In times of severe social stress, social science is always plagued by the problem of its relevance. We are today involved in the most massive inward turning period in social science since World War II. We have to find answers to specific questions about such generalities as: (1) Who eats what? (2) What do we do with the "waste products"? (3) Who lives with whom in what kind of shelter? (4) Who dominates whom? (5) Who exploits whom? (6) Who has sexual relations with whom, under what circumstances, and to what ends? (7) Who invents what? (8) Who rationalizes what, and what form does the rationalization take? Theology? Science? Revolution? (9) Who teaches what and to whom? The anthropological way is to ask the question in such general terms that we perceive the vast differences from one society to another, from one era to another. Today we as humans are dealing with the curse of culture. We have already had its benediction: we are not "mere" animals. We are gourmets, drivers of automobiles, etc. What is relevant is learning to live with the curse of culture rather than to die under it. As social studies teachers, we have to examine the curse, to help our students to see that it is a fact of life, and to help give them the courage to find challenges instead of cop-outs. (DJB)
EDUCATION AND THE CURSE OF CULTURE

Paul Bohannan

In times of severe social stress, social science is always plagued by the problem of its relevance. During World War II the emotions and hence the attention of social scientists, as well as other common men throughout the world, were dominated by that war. As the result we got such anthropological contributions as the study of culture at a distance (Benedict, Kluckhohn, Mead, and other such worthies), created in the crucible of current need. Even Malinowski wrote a book on warfare -- interesting, terribly relevant, but one of his least successful efforts. Today, in order to evaluate material written at that time, we must maintain a keen sense of historicity. World War II, with its dangers and its atrocities, dominated our minds. The search for relevance was then, as it is now, an artifact of stress.

With the possible exception of the caper of McCarthy the First, we are today involved in the most massive of these inward turning periods in social science since World War II. Because our emotions are dominated by stress, our minds grasp at straws of relevance. However, we must seek the touchstone of relevance out there in the social and cultural order -- or, perhaps, disorder -- of our day, not within the order of social science.

The criterion of quality within social science is not whether something is relevant, but whether it is trite. Bad social science is trite. The relevance of social science, to the outside world, is a matter of
phrasing our worries so that social science can offer, at least, a little comfort.

It is a sign of the seriousness of the situation in the outside world that we must go right back to the basic questions to begin producing our modicum of comfort. The basic questions in social science are very simple because they are so basic -- yet arriving at those questions is difficult. We have to find specific questions about such generalities as these: (1) Who eats what? (2) What do we do with the so-called "waste products"? (3) Who lives with whom in what kind of shelter? These are basic questions of food and shelter.

The next questions are more difficult -- difficult because they are more discomfiting: (4) Who dominates whom? (5) Who exploits whom? And, in both questions, to what end? Such questions take us to the heart of our ways of looking at primary political and economic activities, of whatever society or whatever age. The anthropological way -- and this is part of its value -- is to ask the question in such general terms that we perceive the vast differences from one society to another, from one era to another. Only by asking questions in such a way can we get starkly simple answers. But we can't stop there. We must go on to ask (6) Who has sexual relations with whom, under what circumstances, and to what ends? And some simple historical questions, that are nevertheless difficult to answer: (7) Who invents what? and (8) Who rationalizes what, and what form does the rationalization take? Theology? Science? Revolution?

And finally we must ask an absolutely basic question of relevance: (9) Who teaches what and to whom?
Obviously, in a paper of this length the only thing to do is to touch briefly on a few of these topics: who eats what? what do we do with waste products? who dominates whom? and who has sexual relations with whom? And throughout, we must keep asking, as a sort of envoi: who teaches what and to whom?

Who Eat What?

The Kiplinger Washington letter is an excellent source of data for this kind of question -- biases are simple to figure out and easy to correct for. On November 21, 1969, the Kiplinger letter had some important things to say about food as a basic industry. Considering food production as a basic industry is a truism. Food is obviously basic, whatever the degree and type of industrialization. Eating patterns, Kiplinger assures us, are shifting. American diets are changing and the government is going to see to it that we change them even more. First of all, as a result of massive propaganda campaigns, we will reduce our caloric intake so that there will be fewer fat people in the country; we will also reduce our cholesterol intake so that there will be fewer heart attacks. Because both of these changes extend the expectation of life, there will be ramifications into the areas of demography and geriatrics.

Next we are assured what we probably already guessed -- that the cost of food will rise 20% in the next five years, and that the price of beef will soar. Again this anthropologist would like to say something about Americans and their beef. We are, as Kiplinger notes, a nation of beef-eaters. Every meat that is not beef is called a
beef substitute in the "food industry." Chicken and turkey are the favorite beef substitutes of Americans; pork and lamb are less favorite beef substitutes. Fish as a beef substitute is the least favorite, and its use as a beef substitute will not expand as fast as the use of chicken. Those are the only meats that the Kiplinger letter mentions. It is a meager list -- we are indeed a nation of beef-eaters.

And what is all this beef eating doing, besides raising our cholesterol level? To sum it up quickly, we are devastating the Great Plains and the ranching areas of the country. The genus bos is not very well adapted to the country we provide for it. Beef is not merely more costly in money than any other kind of meat, it is more costly to basic soil fertility. It is of course true that the Great Plains will support bovines; after all, look at the buffalo. However, ecological balance demands that other animals also be present. And it is this we have slipped up on. We want there to be absolutely nothing but cows. Ecologists assure us that we could, pound for edible pound, raise more antelope in the Great Plains than we can beef, with much less danger of land erosion and exhaustion. Antelope live on native American plants more efficiently than cattle. However, Americans are a nation of beef-eaters. Beef is good meat, but so is antelope. And if we are going to reduce our death rate, then we are going to have to increase our food production, even if it means changing species or, better, adding species to our repertoire of foodstuffs. We know that antelope can be domesticated readily, that they thrive under domesticated conditions, and that the meat is good tasting and nutritious. But
antelope doesn't even rank as a beef substitute in our culture. Our food preferences are putting a load on the earth's resources that must be understood. There is no better way to examine the problem of diet and the production of food than through the comparative information available through anthropology. Yet in our schools, diet is too often taught in science courses instead of in social science. It should be in both.

Anthropology can help us to answer -- indeed to ask -- some questions about diet, and what different diets do for us. What about a fish and corn meal diet, which is found in parts of Africa? What additives would be necessary to reach maximal efficiency? What does a basically vegetable diet, as provided in much of India, actually do for us? The information is readily available, but unfortunately not yet compiled in a form in which this kind of question can be used en masse in the classroom.

Kurt Lewin said long ago -- during World War II when this topic was relevant -- that people do not eat what they like, but rather they like what they eat. Diets can be changed. We discovered in World War II that people are not really as single-mindedly devoted to their diets as we had thought. They can be changed, and one of the criteria that we must take into account in changing diets today is not just longevity and the health of the individual animal but also something about the way each particular diet affects the environment. From the standpoint of calories or even from the standpoint of trace minerals our diets may be superior to those of many other peoples of the world. But how about our diet from the standpoint of the future of the world?
Several questions, all of them terribly relevant, flow from this question. Why have we domesticated so few animals when so many of them are hanging around asking for a better choice than extinction? Antelope, elk, a number of edible rodents, birds -- many could be easily domesticated. The raccoon has been begging to be domesticated for centuries, but our narrow culture can find no use for domesticated raccoons -- so the raccoon is defined as useless and relegated to raiding garbage cans. Why can't we teach ourselves that a pigeon can be a staple instead of squab being a delicacy? Why can't we farm the very urban streets by growing pigeons? I am not suggesting that we indoctrinate our students to eat pigeon, but that we make them sensibly informed about the cultural aspects of diet so that when it becomes their turn they will be in a position to carry out research programs on diet instead of merely "upgrading" diets ethnocentrically. How relevant can you get?

What Do We Do with So-Called "Waste Products"?

Life is a complex chemical process for turning food into waste -- Isak Dinesen, that magnificent Danish writer of English, whose real name was the Baroness Karen Blixen, put it delicately: the human body is a complex and unbelievably efficient mechanism for converting the great wines of Shiraz into urine. What one can call the inverse Midas syndrome.

Ecologists and space scientists have taught us, in the last few years, to look at this problem in terms of the recycling of chemical elements and the influence of social systems and culture on that recycling. In space travel the environment must go with us and is so circum-
scribed that the cycle has to be a very short one in order that compactness can be achieved. That is to say, the devices for turning carbon dioxide back into carbon and oxygen have to be extremely efficient -- and the squeamishness of space travellers has, of course, to go by the board. In short, waste products must be immediately returned to food. Now the balance of nature on "space ship earth" is the same process stretched out in time a little bit and rendered invisible. In a balanced ecology the recycling of all chemicals is in a moving equilibrium. What is waste to one organism is food to another, and the result is no large scale change because of the very fact of constant and repetitive small scale changes. All this is a dimension of the principles of survival that biologists discovered in the 19th century -- survival and the resultant biological evolution.

However, there has been a built-in resistance in Western culture to realizing the degree that human beings too are involved in recycling. Today we have to face the fact that all culture, in a very real and immediate sense, is the waste material created by human life. Human living makes culture. And the question, therefore, has to be: What out there in the environment can turn culture back into food?

Culture changes the recycling balance of nature. Stone tools, from almost two million years ago, have never recycled. However, that is comparatively unimportant because they are inorganic -- chipping a tool is physical change but not chemical change. But when metals came to be used they too could be recycled, but not with the same efficiency. And then what about glass? Glass is a rearrangement of sand, primarily again a matter of
inorganic substance. And glass will eventually return to sand. But it means that we cut our feet on it in a new and efficient way in the meantime.

All human habitations have midden heaps surrounding them — archeologists would very soon be out of business if it were not so. I do not care whether you are looking at the mounds of clam and oyster shells surrounding early Scandinavian settlements or the mounds of garbage that surround New York City. We are still making midden heaps, assuming that nature will recycle our waste.

But the question is now becoming urgent — indeed relevant. How do you recycle plastic? How do you recycle the carbon that we are turning into the atmosphere by burning prehistoric fuels? We all know that carbon dioxide is being added to our atmosphere every year in vastly increasing proportion; we also know that the oxygen will run out in about a century, perhaps less if we do not do something. And yet do you know anybody that is working on the development of a plant with an increased and efficient through-put system so that the balance of oxygen can be maintained? I don't. If we can breed a white marigold, surely we can breed a rubber plant that will triple its oxygen through-put.

The relevance of all this is patent. That anthropology can help is a simple dimension of the fact that in order to see it at all, you have to see it cross-culturally. Our ways show up as limited, culture-bound ways only if we compare them to other cultural ways — or else if we almost die of them. Anthropology, in creating a sort of stereoscopic vision, can hopefully make us see our own culture overtly before it becomes even more lethal than it already is.
We should, of course, add here that all cultures -- not just our own -- are wasteful of the environment. You have only to note the African system of ash-planting, cultivation which destroys forests and takes quite literally decades to reach full fertility again after a mere three years' use. They have mined their land to almost the same degree that we have mined ours.

The relevance for all this comes not from within social science or within ecology, but from our general culture -- the context of ecology and of all other social sciences. Some of our students will have to devise ways for recycling not only their own waste, but ours as well. The alternative is unthinkable. No wonder they are angry! No wonder some of them displace their anger into the kind of activity which really doesn't help. It is our job to believe with them, sometimes against the evidence of our very senses, that something must be done.

Who Dominates Whom?

It is a mammalian characteristic that all groups -- all social groups with no exceptions -- are based on the principles of the dominance of one animal over another, extended to one social group over another. The dominance may be a weak and loose one, as it is among chimpanzees, or it may be a tight and profound one as it is among rhesus monkeys or chickens.

Power is a necessary dimension of all social relationships. This means that the problem of the morality of power, as well as the problem of the structuring of power within groups, is a universal human problem. Since we cannot avoid the problem, we must search for criteria of excellence.
Now, what do we -- or rather our students -- do to make these questions "relevant"? Just throw in a little context. Instead of "Who dominates whom?" our students ask, "What right has the Military-Industrial Complex of the Establishment to run our lives?" To the question, "What do we do with 'waste products'?", they simply add a little relevance-context to our specific problems in our specific age. "What right have profit-making producers to foul our waters and our air?"

I have, here, done no more than to give two sets of language in which to ask questions. The questions are terribly relevant -- but sometimes they are stated in such a way as almost to insure that they will not be heard. Teachers must help students find usable ways of asking the questions.

Who Marries Whom?

The most fundamental social group in any society is its family. I have little patience with the prognosticating Cassandras who lament that human beings are outgrowing the family. Rather, in all situations of social disorganization, the family reflects -- indeed, acts out for -- the problem in the total society. The proportion of non-familial sexuality goes up, and family failure in socialization increases. The family then has to take the rap for the total picture, because is is the closest and safest institution to rebel against.

Although I am not prepared to say that it will always be so, it always has been so that human beings are familying animals, in the same way that bovines are herding animals, that prairie dogs are towning animals, or that fish are schooling animals. All small human groups can be analyzed
as interaction among an instrumental leader, an affective
leader, and a group of followers -- and the nuclear family
is the prototype of such groups. It is true that there
are different forms of the family. There is the polygynous
family, the polyandrous family, the extended family, and a
few others. The differences among them are very slight
when we compare the family with any non-human social group.
I am not saying that the family either will or should
retain the outlines, the membership, and the functions that
it has today. Indeed, perhaps it should not. But some
form of family is the only social institution that can do
everything that is required by human beings (except, of
course, provide a mate and such institutions as cross-
cousin marriage are an attempt even to haul that into
the orbit of the family).

The study of families in the schools has got mixed
up with a number of other topics, particularly a course
on how to brush your teeth that is usually called "Family
Living." Today, it has even got involved in the problem
of sex education. This is a temporary situation, and it
is a pity because the study of family organizations and
their place in the development of mankind and in the
history of the species is far too important to get mixed
up with the narrow morality of somebody's own particular
idea about the way families should cooperate or how sex
should be discussed. After all, who marries whom -- or
at least, who impregnates whom -- is the basis of human
evolution. It is also one of the two basic social
mechanisms -- the other one, of course, being dominance.
It is possible to examine almost all small fundamental
groupings as a concatenation of the principles of dominance
and mating.
Who Invents What?

In the course of human evolution, no important cultural acquisition has ever been lost. We have, of course, lost specific manifestations of such acquisitions -- we have lost some alphabets, but we have not lost the art or idea of writing. You may say that if we had lost an acquisition, we would not know about it. That is logical, but it is unlikely that archaeologists would not have turned up some kind of evidence of a major cultural acquisition that we did not know about.

It is (perhaps unfortunately) in the nature of culture that once it is brought into existence, it leaves an indelible mark on the species. Archaeologists have discovered that, once the earth has been disturbed by hoe, plow or bulldozer, the wound never heals -- the scar is always there. Just so, Freud discovered that once a human being has an experience, then the experience is never removable -- it may be thrust out of consciousness, but it cannot be undone; we bear the marks of all our experiences. And, again, just so, no cultural invention ever disappears without a trace. It may change to the point that the original is scarcely recognizable. Nevertheless neither individual organisms, nor culturally manifested societies, nor the earth itself can go back to an earlier condition. You can't go home again.

Thus, culture is cumulative. We are today reaping the rewards not merely of the Renaissance and the Industrial Revolution, but also of the agricultural revolution and the Pleistocene hunting complex. We are also paying the price that all of these advances in culture exact from us -- and, at the moment, the price seems terribly high.
Culture, obviously, rises above human intent. We are stuck with it and therefore who invents what is the essential of history. Not just technological history, but the moral history of mankind along with it: and that takes us to the next basic question.

Who Rationalizes What?

It is a universal human characteristic to make things appear to be reasonable. There are many ways of rationalizing culture, as well as the non-cultural aspects of the human condition. They can be called "science," or "theology," or "witchcraft," or any of a wide variety of such dogmas. Ideas have a profound influence on who dominates whom, who exploits whom, who marries whom; on who invents what. When that happens, we can speak of a cultural revolution -- which may or may not be, but often is, accompanied by a social revolution.

Let me give an example, and in the process say something about the way I think world history should be taught, at about the tenth grade level -- but, of course, these ideas must inform the social studies curriculum at all levels.

In the process of humanization of the human animal, mankind became the tool-using primate par excellence, and centered his social organization around the small hunting band. The dominance structure lay within the band of agnatic kinsmen, and was determined by age, character, and ability. Most of the bands of which we have any record (and they are pitifully few) are exogamous -- that is, the men marry women from other such bands. There is a precise and highly valued division of labor between men and women, and the exploitation of the males and the
females, both young and old, more or less evened out to create a balanced dependency as well as a balanced exploitation. Nobody felt he was an underdog. We have very little information on the way in which such people rationalize their existence, but can assume, on the basis of the material remains that they left, something of a religion, associated with hunting and childbearing, and a good knowledge of technical processes that could be passed on from one generation to the next.

Obviously, this kind of group has a maximum size. Depending on the environment, that size ranges from a few people, such as a nuclear family or small agnatic group, right up through groups of several hundred people. However, except for fishing communities (which can and do grow larger than those that hunt large animals), no community of this sort can be more than a few hundred people in size. Therefore, what happened whenever there was an increase in the population is that the group either had to be artificially reduced, or else it had to split into two or more groups like itself -- a sort of cellular fission. By the time our records begin, groups of this sort had spread all over the habitable world. Put in another way, the adaptation of the stone-age hunters was a successful adaptation which allowed a population increase, but nevertheless did not allow infinite increase in size of a community. Therefore, the communities had to split; the spread (not to say diaspora) of the human species occurred. As the species spread, it became something else. That is, as time and travel changed the environmental conditions, and with it the ecology in which the society occurred, all sorts of
biotic adaptations and all sorts of cultural inventions were made. But early on, they were primarily adaptations of hunting tools and cooking and storage equipment.

Then came the "Agricultural Revolution." Some ten thousand years or so ago, the terribly simple idea of agriculture took hold -- it had probably been known for centuries, or perhaps for millennia before. However, agriculture as a way of life began only about 10,000 years ago. What were the results? First of all, agriculture relieves people of a certain type of dependency on an ecological situation, and thrusts them into a very much greater and deeper dependency on a changed ecological situation. The Agricultural Revolution changed the way people work, and therefore their very body musculature. It changed their food habits; it changed their basic insecurities, and therefore, their rationalizations had to be changed, and religion changed from a concern with hunting, and the spirits of the animals, to a concern with fertility and the ensuring of increase in crops and the life and health of people and their children.

The number of people that the world can support through agriculture is very much greater than the number that can be supported through hunting -- this is terribly obvious, but terribly important. We all know that the Agricultural Revolution gave rise to so many changes in technology that we might almost say that the Agricultural Revolution was the first step in what we have come to think of as the Industrial Revolution. Although the process of enlarging the size of the human group, and the complexity of human culture can be divided into stages --
and must be divided into civilizations, or areas and times of specialization -- nevertheless, the whole is an almost constant pressure toward ever larger groups, ever more complex modes of dominance and exploitation, ever more complicated inventions, and ever more clever rationalizations.

Then civilization appeared -- civilization based on literacy, specialization of production processes and urbanism. One can at present only give examples of the process: Greek culture began as the attributes of a very small group of people; its very success made it applicable over a wider area and it grew. Growing -- both in numbers of people and in complexity of cultural items -- created a change in it. A civilization cannot both grow and remain the same. Greek civilization spread out; as it became spread out, it reached the maximum of its efficiency and then, necessarily, changed into something else. That something else sometimes looks to us as a crumbling into less worthy cultures, even a decline from civilization.

The same process happened again with Rome -- its very success allowed it to spread over the Mediterranean world and beyond. In the spread of Roman culture, Roman society was made obsolete. It changed its social forms in a way that leads some historians to say that Rome collapsed.

Again at the time of the Renaissance something started in the Italian states and spread, this time all over the world. And now its very success, its very spread, is causing it to change beyond all recognition. The Industrial Revolution is just one phase of the spread of Renaissance culture, for all that it would seem to be its most dominating aspect. The rampant social change of our own era can easily be experienced as collapse.
I think we must do two things to be relevant in this matter. One is to remember the so-called collapse of Greece and the collapse of Rome, and to realize that they were not collapses in any sense except in the judgment of historians. There are intense social changes that come about because of increased culture and increased numbers of participants in society.

The same thing happened in China, but in different rhythms. And yet it is very interesting that about a thousand years ago the Chinese had built up the great navy in the world, dominating the South Pacific and the Indian Oceans, trading far and wide -- as far as the coasts of Africa and New Guinea. However, the Chinese saw at that time that if they continued the expansion of the navy and the importance within their own tradition of foreign goods, that then their way of life -- their social organization and their cultural values -- were in danger. And the Chinese did something that was very brave and very foolish. They destroyed the navy. They opted for the old morality and the known social system.

Only a few centuries later, Europeans were faced with the same choice -- and did something equally brave and equally foolish. They opted for the technological over the moral. Technology became the guiding light of Western civilization.

Thus, in the one case the option was for the moral. In the other it was for the technological. It is an irony worthy of Greek drama that Westerners and Chinese are not merely sitting face to face, but that each is today sitting face to face with the problem that was avoided a thousand years ago.
Not long ago, in an attempt to escape from the distressingly relevant into the eternal, I picked up my copy of the Complete Greek Drama. And I turned to Antigone -- there was a woman of principle, a revolutionary worthy of a flower, and willing to die for her principles no matter how stupid they appear.

And I found that Sophocles had written this:

And through the future, near and far, as through the past, shall this law hold good: Nothing that is vast enters into the field of mortals without a curse.

How relevant can you get?

Today we as human creatures are dealing with the curse of culture. We have already had its benediction: we are not "mere" animals. We are gourmets, drivers of automobiles, consumers of plastic, framers of constitutions, and factors of philosophies. And like any other piece of the environment on which we feed, we toss away the waste and walk off. That is Sophocles' curse, with a vengeance. It is worth repeating:

And through the future, near and far, as through the past, shall this law hold good: Nothing that is vast enters into the field of mortals without a curse.

Now I am going to suggest that at least some of you are quite literally AFRAID TO BE RELEVANT. You will be branded a boat-rocker at very best. And you'd better not rock the boat -- the river is too polluted. There used to be a joke -- the man who fell in the North River didn't drown, he was polluted to death.

What is relevant? It is learning to live with the curse of culture rather than to die under it. Not just a few devices for reburning carbon on automobiles or
gathering soot on smoke-stacks. Rather it is having the courage to examine what we eat in its full context, how we love in the light of evolution, how we play in the context of all culture. And what we teach, from the standpoint of the entire human experience.

The curse is working. Look around you and dare to ask if social science is relevant! Ask instead, is it trite?

We are living today with a deep irony: the benediction of culture is the curse of culture. And the times are out of joint -- because we have only in the last decade or so recognized the irony, when things have got so far out of balance, when the benediction has become so fateful a curse, that we cannot any longer kid ourselves. We must see it.

And what do we, as social studies teachers, do now? It is simple to say, very difficult to do. We have to examine the curse. We cannot restore an old ecological equilibrium. We -- ourselves -- have to do something much harder; we have to create a new one. Only in a moving equilibrium is the benediction worth the cost of the curse. It is the curse of mankind that in order to enjoy the comfort of the benediction, he must work, constantly work, to exorcise the curse. We have to help our students to see that that is the fact of life, and we have to help give them the courage to find challenges instead of cop-outs. Never has teaching or social science been so relevant.