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Applying Anthropology

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WHAT IS APPLIED ANTHROPOLOGY?

Forensic anthropology, as discussed in the news brief, is one form of applied anthropology—the application of anthropological perspectives, theory, methods, and data—in this case from all four subfields—to identify, assess, and solve social problems. As Erve Chambers (1987, p. 309) states it, applied anthropology is the “field of inquiry concerned with the relationships between anthropological knowledge and the uses of that knowledge in the world beyond anthropology.” As was mentioned in Chapter 1, anthropology’s foremost professional organization, the American Anthropological Association (AAA), recognizes that anthropology has two dimensions: (1) academic anthropology and (2) practicing or applied anthropology.

There are two important professional groups of applied anthropologists (also called practicing anthropologists). The older is the independent Society for Applied Anthropology (SfAA), founded in 1941. The second, the National Association for the Practice of Anthropology (NAPA), was established as a unit of the American Anthropological Association in 1983. (Many people belong to both
groups.) Practicing anthropologists work (regularly or occasionally, full or part time) for nonacademic clients. These clients include governments, development agencies, nongovernmental organizations (NGOs), tribal and ethnic associations, interest groups, businesses, and social-service and educational agencies. Applied anthropologists work for groups that promote, manage, and assess programs aimed at influencing human behavior and social conditions. The scope of applied anthropology includes change and development abroad and social problems and policies in North America (see Ervin 2005).

Applied anthropologists come from all four subfields. Biological anthropologists work in public health, nutrition, genetic counseling, substance abuse, epidemiology, aging, and mental illness. They apply their knowledge of human anatomy and physiology to the improvement of automobile safety standards and to the design of airplanes and spacecraft. In forensic work, biological anthropologists help the police identify skeletal remains. The news brief shows how forensic anthropologists reconstruct crimes by analyzing physical evidence.

Applied archaeology, usually called public archaeology, includes such activities as cultural resource management, contract archaeology, public educational programs, and historic preservation. An important role for public archaeology has been created by legislation requiring evalua-

**STUDENT CD-ROM LIVING ANTHROPOLOGY**

Unearthing Evil: Archaeology in the Cause of Justice
Track 2

This clip features archaeologist Richard Wright and his team of 15 forensic archaeologists and anthropologists working "in the cause of justice" in Bosnia-Herzegovina in 1998. The focus of the clip is the excavation of a site of mass burial or reburial of the bodies of some 660 civilians who were murdered during the conflict that followed the dissolution of Yugoslavia. Wright and his colleagues worked with the international community to provide evidence of war crimes. This evidence has led to the convictions of war criminals. Why was Wright nervous about this work? Compare the forensic work shown here with the discussion of forensic anthropology in this chapter.

... tion of sites threatened by dams, highways, and other construction activities. To decide what needs saving, and to preserve significant information about the past when sites cannot be saved, is the work of cultural resource management (CRM). CRM involves not only preserving sites but allowing their destruction if they are not significant. The "management" part of the term refers to the evaluation and decision-making process. If additional information is needed to make decisions, then survey or excavation may be done. CRM funding comes from federal, state, and local governments and from developers who must comply with preservation regulations. Cultural resource managers typically work for federal, state, or county agencies. Applied cultural anthropologists sometimes work with the public archaeologists, assessing the human problems generated by the proposed change and determining how they can be reduced.

Cultural anthropologists work with social workers, businesspeople, advertising professionals, factory workers, nurses, physicians, gerontologists, mental-health professionals, school personnel, and economic development experts. Linguistic anthropology, particularly sociolinguistics, aids education. Knowledge of linguistic differences is important in an increasingly multicultural society whose populace grows up speaking many languages and dialects. Because linguistic differences may affect children's schoolwork and teachers' evaluations, many schools of education now require courses in sociolinguistics.

**THE ROLE OF THE APPLIED ANTHROPOLOGIST**

By instilling an appreciation for human diversity, anthropology combats ethnocentrism—the tendency to view one's own culture as superior and to apply one's own cultural values in judging the
NEWS BRIEF

The Bones Tell the Story

NEW YORK TIMES NEWS BRIEF

by Claudia Dreifus
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Anthropology has many applications: playing a public service role, being used to identify and solve various kinds of problems involving social conditions and human behavior. Among the clients of applied anthropologists are governments, agencies, local communities, and businesses. Some of anthropology’s applications, while useful, can be very grim, as this news brief shows. Forensic anthropology, as discussed in this article, is one form of applied anthropology: the application of anthropological perspectives, theory, methods, and data to identify, assess, and solve social problems.

Fredey A. Peccerelli spends his days exhuming mass graves and examining the bones of murder victims, hoping that the dead will speak to him. A forensic anthropologist, Mr. Peccerelli, 33, combines elements of pathology, archaeology and anthropology to solve crimes. Human rights organizations employ forensic anthropologists to document war crimes and human rights abuses. Mr. Peccerelli, director of the Guatemalan Forensic Anthropology Foundation, has investigated the deaths of thousands of civilians killed in the civil war in Guatemala from 1960 to 1996. “What we do is all about life,” he said here last month on a break at the annual meeting of the American Association for the Advancement of Science. “It’s about people. This is about applying scientific knowledge for everyday human issues.” The association awarded its science and human rights prize for 2004 to Mr. Peccerelli and his colleagues at the foundation for promoting “human rights at great personal risk.”

Q. What is the job definition of forensic anthropologist?
A. We use the tools of science to answer important historical questions. For instance, what was the fate of thousands of people who disappeared in the 1970’s “dirty war” in Argentina? Or what happened to approximately 7,000 or 8,000 Muslim men in Srebrenica in 1995, after United Nations troops left that Bosnian village? Or who were some of the estimated 200,000 Guatemalans killed during 36 years of internal armed conflict? To answer these sorts of questions, forensic anthropologists locate graves and exhume remains. We then apply the techniques of physical anthropology, archaeology and osteology, a branch of anatomy that deals with bones, to identify the missing and establish how they died. A forensic anthropologist tries to identify an individual victim by establishing a profile from the skeleton. It has clues to age, ancestry, sex, stature, how this person lived and how that lifestyle is reflected on the skeleton. We always say, “The bones tell the story.”

Q. How do you get the bones to speak, to tell the story of a victim?
A. We learn all we can about the victims and the incident where they died. From the reports of eyewitnesses and family members, we get information that helps us locate the graves. We then take everything out of the ground and document what we’ve found. We next send the bones to an anthropologist in Guatemala City, who analyzes the remains. You look for obvious things in the bones, bullet holes, crushed skulls, breaks, gashes. We are looking for evidence of trauma that will lead us to make an interpretation on whether or not this was a wrongful death. After we’ve identified the person and determined the cause of death, our findings are handed over to the authorities, because we want to create the possibility of justice. With Guatemala, I say “possibility,” because the organization has conducted over 400 investigations, found the remains of about 3,000 people. We’ve seen three cases go to trial.

Q. You grew up in Brooklyn, though you are Guatemalan. Why did your family immigrate?
A. We moved in 1980, one of the heaviest years in the civil war in Guatemala, at a time when the death squads were most active. My father was a lawyer who headed the Guatemalan weight-lifting team at the Moscow Olympics.
When he returned home from it, someone denounced my father, "He’s a Red!" They wanted my father’s job. In those days, just pointing the finger was enough to get a person killed. Then, my father started getting letters from the death squads. He went into hiding in Guatemala City and then later he fled to New York City. Soon, my mother got a letter saying they knew my father was gone, but if he ever set foot in Guatemala again they would kill him that day. With that, my grandparents took us all to New York. I was 9.

Q. Was Brooklyn a different world for you?
A. Oh, yes. As a kid, my worries were are the Yankees going to make the playoffs, and not how many people are dying in Guatemala. I spent my teen years wanting to be normal and to fit in. Some of that changed when I got to Brooklyn College in 1991 and began feeling the need to reconnect to my heritage. I studied anthropology and archaeology, because these were disciplines that I hoped might take me back to Guatemala. In 1994, Brooklyn College sent me to the annual meeting of the American Anthropological Association, where Dr. Clyde Snow and Dr. Karen Burns, two leaders of this emerging discipline, forensic anthropology, spoke about their work. They talked about exhuming mass graves in Guatemala and about how forensic anthropology was an important tool in winning justice for the dead. Afterward, I went up to Dr. Burns and offered my help.

Q. In your work, are you able to use the new DNA technologies to make identifications?
A. Not all that much. DNA testing can be a great thing. But it’s very expensive, and right now there are no labs in Guatemala that can do it.

Q. Do you find it difficult to be around cadavers?
A. In Guatemala, most of the massacres took place in the 1980’s, and a lot of time has gone by. So most of what you work with is bones, and the bones are dry. Now, that’s very different from working in Bosnia, in Srebrenica, where we went for the International War Crimes Tribunal to identify the remains of that massacre there. The ground had frozen, and when we opened the graves, the bodies were still fresh and the smell was terrible. At a certain moment, I had to decide whether I was cut out for this.

Q. Considering your family history, do you ever do exhumations and think that could have been my father down there?
A. Sure. And that’s part of what motivates me. The other part is that once you’ve heard a relative tell of their search for a missing loved one, then you want to do everything possible to help them. By identifying the remains, it helps satisfy the natural needs of the family for closure. After our investigations, the remains are returned to the families, and they can have their ceremonies.

Q. Have you been threatened for your work?
A. Two years ago, a forensic anthropologist in Guatemala received a letter with a list of 11 people they said they were going to kill. My name was No. 2. We started getting phone calls at the office, “Tell Fredy, we’re going to kill him.” The threats were very specific, saying that none of the exhumations were going to lead to prosecutions and that the foundation’s work was to stop. The American Embassy and the United Nations let the government know they supported us. The work, of course, continued. Right now, I’m on sabbatical to pursue my own studies in England, but my colleagues certainly have not stopped.


behavior and beliefs of people raised in other cultures. This broadening, educational role affects the knowledge, values, and attitudes of people exposed to anthropology. Now we focus on the question: What contributions can anthropology make in identifying and solving problems stirred up by contemporary currents of economic, social, and cultural change?

Because anthropologists are experts on human problems and social change and because they study, understand, and respect cultural values, they are highly qualified to suggest, plan, and implement policy affecting people. Proper roles for applied anthropologists include (1) identifying needs for change that local people perceive, (2) working with those people to design culturally appropriate and socially sensitive change, and (3) protecting local people from harmful policies and projects that threaten them.

There was a time—the 1940s in particular—when most anthropologists focused on the application of their knowledge. During World War II, American anthropologists studied Japanese and German “culture at a distance” in an attempt to predict the behavior of the enemies of the United States. After the war, Americans did applied anthropology in the Pacific, working to gain native cooperation with American policies in various trust territories.

Modern applied anthropology differs from an earlier version that mainly served the goals of colonial regimes. Application was a central con-
UNDERSTANDING OURSELVES

Is change good? American culture seems to think so. “New and improved” is a slogan we hear all the time—a lot more often than “old reliable.” But new isn’t always improved. People often resist change, as the Coca-Cola Company (TCCC) discovered several years ago when it changed the formula of its premium soft drink and introduced “New Coke.” When hordes of customers protested, TCCC brought back old, familiar, reliable Coke under the name “Coca-Cola Classic,” which thrives today. New Coke is history.

TCCC tried a top-down change (a change decided and initiated at the top of a hierarchy rather than by the communities affected by the change). The people, that is, customers, didn’t ask TCCC to change its product; executives made the decision to change Coke’s taste. Executives are in business decisions as policy makers are to social change programs; both stand at the top of organizations that provide goods and services to people. Smart executives and policy makers listen to people to try to determine locally based demand—what the people want. What’s working well (assuming it’s not discriminatory or illegal) should be maintained, encouraged, and strengthened. What’s wrong, and how can it be fixed? What changes do the people—and which people—want? How can conflicting wishes and needs be accommodated? Applied anthropologists help answer these questions, which are crucial in understanding whether change is needed, and how it will work.

ACADEMIC AND APPLIED ANTHROPOLOGY

Colonial anthropologists faced, as do some of their modern counterparts (Escobar 1991, 1994), ethical problems posed by their inability to set or influence policy and the difficulty of criticizing programs in which they have participated. Anthropology’s professional organizations have addressed some of these problems by establishing codes of ethics and ethics committees. See Appendix 2 and http://www.aaaanet.org for the code of ethics of the AAA. Also, as Tice (1997) notes, attention to ethical issues is paramount in the teaching of applied anthropology today.

Applied anthropology did not disappear during the 1950s and 1960s, but academic anthropology did most of the growing after World War II. The baby boom, which began in 1946 and peaked in 1957, fueled expansion of the American educational system and thus of academic jobs. New junior, community, and four-year colleges opened, and anthropology became a standard part of the college curriculum. During the 1950s and 1960s, most American anthropologists were college professors, although some still worked in agencies and museums.

This era of academic anthropology continued through the early 1970s. Especially during the Vietnam War, undergraduates flocked to anthropology classes to learn about other cultures. Students were especially interested in Southeast Asia, whose indigenous societies were being disrupted by war. Many anthropologists protested the superpowers’ apparent disregard for non-Western lives, values, customs, and social systems.
During the 1970s, and increasingly thereafter, although most anthropologists still worked in academia, others found jobs with international organizations, government, business, hospitals, and schools. This shift toward application, though only partial, has benefited the profession. It has forced anthropologists to consider the wider social value and implications of their research.

Theory and Practice

One of the most valuable tools in applying anthropology is the ethnographic method. Ethnographers study societies firsthand, living with and learning from ordinary people. Ethnographers are participant-observers, taking part in the events they study in order to understand local thought and behavior. Applied anthropologists use ethnographic techniques in both foreign and domestic settings. Other “expert” participants in social-change programs may be content to converse with officials, read reports, and copy statistics. However, the applied anthropologist’s likely early request is some variant of “take me to the local people.” We know that people must play an active role in the changes that affect them and that “the people” have information that “the experts” lack.

Anthropological theory—the body of findings and generalizations of the subdisciplines—also guides applied anthropology. Anthropology’s holistic and biocultural perspectives—its interest in biology, society, culture, and language—permits the evaluation of many issues that affect people. Theory aids practice, and application fuels theory. As we compare social-change policy and programs, our understanding of cause and effect increases. We add new generalizations about culture change to those discovered in traditional and ancient cultures.

Anthropology’s systemic perspective recognizes that changes don’t occur in a vacuum. A program or project always has multiple effects, some of which are unforeseen. For example, dozens of economic development projects intended to increase productivity through irrigation have worsened public health by creating waterways where diseases thrive. In an American example of unintended consequences, a program aimed at enhancing teachers’ appreciation of cultural differences led to ethnic stereotyping (Kleinfeld 1975). Specifically, Native American students did not welcome teachers’ frequent comments about their Indian heritage. The students felt set apart from their classmates and saw this attention to their ethnicity as patronizing and demeaning.

ANTHROPOLOGY AND EDUCATION

Anthropology and education refers to anthropological research in classrooms, homes, and neighborhoods (see Spindler 2000). Some of the most interesting research has been done in classrooms, where anthropologists observe interactions among teachers, students, parents, and visitors. Jules Henry’s classic account of the American elementary school classroom (1955) shows how students learn to conform to and compete with their peers. Anthropologists also follow students from classrooms into their homes and neighborhoods, viewing children as total cultural creatures whose enculturation and attitudes toward education belong to a context that includes family and peers.

Sociolinguists and cultural anthropologists work side by side in education research, for example, in a study of Puerto Rican seventh-graders in the urban Midwest (Hill-Burnett 1978). In classrooms, neighborhoods, and homes, anthropologists uncovered some misconceptions by teachers. For example, the teachers had mistakenly assumed that Puerto Rican parents valued education less than did non-Hispanics. However, in-depth interviews revealed that the Puerto Rican parents valued it more.

Researchers also found that certain practices were preventing Hispanics from being adequately educated. For example, the teachers’ union and the board of education had agreed to teach “English as a foreign language.” However, they had not provided bilingual teachers to work with Spanish-speaking students. The school started assigning all students (including non-Hispanics) with low reading scores and behavior problems to the English-as-a-foreign-language classroom.
This educational disaster brought together a teacher who spoke no Spanish, children who barely spoke English, and a group of English-speaking students with reading and behavior problems. The Spanish speakers were falling behind not just in reading but in all subjects. They could at least have kept up in the other subjects if a Spanish speaker had been teaching them science, social studies, and math until they were ready for English-language instruction in those areas.

A dramatic illustration of the relevance of applied sociolinguistics to education comes from Ann Arbor, Michigan. In 1979, the parents of several black students at the predominantly white Dr. Martin Luther King Jr. Elementary School sued the board of education. They claimed that their children faced linguistic discrimination in the classroom.

The children, who lived in a neighborhood housing project, spoke Black English Vernacular (BEV) at home. At school, most had encountered problems with their classwork. Some had been labeled "learning-impaired" and placed in remedial reading courses. (Consider the embarrassment that children suffer and the effect on self-image of such labeling.)

The African-American parents and their attorney contended that the children had no intrinsic learning disabilities but simply did not understand everything their teachers said. Nor did their teachers always understand them. The lawyer argued that because BEV and Standard English (SE) are so similar, teachers often misinterpreted a child's correct pronunciation (in BEV) of an SE word as a reading error.

The children's attorney recruited several sociolinguists to testify on their behalf. The school board, by contrast, could not find a single qualified linguist to support its argument that there was no linguistic discrimination.

The judge ruled in favor of the children and ordered the following solution: Teachers at the King School had to attend a full-year course designed to improve their knowledge of non-standard dialects, particularly BEV. The judge did not advocate that the teachers learn to speak BEV or that the children do their assignments in BEV. The school's goal remained to teach the children to use SE, the standard dialect, correctly. Before this could be accomplished, however, teachers and students alike had to learn how to recognize the differences between these similar dialects. At the end of the year, most of the teachers interviewed in the local newspaper said the course had helped them.

In a diverse, multicultural populace, teachers should be sensitive to and knowledgeable about linguistic and cultural differences. Children need to be protected so that their ethnic or linguistic background is not used against them. That is what happens when a social variation is regarded as a learning disability.

**URBAN ANTHROPOLOGY**

By 2025, the developing nations will account for 85 percent of the world's population, compared with 77 percent in 1992 (Stevens 1992). Solutions to future problems will depend increasingly on understanding non-Western cultural backgrounds. The fastest population growth rates are in the less developed countries, especially in urban areas. The world had only 16 cities with more than a million people in 1900, but there are more than 300 such cities today. By 2025, 60 percent of the global population will be urban, compared with 37 percent in 1990 (Stevens 1992). Rural migrants often move to slums, where they live in hovels without utilities and public sanitation facilities.

In 2003 the United Nations (UN) estimated that some 940 million people, about a sixth of earth's population, were living in urban slums, mostly without water, sanitation, public services, and legal security (Vidal 2003). The UN estimates that in three decades the urban population of the developing world will double—to 4 billion people. Rural populations will barely increase and will start declining after 2020 (Vidal 2003). The concentration of people in slums will be accompanied by rising rates of crime and water, air, and noise pollution. These problems will be most severe in the less-developed countries. Almost all (97 percent) of the projected world population increase will occur in developing countries, 34 percent in Africa alone (Lewis 1992). Although the rate of population...
increase is low in northern countries, such as the United States, Canada, and most European nations, global population growth will continue to affect the Northern Hemisphere, especially through international migration. There has been substantial recent migration to the United States and Canada from developing countries with high growth rates, such as India and Mexico.

As industrialization and urbanization spread globally, anthropologists increasingly study these processes and the social and health problems they create. Urban anthropology, which has theoretical (basic research) and applied dimensions, is the cross-cultural, ethnographic, and biocultural study of global urbanization and life in cities (see Aoyagi, Nas, and Traphagan, eds. 1998; Gmelch and Zenner 2002; Stevenson 2003). The United States and Canada also have become popular arenas for urban anthropological research on topics such as ethnicity, poverty, class, and subcultural variations (Mullings 1987).

**Urban versus Rural**

Recognizing that a city is a social context that is very different from a rural community, an early student of Third World urbanization, the anthropologist Robert Redfield, focused on contrasts between rural and urban life. He contrasted rural communities, whose social relations are on a face-to-face basis, with cities, where impersonality characterizes many aspects of life. Redfield (1941) proposed that urbanization be studied along a rural-urban continuum. He described differences in values and social relations in four sites that spanned such a continuum. In Mexico’s Yucatán peninsula, Redfield compared an isolated Mayaspeaking Indian community, a rural peasant vil-

lage, a small provincial city, and a large capital. Several studies in Africa (Little 1971) and Asia were influenced by Redfield’s view that cities are centers through which cultural innovations spread to rural and tribal areas.

In any nation, urban and rural represent different social systems. However, migrants bring rural social forms, practices, and beliefs to town. They also take back urban and national patterns when they visit, or move back permanently to, their villages of origin. Inevitably, the experiences and social units of rural areas affect adaptation to city life. City folk also develop new institutions to meet specific urban needs (Mitchell 1966).

Applying anthropology to urban planning starts by identifying the key social groups in the urban context. After identifying those groups, the anthropologist elicits their wishes for change and helps translate those needs to funding agencies. The next step is to work with the agencies and the people to ensure that changes are implemented correctly and that they correspond to what the people said they wanted at the outset. African urban groups that an applied anthropologist would consult include ethnic associations, occupational groups, social clubs, religious groups, and burial societies. Through membership in these groups, urban Africans have wide networks of personal contacts and support. Ethnic or “tribal” associations are common in both West and East Africa (Banton 1957; Little 1965). These groups maintain links with, and provide cash support and urban lodging for, their rural relatives.

The ideology of such associations is that of a gigantic kin group. The members call one another “brother” and “sister.” As in an extended family, rich members help their poor relatives. When
members fight among themselves, the group acts as judge. A member's improper behavior can lead to expulsion—an unhappy fate for a migrant in a large ethnically heterogeneous city.

Modern North American cities also have kin-based ethnic associations. One example comes from Los Angeles, which has the largest Samoan immigrant community (over 12,000 people) in the United States. Samoans in Los Angeles draw on their traditional system of matai (matai means chief; the matai system now refers to respect for elders) to deal with modern urban problems. One example: In 1992, a white policeman shot and killed two unarmed Samoan brothers. When a judge dismissed charges against the officer, local leaders used the matai system to calm angry youths (who have formed gangs, like other ethnic groups in the Los Angeles area). Clan leaders and elders organized a well-attended community meeting, in which they urged young members to be patient.

Los Angeles Samoans also used the American judicial system. They brought a civil case against the officer in question and pressed the U.S. Justice Department to initiate a civil-rights case in the matter (Mydans 1992b). One role for the urban applied anthropologist is to help relevant social groups deal with larger urban institutions, such as legal and social-service agencies with which recent migrants, in particular, may be unfamiliar (see Holtzman 2000).

**MEDICAL ANTHROPOLOGY**

Medical anthropology is both academic/theoretical and applied/practical. It is a field that includes both biological and sociocultural anthropologists (see Anderson 1996; Brown 1998; Joralemon 1999). Medical anthropology is discussed in this chapter because of its many applications. Medical anthropologists examine such questions as: Which diseases affect different populations? How is illness socially constructed? How does one treat illness in effective and culturally appropriate ways?

This growing field considers the biocultural context and implications of disease and illness (Hilman 2001; Strathern and Stewart 1999). Disease refers to a scientifically identified health threat caused by a bacterium, virus, fungus, parasite, or other pathogen. Illness is a condition of
Schistosomiasis is among the fastest spreading and most dangerous parasitic infections now known. It is propagated by snails that live in ponds, lakes, and waterways (often ones created by irrigation projects) such as this one in Luxor, Egypt. As an applied anthropologist, what would you do to cut the rate of infection?

Poor health perceived or felt by an individual (Inhorn and Brown 1990). Cross-cultural research shows that perceptions of good and bad health, along with health threats and problems, are culturally constructed. Different ethnic groups and cultures recognize different illnesses, symptoms, and causes and have developed different health-care systems and treatment strategies.

Disease also varies among cultures. Traditional and ancient hunter-gatherers, because of their small numbers, mobility, and relative isolation from other groups, were not subject to most of the epidemic infectious diseases that affect agrarian and urban societies (Cohen and Armelagos 1984; Inhorn and Brown 1990). Epidemic diseases such as cholera, typhoid, and bubonic plague thrive in dense populations, and thus among farmers and city dwellers. The spread of malaria has been linked to population growth and deforestation associated with food production.

Certain diseases have spread with economic development. Schistosomiasis or bilharzia (liver flukes) is probably the fastest-spreading and most dangerous parasitic infection now known (Heyneman 1984). It is propagated by snails that live in ponds, lakes, and waterways, usually ones created by irrigation projects. A study done in a Nile Delta village in Egypt (Farooq 1966) illustrated the role of culture (religion) in the spread of schistosomiasis. The disease was more common among Muslims than among Christians because of an Islamic practice called wudu, ritual ablution (bathing) before prayer. The applied anthropological approach to reducing such diseases is to see if natives perceive a connection between the vector (e.g., snails in the water) and the disease, which can take years to develop. If they do not, such information may be spread by enlisting active local groups and schools. With the worldwide diffusion of the electronic mass media, culturally appropriate public information campaigns have increased awareness and modified behavior that has public health consequences.

In eastern Africa, AIDS and other sexually transmitted diseases (STDs) have spread along highways, via encounters between male truckers and female prostitutes. STDs also are spread through prostitution, as young men from rural areas seek wage work in cities, labor camps, and mines. When the men return to their natal villages, they infect their wives (Larson 1989; Miller and Rockwell 1988). Cities are also prime sites of STD transmission in Europe, Asia, and North and South America (French 2002).

The kind and incidence of disease vary among societies, and cultures interpret and treat illness differently. Standards for sick and healthy bodies are cultural constructions that vary in time and space (Martin 1992). Still, all societies have what George Foster and Barbara Anderson (1978) call “disease-theory systems” to identify, classify, and explain illness. According to Foster and Anderson (1978), there are three basic theories about the causes of illness: personalistic, naturalistic, and emotionalistic. Personalistic disease theories blame illness on agents (often malicious), such as sorcerers, witches, ghosts, or ancestral spirits. Naturalistic disease theories explain illness in impersonal terms. One example is Western medicine or biomedicine, which aims to link illness to scientifically demonstrated agents that bear no personal malice toward their victims. Thus, Western medicine attributes illness to organisms (e.g., bacteria, viruses, fungi, or parasites), accidents, or toxic materials. Other naturalistic ethnomedical systems blame poor health on unbalanced body fluids. Many Latin cultures classify food, drink, and environmental conditions as “hot” or “cold.” People believe their health suffers when they eat or drink hot or cold substances together or under inappropriate conditions. For example, one shouldn’t drink something cold after a hot bath or eat a pineapple (a “cold” fruit) when one is menstruating (a “hot” condition).

Emotionalistic disease theories assume that emotional experiences cause illness. For example, Latin Americans may develop susto, or soul loss, an illness caused by anxiety or fright (Bolton 1981; Finkler 1985). Its symptoms include lethargy, vagueness, and distraction. Of course, modern psychoanalysis also focuses on the role of the emotions in physical and psychological well-being.

All societies have health-care systems. These consist of beliefs, customs, specialists, and techniques aimed at ensuring health and preventing.
diagnosing, and curing illness. A society’s illness-causation theory is important for treatment. When illness has a personalistic cause, shamans and other magico-religious specialists may be good curers. They draw on varied techniques (occult and practical) that comprise their special expertise. A shaman (magico-religious specialist) may cure soul loss by enticing the spirit back into the body. Shamans may ease difficult childbirths by asking spirits to travel up the birth canal to guide the baby out (Lévi-Strauss 1967). A shaman may cure a cough by counteracting a curse or removing a substance introduced by a sorcerer.

All cultures have health-care specialists. If there is a “world’s oldest profession” besides hunter and gatherer, it is curer, often a shaman. The curer’s role has some universal features (Foster and Anderson 1978). Thus, curers emerge through a culturally defined process of selection (parental prodding, inheritance, visions, dream instructions) and training (apprentice shamanism, medical school). Eventually, the curer is certified by older practitioners and acquires a professional image. Patients believe in the skills of the curer, whom they consult and compensate.

We should not lose sight, ethnocentrically, of the difference between scientific medicine and Western medicine per se (Lieban 1977). Despite advances in pathology, microbiology, biochemistry, surgery, diagnostic technology, and applications, many Western medical procedures have little justification in logic or fact. Overprescription of tranquilizers and drugs, unnecessary surgery, and the impersonality and inequality of the physician-patient relationship are question-able features of Western medical systems. Also, overuse of antibiotics, not just for people, but also in animal feed and antibacterial soaps, seems to be triggering an explosion of resistant microorganisms, which may pose a long-term global public health hazard.

Still, Western medicine surpasses tribal treatment in many ways. Although medicines like quinine, coca, opium, ephedrine, and rauwolfia were discovered in nonindustrial societies, thousands of effective drugs are available today to treat myriad diseases. Preventive health care improved during the 20th century. Today’s surgical procedures are safer and more effective than those of traditional societies.

But industrialization has spawned its own health problems. Modern stressors include noise, air, and water pollution; poor nutrition; dangerous machinery; impersonal work; isolation; poverty; homelessness; and substance abuse. Health problems in industrial nations are due as much to economic, social, political, and cultural factors as to pathogens. In modern North America, for example, poverty contributes to many illnesses. These include arthritis, heart conditions, back problems, and hearing and vision impairment (see Bailey 2000). Poverty is also a factor in the differential spread of infectious diseases.

Medical anthropologists have served as cultural interpreters in public health programs, which must pay attention to native theories about the nature, causes, and treatment of illness. Successful health interventions cannot simply be forced on communities. They must fit into local cultures and be accepted by local people. When Western medicine is introduced, people usually retain many of their old methods while also accepting new ones (see Green 1987/1992). Native curers may go on treating certain conditions (like spirit possession), whereas M.D.s may

**UNDERSTANDING OURSELVES**

If we’re feeling sick, we often feel better once a label (diagnosis) is attached to our illness. In contemporary society, it’s usually a physician who provides us with such a label—and maybe with a medicine that cures it or alleviates our suffering. In other contexts, a shaman or magico-religious specialist provides the diagnosis and treatment plan. We live in a world where alternative health-care systems coexist, sometimes competing with, sometimes complementing, one another. Never have people had access to such a wide range of choices in health care. In seeking good health and survival, it may be only natural for people to draw on alternative systems—acupuncture for one problem, chiropractic for another, medicine for a third, psychotherapy for a fourth, spiritual healing for a fifth. Think about the alternative treatment systems you may have used in the last year.
New Life, Good Health

BACKGROUND INFORMATION

STUDENT:
Ann L. Brettnall

SUPERVISING PROFESSOR:
David Himmelgreen

SCHOOL:
University of South Florida

YEAR IN SCHOOL/MAJOR:
Senior/Anthropology

FUTURE PLANS:
After completion of master’s in applied anthropology, work with the local social service agencies in community outreach projects

PROJECT TITLE:
Establishing a Farmers Market for the Local Hispanic Community

My work with the Project New Life-Good Health farmers’ market involves organizing the resources necessary to implement farmers’ market events. In interviews and observations, I have found genuine interest among community members and vendors. The literature I reviewed also confirms advantages to individuals involved in local farmers’ markets. Efforts by community members to organize and establish the farmers’ market as their own will be crucial to the success of the market as a permanent institution in their community.

To summarize, the goal of the farmers’ market is to provide a venue to understand community needs, to educate, and to improve the nutrition and health of the local Hispanic community. This can be accomplished by ensuring the availability of some culturally specific foods and by introducing other healthful foods into the Hispanic diet. Our ongoing research will provide the local community with the resources to continue and manage the farmers’ market as a positive and sustainable alternative within their local economy.

Note how this essay links the worlds of commerce, nutrition, health, and social interaction. The comfortable and convivial atmosphere of the local farmers’ market is an appropriate setting for applying anthropology—aimed at culturally appropriate education and innovation. As immigration has increased, work demands and ready access to fast foods have changed the nature of meals and diet among Latinos in the Tampa area. Ann Brettnall discusses her work organizing educational events and the participation of local community members in the farmer’s market.

The Applied Anthropology program at the University of South Florida, in Tampa, gives students practical experience with community projects. The Project New Life-Good Health (Nueva Vida Buena Salud) is one of many projects the Anthropology Department is currently working on. This project is designed to develop and implement a community-engaged nutrition and health education program targeting recently arrived Latino immigrant families. My project is to develop a church-based farmer’s market for the local Hispanic community.

In recent years the Hispanic population of Hillsborough County, which includes Tampa, has significantly increased. Immigrants have arrived from Central and South America and from the Caribbean. According to U.S. Census Bureau data, the 1990 Hispanic population of Hillsborough County was 106,908, rising to 179,692 in 2000.

Project New Life-Good Health rests on two previous projects focusing on the local Hispanic community. Those projects were called “Acculturation and Nutritional Needs Assessment of Tampa” (ANNA-T) and “Promoting Adequate Nutrition” (PAN). The ANNA-T project investigated food consumption and physical activity patterns of recently arrived Latino immigrants. The research of ANNA-T helped to develop project PAN. PAN was a series of culturally tailored nutrition-education and disease-prevention seminars targeting low-income Latino families. Projects ANNA-T and PAN found there had been a significant change in diet, with a new emphasis on fast food and sodas and a reduced consumption of fresh fruits and vegetables. ANNA-T also discovered that lack of time and social support were barriers to traditional family meals.

The goals of project New Life-Good Health are to: 1) develop a culturally appropriate nutrition-education and disease-prevention curriculum, 2) conduct a series of healthy-eating and disease-prevention seminars, and 3) develop a church-based farmers’ market that includes nutrition-education and health-promotion activities for the larger community. Local farmers’ markets have an open and informal setting, which provides a unique ambiance to the shopping experience. This social setting allows customers to converse easily with vendors, unlike the sometimes uncomfortable interactions with employees in a grocery store.
deal with others. If both modern and traditional specialists are consulted and the patient is cured, the native curer may get as much credit as or more credit than the physician.

A more personal treatment of illness that emulates the non-Western curer-patient-community relationship could probably benefit Western systems. Western medicine has tended to draw a rigid line between biological and psychological causation. Non-Western theories usually lack this sharp distinction, recognizing that poor health has intertwined physical, emotional, and social causes. The mind-body opposition is part of Western folk taxonomy, not of science.

ANTHROPOLOGY AND BUSINESS

Carol Taylor (1987) discusses the value of an “anthropologist-in-residence” in a large, complex organization such as a hospital or a business. A free-ranging ethnographer can be a perceptive oddball when information and decisions usually move through a rigid hierarchy. If allowed to observe and converse freely with all types and levels of personnel, the ethnographer may acquire a unique perspective on organizational conditions and problems. For many years, anthropologists have used ethnography to study business settings (Arensberg 1987). For example, ethnographic research in an auto factory may view workers, managers, and executives as different social categories participating in a common social system. Each group has characteristic attitudes, values, and behavior patterns. These are transmitted through microculture, the process by which people learn particular roles in a limited social system. The free-ranging nature of ethnography takes the ethnographer from worker to executive. Each of these people is both an individual with a personal viewpoint and a cultural creature whose perspective is, to some extent, shared with other members of a group. Applied anthropologists have acted as “cultural brokers,” translating managers’ goals or workers’ concerns to the other group.

Closely observing how people actually use products, anthropologists work with engineers to design products that are more user-friendly. Increasingly, anthropologists are working with high-tech companies, where they use their observational skills to study how people work, live, and use technology. Such studies can be traced to 1979, when the Xerox Palo Alto (California) Research Center (PARC) hired the anthropologist Lucy Suchman. She worked in a laboratory where researchers were trying to build artificial intelligence to help people use complicated copiers. Suchman observed and filmed people having trouble with a copying job. From her research came the realization that simplicity is more important than fancy features. That’s why all Xerox copiers, no matter how complex, now include a single green copy button for when someone wants an uncomplicated copy.

“[Our] graduate students keep getting snatched up by companies,” says Marietta Baba (dean of social science at Michigan State University), former chair of the anthropology department at Wayne State University (WSU) in Detroit (quoted in Weise 1999). WSU trains anthropology students to observe social interactions so as to understand the underlying structures of a culture, and to apply those methods to industry. Baba estimates that about 9,000 American anthropologists work in academia and that about 2,200 hold applied anthropology positions in industry. “But the proportions are shifting, so you’re getting more and more applied ones,” she says (quoted in Weise 1999). Companies hire anthropologists to gain a better understanding of their customers and to find new products and markets that engineers and marketers might never imagine (see “Interesting Issues” on p. 38). Andrea Saveri, a director at the Institute for the Future in Menlo Park, California, contends that traditional market research is limited by its question-and-answer format. “In the case of surveys, you’re telling the respondent how to answer and you’re not giving them any room for anything else” (quoted in Weise 1999). Saveri, who thinks ethnography is more precise and powerful than surveys, employs anthropologists to investigate the consequences of technology (Weise 1999).

For business, key features of anthropology include (1) ethnography and observation as ways of gathering data, (2) cross-cultural expertise, and (3) a focus on cultural diversity. The cross-cultural perspective enters the picture when businesses seek to know why other nations have higher (or lower) productivity than we do (Ferraro 2002). Reasons for differential productivity are cultural, social, and economic. To find them, anthropologists must focus on key features in the organization of production. Subtle but potentially
Hot Asset in Corporate: Anthropology Degrees

More and more businesses are hiring anthropologists because they like its characteristic observation of behavior in natural settings and its focus on cultural diversity. Thus, as we see in this article, Hallmark Cards has hired anthropologists to observe parties, holidays, and celebrations of ethnic groups to improve its ability to design cards for targeted audiences. Anthropologists go into people’s homes to see how they actually use products. This permits better product design and more effective advertising.

Don’t throw away the MBA degree yet.

But as companies go global and crave leaders for a diverse workforce, a new hot degree is emerging for aspiring executives: anthropology.

The study of man is no longer a degree for museum directors. Citicorp created a vice presidency for anthropologist Steve Barnett, who discovered early warning signs to identify people who don’t pay credit card bills.

Not satisfied with consumer surveys, Hallmark is sending anthropologists into the homes of immigrants, attending holidays and birthday parties to design cards they’ll want.

No survey can tell engineers what women really want in a razor, so marketing consultant Hauser Design sends anthropologists into bathrooms to watch them shave their legs.

Unlike MBAs, anthropology degrees are rare: one undergraduate degree for every 26 in business and one anthropology Ph.D. for every 235 MBAs.

Textbooks now have chapters on business applications. The University of South Florida has created a course of study for anthropologists headed for commerce.

Motorola corporate lawyer Robert Faulkner got his anthropology degree before going to law school. He says it becomes increasingly valuable.

“When you go into business, the only problems you’ll have are people problems,” was the advice given to teenager Michael Koss by his father in the early 1970s.

Koss, now 44, heeded the advice, earned an anthropology degree from Beloit College in 1976, and is today CEO of the Koss headphone manufacturer.

Katherine Burr, CEO of The Hanseatic Group, has masters in both anthropology and business from the University of New Mexico. Hanseatic was among the first money management programs to predict the Asian crisis and last year produced a total return of 31.5% for investors.

“My competitive edge came completely out of anthropology,” she says. “The world is so unknown, changes so rapidly. Preconceptions can kill you.”

Companies are starving to know how people use the Internet or why some pickups, even though they are more powerful, are perceived by consumers as less powerful, says Ken Erickson, of the Center for Ethnographic Research.

It takes trained observation, Erickson says. Observation is what anthropologists are trained to do.


Important differences can emerge from workplace ethnography—close observation of workers and managers in their natural (workplace) setting.

CAREERS AND ANTHROPOLOGY

Many college students find anthropology interesting and consider majoring in it. However, their parents or friends may discourage them by asking, “What kind of job are you going to get with an anthropology major?” The first step in answering this question is to consider the more general question “What do you do with any college major?” The answer is “Not much, without a good bit of effort, thought, and planning.” A survey of graduates of the literary college of the University of Michigan showed that few had jobs that were clearly linked to their majors. Medicine, law, and many other professions require advanced degrees. Although many colleges offer bachelor’s degrees in engineering, business, accounting, and social work, master’s degrees are often needed to get the best jobs in those fields. Anthropologists, too, need an advanced degree, most typically a Ph.D., to find gainful employment in academic, museum, or applied anthropology.

A broad college education, and even a major in anthropology, can be an excellent foundation for success in many fields. Many University of Michigan undergraduates who are planning careers in medicine, public health, or dentistry choose a joint major in anthropology and zoology. A recent survey of women executives showed that most had not majored in business but in the social sciences or humanities. Only after graduating did they study business, obtaining a master’s degree in business administration. These executives felt that the breadth of their college educations had contributed to their business careers. Anthropology majors go on to medical, law, and business schools and find success in many professions that often have little explicit connection to anthropology.
Anthropology's breadth provides knowledge and an outlook on the world that are useful in many kinds of work. For example, an anthropology major combined with a master's degree in business is excellent preparation for work in international business. However, job seekers must always convince employers that they have a special and valuable "skillset."

Breadth is anthropology's hallmark. Anthropologists study people biologically, culturally, socially, and linguistically, in time and space, in developed and underdeveloped nations, in simple and complex settings. Physical anthropologists teach about human biology in time and space, including our origins and evolution. Most colleges have cultural anthropology courses that compare cultures and others that focus on particular world areas, such as Latin America, Asia, and Native North America. The knowledge of geographic areas acquired in such courses can be useful in many jobs. Anthropology's comparative outlook, its long-standing Third World focus, and its appreciation of diverse life styles combine to provide an excellent foundation for overseas employment.

Even for work in North America, the focus on culture is valuable. Every day we hear about cultural differences and about social problems whose solutions require a multicultural viewpoint—an ability to recognize and reconcile ethnic differences. Government, schools, and private firms constantly deal with people from different social classes, ethnic groups, and tribal backgrounds. Physicians, attorneys, social workers, police officers, judges, teachers, and students can all do a better job if they understand social differences in a part of the world that is one of the most ethnically diverse in history.

Knowledge about the traditions and beliefs of the many social groups within a modern nation is important in planning and carrying out programs that affect those groups. Attention to social background and cultural categories helps ensure the welfare of affected ethnic groups, communities, and neighborhoods. Experience in planned social change—whether community organization in North America or economic development overseas—shows that a proper social study should be done before a project or policy is implemented. When local people want the change and it fits their life style and traditions, it will be more successful, beneficial, and cost-effective. There will be not only a more humane but a more economical solution to a real social problem.

People with anthropology backgrounds are doing well in many fields. Furthermore, even if the job has little or nothing to do with anthropology in the formal or obvious sense, anthropology is always useful when we work with fellow human beings. For most of us, this means every day of our lives.

1. Applied anthropology uses anthropological perspectives, theory, methods, and data to identify, assess, and solve problems. Applied anthropologists have a range of employers. Examples: government agencies; development organizations; NGOs; tribal, ethnic, and interest groups; businesses; social services and educational agencies. Applied anthropologists come from all four subfields. Ethnography is one of applied anthropology's most valuable research tools. Another is the comparative, cross-cultural, biocultural perspective. A systemic perspective recognizes that changes have multiple consequences, some unintended.

2. Anthropology and education researchers work in classrooms, homes, and other settings relevant to education. Such studies may lead to policy recommendations. Both academic and applied anthropologists study migration from rural areas to cities and across national boundaries. North America has become a popular arena for urban anthropological research on migration, ethnicity, poverty, and related topics. Although rural and urban are different social systems, there is cultural diffusion from one to the other. Rural and tribal social forms affect adjustment to the city.

3. Medical anthropology is the cross-cultural, biocultural study of health problems and conditions, disease, illness, disease theories, and health-care systems. Medical anthropology includes biological and cultural anthropologists and has theoretical (academic) and applied dimensions. In a given setting, the characteristic diseases reflect diet, population density, economy, and social complexity. Native theories of illness may be personalistic, naturalistic, or emotionalistic. In applying anthropology to business, the key features are (1) ethnography and observation as ways of gathering data, (2) cross-cultural expertise, and (3) a focus on cultural diversity.

4. A broad college education, including anthropology and foreign-area courses, offers excellent background for many fields. Anthropology's comparative outlook and cultural relativism provide an excellent basis for overseas employment. Even for work in North America, a focus on culture and cultural diversity is valuable. Anthropology majors attend medical, law, and business schools and succeed in many fields, some of which have little explicit connection with anthropology.