variation and universals in the past and present.

**Applied (practicing) anthropology**

The branch of anthropology that concerns itself with applying anthropological knowledge to achieve practical goals.

**Human paleontology**

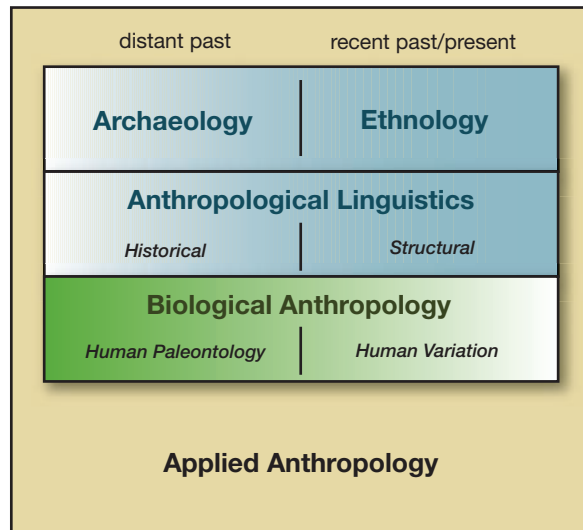
The study of the emergence of humans and their later physical evolution. Also called **paleoanthropology**.

**Human variation** The study of how and why contemporary human populations vary biologically.

**Fossils** The hardened remains or impressions of plants and animals that lived in the past.

**Primate** A member of the mammalian order Primates, divided into the two suborders of prosimians and anthropoids.

**Primatologists** People who study primates.



**FIGURE 1.1** The Four Fields of Anthropology

The subdisciplines of anthropology (in bold letters) may be classified according to the period with which each is concerned (distant past or recent past and present) or by subject matter. Traditionally, the three fields shown in Blue are classified as Cultural Anthropology, as distinct from Biological (or Physical) Anthropology, shown in green. Found in all four fields is a fifth subfield Applied Anthropology.

matter in anthropology: **biological (physical) anthropology** and **cultural anthropology**. While biological anthropology is one major field of anthropology, cultural anthropology is divided into three subfields—archaeology, linguistics, and ethnology. Ethnology, the study of recent cultures, is now usually referred to by the parent name cultural anthropology. Crosscutting these four fields is a fifth, **applied** or **practicing anthropology**.

## Biological Anthropology

Biological (physical) anthropology seeks to answer two distinct sets of questions. **Human paleontology** or paleoanthropology poses questions about the emergence of humans and their later evolution. A focus on **human variation** includes questions about how and why contemporary human populations vary biologically.

To reconstruct evolution, human paleontologists search for and study the buried, hardened remains or impressions—known as **fossils**—of humans, prehumans, and related animals. Paleontologists working in East Africa, for instance, have excavated the fossil remains of humanlike beings that lived more than 4 million years ago. These findings have suggested the approximate dates when our ancestors began to develop two-legged walking, very flexible hands, and a larger brain.

In attempting to clarify evolutionary relationships, human paleontologists may use not only the fossil record but also geological information on the succession of climates, environments, and plant and animal populations. Moreover, when reconstructing the past of humans, paleontologists are interested in the behavior and evolution of our closest relatives among the mammals—the prosimians, monkeys, and apes—which, like ourselves, are members of the order of **Primates**. Anthropologists, psychologists, and biologists who specialize in the study of primates are called **primatologists**. The various species of primates are observed in the wild and in the laboratory. One especially popular subject of study is the chimpanzee, which bears a close resemblance to humans in behavior and physical appearance, has a similar blood chemistry, and is susceptible to many of the same diseases. It now appears that chimpanzees share 99 percent of their genes with humans.<sup>2</sup>

From primate studies, biological anthropologists try to discover characteristics that are distinctly human, as opposed to those that might be part of the primate heritage. With this information, they may be able to infer what our prehistoric ancestors were like.





Birute Galdikas works with two orangutans in Borneo.

The inferences from primate studies are checked against the fossil record. The evidence from the earth, collected in bits and pieces, is correlated with scientific observations of our closest living relatives. In short, biological anthropologists piece together bits of information obtained from different sources. They construct theories that explain the changes observed in the fossil record and then attempt to evaluate their theories by checking one kind of evidence against another. Human paleontology thus overlaps such disciplines as geology, general vertebrate (particularly primate) paleontology, comparative anatomy, and the study of comparative primate behavior.

The second major focus of biological anthropology, the study of human variation, investigates how and why contemporary human populations differ in biological or physical characteristics. All living people belong to one species, *Homo sapiens*. Yet much varies among human populations. Investigators of human variation ask such questions as: Why are some peoples generally taller than others? How have human populations adapted physically to their environmental conditions? Are some peoples, such as Inuit (Eskimos), better equipped than other peoples to endure cold? Does darker skin pigmentation offer special protection against the tropical sun?

To understand better the biological variations among contemporary human populations, biological anthropologists use the principles, concepts, and techniques of at least three other disciplines: human genetics (the study of inherited human traits); population biology (the study of environmental effects on, and interaction with, population characteristics); and epidemiology (the study of how and why diseases affect different populations in different ways). Although research on human variation overlaps research in other fields, biological anthropologists remain primarily concerned with human populations and how they vary biologically.

## Cultural Anthropology

Cultural anthropology is the study of how and why cultures in the past and present vary or are similar. But what is *culture*? The concept of culture is so central to anthropology that we will devote an entire chapter to it. Briefly, the term *culture* refers to the customary ways that a particular population or society thinks and behaves. The culture of a social group includes many things—from the language that people speak, childrearing, and the roles assigned to males and females to religious beliefs and practices and preferences in music. Anthropologists are interested in all of these and other learned behaviors and ideas that have come to be widely shared or customary in the group.

***Homo sapiens*** All living people belong to one biological species, *Homo sapiens*, which means that all human populations on earth can successfully interbreed. The first *Homo sapiens* may have emerged about 200,000 years ago.

## Current Research and Issues



### Researcher at Work: Alyssa Crittenden

When an anthropologist's best-laid plans meet the "facts on the ground," the results can be unexpected. For Alyssa Crittenden, an anthropology professor at the University of Nevada, fieldwork also brought some delightful revelations.

In 2004, Crittenden began working with the Hadza, a hunter-gatherer people in Tanzania. (Because hunter-gatherers subsist by foraging for their food, they represent the basic economy and way of life that has characterized most of human history. Therefore, such few remaining peoples are valued subjects for anthropological study.) As a biological anthropologist, Crittenden was especially interested in what Hadza culture might reveal about the evolution of the human diet. She chose the diets of women for study and measured the relationship between their reproductive capacity and the amount and nutritional value of the food they foraged. Yet that data told only part of the previously untold story of Hadza women.

"I quickly realized," Crittenden says, "that I could not study the women's diet in isolation. These women belonged to a community of people, a support system of kin and neighbors. To understand women's contributions to the Hadza economy, I had to be an ethnographer, as well as a biological anthropologist." Thus, after 10 years of fieldwork among the Hadza, Crittenden characterizes herself as a biocultural anthropologist.

One surprising discovery Crittenden made was that Hadza children were hunters and gatherers in their own right. They were helping their mothers indirectly by providing their own food and thus contributing to their economy. This evidence contradicted what was known about the



Alyssa Crittenden interacting with Hadza children.

children of other hunter-gatherer groups, such as the San of the Kalahari Desert, whose children were observed to help process mongongo nuts but otherwise do little else but play. The difference may partly be due to the environment. The Kalahari has less variable terrain, less water, and more predators than southwestern Tanzania.

For Hadza children, foraging for their own food becomes an extension of play. Children who are 5 years old and younger can contribute up to 50 percent of their caloric needs by foraging for their own food. By the time they turn 6, children can contribute up to 75 percent of their own food. While girls collect water and plant foods, boys also hunt, using a bow and arrow like their elders. Indeed, at age 3, Hadza boys receive their own child-sized bow and arrow and begin

to hunt for the birds, rodents, bush babies, and lizards that make up their meat diet. Moreover, children learn to process and cook their own food. Crittenden observed children as young as 4 years old building their own miniature fires with embers from camp to cook their foraged meals.

Hadza children spend their days together in groups, seemingly unsupervised, though there is usually an older child nearby keeping an eye on them. Toddlers join a group of children as soon as they are weaned—that is, when their mothers can no longer carry them, usually between 1 1/2 and 3 years of age.

"Observing Hadza children, you can't help but wonder how the long, dependent childhood most of us experience evolved," says Crittenden.

Source: Crittenden 2013.

**Archaeology** Archaeology is the study of past cultures, primarily through their material remains. Archaeologists seek not only to reconstruct the daily life and customs of peoples who lived in the past but also to trace cultural changes and to offer possible explanations for those changes. While their subject matter is similar to that of historians, archaeologists reach much farther back in time. Historians deal only with societies that left written



records, which limits their scope to the last 5,000 years of human history and to the small proportion of societies that developed writing. Human societies have existed for more than a million years, however, and archaeologists serve as historians for all those past societies that lacked a written record. With scant or no written records to study, archaeologists must try to reconstruct history from the remains of human cultures. Some of these remains are as grand as the Mayan temples discovered at Chichén Itzá in Yucatán, Mexico. More often, what remains is as ordinary as bits of broken pottery, stone tools, and garbage heaps.

Most archaeologists deal with **prehistory**, the time before written records. But a specialty within archaeology, called **historical archaeology**, studies the remains of recent peoples who left written records. This specialty, as its name implies, employs the methods of both archaeologists and historians to study recent societies.

To understand how and why ways of life have changed through time in different parts of the world, archaeologists collect materials from sites of human occupation. Usually, these sites must be unearthed. On the basis of materials they have excavated and otherwise collected, they then ask a variety of questions: Where, when, and why did the distinctive human characteristic of toolmaking first emerge? Where, when, and why did agriculture first develop? Where, when, and why did people first begin to live in cities?

To collect the data they need to suggest answers to these and other questions, archaeologists use techniques and findings borrowed from other disciplines, as well as what they can infer from anthropological studies of recent and contemporary cultures. For example, to guess where to dig for evidence of early toolmaking, archaeologists rely on geology to tell them where sites of early human occupation are likely to be found, because of erosion and uplifting, near the surface of the earth. More recently, archaeologists have employed aerial photography and even radar imaging via satellite (a technique developed

**Archaeology** The branch of anthropology that seeks to reconstruct the daily life and customs of peoples who lived in the past and to trace and explain cultural changes. Often lacking written records for study, archaeologists must try to reconstruct history from the material remains of human cultures. See also **Historical archaeology**.

**Prehistory** The time before written records.

**Historical archaeology** A specialty within archaeology that studies the material remains of recent peoples who left written records.



Archaeologists try to reconstruct the cultures of past societies like those who created this “Cliff Palace” in what is today Mesa Verde National Park.



## Perspectives on Gender



### Researcher at Work: Elizabeth M. Brumfiel

Elizabeth M. Brumfiel (1945–2012) became interested in the origins of social inequality when she was an undergraduate. Archaeologists had known for some time that substantial wealth differences between families developed only recently—that is, only since about 6,000 years ago. Some archaeological indicators of inequality are clear: elaborate burials with valuable goods for some families and large differences in houses and possessions. When Brumfiel was in graduate school at the University of Michigan, she did not accept the then-current explanation that inequality provided benefits to the society—for example, that the standard of living of most people improved as the leaders got richer. Consequently, when Brumfiel undertook her PhD research in central Mexico, she began to test the “benefit” explanation in an area that had been independent politically and then became part of the Aztec Empire. She studied the surface material remains in the area and historical documents written by Europeans and Aztec nobility. Her findings contradicted the benefit explanation of social inequality; she found little improvement in the standard of living of the local people after the Aztec Empire had absorbed them.

Brumfiel also focused on how everyday women lived and how the expansion of the Aztec Empire had affected them. She found that women’s workload increased under the Aztecs. Brumfiel studied Aztec artwork for evidence of differences in status based on gender. In art from the Aztec capital of Tenochtitlán, images of militarism and masculinity became increasingly important with the growth of the empire, thus elevating the position of men. Sculptures of women, on the other hand, showed them in positions of work (kneeling). Yet the images of women in the area of Brumfiel’s fieldwork did not change. Unlike their rulers, these commoners usually depicted women as standing, not kneeling.



Aztec artwork showing daily activities of women.

Just as Brumfiel challenged conventional wisdom, she recognized that others too will challenge her work. As she said, she was quite comfortable with knowing that someone will think that she has “gotten it

wrong, and will set out on a lifetime of archaeological research to find her own answers.”

Sources: Brumfiel 2008, 2009.



by NASA) to pinpoint sites. To infer when agriculture first developed, archaeologists date the relevant excavated materials by a process originally developed by chemical scientists. Information from the present and recent past can also help illuminate the distant past. For example, to try to understand why cities first emerged, archaeologists may use information from historians, geographers, and political scientists about how recent and contemporary cities are related economically and politically to their hinterlands. By discovering what recent and contemporary cities have in common, archaeologists can speculate about why cities developed originally.

**Anthropological Linguistics** Anthropological linguistics is the anthropological study of language. Linguistics, or the study of languages, is an older discipline than anthropology, but the early linguists concentrated on the study of languages that had been written for a long time—languages such as English, which existed in written form for nearly a thousand years. Anthropological linguists began to do fieldwork in places where the language was not yet written. This meant that anthropologists could not consult a dictionary or grammar to help them learn the language. Instead, they first had to construct a dictionary and grammar. Then they could study the structure and history of the language.

Like biological anthropologists, linguists study changes that have taken place over time as well as contemporary variation. **Historical linguistics** is the study of how languages change over time and how they may be related. **Descriptive or structural linguistics** is the study of how contemporary languages differ, especially in their construction.

**Sociolinguistics** examines how language is used in social contexts.

In contrast with human paleontologists and archaeologists, who have physical remains to help them reconstruct change over time, historical linguists deal only with languages—and usually unwritten ones at that. (Remember that writing is only about 5,000 years old, and only a few languages have been written.) Because unwritten languages are transmitted orally, the historical evidence dies with the speakers. Linguists interested in reconstructing the history of unwritten languages must begin in the present, with comparisons of contemporary languages. On the basis of these comparisons, they draw inferences about the kinds of change in language that may have occurred in the past and that may account for similarities and differences observed in the present. Historical linguists might typically ask, for example, whether two or more contemporary languages diverged from a common ancestral language. And if so, how far back in time they began to differ?

Unlike historical linguists, descriptive (structural) linguists are concerned with discovering and recording the principles that determine how sounds and words are put together in speech. For example, a structural description of a particular language might tell us that the sounds *t* and *k* are interchangeable in a word without causing a difference in meaning. In American Samoa, one could say *Tutuila* or *Kukuila* to name the largest island, and everyone, except perhaps newly arrived anthropologists who knew little about the Samoan language, would understand that the same island was meant.

Sociolinguists are interested in the social aspects of language, including what people speak about, how they interact conversationally, their attitudes toward speakers of other dialects or languages, and how they speak differently in different contexts. In English, for example, we do not address everyone we meet in the same way. “Hi, Sandy” may be the customary way a person greets a friend. But we would probably feel uncomfortable addressing a doctor by her or his first name; instead, we would probably say, “Good morning, Dr. Brown.” Such variations in language use, which are determined by the social status of the people being addressed, are significant for sociolinguists.

**Ethnology (Cultural Anthropology)** The subfield of **ethnology**, now commonly called *cultural anthropology*, seeks to understand how and why peoples today and in the recent past differ or are similar in their customary ways of thinking and acting. They ask how and why cultures develop and change and how one aspect of culture affects others. Cultural anthropologists seek answers to a variety of questions, such as: Why is the custom of marriage nearly universal in all cultures? Why do families live with or near their kin in some societies but not in others? What changes result from the introduction of money to a previously nonmonetary economy? How are relationships impacted when family members move far away to work? What happens to a society that suffers severe stress because

**Anthropological linguistics** The anthropological study of languages.

**Historical linguistics** The study of how languages change over time.

**Descriptive (structural) linguistics** The study of how languages are constructed.

**Sociolinguistics** The study of cultural and sub-cultural patterns of speaking in different social contexts.

**Ethnology** The study of how and why recent cultures differ and are similar.