

# The Essence of Anthropology

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## The Anthropological Perspective

**Anthropology** is the study of humankind in all times and places. Of course, many other disciplines focus on humans in one way or another. For example, anatomy and physiology concentrate on our species as biological organisms. The social sciences examine human relationships, leaving artistic and philosophical aspects of human cultures to the humanities. Anthropology focuses on the interconnections and interdependence of all aspects of the human experience in all places, in the present and deep into the past, well before written history. This unique, broad **holistic perspective** equips anthropologists to address that elusive thing we call *human nature*.

Anthropologists welcome the contributions of researchers from other disciplines, and in return offer their own findings to these other disciplines. An anthropologist may not know as much about the structure of the human eye as an anatomist or as much about the perception of color as a psychologist. As a synthesizer, however, the anthropologist seeks to understand how anatomy and psychology relate to color-naming practices in different societies. Because they look for the broad basis of human ideas and practices without limiting themselves to any single social or biological aspect, anthropologists can acquire an especially expansive and inclusive overview of human biology and culture.

Keeping a holistic perspective allows anthropologists to prevent their own cultural ideas and values from distorting their research. As the old saying goes, people often see what they believe, rather than what appears before their eyes. By maintaining a critical awareness of their own assumptions about human nature—checking and rechecking the ways their beliefs and actions might be shaping their research—anthropologists strive to gain objective knowledge about human beings. With this

**anthropology** The study of humankind in all times and places.

**holistic perspective** A fundamental principle of anthropology: The various parts of culture and biology must be viewed in the broadest possible context in order to understand their interconnections and interdependence.

### IN THIS CHAPTER YOU WILL LEARN TO

Describe the discipline of anthropology and make connections among its four fields.

Compare anthropology to the sciences and the humanities.

Identify the characteristics of anthropological field methods and the ethics of anthropological research.

Explain the usefulness of anthropology in light of globalization.

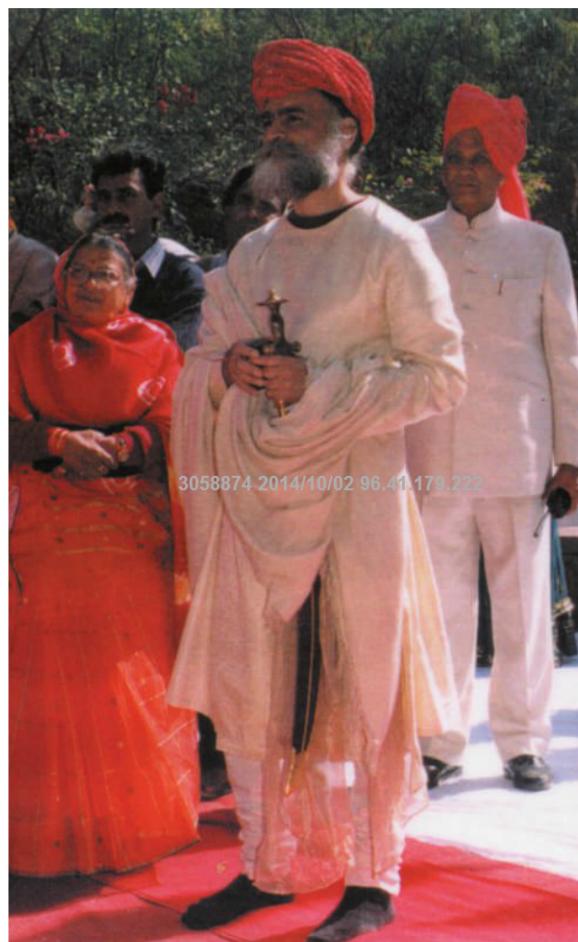
in mind, anthropologists aim to avoid the pitfalls of **ethnocentrism**, a belief that the ways of one's own culture are the only proper ones.

To some, an inclusive, holistic perspective that emphasizes the diversity within and among human cultures can be mistaken as shorthand for liberal politics among anthropologists. This is not the case. Anthropologists come from many different backgrounds, and individuals practicing the discipline vary in their personal, political, and religious beliefs (**Figure 1.1**). At the same time, they apply a rigorous methodology for researching cultural practices from the perspective of the culture being studied—a methodology that requires them to check for the influences of their own biases. This is as true for an anthropologist analyzing the culture of the global banking industry as it is for one investigating trance dancing among contemporary hunter-gatherers. We might say that anthropology is a discipline concerned with unbiased evaluation of diverse human systems, including one's own. At times this requires challenging the status quo that is maintained and defended by the power elites of the system under study.

While other social sciences have predominantly concentrated on contemporary peoples living in North American and European (Western) societies, anthropologists have traditionally focused on non-Western peoples and cultures. Anthropologists work with the understanding that to fully access the complexities of human ideas, behavior, and biology, *all* humans, wherever and whenever, must be studied. A cross-cultural and long-term evolutionary perspective distinguishes anthropology from other social sciences. This approach guards against theories about the world and reality that are **culture-bound**—based on the assumptions and values that come from the researcher's own culture.

As a case in point, consider the fact that infants in the United States typically sleep apart from their parents. To people accustomed to multibedroom houses, cribs, and car seats, this may seem normal, but cross-cultural research shows that *co-sleeping*, of mother and baby in particular, is the norm (**Figure 1.2**). Further, the practice of sleeping apart favored in the United States dates back only about 200 years.

Recent studies have shown that separation of mother and infant has important biological and cultural consequences. For one thing, it increases the length of the infant's crying bouts. Some mothers incorrectly interpret crying as an indication that the baby is not receiving sufficient breast milk and consequently switch to using bottled formula, which has been shown to be less healthy. In extreme cases, a baby's cries may provoke physical



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**Figure 1.1 Anthropologist Jayasinhji Jhala** Anthropologists come from many corners of the world and carry out research in a huge variety of cultures all around the globe. Dr. Jayasinhji Jhala, pictured here, hails from the old city of Dhrangadhra in Gujarat, northwestern India. A member of the Jhala clan of Rajputs, an aristocratic caste of warriors, he grew up in the royal palace of his father, the maharaja. After earning a bachelor of arts degree in India, he came to the United States and earned a master's in visual studies from MIT, followed by a doctorate in anthropology from Harvard. Currently a professor and director of the programs of Visual Anthropology and the Visual Anthropology Media Laboratory at Temple University, he returns regularly to India with students to film cultural traditions in his own caste-stratified society.

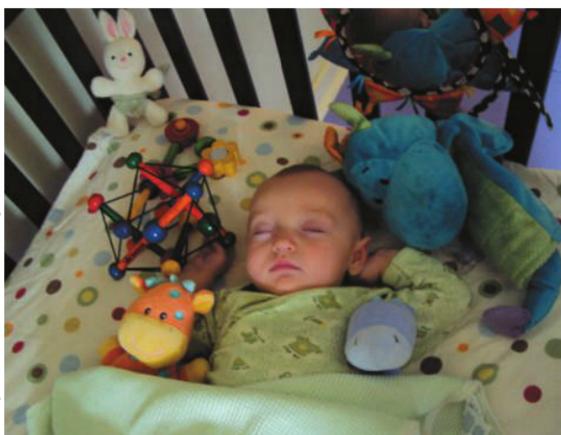
abuse. But the benefits of co-sleeping go beyond significant reductions in crying: Infants who are breastfed receive more stimulation important for brain development, and they are apparently less susceptible to sudden infant death syndrome (SIDS or "crib death"), which occurs at a higher rate in the United States than in any other country. There are benefits to the mother as well: Frequent nursing prevents early ovulation after childbirth, promotes weight

**ethnocentrism** The belief that the ways of one's own culture are the only proper ones.

**culture-bound** A perspective that produces theories about the world and reality that are based on the assumptions and values from the researcher's own culture.

## VISUAL COUNTERPOINT

Courtesy of the Center for Mindful Learning



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**Figure 1.2 Sleeping Habits across Cultures** Although infants in the United States typically sleep apart from their parents, cross-cultural research shows that co-sleeping, particularly of mother and baby, is the rule. Without the breathing cues provided by someone sleeping nearby, an infant is more susceptible to sudden infant death syndrome (SIDS), a phenomenon in which a 4- to 6-month-old baby stops breathing and dies while asleep. The highest rates of SIDS are found among infants in the United States. The photo on the right shows a Nenet family sleeping together in their *chum* (reindeer-skin tent). Nenet people are Arctic reindeer pastoralists living in Siberia.

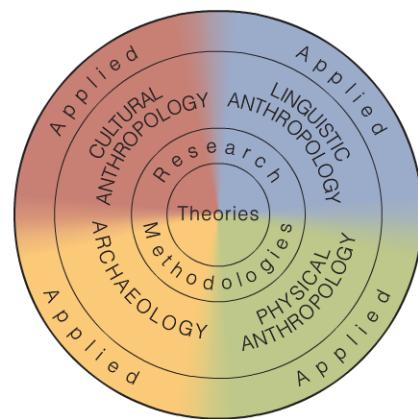
loss to shed pregnancy pounds, and allows nursing mothers at least as much sleep as mothers who sleep apart from their infants (McKenna & McDade, 2005).

Why do so many mothers continue to sleep separately from their infants? In the United States, the cultural values of independence and consumerism come into play. To begin building individual identities, babies are provided with rooms (or at least space) of their own. This room also gives parents a place to stow the toys, furniture, and other paraphernalia associated with good and caring childrearing in the United States.

Although the findings of anthropologists have often challenged the conclusions of sociologists, psychologists, and economists, anthropology is absolutely indispensable to those in other disciplines because it is the only consistent check against culture-bound assertions. In a sense, anthropology is to these disciplines what the laboratory is to physics and chemistry: an essential testing ground for their theories.

archaeology and linguistics to be part of the broader study of human cultures, but archaeology and linguistics also have close ties to physical anthropology. For example, while linguistic anthropology focuses on the social and cultural aspects of language, it has deep connections to the evolution of human language and to the biological basis of speech and language studied within physical anthropology.

Researchers in each of anthropology's fields gather and analyze data to explore similarities and differences among humans, across time and space. Moreover, individuals within



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**Figure 1.3 The Four Fields of Anthropology** Note that the divisions among the fields are not sharp, indicating that their boundaries overlap. Note also that all four include the practice of applied anthropology.

## Anthropology and Its Fields

Individual anthropologists tend to specialize in one of four fields or subdisciplines: cultural anthropology, linguistic anthropology, archaeology, and physical (biological) anthropology (**Figure 1.3**). Some anthropologists consider

## BIOCULTURAL CONNECTION

# The Anthropology of Organ Transplantation

In 1954, the first organ transplant occurred in Boston when surgeons removed a kidney from one identical twin to place it inside his sick brother. Today, transplants between unrelated individuals are common, so much so that organs are trafficked in the black market, often across continents from the poor to the wealthy. Though some transplants rely upon living donors, routine organ transplantation depends largely upon the availability of organs obtained from individuals who have died. To reduce illegal traffic, several European countries have enacted policies that assume that any individual who is "brain dead" is automatically an organ donor unless the person has "opted out" ahead of time.

A practice like organ transplantation can exist only if it fits with cultural beliefs about death and the human body. The North American and European view—that the body is a machine that can be repaired much like a car—makes a practice like organ transplantation acceptable. But this is not the view shared by all societies. Anthropologist

Margaret Lock has explored differences between Japanese and North American acceptance of the biological state of brain death and how it affects the practice of organ transplantation.

The diagnosis of brain death relies upon the absence of measurable electrical currents in the brain and the inability to breathe without technological assistance. The brain-dead individual, though attached to machines, still seems alive with a beating heart and normal skin coloring. Part of the reason most North Americans find organ transplantation tolerable with the determination of brain death is that personhood and individuality are culturally ascribed to the mind, and thus located in the brain. North Americans' acceptance of brain death has allowed for the "gift of life" through sometimes anonymous organ donation and subsequent transplantation.

By contrast, in Japan, the concept of brain death is hotly contested, and organ transplants are rarely performed. The Japanese idea of personhood does not incorporate a mind–body split; instead, a person's identity is tied to

the entire body rather than solely to the brain. Consequently, the Japanese reject that a warm body is a corpse from which organs can be harvested. Further, organs cannot be transformed into "gifts" because anonymous donation is incompatible with Japanese social patterns of reciprocal exchange.

Organ transplantation involves far greater social meaning than the purely biological movement of an organ from one individual to another. Cultural and biological processes are tightly woven into every aspect of this new social practice.

### BIOCULTURAL QUESTION

What criteria do you use for death, and is it compatible with the idea of organ donation? Do you think that donated organs are fairly distributed in your society or throughout the globe?

*For more on this subject, see Lock, M. (2001). Twice dead: Organ transplants and the reinvention of death. Berkeley: University of California Press.*

each of the four fields practice **applied anthropology**, which entails the use of anthropological knowledge and methods to solve practical problems. Most applied anthropologists actively collaborate with the communities in which they work—setting goals, solving problems, and conducting research together. In this book, the Anthropology Applied features spotlight how anthropology contributes to solving a wide range of challenges.

An early example of the application of anthropological knowledge to a practical problem was the international public health movement that began in the 1920s. This marked the beginning of **medical anthropology**—a specialization that brings theoretical and applied approaches from cultural and biological anthropology to the study of human health and disease. The work of medical anthropologists sheds light on the connections between human health and political and economic forces, both locally and globally. Examples of this specialization appear in some of the Biocultural Connections featured in this text, including the one presented on this page, "The Anthropology of Organ Transplantation."

## Cultural Anthropology

**Cultural anthropology** (also called *social* or *socio-cultural anthropology*) is the study of patterns in human behavior, thought, and emotions. It focuses on humans as

**applied anthropology** The use of anthropological knowledge and methods to solve practical problems, often for a specific client.

**medical anthropology** A specialization in anthropology that brings theoretical and applied approaches from cultural and biological anthropology to the study of human health and disease.

**cultural anthropology** The study of patterns in human behavior, thought, and emotions, focusing on humans as culture-producing and culture-reproducing creatures. Also known as *social* or *sociocultural anthropology*.

culture-producing and culture-reproducing creatures. To understand the work of the cultural anthropologist, we must clarify the meaning of **culture**—a society's shared and socially transmitted ideas, values, emotions, and perceptions, which are used to make sense of experience and which generate behavior and are reflected in that behavior. These are the (often unconscious) standards by which societies—structured groups of people—operate. These standards are socially learned, rather than acquired through biological inheritance. The manifestations of culture may vary considerably from place to place, but no individual is "more cultured" in the anthropological sense than any other.

Integral to all the anthropological fields, the concept of culture might be considered anthropology's distinguishing feature. After all, a biological anthropologist is distinct from a biologist *primarily* because he or she takes culture into account. Cultural anthropologists may study the legal, medical, economic, political, or religious system of a given society, knowing that all aspects of the culture interrelate as part of a unified whole. They may focus on divisions in a society—such as by gender, age, or class—factors we will explore in depth later in this text. But it is also worth noting the significance of these same categories to the archaeologist who studies a society through its material remains, to the linguistic anthropologist who examines ancient and modern languages, and to the biological anthropologist who investigates the physical human body.

Cultural anthropology has two main components: ethnography and ethnology. An **ethnography** is a detailed description of a particular culture primarily based on **fieldwork**, which is the term all anthropologists use for on-location research. Because the hallmark of ethnographic fieldwork is a combination of social participation and personal observation within the community being studied and interviews and discussions with individual members of a group, the ethnographic method is commonly referred to as **participant observation** (Figure 1.4). Ethnographies provide the information used to make systematic comparisons among cultures all across the world. Known as **ethnology**, such cross-cultural research allows anthropologists to develop theories that help explain why certain important differences or similarities occur among groups.

## Ethnography

Through participant observation—eating a people's food, sleeping under their roof, learning how to speak and behave acceptably, and personally experiencing their habits and customs—the ethnographer seeks to gain the best possible understanding of a particular way of life. Being a participant observer does not mean that the anthropologist must join in battles to study a culture in which warfare is prominent; but by living among a warring people, the ethnographer should be able to understand how warfare fits into the overall cultural framework.

The ethnographer must observe carefully to gain an overview without placing too much emphasis on one



**Figure 1.4 Fieldwork in the Arctic** British anthropologist Florian Stammler engages in participant observation among Sami reindeer nomads in Siberia. Specializing in Arctic anthropology, particularly in the Russian far north, Stammler coordinates the anthropology research team at the University of Lapland's Arctic Centre. His interests include Arctic economy, human–animal relations, and the anthropology of place and belonging.

cultural feature at the expense of another. Only by discovering how *all* parts of a culture—its social, political, economic, and religious practices and institutions—relate to one another can the ethnographer begin to understand the cultural system. This is the holistic perspective so basic to the discipline.

The popular image of ethnographic fieldwork is that it occurs among hunters, herders, fishers, or farmers who live in far-off, isolated places. To be sure, much ethnographic work has been done in the remote villages of Asia, Africa, or Latin America, islands of the Pacific Ocean, deserts of Australia, and so on. However, as the discipline developed after the mid-1900s with the demise of colonialism, industrialized societies

**culture** A society's shared and socially transmitted ideas, values, and perceptions, which are used to make sense of experience and which generate behavior and are reflected in that behavior.

**ethnography** A detailed description of a particular culture primarily based on fieldwork.

**fieldwork** The term anthropologists use for on-location research.

**participant observation** In ethnography, the technique of learning a people's culture through social participation and personal observation within the community being studied, as well as interviews and discussion with individual members of the group over an extended period of time.

**ethnology** The study and analysis of different cultures from a comparative or historical point of view, utilizing ethnographic accounts and developing anthropological theories that help explain why certain important differences or similarities occur among groups.

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and neighborhoods in modern cities have also become a significant focus of anthropological study.

Ethnographic fieldwork has transformed from expert Western anthropologists studying people in "other" places to a collaborative approach among anthropologists from all parts of the world and the varied communities in which they work. Today, anthropologists from around the globe employ the same research techniques that were used in the study of non-Western peoples to explore diverse subjects such as religious movements, street gangs, refugee settlements, land rights, conflict resolution, corporate bureaucracies, and health-care systems in Western cultures.

### Ethnology

Largely descriptive in nature, *ethnography* provides the raw data needed for *ethnology*—the branch of cultural anthropology that involves cross-cultural comparisons and theories that explain differences or similarities among groups. Intriguing insights into one's own beliefs and practices may come from cross-cultural comparisons. Consider, for example, the amount of time spent on domestic chores by industrialized peoples and traditional food foragers—people who rely on wild plant and animal resources for subsistence.

Anthropological research has shown that food foragers work far less time at domestic tasks and other subsistence pursuits compared to people in industrialized societies. Despite access to "labor-saving" appliances such as dishwashers, washing machines, clothes dryers, vacuum cleaners, food processors, and microwave ovens, urban women in the United States who are not working for wages outside their homes put 55 hours a week into their housework. In contrast, aboriginal women in Australia devoted 20 hours a week to their chores (Bodley, 2008, p. 67). Nevertheless, consumer appliances have become important indicators of a high standard of living in the United States due to the widespread belief that household appliances reduce housework and increase leisure time.

By making systematic comparisons, ethnologists seek to arrive at scientific explanations of cultural features and social practices in all times and places. (The Biocultural Connection you read on page 6 is one of countless examples of anthropological insights gained through comparative research.)

### Applied Cultural Anthropology

Today, cultural anthropologists contribute to applied anthropology in a variety of contexts ranging from business to education to health care to governmental interventions to humanitarian aid. For example, anthropologist Nancy Scheper-Hughes has taken her investigative work on the

global problem of illegal trafficking of organs and used it to help found Organs Watch, an organization dedicated to solving this human rights issue (see the Globalscape later in this chapter).

## Linguistic Anthropology

Perhaps the most distinctive feature of the human species is language. Although the sounds and gestures made by some other animals—especially by apes—may serve functions comparable to those of human language, no other animal has developed a system of symbolic communication as complex as that of humans. Language allows people to create, preserve, and transmit countless details of their culture from generation to generation.

**Linguistic anthropology** is the branch of anthropology that studies human languages; it investigates their structure, history, and relation to social and cultural contexts. Although it shares data, theories, and methods with the more general discipline of linguistics, it differs in that it includes distinctly anthropological questions, such as, how does language influence or reflect culture? And how does language use differ among distinct members of a society?

In its early years, linguistic anthropology emphasized the documentation of languages of cultures under ethnographic study—particularly those whose future seemed precarious due to colonization, forced assimilation, population decimation, capitalist expansion, or other destructive forces. When the first Europeans began to colonize the world five centuries ago, an estimated 12,000 distinct languages existed. By the early 1900s—when anthropological research began to take off—many languages and peoples had already disappeared or were on the brink of extinction. Sadly this trend continues, with predictions that nearly half of the world's remaining 6,000 languages will become extinct over the next hundred years (Crystal, 2002; Knight, Studdert-Kennedy, & Hurford, 2000).

Linguistic anthropology has three main branches: descriptive linguistics, historical linguistics, and language in relation to social and cultural settings. All three yield valuable information about how people communicate and how they understand the world around them.

### Descriptive Linguistics

This branch of linguistic anthropology involves the painstaking work of dissecting a language by recording, delineating, and analyzing all of its features. It leads to a deeper understanding of a language—its structure (including grammar and syntax), its unique linguistic repertoire (figures of speech, word plays, and so on), and its relationship to other languages.

### Historical Linguistics

While descriptive linguistics focuses on all features of a particular language at any one moment in time, historical

**linguistic anthropology** The study of human languages—looking at their structure, history, and relation to social and cultural contexts.



Photo by Chris Rainier/Enduring Voices Project

**Figure 1.5 Preserving Endangered Languages** Linguistic anthropologist David Anderson (right) has devoted his career to documenting and saving indigenous languages. He founded and heads the Living Tongues Institute for Endangered Languages and works throughout the globe to preserve languages that are dying out at a shocking rate of about one every two weeks. Here he is recording for the first time the language of Koro, spoken by some 1,000 people in India's remote northeastern state, Arunachal Pradesh. Situated near India's contested border with China, this region is considered a black hole in the study of languages.

linguistics deals with the fact that languages change. In addition to deciphering “dead” languages that are no longer spoken, specialists in this field examine interrelationships among different languages and investigate earlier and later forms of the same language. Their findings make significant contributions to our understanding of the human past. By working out relationships among languages and examining their spatial distributions, they may estimate how long the speakers of those languages have lived where they do. By identifying those words in related languages that have survived from an ancient ancestral tongue, they can also suggest not only where, but how, the speakers of the inherited language lived. Such work shows linguistic ties between geographically distant groups such as the Navajo in Arizona’s desert and the Gwich’in above the Arctic Circle in Alaska, or between the Magyars in Hungary and the people of Finland.

### Language in Its Social and Cultural Settings

Some linguistic anthropologists study the social and cultural contexts of a language. For example, they may research how factors such as age, gender, ethnicity, class, religion, occupation, or financial status affect speech. Because members of any culture may use a variety of different registers and inflections, the ones they choose (often unconsciously) to use at a specific instance convey particular meanings.

Scientists in this branch of linguistics also look into the dynamic relationship between language and culture—investigating to what degree they mutually influence and inform each other. In this vein, they may investigate how a language reflects culturally significant aspects of a people’s environment or values.

Linguistic anthropologists may also focus on the socialization process through which an individual becomes part of a culture, moves up in social status, or takes on a new

professional identity. First-year medical students, for example, amass 6,000 new terms and a series of linguistic conventions as they begin to take on the role of a physician. Individuals training for any specialized career, from lawyer to chef, face similar challenges in quickly expanding their vocabularies.

### Applied Linguistic Anthropology

Linguistic anthropologists put their research to use in a number of settings. Some, for example, have collaborated with recently contacted cultural groups, small nations (or tribes), and ethnic minorities in the preservation or revival of languages suppressed or lost during periods of oppression by dominant societies. Their work has included helping to create written forms of languages that previously existed only orally. This sort of applied linguistic anthropology represents a trend in mutually useful collaboration that is characteristic of much anthropological research today (Figure 1.5).

### Archaeology

**Archaeology** is the branch of anthropology that studies human cultures through the recovery and analysis of material remains and environmental data. Such material products include tools, pottery, hearths, and enclosures that remain as traces of cultural practices in the past, as well as human, plant, and marine remains, some of which date back 2.5 million years. The arrangement of these traces, as much as the traces themselves, reflects specific human ideas and behavior. For example, shallow, restricted concentrations of charcoal that include oxidized earth, bone fragments, and charred plant

**archaeology** The study of cultures through the recovery and analysis of material remains and environmental data.

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**Figure 1.6** Analyzing Human Remains in a Bioarchaeology Laboratory Bioarchaeology graduate students J. Marla Toyne and Mellisa Lund Valle are conducting a skeletal inventory and checking for pathological conditions in human remains from a 14th-century mass execution and sacrifice site at Punta Lobos in the Huarmey River Valley in northern Peru. Their work is part of a research project directed by Dr. John Verano of Tulane University, New Orleans.



Courtesy of John Verano

remains, located near pieces of fire-cracked rock, pottery, and tools suitable for food preparation, indicate cooking and food processing. Such remains can reveal much about a people's diet and subsistence practices.

In addition to specific questions about a single group of people at a particular place and time, archaeologists use material remains to investigate broad questions, including settlement or migration patterns across vast areas, such as the spread of the earliest humans from Africa or the first peopling of the Americas. Together with skeletal remains, material remains help archaeologists reconstruct the biocultural context of past human lifeways and patterns. Archaeologists organize this material and use it to explain cultural variability and change through time.

Because archaeological research is explicitly tied to unearthing material remains in particular environmental contexts, a variety of innovations in the geographic and geologic sciences have been readily incorporated into archaeological research. Innovations such as geographic information systems (GIS), remote sensing, and ground-penetrating radar (GPR) complement traditional explorations of the past through archaeological digs.

Although archaeologists tend to specialize in particular culture zones or time periods that are connected with particular regions of the world, a number of topical subspecializations also exist. We turn now to these.

## Historical Archaeology

Archaeologists can reach back for clues to human behavior far beyond the maximal 5,000 years to which historians are confined by their reliance on written records. Calling this time period "prehistoric" does not mean that these societies were less interested in their history or that they did not have ways of recording and transmitting history. It simply means that written records do not exist.

That said, archaeologists are not limited to the study of societies without written records; they may study those for which historic documents are available to supplement the material remains. **Historical archaeology**, the archaeological study of places for which written records exist, often provides data that differ considerably from the historical record. In most literate societies, written records are associated with governing elites rather than with farmers, fishers, laborers, or slaves, and therefore they include the biases of the ruling classes. In fact, according to James Deetz, a pioneer in historical archaeology of the Americas, in many historical contexts, "material culture may be the most objective source of information we have" (Deetz, 1977, p. 160).

## Bioarchaeology

**Bioarchaeology** is the study of human remains—bones, skulls, teeth, and sometimes hair, dried skin, or other tissue—to determine the influences of culture and environment on human biological variation. Whether mummified (as in the dry deserts of northwestern China, Egypt, or Peru) or not, human remains excavated at archaeological sites provide valuable clues about the lifestyle and health of prehistoric peoples, including information about activity, physiological stress, nutrition, disease, and social rank (**Figure 1.6**).

**historical archaeology** The archaeological study of places for which written records exist.

**bioarchaeology** The archaeological study of human remains—bones, skulls, teeth, and sometimes hair, dried skin, or other tissue—to determine the influences of culture and environment on human biological variation.

For example, mummified skeletal remains from the Andean highlands in South America not only reveal this burial practice but also provide evidence of some of the earliest brain surgery ever documented. In addition, these bioarchaeological remains exhibit skull deformation techniques that distinguish nobility from other members of society.

Some archaeologists specialize in *ethnobotany*, studying how people of a given culture made use of indigenous plants. Others specialize in *zooarchaeology*, tracking the animal remains recovered in archaeological excavations. Still others, maritime archaeologists, may research submerged sites or old sailing vessels sunk to the bottom of a sea, lake, or river hundreds or even thousands of years ago.

### Contemporary Archaeology

Although most archaeologists concentrate on the past, some study material objects in contemporary settings, and that includes garbage dumps. Just as a 3,000-year-old shell mound (*midden*) on the seacoast of Denmark, New England, or Tiera del Fuego offers significant clues about prehistoric communities living on mussels, oysters, fish, and other natural resources, modern garbage dumps provide evidence of everyday life in contemporary societies. For large cities like New York, the accumulation of daily garbage is staggering. In just a few centuries, millions of inhabitants have dumped so much trash that this urban area has been physically raised 6 to 30 feet—primarily from discarded newspapers and rubble from demolition and building construction, but also from huge amounts of plastic and household and office supplies and equipment (Rathje & Murphy, 2001).

Among the first anthropologists to study modern garbage was William Rathje, who founded the Garbage Project at the University of Arizona in 1973. The project began with a study of household waste of Tucson residents and later expanded to other cities. When surveyed by questionnaires, only 15 percent of households reported consuming beer, and none reported an intake of more than eight cans a week. Analysis of garbage from the same area showed that 80 percent of the households consumed some beer, and 50 percent discarded more than eight cans per week (Rathje & Murphy, 2001).

Beyond providing data on beer consumption, the Garbage Project has tested the validity of research survey techniques, upon which sociologists, economists, other social scientists, and policymakers rely heavily. The tests show a significant difference between what people *say* they do and what the garbage analysis shows they *actually* do.

### Applied Archaeology

The Garbage Project also gives us a fine example of applied archaeology producing useful, thought-provoking information about contemporary social issues. Its program of excavating landfills in different parts of North America, initiated in 1987, produced the first reliable data on what materials actually go into landfills and what happens to them there. Again, common beliefs turned out to be at odds with the actual situation. For example, when buried in deep compost

landfills, biodegradable materials such as newspapers take far longer to decay than anyone had expected. This kind of information is a vital step toward solving waste disposal problems. The data gathered from the Garbage Project's landfill studies on hazardous wastes and rates of decay of various materials play a major role in landfill regulation and management today (Rathje & Murphy, 2001).

### Cultural Resource Management

While archaeology may conjure up images of ancient pyramids and the like, much archaeological fieldwork is carried out as **cultural resource management**. What distinguishes this work from traditional archaeological research is that it is a legally required part of any activity that might threaten important aspects of a country's prehistoric and historic heritage. Many countries, from Chile to China, use archaeological expertise to protect and manage their cultural heritage.

In the United States, for example, if a construction company plans to replace a highway bridge, it must first contract with archaeologists to identify and protect any significant prehistoric or historic resources that might be affected by this new construction. And when cultural resource management work or other archaeological investigation uncovers Native American cultural items or human remains, federal laws come into the picture again. The Native American Graves Protection and Repatriation Act (NAGPRA), passed in 1990, provides a process for the return of these remains, especially human bones and burial gifts (such as copper jewelry, weapons, and ceramic bowls), to lineal descendants, culturally affiliated Indian tribes, and Native Hawaiian organizations.

In addition to working in all the capacities mentioned, archaeologists also consult for engineering firms to help them prepare environmental impact statements. Some of these archaeologists operate out of universities and colleges, while others are on the staff of independent consulting firms. When state legislation sponsors any kind of archaeological work, it is referred to as *contract archaeology*.

### Physical Anthropology

**Physical anthropology**, also called *biological anthropology*, focuses on humans as biological organisms. Traditionally, physical anthropologists concentrated on human evolution, primatology, growth and development, human adaptation, and forensics. Today, **molecular anthropology**, or the anthropological study of genes

**cultural resource management** A branch of archaeology concerned with survey and/or excavation of archaeological and historical remains that might be threatened by construction or development; also involved with policy surrounding protection of cultural resources.

**physical anthropology** The systematic study of humans as biological organisms; also known as *biological anthropology*.

**molecular anthropology** The anthropological study of genes and genetic relationships, which contributes significantly to our understanding of human evolution, adaptation, and diversity.

and genetic relationships, contributes significantly to our understanding of human evolution, adaptation, and diversity. Comparisons among groups separated by time, geography, or the frequency of a particular gene can reveal how humans have adapted and where they have migrated. As experts in the anatomy of human bones and tissues, biological anthropologists lend their knowledge about the body to applied areas such as gross anatomy laboratories, public health, and criminal investigations.

### Paleoanthropology

Dealing with much greater time spans than other branches of anthropology, **paleoanthropology** is the study of the origins, predecessors, and early representatives of the present human species. Focusing on long-time biological changes (evolution) paleoanthropologists seek to understand how, when, and why we became the species we are today. In biological terms, we humans are *Homo sapiens*, a species in the larger order of primates, one of the many kinds of mammals. Because we share a common ancestry with other primates (monkeys and apes), paleoanthropologists look back to the earliest primates (about 65 million years ago, abbreviated mya) or even to the earliest mammals (225 mya) to reconstruct the intricate path of human evolution.

At times, paleoanthropologists take a **biocultural** approach, focusing on the interaction of biology and culture.

Paleoanthropologists compare fossilized skeletons of our ancestors to other fossils and to the bones of living members of our species. Combining this knowledge with biochemical and genetic evidence, they strive to scientifically reconstruct the complex course of human evolutionary history. With each new fossil discovery, paleoanthropologists have another piece to add to the puzzle still far from fully solved. Further on in this text, we discuss how, genetic evidence establishes the close relationship between humans and ape species—chimpanzees, bonobos, and gorillas. Genetic analyses indicate that the distinctively human line split from the apes sometime between 5 and 8 million years ago.

### Primateology

Studying the anatomy and behavior of the other primates helps us understand what we share with our closest living relatives and what makes humans unique. Therefore, **primatology**, or the study of living and fossil primates, is a vital part of physical anthropology. Primates include the



**Figure 1.7 Primateologist Jane Goodall** Nearly forty-five years ago Jane Goodall began studying chimpanzees to shed light on the behavior of our distant ancestors. The knowledge she has amassed reveals striking similarities with our species. Goodall has devoted much of her career to championing the rights of our closest living relatives.

Asian and African apes, as well as monkeys, lemurs, lorises, and tarsiers.

Biologically, humans are members of the ape family—large-bodied, broad-shouldered primates with no tail. Detailed studies of ape behavior in the wild indicate that the sharing of learned behavior is a significant part of their social life. Increasingly, primatologists designate the shared, learned behavior of nonhuman apes as *culture*. For example, tool use and communication systems indicate the elementary basis of language in some ape societies.

Primate studies offer scientifically grounded perspectives on the behavior of our ancestors, as well as greater appreciation and respect for the abilities of our closest living relatives. As human activity encroaches on all parts of the world, many primate species are endangered. Primatologists, such as Jane Goodall (**Figure 1.7**), strongly advocate for the preservation of primate habitats so that these remarkable animals will be able to continue to inhabit the earth with us.

### Human Growth, Adaptation, and Variation

Some physical anthropologists specialize in the study of human growth and development. They examine biological mechanisms of growth as well as the impact of the environment on the growth process. For example, Franz Boas, a pioneer of American anthropology of the early 20th century (see the Anthropologists of Note feature on the next page) compared the heights of immigrants who spent their

**paleoanthropology** The anthropological study of biological changes through time (evolution) to understand the origins and predecessors of the present human species.

**biocultural** An approach that focuses on the interaction of biology and culture.

**primatology** The study of living and fossil primates.

## ANTHROPOLOGISTS OF NOTE

### Franz Boas (1858–1942) • Matilda Coxe Stevenson (1849–1915)

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Franz Boas on a sailing ship, about 1925.

**Franz Boas** was not the first to teach anthropology in the United States, but it was Boas and his students, with their insistence on scientific rigor, who made anthropology courses common in college and university curricula. Born and raised in Germany where he studied physics, mathematics, and geography, Boas did his first ethnographic research among the Inuit (Eskimos) in Arctic Canada in 1883 and 1884. After a brief academic career in Berlin, he came to the United States where he worked in museums interspersed with ethnographic research among the Kwakiutl (Kwakwaka'wakw) Indians in the Canadian Pacific. In 1896, he became a professor at Columbia University in New York City. He authored an incredible number of publications, founded professional organizations and journals, and taught two generations of great anthropologists, including numerous women and ethnic minorities.

As a Jewish immigrant, Boas recognized the dangers of ethnocentrism and especially racism. Through ethnographic fieldwork and comparative analysis, he demonstrated that white supremacy theories and other schemes ranking non-European peoples and cultures as inferior were biased, ill informed, and unscientific. Throughout his long and illustrious academic career, he promoted anthropology not only as a human science but also as an instrument to combat racism and prejudice in the world.

Among the founders of North American anthropology were a number of women, including **Matilda Coxe Stevenson**, who did fieldwork among the Zuni Indians of Arizona. In 1885, she founded the Women's Anthropological Society in

Washington, DC, the first professional association for women scientists. Three years later, hired by the Smithsonian's Bureau of American Ethnology, she became one of the first women in the world to receive a full-time official position in science. Along with several other pioneering female anthropologists in North America, she was highly influential among women's rights advocates in the late 1800s. The tradition of women building careers in anthropology continues. In fact, since World War II more than half the presidents of the now 12,000-member American Anthropological Association have been women.



National Anthropological Archives Smithsonian Institution Neg#2271000

Matilda Coxe Stevenson in New Mexico, about 1900.

Recording observations on film as well as in notebooks, Stevenson and Boas were also pioneers in visual anthropology. Stevenson used an early box camera to document Pueblo Indian religious ceremonies and material culture, while Boas photographed Inuit and Kwakiutl Indians from the early 1890s for cultural as well as physical anthropological documentation. Today, their early photographs are greatly valued not only by anthropologists and historians, but also by indigenous peoples themselves.

childhood in the “old country” (Europe) to the increased heights reached by their children who grew up in the United States. Today, physical anthropologists study the impact of poverty, pollution, and disease on growth. Comparisons between human and nonhuman primate growth patterns can provide clues to the evolutionary history of humans. Detailed anthropological studies of the hormonal, genetic, and physiological bases of healthy growth in living humans also contribute significantly to the health of children today.

Studies of human adaptation focus on the capacity of humans to adapt or adjust to their material environment—biologically and culturally. This branch of physical anthropology takes a comparative approach to humans living today in a variety of environments. Human beings are the only primates to inhabit the entire earth. Although biological adaptations make it possible for people to live in environmentally extreme regions, cultural adaptations also contribute to our survival in places that are dangerously cold, hot, or of high altitude.



Some of these biological adaptations are built into the genetic makeup of populations. The long period of human growth and development provides ample opportunity for the environment to shape the human body. *Developmental adaptations* are responsible for some features of human variation, such as the enlargement of the

right ventricle of the heart to help push blood to the lungs among the Aymara Indians of the Bolivian altiplano—an extensive area of high plateau at the widest part of the Andes. *Physiological adaptations* are short-term changes in response to a particular environmental stimulus. For example, if a woman who normally lives at sea level flies to La Paz, a large Bolivian city in the altiplano at an altitude of 3,660 meters (nearly 12,000 feet), her body will undergo a series of physiological responses, such as increased production of the red blood cells that carry oxygen. These kinds of biological adaptation contribute to present-day human variation.

Genetically based human differences include visible traits such as height, body build, and skin color, as well as biochemical factors such as blood type and susceptibility to certain diseases. Still, we remain members of a single

## ANTHROPOLOGY APPLIED

### Forensic Anthropology: Voices for the Dead

*The work of Clyde C. Snow, Michael Blakey, and Amy Zelson Mundorff*

Forensic anthropology is the analysis of skeletal remains for legal purposes. Law enforcement authorities call upon forensic anthropologists to use skeletal remains to identify murder victims, missing persons, or people who have died in disasters, such as plane crashes. Forensic anthropologists have also contributed substantially to the investigation of human rights abuses in all parts of the world by identifying victims and documenting the cause of their death.

Among the best-known forensic anthropologists is Clyde C. Snow. He has been practicing in this field for over forty years, first for the Federal Aviation Administration and more recently as a freelance consultant. In addition to the usual police work, Snow has studied the remains of General George Armstrong Custer and his men from the 1876 battle at Little Big Horn, and in 1985 he went to Brazil, where he identified the remains of the notorious Nazi war criminal Josef Mengele.

Snow was also instrumental in establishing the first forensic team devoted to documenting cases of human rights abuses around the world. This began in 1984 when he went to Argentina at the request of a

newly elected civilian government to help with the identification of remains of the *desaparecidos*, or “disappeared ones,” the 9,000 or more people who were eliminated by death squads during seven years of military rule. A year later, he returned to give expert testimony at the trial of nine junta members and to teach Argentineans how to recover, clean, repair, preserve, photograph, x-ray, and analyze bones. Besides providing factual accounts of the fate of victims to their surviving kin and refuting the assertions of revisionists that the massacres never happened, the work of Snow and his Argentinean associates was crucial in convicting several military officers of kidnapping, torture, and murder.

Since Snow’s pioneering work, forensic anthropologists have become increasingly involved in the investigation of human rights abuses in all parts of the world, from Chile to Guatemala, Haiti, the Philippines, Rwanda, Iraq, Bosnia, and Kosovo. Meanwhile, they continue to do important work for more typical clients. In the United States these clients include the Federal Bureau of Investigation and city, state, and county medical examiners’ offices.

Forensic anthropologists specializing in skeletal remains commonly work closely with forensic archaeologists. The relation between them is rather like that between a forensic pathologist, who examines a corpse to establish time and manner of death, and a crime scene investigator, who searches the site for clues. While the forensic anthropologist deals with the human remains—often only bones and teeth—the forensic archaeologist controls the site, recording the position of relevant finds and recovering any clues associated with the remains.

In Rwanda, for example, a team assembled in 1995 to investigate mass murder (genocide) for the United Nations, which included archaeologists from the U.S. National Park Service’s Midwest Archaeological Center. They performed the standard archaeological procedures of mapping the site, determining its boundaries, photographing and recording all surface finds, and excavating, photographing, and recording buried skeletons and associated materials in mass graves.<sup>2</sup>

In 1991, in another part of the world, construction workers in New York City discovered an African burial ground from the 17th and 18th centuries.

species. Physical anthropology applies all the techniques of modern biology to achieve fuller understanding of human variation and its relationship to the different environments in which people have lived. Physical anthropologists' research on human variation has debunked false notions of biologically defined races, a belief based on widespread misinterpretation of human variation.

### Forensic Anthropology

One of the many practical applications of physical anthropology is **forensic anthropology**—the identification of human skeletal remains for legal purposes. In addition to helping law enforcement authorities identify murder victims, forensic anthropologists investigate human rights abuses such as systematic genocide, terrorism, and war

crimes. These specialists use details of skeletal anatomy to establish the age, sex, population affiliation, and stature of the deceased. Forensic anthropologists can also determine whether the person was right- or left-handed, exhibited any physical abnormalities, or had experienced trauma.

While forensics relies upon differing frequencies of certain skeletal characteristics to establish population affiliation, it is nevertheless false to say that all people from a given population have a particular type of skeleton. (See the Anthropology Applied feature to read about the work of several forensic anthropologists and forensic archaeologists.)

**forensic anthropology** The identification of human skeletal remains for legal purposes.



The excavation of mass graves by the Guatemalan Foundation for Forensic Anthropology (Fernando Moscoso Moller, director) documents the human rights abuses committed during Guatemala's bloody civil war, a conflict that left 200,000 people dead and another 40,000 missing. In 2009, in a mass grave in the Quiché region, Diego Lux Tzunux uses his cell phone to photograph the skeletal remains believed to belong to his brother Manuel who disappeared in 1980. Genetic analyses allow forensic anthropologists to confirm the identity of individuals so that family members can know the fate of their loved ones. The analysis of skeletal remains provides evidence of the torture and massacre sustained by these individuals.

Researchers used a bioarchaeological rather than a strictly forensic approach to examine the complete cultural and

historical context and lifeways of the entire population buried there. Directed by Michael Blakey, the African Burial

Ground Project provided incontrovertible evidence of the horror of slavery in North America, in the busy northern port of New York City. The more than 400 individuals, many of them children, were worked so far beyond their ability to endure that their spines were fractured.

A decade after construction workers happened upon the African Burial Ground, terrorists attacked the World Trade Center in lower Manhattan. Amy Zelson Mundorff, a forensic anthropologist for New York City's Office of the Chief Medical Examiner, was injured in the September 11 attack. But two days later she returned to work where she supervised and coordinated the management, treatment, and cataloguing of people who lost their lives in the tragedy.

Thus, several kinds of anthropologists analyze human remains for a variety of purposes. Their work contributes to the documentation and correction of violence committed by humans of the past and present.

<sup>a</sup>Haglund, W. D., Conner, M., & Scott, D. D. (2001). The archaeology of contemporary mass graves. *Historical Archaeology* 35 (1), 57–69.

## Anthropology, Science, and the Humanities

Anthropology has sometimes been called the most humane of the sciences and the most scientific of the humanities—a designation that most anthropologists accept with pride. Given their intense involvement with people of all times and places, anthropologists have amassed considerable information about human failure and success, weakness and greatness—the real stuff of the humanities.

Anthropologists remain committed to the proposition that one cannot fully understand another culture by simply observing it; as the term *participant observation* implies, one must *experience* it as well. This same commitment to field-work and to the systematic collection of data, whether qualitative or quantitative, is also evidence of the scientific side of anthropology. Anthropology is an **empirical** social science based on observations or information taken in through the senses and verified by others rather than on intuition or faith. But anthropology is distinguished from other sciences by the diverse ways in which scientific research is conducted within the discipline.

Science, a carefully honed way of producing knowledge, aims to reveal and explain the underlying logic, the structural processes that make the world tick. The creative scientific endeavor seeks testable explanations for observed phenomena, ideally in terms of the workings of hidden but unchanging principles or laws. Two basic ingredients are essential for this: imagination and skepticism. Imagination, though having the potential to lead us astray, helps us recognize unexpected ways phenomena might be ordered and to think of old things in new ways. Without it, there can be no science. Skepticism allows us to distinguish fact (an observation verified by others) from fancy, to test our speculations, and to prevent our imaginations from running away with us.

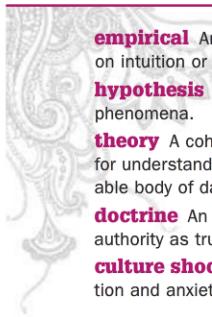
In their search for explanations, scientists do not assume that things are always as they appear on the surface. After all, what could be more obvious to the scientifically uninformed observer than the earth staying still while the sun travels around it every day?

Like other scientists, anthropologists often begin their research with a **hypothesis** (a tentative explanation or hunch) about the possible relationships between certain observed facts or events. By gathering various kinds of

data that seem to ground such suggested explanations on evidence, anthropologists come up with a **theory**, a coherent statement that provides an explanatory framework for understanding; an explanation or interpretation supported by a reliable body of data. In their effort to demonstrate links between *known* facts or events, anthropologists may discover *unexpected* facts, events, or relationships. An important function of theory is that it guides us in our explorations and may result in new knowledge. Equally important, the newly discovered facts may provide evidence that certain explanations, however popular or firmly believed, are unfounded. When the evidence is lacking or fails to support the suggested explanations, promising hypotheses or attractive hunches must be dropped. In other words, anthropology relies on empirical evidence. Moreover, no scientific theory—no matter how widely accepted by the international community of scholars—is beyond challenge. That includes the findings of some of anthropology's earliest and most respected scholars.

It is important to distinguish between scientific theories—which are always open to challenges born of new evidence or insights—and doctrine. A **doctrine**, or dogma, is an assertion of opinion or belief formally handed down by an authority as true and indisputable. For instance, those who accept a creationist doctrine on the origin of the human species as recounted in sacred texts or myths do so on the basis of religious authority, conceding that such views may be contrary to genetic, geological, biological, or other explanations. Such doctrines cannot be tested or proved one way or another: They are accepted as matters of faith.

Straightforward as the scientific approach may seem, its application is not always easy. For instance, once a hypothesis has been proposed, the person who suggested it is strongly motivated to verify it, and this can cause one to unwittingly overlook negative evidence and unanticipated findings. This is a familiar problem in all science as noted by paleontologist Stephen Jay Gould: "The greatest impediment to scientific innovation is usually a conceptual lock, not a factual lock" (Gould, 1989, p. 226). Because culture provides humans with concepts and shapes our very thoughts, it can be challenging to frame hypotheses or to develop interpretations that are not culture-bound. However, by encompassing both humanism and science, the discipline of anthropology can draw on its internal diversity to overcome conceptual locks.



**empirical** An approach based on observations of the world rather than on intuition or faith.

**hypothesis** A tentative explanation of the relationships among certain phenomena.

**theory** A coherent statement that provides an explanatory framework for understanding; an explanation or interpretation supported by a reliable body of data.

**doctrine** An assertion of opinion or belief formally handed down by an authority as true and indisputable.

**culture shock** In fieldwork, the anthropologist's personal disorientation and anxiety that may result in depression.

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## Fieldwork

Anthropologists are keenly aware that their personal identity and cultural background may shape their research questions, bear upon their factual observations, and even influence their interpretations and explanations. To avoid inadvertent bias or distortion, they immerse themselves in the data to the fullest extent possible through on-location research traditionally known as *fieldwork*.

Fieldwork, introduced earlier in this chapter in connection with cultural anthropology, is characteristic of *all* the anthropological subdisciplines. Archaeologists and paleoanthropologists excavate sites in the field, and, as already noted, cultural anthropologists observe human behavior while living and interacting with a group of people wherever the group may reside, work, or travel. Just as an ethnographer will study the culture of a human community by living in it, a primatologist might live among a group of chimpanzees or gorillas in the forest. Likewise, linguistic anthropologists interested in analyzing or comparing words and grammar from undocumented languages must first learn the languages, and they typically do so by living in communities where these are actually spoken. The same is true for colleagues studying how speech is actually “performed” in various social settings. Also, a physical anthropologist interested in the effects of globalization on nutrition and growth may reside in a particular community to research this issue.

Fieldwork requires researchers to step out of their cultural comfort zone into a world that is unfamiliar and sometimes unsettling. Anthropologists in the field are likely to face a host of challenges—physical, social, mental, political, and ethical. They often must deal with the physical challenges of unfamiliar food, climate, and hygiene conditions.

Typically, anthropologists in the field struggle with emotional challenges such as loneliness, feeling like a perpetual outsider, being socially awkward in their new cultural

setting, and having to be alert around the clock because anything that is happening or being said may be significant to their research. Political challenges include the possibility of unwittingly letting oneself be used by factions within the community, or being regarded with suspicion by government authorities who may view the anthropologist as a spy. And there are ethical dilemmas: What does the anthropologist do if faced with a troubling cultural practice such as female circumcision? How does the anthropologist deal with demands for food supplies or medicine? Is it acceptable to use deception to gain vital information? Collectively, these multiple challenges may gradually amount to **culture shock**—personal disorientation and anxiety that may result in depression, forcing some anthropologists to abandon their fieldwork and return home for recovery.

More often, however, fieldwork leads to tangible and meaningful personal, professional, and social rewards, ranging from lasting friendships to significant knowledge and insights concerning the human condition. Something of the meaning of anthropological fieldwork—its usefulness and its impact on researcher and subject—is conveyed in the following Original Study by Suzanne Leclerc-Madlala, an anthropologist who left her familiar New England surroundings nearly thirty years ago to do AIDS research among Zulu-speaking people in South Africa. Her research interest has changed the course of her own life, not to mention the lives of many individuals who are dealing with AIDS/HIV.

ORIGINAL STUDY

## Fighting HIV/AIDS in Africa: Traditional Healers on the Front Line BY SUZANNE LECLERC-MADLALA

In the 1980s, as an anthropology graduate student at George Washington University, I met and married a Zulu-speaking student from South Africa. It was the height of apartheid (racial segregation), and upon moving to that country I was classified as “honorary black” and forced to live in a segregated township with my husband. The AIDS epidemic was in its infancy, but it was clear from the start that an anthropological understanding of how people perceive and engage with this disease would be crucial for developing interventions. I wanted to learn all that I could to make a difference, and this culminated in earning a doctorate from the University of Natal on the cultural construction of AIDS among the Zulu. The HIV/AIDS pandemic in Africa became my professional passion.

Faced with overwhelming global health-care needs, the World Health Organization passed a series of resolutions in the 1970s promoting collaboration between traditional and modern medicine. Such moves held a special relevance

for Africa where traditional healers typically outnumber practitioners of modern medicine by a ratio of 100 to 1 or more. Given Africa’s disproportionate burden of disease, supporting partnership efforts with traditional healers makes sense. But what sounds sensible today was once considered absurd, even heretical. For centuries Westerners generally viewed traditional healing as a whole lot of primitive mumbo jumbo practiced by witch-doctors with demonic powers who perpetuated superstition. Yet, its practice survived. Today, as the African continent grapples with an HIV/AIDS epidemic of crisis proportion, millions of sick people who are either too poor or too distant to access modern health care are proving that traditional healers are an invaluable resource in the fight against AIDS.



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## 18 | CHAPTER 1 The Essence of Anthropology

Of the world's estimated 35 million people currently infected by HIV, nearly 70 percent live in sub-Saharan Africa, and the vast majority of children left orphaned by AIDS are African. From the 1980s onward, as Africa became synonymous with the rapid spread of HIV/AIDS, a number of prevention programs involved traditional healers. My initial research in South Africa's KwaZulu-Natal province—where almost 40 percent of the population is HIV infected—revealed that traditional Zulu healers were regularly consulted for the treatment of sexually transmitted disease (STD). I found that such diseases, along with HIV/AIDS, were usually attributed to transgressions of taboos related to birth, pregnancy, marriage, and death. Moreover, these diseases were often understood within a framework of pollution and contagion, and like most serious illnesses, ultimately believed to have their causal roots in witchcraft.

I investigated a pioneer program in STD and HIV education for traditional healers in the province. It aimed to provide basic biomedical knowledge about the various modes of disease transmission, the means available for prevention, the diagnosing of symptoms, the keeping of records, and the making of patient referrals to local clinics and hospitals.

Interviews with the healers showed that many were deeply suspicious of modern medicine. They perceived AIDS education as a one-way street intended to press them into formal health structures and convince them of the superiority of modern medicine. Yet, today, few of the 6,000-plus KwaZulu-Natal healers who have been trained in AIDS education say they would opt for less collaboration; most want to have more.

Treatments by Zulu healers for HIV/AIDS often take the form of infusions of bitter herbs to "cleanse" the body, strengthen the blood, and remove misfortune and "pollution." Some treatments provide effective relief from common ailments associated with AIDS such as itchy skin rashes, oral thrush, persistent diarrhea, and general debility. Indigenous plants such as *unwele* (*Sutherlandia frutescens*) and African potato (*Hypoxis hemerocallidea*) are well-known traditional medicines that have proven immuno-boosting properties. Both have recently become available in modern pharmacies packaged in tablet form. With modern anti-retroviral treatments still well beyond the reach of most South Africans, indigenous medicines that can delay or alleviate some of the suffering caused by AIDS are proving to be valuable and popular treatments.

Knowledge about potentially infectious bodily fluids has led healers to change some of their practices. Where porcupine quills were once used to give a type of indigenous injection, patients are now advised to bring their own

sewing needles to consultations. Patients provide their own individual razor blades for making incisions on their skin, where previously healers reused the same razor on many clients. Some healers claim they have given up the practice of biting clients' skin to remove foreign objects from the body. Today, especially in urban centers like Durban, it is not uncommon for healers to proudly display AIDS training certificates in their inner-city "surgeries" where they don white jackets and wear protective latex gloves.



Kerry Cullinan ©

Medical anthropologist Suzanne Leclerc-Madlala visits with "Doctor" Koloko in KwaZulu-Natal, South Africa. This Zulu traditional healer proudly displays her official AIDS training certificate.

Politics and controversy have dogged South Africa's official response to HIV/AIDS. But back home in the waddle-and-daub, animal-skin-draped herbariums and divining huts of traditional healers, the politics of AIDS holds little relevance. Here the sick and dying are coming in droves to be treated by healers who have been part and parcel of community life (and death) since time immemorial. In many cases traditional healers have transformed their homes into hospices for AIDS patients. Because of the strong negative stigma that still plagues the disease, those with AIDS symptoms are often abandoned or sometimes chased away from their homes by family members. They seek refuge with healers who provide them with comfort in their final days. Healers' homes are also becoming orphanages as healers respond to what has been called the "third wave" of AIDS destruction: the growing legions of orphaned children.

Those who are suffering go to traditional healers not only in search of relief for physical symptoms. They go to learn about the ultimate cause of their disease—something other than the immediate cause of a sexually transmitted "germ" or "virus." They go to find answers to the "why me and not

him" questions, the "why now" and "why this." As with most traditional healing systems worldwide, healing among the Zulu and most all African ethnic groups cannot be separated from the spiritual concerns of the individual and the cosmological beliefs of the community at large. Traditional healers help to restore a sense of balance between the individual and the community, on one hand, and between the individual and the cosmos, or ancestors, on the other hand. They provide health care that is personalized, culturally appropriate, holistic, and tailored to meet the needs and expectations of the patient. In many ways it is a far more satisfactory form of healing than that offered by modern medicine.

Traditional healing in Africa is flourishing in the era of AIDS, and understanding why this is so requires a shift in the conceptual framework by which we understand, explain, and interpret health. Anthropological methods and its comparative and holistic perspective can facilitate, like no other discipline, the type of understanding that is urgently needed to address the AIDS crisis.

*For more details, see Leclerc-Madlala, S. (2002). Bodies and politics: Healing rituals in the democratic South Africa. In V. Faure (Ed.), Les cahiers de l'IFAS, no. 2. Johannesburg: The French Institute. Leclerc-Madlala now works for USAID.*

## Questions of Ethics

Anthropologists deal with matters that are private and sensitive, including information that individuals would prefer not to have generally known about them. In the early years of the discipline, many anthropologists documented traditional cultures they assumed would disappear due to disease, warfare, or changes imposed by colonialism, growing state power, or international market expansion. Some worked as government administrators or consultants gathering data used to formulate policies concerning indigenous peoples. Others helped predict the behavior of enemies during wartime.

How does one write about important but delicate issues and at the same time protect the privacy of the individuals who have shared their stories? The kinds of research carried out by anthropologists, and the settings within which they work, raise important moral questions about the potential uses and abuses of our knowledge. Who will utilize our findings and for what purposes? Who decides what research questions are asked? Who, if anyone, will benefit from the research? For example, in the case of research on an ethnic or religious minority whose values may be at odds with the dominant society, will government bureaucracies or industrial corporations use anthropological data to suppress that group? And what of traditional communities around the world? Who is to decide what changes should, or should not, be introduced for community development? And who defines "development"—the community, a national government, or an international agency like the World Bank?

After the colonial era ended in the 1960s, and in reaction to controversial research practices by some anthropologists in or near violent conflict areas, anthropologists formulated a code of ethics to ensure that their research would not harm the groups being studied. Formalized in 1971 and revised in 1998 and again in 2009, the American Anthropological Association's (AAA) ethics code outlines a range of moral responsibilities and obligations. It includes this core principle: Anthropological researchers must do everything in their power to ensure that their research does not harm the safety,

dignity, or privacy of the people with whom they work, conduct research, or perform other professional activities.

In recent years, some of the debates regarding this code have focused on the potential ethical breaches if anthropologists work for corporations or undertake classified contract work for the military. Although the AAA has no legal authority, it does issue policy statements on research ethics questions as they come up. For example, recently the AAA recommended that research notes from medical settings should be protected and not subject to subpoena in court. This honors the ethical imperative to protect the privacy of individuals who have shared with anthropologists their stories about personal health issues.

Emerging technologies have ethical implications that impact anthropological inquiry. For example, the ability to sequence and patent particular genes has led to debates about who has the right to hold a patent—the individuals from whom the particular genes were obtained or the researcher who studies the genes? Similarly, do ancient remains belong to the scientist, to the people living in the region under scientific investigation, or to whoever happens to have possession of them? Global market forces have converted these remains into expensive collectibles, resulting in a systematic looting of archaeological and fossil sites.

While seeking answers to these questions, anthropologists recognize that they have special obligations to three sets of people: those whom they study, those who fund the research, and those in the profession who rely on published findings to increase our collective knowledge. Because fieldwork requires a relationship of trust between researchers and the community in which they work, the anthropologist's first responsibility clearly is to the people who have shared their stories and their community. Everything possible must be done to protect their physical, social, and psychological welfare and to honor their dignity and privacy. This task is frequently complex. For example, telling the story of a people gives information both to relief agencies who might help them and to others who might take advantage of them.

Maintaining one's own culture is an internationally recognized basic human right, and any connection with

## Globalscape

**A Global Body Shop?**

Lakshamma, pictured here with her daughter in southern India's rural village of Holalu, near Mandya, has sold one of her kidneys for about 30,000 rupees (\$650). This is far below the average going rate of \$6,000 per kidney in the global organ transplant business. But the broker took his commission, and corrupt officials needed to be paid as well. Although India passed a law in 1994 prohibiting the buying and selling of human organs, the business is booming. In Europe and North America, kidney transplants can cost over \$200,000, plus the waiting list for donor kidneys is long, and dialysis is expensive. Thus "transplant tourism," in India and several other countries, caters to affluent patients in search of "fresh" kidneys to be harvested from poor people like Lakshamma.<sup>a</sup>

The well-publicized arrest of Brooklyn-based organ broker Levy Izhak Rosenbaum in July 2009—part of an FBI sting

operation that also led to the arrest of forty-five other individuals, including several public officials in New Jersey—represents some progress in combatting illegal trafficking of body parts. Charged with brokering illegal kidney transplants—purchasing the organs for \$10,000–\$25,000 and selling them for as much as \$160,000—the Israeli immigrant pleaded guilty to three trafficking counts and agreed to forfeit \$420,000 in broker fees. In July 2012, he was sentenced to 2½ years in prison and possible deportation.<sup>b</sup>

Medical anthropologist and activist Nancy Scheper-Hughes has researched the criminal and medical aspects of global organ trafficking for some two decades. Cofounder of Organs Watch in Berkeley, California, an organization working to stop the illegal traffic in organs, she notified the FBI about Rosenbaum in 2002.<sup>c</sup> International crackdowns and changes in local laws are now curbing illegal global networks in human organ trafficking.

### Global Twister

Considering that \$650 is a fortune in a poor village like Holalu, does medical globalization benefit or exploit people like Lakshamma, who are looked upon as human commodities? What accounts for the gap between the \$650 she received for her kidney and the fees Rosenbaum received for the organ sales he brokered?

<sup>a</sup>Vidya, R. (2002). Karnataka's unabating kidney trade. *Frontline*. [www.frontlineonnet.com/f1907/19070610.htm](http://www.frontlineonnet.com/f1907/19070610.htm) (retrieved June 10, 2012)

<sup>b</sup>Henry, S., & Porter, D. (2011, October 27). Levy Izhak Rosenbaum pleads guilty to selling black market kidneys. *Huffingtonpost.com*. [www.huffingtonpost.com/2011/10/27/levy-izhak-rosenbaum-plea\\_n\\_1035624.html](http://www.huffingtonpost.com/2011/10/27/levy-izhak-rosenbaum-plea_n_1035624.html) (retrieved June 10, 2012)

<sup>c</sup>Glovin, D., & Voreacos, D. (2012, July 12). Kidney broker sentenced to prison. *Bloomberg News*. Retrieved from <http://www.businessweek.com/news/2012-07-11/n-dot-y-dot-man-gets-30-month-term-in-first-u-dot-s-dot-organ-case>

outsiders can expose and therefore endanger the cultural integrity of the community being studied. To overcome some of these ethical challenges, anthropologists frequently collaborate with and contribute to the communities in which they are working, inviting the people being studied to have some say about if and how their stories are told. In research involving ancient human remains, collaboration with local people not only preserves the remains from market forces but also honors the connections of indigenous people to the places and remains under study.

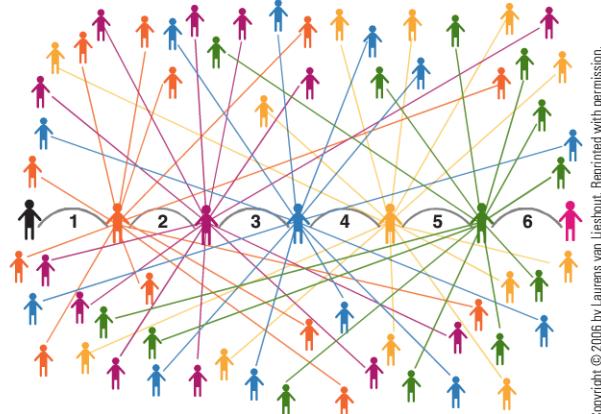
## Anthropology and Globalization

A holistic perspective and a long-term commitment to understanding the human species in all its variety equip anthropologists to grapple with a challenge that has overriding importance for each of us today: **globalization**. This concept refers to worldwide interconnectedness, evidenced in rapid global movement of natural resources, trade goods, human labor, finance capital, information, and infectious diseases. Although worldwide travel, trade relations, and information flow have existed for several centuries, the pace and magnitude of these long-distance exchanges have picked up enormously in recent decades; the Internet, in particular, has greatly expanded information exchange capacities.

The powerful forces driving globalization are technological innovations, cost differences among countries, faster knowledge transfers, and increased trade and financial integration among countries. Touching almost everybody's life on the planet, globalization is about economics as much as politics, and it changes human relations and ideas as well as our natural environments. Even geographically remote communities are quickly becoming interdependent—and often vulnerable—through globalization (see the Globalscape on the opposite page for an example).

Researching in all corners of the world, anthropologists witness the impact of globalization on human communities wherever they are located. They describe and try to explain how individuals and organizations respond to the massive changes confronting them. Dramatically increasing every year, globalization can be a two-edged sword. It may generate economic growth and prosperity, but it also undermines long-established institutions. Generally, globalization has brought significant gains to more-educated groups in wealthier countries, while at the same time contributing to the erosion of traditional cultures. Upheavals due to globalization are key causes for rising levels of ethnic and religious conflict throughout the world.

Because all of us now live in a global village, we can no longer afford the luxury of ignoring our neighbors, no matter how distant they may seem. In this age of globalization, anthropology may not only provide humanity with useful



**Figure 1.8 Six Degrees of Separation** The phrase "six degrees of separation," diagrammed here, refers to the idea that everyone is on average approximately six steps away, by way of introduction, from any other person on earth. Thus, a chain of "a friend of a friend" statements can be made to connect any two people in six steps or fewer. Originally coined by Hungarian writer Frigyes Karinthy in his 1929 short story, "Chains," it was popularized by American playwright John Guare's 1993 film, *Six Degrees of Separation*. It became all the more popular after four college students invented the trivia game Six Degrees of Kevin Bacon, in which the goal is to link any actor to film star Kevin Bacon through no more than six performance connections.

insights concerning diversity, but it may also assist us in avoiding or overcoming significant problems born of that diversity. In countless social arenas, from schools to businesses to hospitals to emergency centers, anthropologists have done cross-cultural research that makes it possible for educators, businesspeople, doctors, and humanitarians to do their work more effectively.

As illustrated by many examples in this textbook, ignorance or ethnocentric (mis)information about other societies and their cultural beliefs and practices can cause or fuel serious problems throughout the world. This is especially true in an age when human interactions and interdependence have been transformed by global information exchange and transportation advances. As noted in the Challenge Issue at the start of this chapter, there are only six degrees of separation between each of us and any other person on earth (Figure 1.8). Anthropology offers a way of looking at and understanding the world's peoples—insights that are nothing less than basic skills for survival in this age of globalization.

**globalization** Worldwide interconnectedness, evidenced in rapid global movement of natural resources, trade goods, human labor, finance capital, information, and infectious diseases.

## CHAPTER CHECKLIST

### What is anthropology?

- Anthropology is the objective and systematic study of humankind in all times and places.
- Anthropology contains four major fields or subdisciplines: cultural anthropology, linguistic anthropology, archaeology, and physical or biological anthropology.
- In each of anthropology's fields some individuals practice applied anthropology, which uses anthropological knowledge to solve practical problems.

### What do anthropologists do in each of its four fields?

- Cultural anthropologists study humans in terms of their cultures, the often-unconscious standards by which social groups operate.
- Linguistic anthropologists study human languages and may deal with the description of a language, with the history of languages, or with how languages are used in particular social settings.
- Archaeologists study human cultures through the recovery and analysis of material remains and environmental data.
- Physical anthropologists focus on humans as biological organisms; they particularly emphasize tracing the evolutionary development of the human animal and studying biological variation within the species today.

### How is anthropology different from other disciplines?

- Unique among the sciences and humanities, anthropology has long emphasized the study of non-Western societies and a holistic approach, which aims to formulate theoretically valid explanations and interpretations of human diversity based on detailed studies of all aspects of human biology, behavior, and beliefs in all known societies, past and present.
- In anthropology, the humanities, social sciences, and natural sciences come together into a genuinely humanistic science. Anthropology's link with the humanities can be seen in its concern with people's beliefs, values, languages, arts, and literature—oral as well as written—but above all in its attempt to convey the experience of living in different cultures.

### How do anthropologists conduct research?

- Fieldwork, characteristic of all the anthropological subdisciplines, includes complete immersion in

research settings ranging from archaeological and paleoanthropological survey and excavation, to living with a group of primates in their natural habitat, to biological data gathered while living with a group. Ethnographic participant observation with a particular culture or subculture is the classic field method of cultural anthropology.

- After the fieldwork of archaeologists and physical anthropologists, researchers conduct laboratory analyses of excavated remains or biological samples collected in the field.
- The comparative method is key to all branches of anthropology. Anthropologists make broad comparisons among peoples and cultures—past and present. They also compare related species and fossil groups. Ethnology, the comparative branch of cultural anthropologists, uses a range of ethnographic accounts to construct theories about cultures from a comparative or historical point of view. Ethnologists often focus on a particular aspect of culture, such as religious or economic practices.

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### How do anthropologists face the ethical challenges that emerge through conducting anthropological research?

- Anthropologists must stay aware of the potential uses and abuses of anthropological knowledge and the ways that it is obtained.
- The anthropological code of ethics, first formalized in 1971 and continually revised, outlines the moral and ethical responsibilities of anthropologists to the people whom they study, to those who fund the research, and to the profession as a whole.

### What can anthropology contribute to the understanding of globalization?

- A long tradition of studying the connections among diverse peoples over time gives anthropology a theoretical framework to study globalization in a world increasingly linked through recent technological advancements.
- Anthropology equips global citizens to challenge ethnocentrism and to understand human diversity.
- Anthropology has essential insights to offer the modern world, particularly today, when understanding our neighbors in the global village has become a matter of survival for all.

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## QUESTIONS FOR REFLECTION

1. As noted in this chapter's opening Challenge Issue, there are only six degrees of separation between you and the pictured coltan miner working in the heart of Africa. Many miners are poor or orphaned children forced into hard labor and living in squalor, with short life expectancies. When you buy a new electronic device that uses coltan, do you think you contribute to the miserable exploitation of fellow humans?
2. Anthropology embraces a holistic approach to explain all aspects of human beliefs, behavior, and biology. How might anthropology challenge your personal perspective on the question, who am I?
3. From the holistic anthropological perspective, humans have one leg in culture and the other in nature. Are there examples from your life that illustrate the interconnectedness of human biology and culture?
4. Globalization can be described as a two-edged sword. How does it foster growth and destruction simultaneously?
5. The Biocultural Connection in this chapter contrasts different cultural perspectives on brain death, while the Original Study features a discussion about traditional Zulu healers and their role in dealing with AIDS victims. What do these two accounts suggest about the role of applied anthropology in dealing with cross-cultural health issues around the world?

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Veronique de Viguerie/Getty Images

## Challenge Issue

Born naked and speechless, humans are naturally incapable of surviving without culture—a socially learned adaptive system designed to help us meet our challenges of survival. Each culture is distinct, expressing its unique qualities in numerous ways, including the way we speak, what we eat, the clothes we wear, and with whom we live. Although culture goes far beyond what meets the eye, it is inscribed everywhere we look. Here we see a family of Kuchi (“migrant”) herders in northeast Afghanistan. Because mobility is a key element in their successful adaptation to an arid environment, nearly everything they own is movable. Coming from different ethnic groups, Kuchi do not all share the same language. The particular fabrics, forms, and colors of their belongings and apparel mark their cultural identity. Many Kuchi have recently settled down, but about 1.5 million are still fully nomadic, with livelihoods dependent upon herds of goats and sheep. Using camels and donkeys to carry their belongings, this family follows age-old migration routes across mountains and valleys. They exchange their surplus animal products—meat, hides, wool, hair, ghee (butter), and quroot (dried yoghurt)—for wheat, sugar, salt, metal and plastic tools, and other trade goods. Ecological adaptation and symbolic expression of group identity are among the many interrelated functions of culture.