

Historical Development of Applied Anthropology ;

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introduction

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Introduction

This discourse commences with a basic meaning of applied anthropology in its broader as well as in restrictive senses. What follows then is description of its origins within the matrix of anthropology, generally, in the 19th century. The early history of the discipline through the post–World War II, or mid-20th century, era is explored in the next section. The mid-20th-century era was dominated by three phases: the Fox Project, the Peru Vicos Project, and Project Camelot, which is treated separately. The section on the later 20th century leads into applied anthropology today, which is followed by a section on development for researches in Indian subcontinents.

Applied anthropology, in its broader sense, is distinguished primarily from academic anthropology as anthropological methods and data put to use outside of the classroom. This is not to say that all anthropological methods and data put to use outside of the classroom is applied anthropology; field research also is anthropological methods and data put to use outside of the classroom, but it can be used for academic purposes, as well as for practical application. Applied anthropology is used to solve practical problems outside of the academic world, and it has appeared under such names as action anthropology, development anthropology, and practicing anthropology among others.

In its academic sense, applied anthropology is distinguished from practicing anthropology. Practicing anthropology is the application of anthropology strictly outside of academia in non academics; applied anthropology can be practiced outside of academia or within academia by academicians. To some extent, the differences are considered to be minimal, but to others they are of great importance.

Origins of Applied Anthropology

Early in the 17th century anthropology was recognized as naturalistic science or philosophy that examined how to view the place of humans in the cosmos and several navigators used to describe human groups found on different places across the world. This began to change by the mid-18th century, and people who were to become the founders of what is called anthropology today began to look at the more earthly nature of humanity. One of these individuals was Comte de Buffon in France who attempted to define the subject areas of anthropology. J.F. Blumenbach in Germany focused his work on the physical aspects of human species. Lewis Henry Morgan, who was an attorney, began to work with the Iroquois in the 1840s on legal issues involving railroad right of ways. This may have been one of the first, if not the first, application of the nascent but as yet still inchoate discipline.

Across the Atlantic region, Sir Edward Tylor, who defined “culture,” considered anthropology to be a “policy science” that should be implemented to ameliorate the problems of humanity. He was also recognized as father of British anthropology. James Hunt, who founded the Anthropological Society of London, began to use the term practical anthropology by the 1860s, and in 1869, the Royal Anthropological Institute of Great Britain and Ireland (this was later to be titled the Royal Anthropological Institute) was formed.

In North America, the federal government formed the Bureau of American Ethnology (BAE) under John Wesley Powell in order to perform research that was intended to guide government policy toward Native Americans, and in 1879, Powell dispatched Frank Hamilton Cushing to the Zuñi pueblo to perform some of the first anthropological field research. By 1895, the BAE had hired anthropologist James Mooney to research a revitalization movement, the ghost dance. It also was in the 1890s that Franz Boas, the “father of American anthropology,” worked outside of academia with the Chicago Field Museum. Thus four prominent schools of anthropology viz French, German, British and American did excellent efforts in shaping the outlines of academic anthropology taught at universities and college levels in 20th century A.D.

Early History of Applied Anthropology

Boas developed a lifelong hatred of racism arising from anti-Semitic experiences he had had in school in Germany. This led him to attempt to dispel the prevailing racist notions of the day in anthropology. From 1910 to 1913, Boas applied anthropometry to disprove a basic racist assumption: Cranial shape was a factor of race. To accomplish this, he measured the heads of Jewish immigrants in New York City ghettos. Presumably, they were members of the dolichocephalic (long-headed) Mediterranean race, and indeed, the immigrants tended to fit that pattern. However, their children, born in America, were members of the brachicephalic (round-headed) Alpine race. Apparently, they had changed race within one generation of having moved to America. Boas explained this anomaly as being the product of different diets between the parents and their children during their growth years and not the result of race at all.

Boas's first PhD student, Alfred Louis Kroeber, and Kroeber's students spent the first two decades of the 20th century conducting “salvage ethnology” to preserve cultures that were, or already had, become extinct. The most famous of these cases, both within and outside of anthropology, is the story of Ishi, the last member of the California Yahi tribe, whom Kroeber brought to Berkeley to serve as the key respondent from a vanished people. In 1919, Kroeber applied anthropological techniques to discover the rapprochement between fashion and economic cycles in his hem-length study. He demonstrated that one could determine (and perhaps predict) economic cycles by the rise or fall of women's dress and skirt lengths. The 1920s also found Margaret Mead (1928/1973) making recommendations on sex education to the American educational establishment in the last two chapters of her doctoral dissertation, published as *Coming of Age in Samoa*.

In Europe, it was common during this time for anthropologists to seek employment in colonial governments: Anthropologists from the Netherlands were employed by their government to provide ethnographic data on its Indonesian colony; Northcote Thomas used anthropology to aid in administrating the British colony in Nigeria; and Alfred Reginald Radcliffe-Brown served as director of education on Tonga. Somewhat later, in the 1930s, Edward Evan Evans-Pritchard (1969), in the employment of the government of the Anglo-Egyptian Sudan, spent several research periods among the Nuer to determine why they did not consider it necessary to uphold their treaty with the British government, among other projects. Also in the 1930s, Radcliffe-Brown first used the term applied anthropology in the article “Anthropology as Public Service and Malinowski's Contribution to It” (although the term already had appeared in 1906 in a degree program at Oxford). Bronislaw Malinowski himself, had coined the term practicing anthropology for nonacademic anthropology.

In 1932, President Franklin Delano Roosevelt appointed the anthropologist John Collier to Commissioner of the Bureau of Indian Affairs (BIA). Collier then employed fellow anthropologists Julian Steward, Clyde Kluckhohn, and others in the applied anthropology office to investigate Native American cultures and to counsel the BIA in regard to the Indian Reorganization Act. The anthropologists served as intermediaries between the BIA and Native Americans during the drawing

of tribal constitutions and charters. Also in the 1930s, Edward Sapir's student, Benjamin Lee Whorf, applied anthropological linguistics to the analysis of fire insurance investigations, and anthropologist W. Lloyd Warner was hired by the Western Electric Company to study worker productivity in its bank-wiring facility. Warner employed qualitative ethnographic techniques, such as participant observation and informal interviewing, that previously had been used in nonindustrial, non-Western societies in one of the first applications of "industrial anthropology."

The 1940s brought about the efflorescence of the field with the founding of the Society for Applied Anthropology (SfAA) by Margaret Mead, Conrad Arensberg, and Eliot Chapple. They published the journal *Applied Anthropology* to counter what they saw as academic bias against practical, nontheoretical work. In 1949, the name of the journal was changed to *Human Organization*, and the SfAA code of ethics was created. Despite this, Melville Herskovits taught in the late 1940s that applied anthropology was racist and should not be practiced, according to one of his former students.

Today, a variety of organizations specialize in applied anthropology. The Consortium of Practicing and Applied Anthropology Programs (COPAA), chaired by Linda A. Bennett of the University of Memphis, lists and gives a brief description of some of these organizations on its Web site, including the COPAA, the SFAA, and the NAFPA within the American Anthropological Association.

The COPAA also lists regional organizations, which include the Washington Association of Professional Anthropologists; the High Plains Society for Applied Anthropology; the Chicago Association for Practicing Anthropologists; the Sun Coast Organization of Practicing Anthropologists; the California Alliance of Local Practitioner Organizations that embraces the Southern California Applied Anthropology Network, the Bay Area Association of Practicing Anthropologists, and the Central Valley Applied Anthropology Network; and the Mid-South Association of Professional Anthropologists. It was during World War II that Margaret Mead headed a group of anthropologists who served in the Office of Strategic Services. In addition to Mead, Ruth Benedict, Ralph Linton, Julian Steward, and Clyde Kluckhohn, among others (including such interdisciplinary notables as Erik Erikson), worked on the Committee on Food Habits, the Culture at a Distance national character project, the War Relocation Authority, and others, in order to aid in the U.S. war effort. A description of their work and methods was published (Mead & Rhoda, 1949) after the war as *The Study of Culture at a Distance*. Following the war, anthropologists also worked for the U.S. Pacific protectorates' administrations.

Applied Anthropology in the Mid-20th Century

The Fox Project (1948-1959)

In the decade of late 1940s, Sol Tax of the University of Chicago desired to develop a program that would give field exposure to anthropology students. To do this, he began the Fox Project in 1948 to look into social organization and leadership in the Fox/Tama settlement, which was facing acculturative pressures from the neighboring Euro-American community. Although they tried to become involved in the amelioration of the acculturative process, they had no authority to do so. Thus, they developed a theoretical agenda that became known as "action anthropology." In 1953, the group consulted with the Fox project and developed a framework for action that was funded by a private foundation. University of Iowa students joined the University of Chicago group, and together they created the Fox Indian Educational Program and began the Tama Indian Crafts industry.

Peru Vicos Project, 1952;

in the early fifties the Fox project was nearing its completion in 1952, Edward Spicer's book, *Human Problems in Technological Change*, was published. That same year Allen Holmberg began Cornell University's 14-year discourse: the "Peru Vicos Project." Cornell University had rented Vicos, a feudal estate in Peru, as a living laboratory to study social engineering on the Quechua-speaking peasantry, to test theories of modernization, and to develop models for community advocacy and culture brokering.

Project Camelot, 1964;

The Project Camelot had the potential to be a low point in the application of anthropology in the late 20th century. In December 1964, the Office of the Director of the Special Operations Research Office of the American University in Washington, D.C., announced a new program to be funded by the army and the Department of Defense. The program extensively would employ anthropological fieldworkers in government research for 3 to 4 years. In theory, it was a project that was intended to develop a systems model that would enable the prediction of social changes that in turn could develop into political movements in third world nations that might threaten the United States—specifically in Latin American countries (where a field office was planned) but with plans to expand globally. Its objectives were to formulate means to predict civil wars and revolutions; to identify means to prevent civil wars, insurgency, and counterinsurgency movements in particular societies; and to develop a system of field methods to collect the information to accomplish the two previous objectives. The budget was expected to be in the \$1.5 million range annually.

Some anthropologists feared that applying anthropology to aid Latin American government's repression of political movements was unethical and would hinder development of societies in those countries. A more horrific potential outcome to the field ethnographers was the possible executions of their field respondents. In response to the outcry from the social science community, Project Camelot was cancelled in July 1965.

Nonetheless, not all social scientists found Project Camelot to be totally objectionable. Beyond the satisfaction of the obvious and never-ending quest for research funding, which it would have provided, albeit from sources that are suspect to many in the academic community, there is the less obvious appeal of ethnography finally having some input into government international policy, something that had been called for over decades. Likewise, many anthropologists in that era had gotten their starts in the military by having had their first international experiences during the second World War and their educations financed by the government issue, or GI, Bill. Rather, it was the possible outcomes of their research that convinced the community to object to Project Camelot.

Also in the 1960s, medical anthropologists working with the Foré tribe of New Guinea traced the origins of a deadly neurological disease, kuru, to cannibalism by using traditional qualitative techniques, such as collecting life histories; Margaret Mead testified before Congress on birth control and marijuana, and she coined the term generation gap to describe a global phenomenon that had never occurred previously in human history; Jules Henry's *Culture Against Man* described the Orwellian nature of popular advertising in American society; Jomo Kenyatta applied his PhD in anthropology from the London School of Economics under Malinowski to running the government of Kenya, with its diverse ethnic makeup, as its first president under the slogan Harambe, or "let us pull together" in Kiswahili. Oscar Lewis conducted his "family life histories" in Mexico City (The Children of Sanchez) and New York (La Vida) and described the poor as living in a self-perpetuating "culture of poverty." Although this was criticized widely as an attempt to blame the poor for their condition, it also could be said that Lewis was acknowledging the wisdom of people who lived on the edge and their ability to survive and fully exploit their economic niches.

James P. Spradley conducted a Herculean application of ethno science to "tramp" culture in Seattle in the 1960s to determine the emic structure of the society in order to make recommendations for improved treatments to social workers, police, psychiatrists, and alcohol treatment centers. It was published as *You Owe Yourself a Drunk: An Ethnography of Urban Nomads* in 1970. In 1969, George Foster wrote the first textbook on development and change agency, *Applied Anthropology*, in which he cited changes in human behavior as a primary goal in order to solve social, economic, and technological problems. He followed this up in 1973 with *Traditional Societies and Technological Change*.

Development in the Late 20th Century

In India, S.C. Roy attempted to focus on the concurrent problems among tribal settings of Chhota Nagpur plateau who developed a legacy of anthropologists in Ranchi. L.P. Vidyarthi joined him and established a department of anthropology there who had been taught by D. N. Majumdar, father of Lucknow school of anthropology. One of the significant contributions was also made by P.K. Bhaumick, who established the First Institute on Applied Anthropology in Midnapore of West Bengal, India. Prof. S.C. Dubey, Sachidanand, Verrier Elwin, B.S. Guha, B.M. Das, Mutatkar and several other Indian anthropologists have inspired the frontline anthropologists to understand the applied value of the discipline.

In 1974, the University of South Florida began the first master of arts degree program to focus specifically on training students for careers in applied anthropology. The options available to those students form a wide range of topics that define applied anthropology. Among them are archaeology, Cultural Resource Management, economic development, educational anthropology, immigration, medical anthropology, race, gender, ethnicity, and urban policy and community development. Among the reasons for such theoretical breadth is the realization that many master of arts students do not choose to pursue a doctor of philosophy degree, and this curriculum, then, qualifies them to work in specialized professions outside of academia.

The students must note that work outside of academia is known as practicing anthropology, and in 1978 the University of South Florida first published the journal *Practicing Anthropology*. Graduate programs in applied anthropology are becoming more widespread in the United States since that time; for example, the master's program in applied anthropology at California State University, Long Beach, has three program options: communities/ organizations, health, and education. Northern Kentucky University's anthropology program is long known for its award-winning Web site with information on where undergraduate anthropology majors, who cannot or do not choose to attend graduate programs, can find jobs outside of academia; currently, it is in the process of developing a master's program in applied anthropology.

Other Courses offered

Although in India no independent courses on applied anthropology offered by the late 20th century but syllabi were certainly made by the premier universities to give exposure of applied and field researches to the students so that they shape their career accordingly. Some associations like COPAA lists member programs on its Web site for those interested in pursuing a career in applied anthropology. The Web site notes that there are other programs that are not currently COPAA members. Among the universities in consortium are the University of Alaska, Anchorage; American University; University of Arizona; California State University, East Bay; California State University, Long Beach; University of Florida, Gainesville; The George Washington University; University of Georgia; Georgia State University; Indiana University-Purdue University at Indianapolis; University of Kentucky; University of Maryland; University of Memphis; Mississippi State University; Montclair State University; University of North Carolina at Greensboro; University of North Texas; Northern Arizona University; Oregon State University; Santa Clara University; San Jose State University; the University of South Florida; the University of Texas at San Antonio; and Wayne State University.

The first doctoral program in applied anthropology was begun at the University of South Florida (USF) in 1984. Although the master of arts curriculum had been intended for nonacademic professions, the PhD curriculum trained students for university careers, as well as for practicing anthropology. USF's Center for Applied Anthropology combines these two objectives in ventures such as the Human Services Information System database and the Alliance for Applied Research in Education and Anthropology.

In the 1960s and 1970s, Napoleon Chagnon and James Neel conducted genetics research for the American Atomic Energy Commission in an ethnographic setting. Chagnon was the ethnographer, and Neel was the geneticist. Their work was designed to determine the effects of the forces of evolution (such as the founder effect) on small populations in order to determine how genes might affect survival following a nuclear destruction of modern civilization. Their research took them to the Orinoco River basin in southeastern Venezuela where they established contact and conducted research among the Yanomamo, an isolated, horticultural, tribal society. Out of this research came Chagnon's ethnography, *The Yanomamo: The Fierce People*. From its very early days, the project was heavily documented on film, and their classic documentary, *The Yanomamo: A Multidisciplinary Study*, became a standard in both cultural and physical anthropology classrooms. In the film, Chagnon and Neel become aware of a measles epidemic sweeping up the Orinoco Basin toward the Yanomamo. They acquire a vaccine that contains a weakened strain of the live virus and conduct mass inoculations of the Yanomamo against measles.

Although their work was met with criticism from the outset, none was quite as virulent as the later criticism contained in Patrick Tierney's 2000 book, *Darkness in El Dorado*, and its aftermath. Tierney claimed that Chagnon and Neel had been conducting Josef Mengele-like genetics experiments on the Yanomamo by injecting them with the live measles virus to see who would live and who would die—not, as shown in the documentary, to protect them from an epidemic. By that time, Neel was dead,

and although Chagnon was retired, he filed a lawsuit against Tierney in which he and Neel eventually were vindicated. Currently, calls are being made in anthropology to disband the “El Dorado Task Force” set up to investigate this case.

In the 1980s, Philippe Bourgois conducted field research among Hispanic crack (“rock” cocaine, which is smoked) dealers in the Harlem area of New York. This was not an update of Elliott Liebow’s Tally’s Corner nor of Oscar Lewis’s La Vida. Rather, it is what Bourgois refers to as a “culture of terror” that exploits an underground economy. Bourgois argues that this renders the crack dealers unexploitable by the larger, legal society as they pursue their interpretations of the “American dream.”

Across the Atlantic, anthropologists and other social scientists began to influence government policies in the Republic of Ireland in the late 1980s, according to Thomas Wilson and Hastings Donnan, via what are called the economic and social partnerships with government. This should not be confused with hegemony as may have been the case with the 1960s American “military-industrial complex.” Rather, in a country in which anthropology traditionally had been practiced by foreign scholars investigating semi-isolated rural communities, it was a remarkable innovation for anthropologists and other academics to have creative input, with their governmental partner, in the policies that led to the Celtic Tiger economy in what had been one of the poorest countries in Europe and the social structural transformations that allowed the “boom” to filter down to the public at large. Anthropologists also have been called on more recently in Ireland to assist the government with ethnic minority issues, especially those of the indigenous minority, the travelling community.

In India Prof Majumdar, Verrier Elwin, Chattopadhyaya, SC Dubey, BD Sharma, HS Saksena, CB Tripathi, AN Sinha, B.C. Agarwal, D.N.Saksena have played major role in policy makings for downtrodden and tribal societies in mid as well as late 20th century A.D.

Since the beginning of the 1990s, nonacademic jobs for anthropologists have increased, and more anthropologists have found themselves involved in the business world, especially in marketing, although the irony of this may not be lost on those who were students when Jules Henry’s anti-Madison Avenue research, published as Culture Against Man, was a popular textbook in the 1960s and 1970s. Much of the new material centers around cultural miscues that corporations and individuals make in advertising— physical gestures, slang, and so on—when acting crossculturally (e.g., Chevrolet’s attempt to market the Nova automobile in Latin America where the homonym of the name means “does not go” or Gerber’s attempt to market baby food with an infant’s picture on the label in parts of Africa where labels routinely showed the containers’ contents for consumers who could not read). Other business oriented approaches fall more along the lines of the Western Electric bank-wiring study (noted above) conducted by W. Lloyd Warner in the 1930s.

Nonetheless, some members of the anthropological community still consider business anthropology to be “colluding with the enemy,” according to Jason S. Parker of Youngstown State University in a recent article in the Society for Applied Anthropology Newsletter. Parker points out that the critics, which stigmatize those applied anthropologists working in business sectors, are not offering any jobs to their recently minted bachelor’s degree graduates, who must then look elsewhere. Parker argues that the anthropological perspective can benefit the employees, as well as the corporations, through the inclusion of their input in the manufacturing processes.

AT.Jordan has written a persuasive argument for the use of anthropology in the business world in her book Business Anthropology. Jordan cites a number of cases in which anthropologists have ameliorated conditions that had the potential to lead to labor disharmony through managerial insensitivity to working conditions. Likewise, she explains that cross-cultural conflicts and misunderstandings on the job could easily be avoided with anthropological input.

Worldwide Development in 21st century;

Lamphere advocated for the convergence of applied, practicing, and public anthropology in 2004. He argues that anthropologists in the 21st century should collaborate with each other, as well as with the groups that they are investigating, on archaeological research, health, urban, and environmental topics to unify their work on critical social, educational, and political issues. The traditional research populations increasingly want greater degrees of jurisdiction over what is written about them, and applied anthropologists, especially those influenced by the feminist critique, have advocated more collaboration with their respondents on ethnographic publications and museum exhibits in order to

express more emic perspectives. This joint participation in the research and presentation process (whether by publication or museum display) fosters skills and generates capacities for indigenous change within communities.

Charles Menzies erects a paradigm to foster these joint ventures based on his work with the Gitksaala Nation in British Columbia, which consists of four stages. First, the anthropologist opens a dialogue with the community that may suggest modifications to the research protocol. Then, research continues to grow and change in consultation with the respondents—who now are becoming “coethnographers.” Next, the research is conducted jointly between academics and members of the society. Finally, the data and results are analyzed by the joint team and the reports are coauthored. Lamphire advocates training students to conduct collaborative research of this nature as anthropologists increasingly find themselves employed by nonacademic public and private organizations.

21st-century anthropologists increasingly find themselves involved in policy-making jobs in areas as diverse as libraries and the army. The University of Rochester library hired anthropologist Nancy Fried Foster, under a grant from the Institute of Museum and Library Services, to study undergraduates’ term paper research, to steer library renovations, and to make suggestions on the redesign of its Web site. Foster used traditional anthropological research methods to discover that not only are many students extremely uncomfortable with the increasing technological changes that universities are forcing on them but also that they use the libraries to escape from them.

Anthropologists and the Military Services

A recent Society for Applied Anthropology Newsletter reports that anthropologists increasingly may become involved in work with the military via a program called the Human Terrain System under the Department of Defense (DoD). According to Susan L. Andreatta, president of the SfAA, the DoD wants to employ graduate-level anthropologists in Iraq and Afghanistan. Opinions on this are divided, but one may note that the Society was founded by anthropologists who worked for the war effort in the 1940s.

The anthropologist and senior consultant to the Human Terrain Systems project is Montgomery McFate. William Roberts of St. Mary’s College, Maryland, describes her argument as one in which a military that has greater understanding of indigenous civilians in war zones will reduce loss of life and cultural destruction.

Also, archaeologists may be involved with the military on sensitive issues. As of this writing, archaeologist Laurie Rush serves as a cultural resources manager at the United States Army’s Fort Drum, where she works with the Integrated Training Area Management unit of the DoD’s Legacy Program to develop a consciousness for archaeological treasures. This project arose out of a British Museum report that detailed the construction of a helicopter pad by U.S. Marines on the ruins of the ancient city of Babylon, the destruction of a 2.5-millennia-old brick road, and the filling of sandbags with artifacts. Part of Rush’s program involves building models of archaeological sites, mosques, and cemeteries for soldiers to train to avoid.

Forensic, Ethnic, Medical, Communication, Physical Growth and Ecology;

Television programs on Crime Scene Investigation (CSI), CSI: Miami, and Naval Criminal Investigative Service (NCIS) have sparked an international interest in forensics. This, in turn, has led to a student population interested in forensic anthropology. Cable television’s Discovery Health channel has created a true-life version of the CSI phenomenon with its Forensic Files program, which features cases solved by forensic anthropologists.

The News agencies, National Geography channels, ISRO, scientific Web sites etc occasionally report on the applications of communicative, medical, family health care, physical growth, environmental fields and forensic science. They describe forensic anthropologists and archaeologists who have been involved in the identification of the remains of the nearly 3,000 victims of the September 11, 2001, attack; Jon Stereberg, a forensic archaeologist, has tried to trace the evidence of 1992 gas attacks in the clothing of victims in the Balkans; and Clyde Collins Snow, a retired forensic archaeologist, has investigated grave sites in Guatemala, Bosnia, and Iraq. Currently, forensic specialists, such as Ariana Fernandez, are examining the bodies of Kurdish people who were found in

mass graves and who are believed to have been massacred in a genocide attack during the Saddam Hussein regime in Iraq.

In India PK Chattopadhyaya, IJS Bansal, V Bhalla, BRK Shukla, Surendra Nath, V.Ramireddy, SK Garg, OP Jasuja, did remarkable contribution to forensic anthropology. IP Singh, J.C.Sharma, Surya Prakash, PK Ghosh, Suraksha Agarwal, Tayyaba Hussain, and KC Malhotra worked significantly on occupational hazards, physical growth, applied immunogenetics, medical and ecological anthropology.

Applied Anthropology and Tourism

The travel and tourism industry is in dire need of the services of anthropologists, and this is becoming an attractive employment option to anthropology graduates, according to Susan Banks, an anthropologist involved in the travel industry. Too often, tourists will go to exotic locales where they believe that they are seeing the actual types of lives lived in those places, unaware that they are being fed a fabricated culture designed, not to expose them to life in other places, but to screen them from the true ways of life found in those locations. Commonly, tourists are discouraged from visiting local towns and actually learning something about the countries that they have visited. Anthropology can offer a remedy to this problem and provide some much-needed income to the local economies. Contribution made by K C Malhotra in this field is amazing.

Environmental degradation of local ecologies is another problem of culturally ignorant tourism. For this reason, Susan Charnley, in an article in Human Organization in 2005, suggests a change from nature tourism to ecotourism. She cites the case of Ngorongoro Conservation Area (NCA) in Tanzania. Nature tourism involves traveling to pristine locations where tourists can experience and enjoy nature; ecotourism involves traveling to natural areas that conserve the local ecology while respecting the rights of the local cultures and encouraging sustainable development. Charnley makes the case for the increasingly difficult position of the Massai people since the creation of the NCA and the negative effect it has had on their economy. Charnley argues for culturally appropriate involvement of local people in tourist destinations in ways that will provide actual benefits to their communities. These benefits would include social and political justice and involvement in decision-making processes that directly influence their lives.

A selection of articles from Human Organization from the first decade of the 21st century includes such topics as the administration of federally managed fisheries, including a discussion of the role of James A. Acheson who was the first applied anthropologist hired by the National Marine Fisheries Service in 1974 to conduct policy research and implementation through conservation and stewardship of marine ecosystems.

Another article described the importance of beer parties among Xhosa labor cooperatives on homesteads in South Africa. An article that has to do with changes in gender relations and commercial activities, as the global market expands to countries such as Mali, explores how the outside world can force local peoples to change the structure of their society by giving advantages to one gender over the other when that may not have been the case previously. What can be seen as a parallel between the popular use of family trusts in the United States in the 1980s and 1990s and a move from individual land tenure to collective, kinbased ownership on Mokil Atoll in Micronesia, as the region's political, economic, and demographic transformation has imperiled the rights of absentee owners. By placing the land ownership in the kin group, it is protected from individual alienation.

A 2007 article by Kathryn Forbes is especially topical in the current social, economic, and political climate of the United States today. Forbes's article examines how the regional land use of ideologies and popular images of farm workers has contributed to a housing crisis for Mexican agricultural laborers in Fresno County, California. Stereotypic descriptions of Mexican farm workers have resulted in the formulation of zoning codes that exacerbate demographic segregation in Fresno County. Most farm workers live in rural areas, which are more economical and more convenient to their sources of income but where there are fewer retail outlets—including groceries. The arrival of seasonal laborers, combined with a lack of affordable housing thanks to local policymakers, has engendered a regional overcrowding crisis for Mexican farm workers. Forbes's role in this discussion is similar to the review of the roles that anthropology can play in public policy cited by Wilson and Donnan (2006) in Ireland.

Future Prospects

Forbes's article is especially relevant to the United States today as the influx of immigrant labor, thanks in part to the North American Free Trade Agreement (NAFTA), has made the appearance of Hispanic laborers a topic of vituperative discussion on national radio talk shows and political campaigns. This is a point that falls clearly within the purview of social science rather than politics as anthropological demographers and gerontologists clearly can demonstrate that not only does the country require immigrant labor because of statistical "full employment," but also it needs to save social security from the influx of baby boom retirees.

The bankruptcy of social security was predicted in university classes as long ago as the 1970s. The increase in life spans, coupled with the potentially disastrous demographic effect of a baby boom generation that will retire to be supported by a much smaller (thanks to the introduction of the birth control pill in the 1960s) birth dearth/baby bust cohort, has the potential to lead to economic disaster for the latter group as their increasing social security taxes erode their quality of life. The baby boom retirees' social security taxes must be replaced from somewhere—if not by eroding the birth dearth/baby bust cohort's quality of life, then by an influx of tax contributors, for example, immigrant laborers.

Anthropologists are in a unique position to act as the social partners of policymakers on this issue not only by means of their demographic and gerontological expertise but also by their ethnographic contributions to allay the concerns of the extant non-Hispanic population of the United States over its possible perception of cultural drowning by immersion in a neo-Hispanic society del Norte ("land of the north").

Likewise, anthropological expertise in indigenous Latin American medical beliefs, such as hot and cold, wet and dry bodily conditions derived from the ancient Mediterranean medical concept of humors where illnesses were believed to be caused by an imbalance of humors; folk illnesses, such as *susto* ("fright"), a culture bound syndrome found in southern Mexico in which an individual who does not recover from an illness is believed to have had a terrible fright in the past that prevents recovery from the unrelated illness (Rubel, O'Neil, & Collado-Ardon, 1991); and cultural sensitivities to variations in conceptions of sexual modesty and familial responsibilities will form a necessary component in the rapprochement of the two larger cultures although this may be difficult in cases of smaller subcultures.

Other areas for future research in applied anthropology include human trafficking (briefly cited in the discussion of tourism); indigenous rights (e.g., salmon fishing among the native Northwest coast peoples in North America, cattle grazing in the Burren in County Clare, Ireland, or the effects of water control on the Marsh Arabs of southern Iraq); anthropometry and gender (in the cultural sense, not the linguistic sense) stereotypes and gender rearing roles; cultural relativism versus cultural interference, including whether or not Muslim women need to be "saved" or if Western hegemonists even have the right to do so; genital mutilation (male as well as female); the role of nongovernmental organizations (NGOs) in distributing information and treatment of HIV/AIDS; food waste, diet and health, and body image; intelligent design, globalization and hightech industry; and the role of biology and culture in psychiatric illnesses, to name but a few of the possibilities open to applied research in anthropology.

In an article titled "Making Our Voices Heard—Ethical Dilemmas and Opportunities," in the November 2007 Society for Applied Anthropology Newsletter, Mark Schuller of Vassar College gives a good review of the future of applied research in anthropology. Schuller writes that many anthropologists believe that their contributions are considered marginal and irrelevant and are passed over in policy making based on a review of the leading anthropological journals and newsletters. He argues that applied anthropologists with a holistic viewpoint can inform policymakers regarding the integrated structural correlation among debt and poverty, education, health care, and local welfare via their engagement with local communities. Schuller calls for local, global, and ethical analysis of current concerns to make anthropology applicable in the "real" world. He suggests that a good way to apply anthropology is through teaching; his students investigate public policies and then send letters to the editors of newspapers in order to introduce anthropological viewpoints into current policy discussions.

In the same issue, Amanda Stronza of Texas A&M University describes a new program in applied biodiversity science, which also will tackle poverty and cultural inequality. The interdisciplinary research program integrates cooperation between social and biological sciences and conservation organizations at the applied level. Research topics are to incorporate biodiversity with local legislative

policy in partnership among academia, governments, NGOs, and local societies in four regions of the Americas.

Conclusion

Thus, this discourse has explored applied anthropology in historical perspective in order to gain a processual understanding of how it developed in world and Indian peninsula. In fact its growth in India after the academic practice in Universities of Calcutta, Lucknow, Delhi and Mumbai is still under way. But after the foundation of Anthropological Survey of India, Duccan College, Indian Institute of Statistical Research, and Tribal Reserch institutes in the several states the applied value of the discipline continuously increased. Few other departments of anthropology in the cities like Sagar, Chandigarh, Madras, Goahati, Utkal, Bhuvneshwar, Dharwad, Ranchi, Raipur etc in 20th century made a lasting impact of the subject in the areas of applied researches on peasant life, tribal development, physical growth and developments, base line surveys for human identification, occupational hazards, medico legal problems, sports developments, ethno medicines and health care practices, social and family welfare, dress and ornament designing, clothing patterns, transportation, tourisms and so on. In these applied fields the contributions made by Risley, Daulton, Hutton, NK Bose, D N Majumdar, MN Srinivas, P. C. Biswas, S R K. Chopra, N S Reddy, T N Madan, I.Kurvey, Gopala Sarana, Ghuriye, L P Vidyarthi, P K Bhaumick and so on are incredible and path breaking. The history unfolds that all core branches of anthropology like physical, socio cultural, archeological and linguistics have not only been applied by academicians but also practiced by non academicians for the welfare of downtrodden and underprivileged sections of the human societies in India.

Suggested Readings

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