**ANTHROPOLOGY**

**THE EXPLORATION OF HUMAN DIVERSITY**

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**CHAPTER 1**

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**THE SCOPE OF ANTHROPOLOGY**

That's just human nature." "People are pretty much the same all over the world." Such opinions, which we hear in conversations, in the mass media, and in a hundred scenes in daily life, promote the erroneous idea that people in other countries have the same desires, feelings, and aspirations that we do. Such statements proclaim that because people are essentially the same, they are eager to receive the ideas, beliefs, institutions, values, practices, and products of an expansive North American culture. Often this assumption turns out to be wrong.

Anthropology offers a broader view—a distinctive comparative, cross-cultural perspective. Most people think that anthropologists study fossils and nonindustrial cultures, and they do. My research has taken me to remote villages in Brazil and Madagascar, a large island off the southeast coast of Africa. In Brazil I sailed with fishermen in simple sailboats on Atlantic waters. Among Madagascar's Betsileo people I worked in rice fields and took part in ceremonies in which I entered tombs to rewrap the corpses of decaying ancestors.

However, anthropology is much more than the study of nonindustrial peoples. It is a comparative science that examines all societies, ancient and modern, simple and complex. Most of the other social sciences tend to focus on a single society, usually an industrial nation such as the United States or Canada. Anthropology, however, offers a unique cross-cultural perspective, constantly comparing the customs of one society with those of others. To become a cultural anthropologist, one normally does ethnographic field work. This usually entails spending a year or more in another culture, living with the local people and learning about their customs. No matter how much the anthropologist discovers about that culture, he or she remains an alien there. That experience of alienation has a profound impact. Having learned to respect other customs and beliefs, anthropologists can never forget that there is a wider world. There are normal ways of thinking and acting other than our own.

**ADAPTATION, VARIATION, AND CHANGE**

Humans are the most adaptable animals in the world. In the Andes of South America, people awaken in villages 17,500 feet above sea level and then trek 1,500 feet higher to work in tin mines. Tribes in the Australian desert worship animals and discuss philosophy. People survive malaria in the tropics. Men have walked on the moon. The model of the Starship Enterprise in Washington's Smithsonian Institution symbolizes the desire to seek out new life and civilizations, to boldly go where no one has gone before. Wishes to know the unknown, control the uncontrollable, and bring order to chaos find expression among all peoples. Flexibility and adaptability are basic human attributes, and human diversity is the subject matter of anthropology.

Students are often surprised by the breadth of anthropology, which is a uniquely holistic science. It studies the whole of the human condition: past, present, and future; biology, society, language, and culture. People share society—organized life in groups—with other animals. Culture, however, is distinctly human. Cultures are traditions and customs, transmitted through learning, that govern the beliefs and behavior of the people exposed to them. Children learn these traditions by growing up in a particular society.

Cultural traditions include customs and opinions, developed over the generations, about proper and improper behavior. Cultural traditions answer such questions as: How should we do things? How do we interpret the world? How do we tell right from wrong? A culture produces consistencies in behavior and thought in a given society.

Bound neither by time nor by space, anthropology ponders and confronts major questions of human existence. By examining ancient bones and tools, anthropologists solve the mysteries of hominid origins. Where and when did Homo sapiens originate? How has our species changed? What are we now and where are we going? How have changes in culture and society influenced biological change? Cultural and biological adaptation and evolution have been interrelated and complementary, and humans continue to adapt both biologically and culturally.

Human adaptation (the process by which organisms cope with environmental stresses) involves an interplay between culture and biology. [People who have grown up at a high altitude are physiologically more efficient there than are genetically similar people who have not.] Human biological plasticity (the ability to change) permits such long-term physiological adaptation during growth and development. We also have the capacity for immediate physiological adaptation. All these varied adaptive responses—cultural and biological, voluntary and involuntary, conscious and unconscious—are directed at a single goal: increasing the supply of oxygen in the human organism.

Much of the diversity we see in cultures, as in nature, reflects adaptation to varied environments and circumstances. People creatively manipulate their environment; they are not just determined by it. Recognizing this, John Bennett (1969, p. 19) has defined cultural adaptation as "the problem-solving, creative or coping element in human behavior" as people get and use resources and solve the immediate problems confronting them. This is the first dimension of adaptive behavior: It involves "goal-satisfaction: if coping is successful, the people realize their objectives" (Bennett 1969, p. 13). In a modern market economy these objectives include production, income, and consumption wants or needs.

Besides satisfaction of such individual goals, a second and equally important dimension of cultural adaptation is conservation of resources. "An economy that realizes economic gain but does so at the cost of exhausting or abusing its resources may be adapting in one dimension (the first) but can be said to be maladaptive [emphasis added] along the other." .Behavior that benefits individuals may harm the environment and threaten the group's long-term survival. Societies "must attempt to balance conservation of resources against economic environment" (Bennett 1969, p. 13).

**GENERAL ANTHROPOLOGY**

The academic discipline of anthropology, also known as general anthropology, includes four main subdisciplines: sociocultural, archeological, biological, and linguistic anthropology. (From here on, I will use the shorter term cultural anthropology as a synonym for "sociocultural anthropology.")

Most American anthropologists, myself included, specialize in cultural anthropology. However, most are also familiar with the basics of the other subdisciplines. Major departments of anthropology usually include representatives of each.

There are historical reasons for the inclusion of four subdisciplines in a single field. American anthropology arose a century ago out of concern for the history and cultures of the native populations of North America ("American Indians"). Interest in the origins and diversity of Native Americans brought together studies of customs, social life, language, and physical traits. Such a unified anthropology did not develop in Europe, where the sub-disciplines tend to exist separately.

There are also logical reasons for the unity of American anthropology. Each subdiscipline considers variations in time and space (that is, in different geographic areas). Cultural and archeological anthropologists study (among many other topics) changes in social life and customs. Biological anthropologists examine changes in physical form. Linguistic anthropologists may reconstruct the basics of ancient languages by studying modern ones. This concern with variation in time may be stated differently: An interest in evolution unifies anthropology's subdisciplines. Defined simply, evolution is change in form over generations.

The subdisciplines influence each other as anthropologists talk, read professional books and journals, and associate in professional organizations. General anthropology explores the basics of human biology, psychology, society, and culture and considers their interrelationships.

Anthropologists share certain key assumptions. One is that sound conclusions about "human nature" can't be drawn from a single cultural tradition.

We often hear "nature-nurture" and "genetics-environment" questions. For example, consider gender differences. Do male and female capacities, attitudes, and behavior reflect biological or cultural variation? Are there universal emotional and intellectual contrasts between the sexes? Are females less aggressive than males? Is male dominance a human universal? By examining diverse cultures, anthropology shows that many contrasts between men and women arise from cultural training rather than from biology.

Anthropologists also use their knowledge of biological and cultural diversity to evaluate assertions about intellectual differences. They have found no evidence for biologically determined contrasts in intelligence between rich and poor, black and white, or men and women.

Anthropology is not a science of the exotic carried on by scholars in ivory towers but a discipline with a lot to tell the public. One of its contributions is its broadening role in a college education. Anthropology's foremost professional organization, the American Anthropological Association, has formally acknowledged a public service role by recognizing a fifth subdiscipline, applied anthropology—the application of anthropological data, perspectives, theory, and methods to identify, assess, and solve contemporary social problems. More and more anthropologists from the four main sub-disciplines now work in such "applied" areas as public health, family planning, and economic development.

**THE SUBDISCIPLINES OF ANTHROPOLOGY**

**Cultural Anthropology**

Cultural anthropologists study society and culture, describing and explaining social and cultural similarities and differences. In considering diversity in time and space, anthropologists must distinguish between the universal, the generalized, and the particular. Certain biological, psychological, social, and cultural features are universal—shared by all human populations. Others are merely generalized—common to several but not all human groups. Still others are particular—not shared at all.

Cultural anthropology has two aspects: ethnography (based on field work) and ethnology (based on cross-cultural comparison). Ethnography provides an "ethnopicture" of a particular group, society, or culture. During ethnographic field work the ethnographer gathers data, which he or she organizes, describes, analyzes, and interprets to build and present the ethnopicture (e.g., a book, article, or film). Traditionally, ethnographers have lived in small communities and studied local behavior, beliefs, customs, social life, economic activities, politics, and religion.

The resulting anthropological perspective often differs radically from that of economics or political science. Those disciplines focus on national and official organizations and often on elites. However, the groups that anthropologists have traditionally studied have usually been relatively poor and powerless.

Ethnographers often observe discriminatory practices directed toward such people, who experience food shortages, dietary deficiencies, and other aspects of poverty. The anthropological perspective is different—not necessarily better. Political scientists study programs that national planners develop, and anthropologists see how these programs work on the local level. Both perspectives are necessary to understand human life in the late twentieth century.

Anthropologists recognize that cultures are not isolated. As Franz Boas (1940/1966) noted many years ago, contact between neighboring tribes has always existed and has extended over enormous areas. A world-system perspective recognizes that many local cultural features reflect the economic and political position that a society occupies in a larger system. "Human populations construct their cultures in interaction with one another, and not in isolation" (Wolf 1982, p. ix). Villagers increasingly participate in regional, national, and world events.

There are many sources of exposure to external forces, including mass media, migration, and modern transportation. City and nation increasingly invade local communities in the guise of tourists, development agents, government and religious officials, and political candidates. Such linkages, or interconnections, are prominent components of regional, national, and international systems of politics, economics, and information. These larger systems increasingly affect the people and places that anthropology has traditionally studied. The study of such linkages and systems is a prominent part of the subject matter of modern anthropology.

Ethnology, the other aspect of cultural anthropology, examines and compares the results of ethnography—the data gathered in different societies. Ethnologists try to identify and explain cultural differences and similarities, to distinguish between universality, generality, and particularity (see the chapter "Culture"). Ethnology gets data for comparison not just from ethnography but also from the other subdisciplines, particularly from archeologi-cal anthropology, which reconstructs the social systems of the past.

**Archeological Anthropology**

Archeological anthropology (more simply, "archeology") reconstructs, describes, and interprets human behavior and cultural patterns through material remains. Archeologists are best known for studying prehistory (the period before the invention of writing less than 6,000 years ago). However, archeologists also study historical and even living cultures.Using material remains as primary data, and informed by ethnographic knowledge and ethnological theory, archeologists analyze cultural processes and patterns. Several kinds of remains interest archeologists. Garbage tells stories about consumption and activities. Wild and domesticated grains have different characteristics which allow archeologists to distinguish between gathering and cultivation. Examination of animal bones reveals the ages of slaughtered animals and provides other information useful in determining whether species were wild or domesticated.

Analyzing such data, archeologists answer several questions about ancient economies. Did the group being studied get its meat from hunting, or did it domesticate and breed animals, killing only those of a certain age and sex? At sites where people live or have lived, archeologists find artifacts, material items that humans have manufactured or modified. Did the residents make, trade for, or buy particular items? Were raw materials available locally? If not, where did they come from? From such information, archeologists reconstruct patterns of production, trade, and consumption.

Archeologists have spent much time studying potsherds, fragments of earthenware. Potsherds are more durable than many other artifacts, such as textiles and wood. The pottery types at a site can suggest its technological complexity. The quantity of pottery fragments allows estimation of population size and density. The discovery that potters used materials that were not locally available suggests systems of trade. Similarities in manufacture and decoration at different sites may be proof of cultural connections. Groups with similar pots may be historically related. Perhaps they shared common cultural ancestors, traded with each other, or belonged to the same political system

Many archeologists examine paleoecology. Ecology is the study of interrelationships among living things in an environment. The organisms and environment together constitute an ecosystem, a patterned arrangement of energy flows and exchanges. Human ecology, or cultural ecology, studies ecosystems that include people, focusing on the ways in which human use "of nature influences and is influenced by social organization and cultural values" (Bennett 1969, pp. 10-11). Paleoecology looks at the ecosystems of the past. In studying either past or present societies, an ecological approach examines interrelationships among population, culturally styled needs and wants, the division of labor, technology, methods of production, and ways of dividing natural resources among those who need and use them.

An ecological analysis cannot be limited to local production but must also study how local people react to informational and economic inputs from external sources.

In addition to reconstructing ecological patterns, archeologists infer cultural evolution, for example, from changes in the size and type of sites and the distance between them. A city develops in a region where only towns, villages, and hamlets existed a century earlier. The number of settlement levels (city, town, village, hamlet) is a measure of social complexity. Buildings offer clues about political and religious features. Special-purpose structures such as temples and pyramids suggest that an ancient society had a central authority capable of marshaling team labor, slave or free. The presence or absence of certain structures reveals differences in function between settlements. For example, some towns were ceremonial centers with prominent architecture. Others were burial sites; still others were farming communities.

Archeologists also document cultural patterns and processes by excavating (digging through a succession of levels) at particular sites. In a given area, through time, particular settlements may change in terms of form and purpose. Excavation can document changes in economic, social, and political activities.

To learn about prehistoric populations—those with no written records—archeology is essential. Comparison of archeological sequences in different areas has enabled anthropologists to formulate laws of development. For example, certain environments or economies correlate with particular types of social groups or political systems. Comparative archeology and ethnography both contribute to the understanding of social processes.

**Biological, or Physical, Anthropology**

The subject matter of biological, or physical, anthropology is human biological diversity in time and space. (с протяжением во времени) A combination of genetic and environmental features produces much of this variation. Relevant environmental stresses include heat and cold, moisture, sunlight, altitude, and disease. The focus on human variation unites five special interests within biological anthropology:

1. Hominid evolution as revealed by the fossil record (paleoanthropology)

2. Human genetics

3. Human growth and development

4. Human biological plasticity (the body's ability to cope with stresses, such as heat, cold, and altitude)

5. The biology, evolution, behavior, and social life of monkeys, apes, and other nonhuman primates

These interests link physical anthropology to other fields: biology, zoology, geology, anatomy, physiology, medicine, and public health.

Osteology – the study of bones—helps paleoanthropologists, who examine skulls, teeth, and bones, to identify hominid ancestors and chart changes in anatomy.

Biological anthropologists collaborate with archeologists in reconstructing biological and cultural aspects of human evolution. Fossils and tools are often found together. Tools suggest the habits, customs, and life styles of the hominids who used them

More than a century ago, Charles Darwin noticed that the variety that exists within any population permits some individuals (those with the favored, or adaptive, characteristics) to do better than others at surviving and reproducing. Genetics, which developed later, enlightens us about the causes and transmission of this variety. However, it isn't just genes that cause variety. During any individual's lifetime, the environment works along with heredity to develop biological features. For example, people with a genetic tendency to be tall will be shorter if they are poorly nourished during childhood.

Thus biological anthropology investigates the influence of environment (nutrition, altitude, temperature, and disease) on the body as it develops. As noted earlier, human biological and cultural evolution have been interrelated and complementary, and humans continue to adapt both biologically and culturally. This is why both subdisciplines are studied within general anthropology.

Biological anthropology (along with zoology) also includes primatology. The primates include our closest relatives—apes and monkeys. Primatol-ogists study their biology, evolution, behavior, and social life, often in their natural environments. Primatology assists paleoanthropology, because many anthropologists believe that primate behavior sheds light on early hominid behavior (and thus on our origins) and on issues of human nature and human universals.

**Linguistic Anthropology**

We don't know (and probably never will) when hominids began to speak. However, well-developed, grammatically complex languages have existed for thousands of years. Linguistic anthropology offers additional illustration of anthropology's interest in comparison, variation, and change. Linguistic anthropologists study language in its social and cultural context, in space and through time. Some make inferences about universal features of language, linking them to uniformities in the human brain. Others reconstruct ancient languages by comparing their contemporary descendants and in so doing make discoveries about history. Still others study linguistic differences to discover varied perceptions and patterns of thought in a multitude of cultures.

The study of linguistic variation in its social context is called sociolinguistics. Sociolinguists examine diversity in a single language to show how speech reflects social differences. Linguistic techniques are also useful to ethnographers because they permit the rapid learning of unwritten languages.

Descriptive linguistics studies sounds, grammar, and meaning in particular languages. Historical linguistics considers variation in time, such as the changes in sounds, grammar, and vocabulary between Middle English (spoken in Chaucer's time) and modern English. There is also variation among the speakers of any language at any given time. One reason for variation is geography, as in regional dialects and accents. Linguistic variation is also associated with social divisions. Examples include the bilingualism of ethnic groups and speech patterns associated with particular social classes. Linguistic and cultural anthropologists collaborate in studying links between language and other aspects of culture.

**Applied Anthropology**

In its most general sense, applied anthropology includes any use of the knowledge and/or techniques of the four subdisciplines to identify, assess, and solve practical problems. Because of anthropology's breadth, it has many applications. For example, the growing field of medical anthropology considers the sociocultural context and implications of disease and illness. Cross-cultural research shows that perceptions of good and bad health, along with actual health threats and problems, vary among cultures. Different societies and ethnic groups recognize different illnesses, symptoms, and causes and have developed different health-care systems and treatment strategies. Medical anthropologists are both biological and cultural, and both theoretical and applied. Applied medical anthropologists have, for example, served as cultural interpreters in public health programs, which must fit into local culture and be accepted by local people.

Other applied anthropologists work for development agencies, assessing the social and cultural features that influence economic development and change. Anthropologists are experts on local cultures. As such, they often can identify specific social conditions and local needs that will influence the failure or success of development schemes. Planners in Washington or Paris often know little about, say, the labor necessary for rice cultivation in rural Africa. Forecasts and estimates of project success are often unrealistic if no one consults an anthropologist familiar with the rural scene.

Development funds are often wasted if an anthropologist is not asked to identify the local political figures whose support for a program is critical. Such considerations have led development organizations to include anthropologists as well as agronomists, economists, veterinarians, geologists, engineers, and health specialists on planning teams.

Anthropologists also apply their skills in studying the human dimension of environmental degradation (e.g., deforestation, pollution) and global climate change. Anthropologists examine how the environment influences humans and how human activities affect the biosphere and the earth itself.

Applied anthropologists also work in North America. Garbologists help the Environmental Protection Agency, the paper industry, and the packaging and trade associations. Many archeologists now work in cultural resource management—applying their knowledge and skills to interpret, inventory, and preserve archeological, historic, and paleontological resources for local, state (provincial), and federal governments. Forensic (physical) anthropologists work with the police, medical examiners, and the courts to identify victims of crimes and accidents. From skeletal remains they determine age, sex, size, race, and number of victims. Applied physical anthropologists link injury patterns to design flaws in aircraft and vehicles.

Applied anthropology is the use of anthropological data, perspectives, theory, and methods to identify, assess, and solve contemporary problems that affect humans, such as deforestation. One threat to forests is charcoal production, to provide fuel for rapidly growing Third World cities. Here charcoal is sold along a road near one of Madagascar's burgeoning urban centers.

In general, applied anthropology aims to find humane and effective ways of helping the people whom anthropologists have traditionally studied.