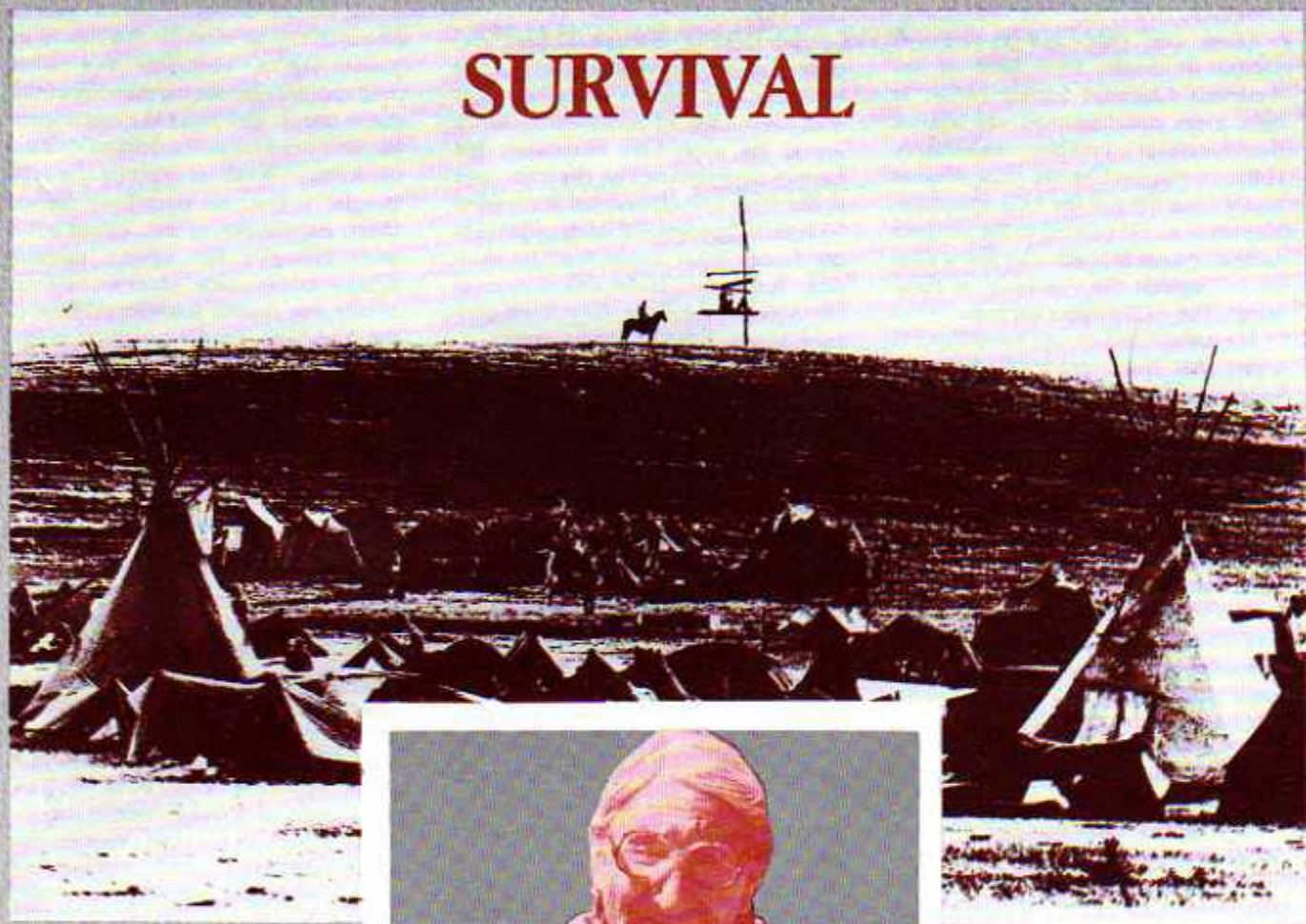


# SCIENCE FOR THE PEOPLE

Vol. 12 No. 6 \$1.50

November/December 1980

## SURVIVAL



THE BLACK HILLS GATHERING

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# letters

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Dear SftP:

About two years ago I borrowed \$10,000 from the legal fund of the American Chemical Society (ACS) to fight a sex discrimination suit against the Lawrence Berkeley Laboratory (LBL). I was told by the then director that if I lost the suit the ACS would forgive the loan. He pointed to the previous case of Sharon Johnson who lost a similar suit against the University of Pittsburgh. The ACS forgave her loan.

My law suit, which was not entitled to a jury trial, was heard by a white male judge who allowed less than half of my 12 witnesses to be heard. I lost.

Yesterday I heard that the ACS, who gained \$2.7 million from its investments last year, and has about \$15 million surplus, intends to collect their loan (which they are certainly legally entitled to) with interest.

Sharon Johnson, a young woman, had never been out of work one day. Her chemist husband was also employed. I am a single 55-year old woman who has not had a professional job in ten years. My maximum gross annual income in those years has been \$4700. Why the difference in treatment?

Is it because I had the temerity to take up another profession, writing, where I may be dangerous? Is it because the present director of ACS is employed by my opponents, the Lawrence Berkeley Laboratory, and hopes to ingratiate himself with them? Or is it because, as president of a group of unemployed American scientists, the Society of Ousted Scientists, I must be crushed at all costs?

American scientists, especially through their group, Scientists for Orlov and Shcharansky, have been active in helping distressed Russian scientists who have done nothing for this country. I have served almost 20 years as a scientist here, and have four books and almost a dozen papers to show for it.

Yet thousands of dollars have gone to help Russian dissident scientists. Nothing for me.

*Molly Gleiser, PH.D.  
Berkeley, CA*

Dear SftP:

While leafing through *Science* recently, I came across a report of some findings in the heredity vs. environment area, on the side of environment, which are at the least, very interesting, but haven't been reported on the front page of the *New York Times*, yet. It's entitled "Vertical Transmission of Acquired Ulcer Susceptibility in the Rat" by Skolnick, Ackerman, Hofer and Weiner of the Albert Einstein in New York (*Science*, June 6, 1980) and goes like this:

Baby rats were separated from their mothers at an abnormally early stage in their post-natal development (this, seemingly being seriously traumatic). They were then subjected to food-deprivation-plus-restraint stress to induce ulcers, were tested for ulcer formation and were found to develop ulcers at a much higher rate (85% vs. 15%) than control rats (not prematurely separated from their mothers).

Some females from this prematurely separated group were later mated to normal males and were found to produce babies who, although raised normally (i.e., not prematurely separated from their mothers), exhibited this same increased susceptibility to stress-caused ulcers that their mothers had acquired (65% vs. 15%). Thus, the environmentally acquired increased susceptibility of the mothers was transmitted to their babies, and this transmission was determined (by cross-fostering controls) to have occurred pre-natally. The indicator of this environmentally acquired, transmitted characteristic was therefore, increased rate of ulcer formation, which might seem a fairly slippery index to quantify. However, the authors describe it as carefully, objectively done, the rat stomachs having been examined under a light microscope for gastric erosions by an experimenter unaware of the origins of the stomachs.

The authors state that they can't explain these results. Well, it looks to me like one up for environmentalism, or, put another way, for the argument in favor of plasticity of the genetic and non-genetic environments, and one

down for the theory of closed, genetic immutability so dear to the hearts of sociobiologists, capitalists and other propagandists for the inevitability of the status quo. It also looks like real science for the people (as in the debates we used to have, "What *is* science for the people?"). For, not only have the authors, consciously or not, defied bourgeois biology's ban against research against transmission of environmental effects (see Arthur Koestler's "Case of the Mid-Wife Toad") but their results allow for the possibility of expanded human potential rather than unchangeable human limitation. I hope the Sociobiology group will comment on this and other work which provide the basis for not just debunking sociobiology, but for erecting alternative, progressive theories.

*Lorraine Roth  
Brookline, MA*

Dear SftP:

Beckwith and Beckwith do a fine job of documenting the extent of the problem of sexual harassment of women in the workplace ("Your Body or Your Job," *SftP*, July/Aug., 1980). But like many writers on the topic, they are fundamentally misdirected in their emphases regarding both the nature of the problem and how to deal with it.

This misdirection is most evident in their cursory discussion of the origin of the problem. In a single paragraph the authors attempt to pose two alternate perspectives on the origin of sexual harassment. The first views the problem as rooted in capitalist economic structures, the second places the blame on patriarchal social organization which predates capitalism. From these two perspectives a somewhat crude synthesis is derived. By making the questionable assumption that "This pervasive form of domination (patriarchy) exists in all economic systems," which in our society

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COVER: A montage of photos by Ellen Shub.

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# about this issue

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There have been different opinions among Science for the People members on whether, in responding to the "new" genetic determinism of sociobiology, we should focus on the political issues or on the errors in the theory. We have done both in the past. Robin Crompton is an anthropologist who reinterprets evidence from the study of bone deposits and exposes myths about our past ("humanity as descendants of killer apes") for what they are: "Political from inception, no less political in conclusion," and "dishonest, speculative and often untrue."

\*\*\*\*

Fran Hosken in her article, "The Politics of Genital Mutilation" documents female genital mutilations that are still going on in the Middle East and parts of Africa. She reports on what international health and feminist groups have been doing to bring about an end to these practices. Genital Mutilation should be seen as one of the many assaults on women's health and freedom, and it is important for us to support the women who are victims of this practice in their efforts to stop them.

\*\*\*\*

Carol Donovan in her article, "Is A Fetus a Person?" demonstrates that it is a serious mistake to allow the debate over abortion rights to become obscured by the battle among the experts over the status of the fetus. By not addressing the issue of the personhood of the fetus and leaving it to the experts, the left has not helped the abortion rights movement. The status of the fetus, Donovan argues, is an important question, but it is a moral and political question, not a question of fact. Donovan's article performs an important service in reminding us that in any struggle we must be sure that the issues which are debated are the real issues.

\*\*\*\*

We learned about the 1980 Black Hills Alliance International Survival Gathering through the photographs of Ellen Shub, and have made them our feature photo essay. The Gathering brought together rural people and Native Americans, concerned with the survival of their farms and their way of life, and city-based people, concerned with pollution, employment and gaining control over their lives. The participants discovered a common ground in their struggle against the forces of large corporations. The Gathering was a powerful, healing, involving experience that enlarged the fight for survival.

\*\*\*\*

Films influence and in part represent societies views of science and technology. Chris Jennings' review of *Star Wars* touches on the changing attitudes toward science and technology in science fiction. Popular film reviews are a new direction for *SfP*; we hope to publish more of them.

\*\*\*\*

Ross Feldberg has written an expanded review of an important book, *The Bias of Science* by Brian Martin. Feldberg's review draws on his own political/scientific outlook to introduce Martin's account of the conflicting evidence, interpretation, and scientific reactions surrounding a controversial technological development, the SST. Political bias in supposedly "objective" scientific appraisal is particularly relevant today, with the increased public attention to the hidden costs of technologies like food additives, various drugs, and nuclear power.

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## Re-Examining the Anthropological Records

# OLD BONES SHATTER

# HUNTER MYTHS

by Robin Crompton

### MYTHS ABOUT THE PAST

Humanity has always been fascinated with its distant past, and has always needed some kind of myth to explain how we got here. Until the last few years, myths were all humanity had; not 20 years ago all the fossil evidence for human origins could have been packed fairly loosely into one coffin. But these past 20 years have seen a phenomenal increase in the amount of fossil data; now, instead of wishful reconstructions of ape-humans based upon a few broken bones, there is a complete skeleton of *Australopithecus afarensis*, and footprints that this oldest ancestor made in volcanic ash some 3.5 million years ago. But the human desire for creation myths remains unsatisfied.

The past 20 years have also seen a plethora of popular books attempting to reconstruct the social behaviour and psychology of early people on the basis of scant evidence. A quick skim through the pile of books and articles reveals a dominant central tendency: humanity is usually seen as burdened with an innate aggressiveness, competitiveness and male dominance. The innate nature of these ills makes hopes for a peaceful and egalitarian society distant, and efforts towards these ends prohibitively expensive if not futile. The books explain that the innate characteristics of humanity arise from our distant past, when men were hunters on the great plains of Africa and women gatherers and baby-minders.

This idea permeates the popular media from the writings of Professor E.O. Wilson to Stanley Kubrick's ape-men in "2001", who get up off all fours to belabour each other with thigh-bone clubs. People were tool-makers, Kubrick suggests, and the first tools were weapons.

This article will examine the origins of the myth of "man the hunter", and its basis in fact or fiction. It will point to the dangers of speculation and the political and social conclusions drawn from stories of human malaise.

A few quotes from Robert Ardrey, the dramatic author of such books as *African Genesis*; from the (aptly named) team of Lionel Tiger and Robin Fox; and from E.O. Wilson, will outline the myth of "man the hunter".

Significant evidence for the systematic use of weapons at a pre-human level of evolution existed in this room of bones . . . If the concept of the weapon had been part of our animal legacy, then our devotion to the weapon must be reckoned as a possible animal instinct, and politics and philosophy, education and psychiatry must alike grapple with the speculative consequences. (1)

Females play only service roles of one kind or another to males . . . the business team is most often all male. Women, usually seen as disruptive to enterprise, are there only to serve in some way . . . in each case men will want to keep them from controlling the system, and women will be unlikely to make effective inroads into the centers of economic power. The roots of this dilemma are in our history. Women do not hunt. (2)

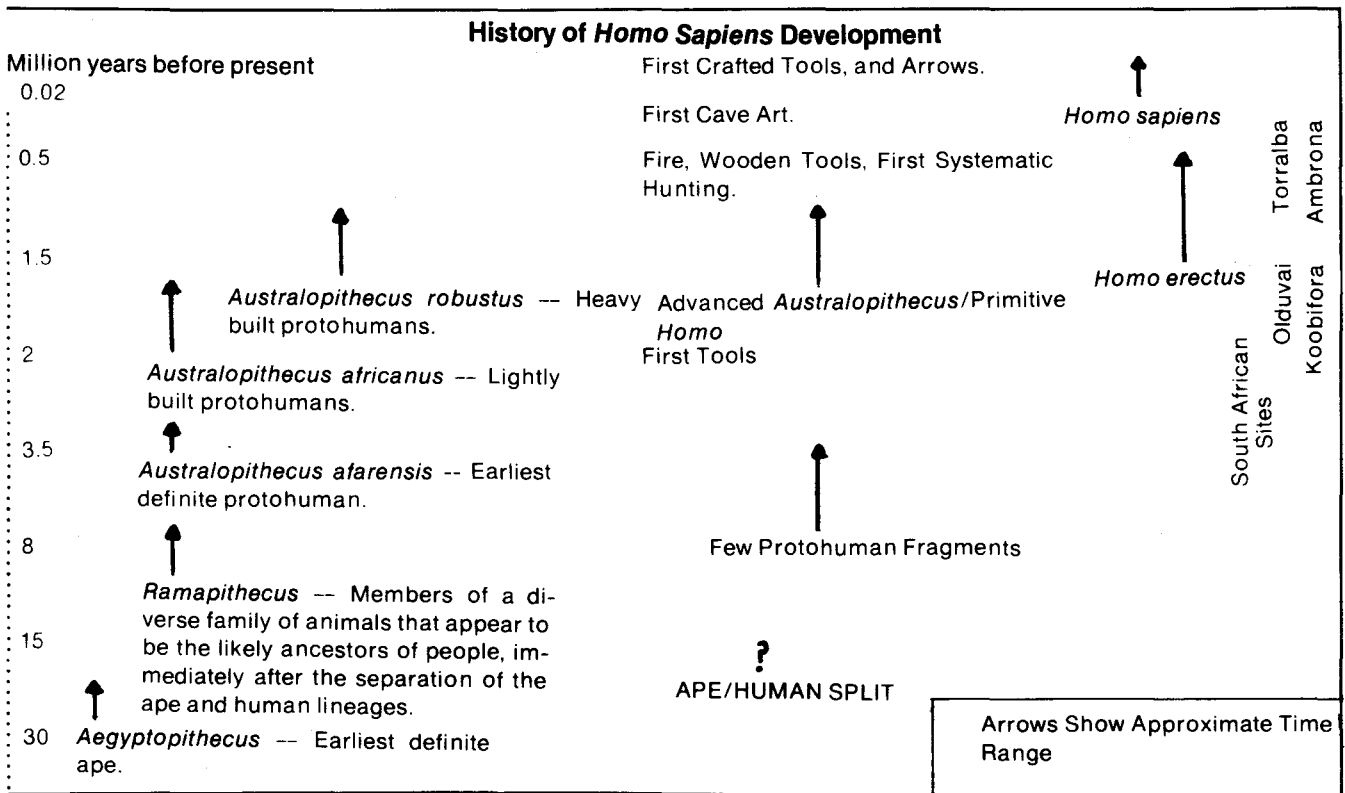
. . . even with equal education for men and women and equal access to all professions, men are likely to remain disproportionately represented in political life, business and science. . . We know in particular that the earliest true men . . . hunted game. The animals that they captured included antelopes, elephants and other large mammals not exploited by the mostly vegetarian monkeys and apes. (3)

Cooperative hunting, says Wilson, was necessary to catch these large animals:

What form did the new co-operation take? It might have entailed the joint and equal effort of all members of society — men, women and juveniles. But it could well have been based on some division of labour . . . We must rely on data from the living hunter-gatherer societies (where) men are responsible for most or all of the hunting and women are responsible for most or all of the gathering. (4)

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*Robin Crompton recently completed a Ph.D. in Biological Anthropology at Harvard University. He will be Assistant Professor in Anatomy at the Chinese University of Hong Kong next year. He has been working with the Sociobiology Study Group for several years.*



## KILLER APE — MYTH AND FACT

Ardrey's "room of bones", which indicates that our earliest ancestors used the first tools as weapons, inspired many of the early works, such as Konrad Lorenz's *On Aggression* (5) (and also of course the ape-man scene in *2001*). Lorenz argued that as members of a vegetarian lineage of apes, humans lack the innate controls possessed by carnivores such as dogs, that allow an attacked animal to "switch off" the aggression of a member of the same species by displaying stereotyped submissive signals such as exposing the throat. But as humans became plains hunters, not forest vegetarians, artificial, lethal weapons were developed to replace carnivore fangs, and, as technology and weaponry increase, humans have become uncontrolled, murderous "killer apes".

### A "Room Full of Bones"

Shortly after the Second World War, South African anatomist Robert Dart found fossils of *Australopithecus*, a proto-human dating to around 2 million years B.P. The fossil lay in deep accumulations of bones from antelope and other animals in an ancient cave called Makapansgat in the Northern Transvaal of South Africa.

Dart noticed that a disproportionate number of the bones were the lower jaw or the upper arm bone of antelope. Many of these bones had chipped ends, some

were thrust into one another — a hyena skull had one of the antelope arm-bones thrust through its palate. Dart believed that all these pieces of evidence added up to one conclusion — that the antelope bones had been selected and prepared for use as tools by the *Australopithecus*. Not only that, but they had been used as weapons. The hyena skull had been delivered a death blow, stabbed by an *Australopithecus* hunter with an arm-bone dagger. Yet more significantly—some of the *Australopithecus* fossils had received pre-fossilization breakages themselves. The clincher was found elsewhere in the Transvaal, at an ancient cave called Swartkrans, now a lime quarry. An *Australopithecus* skullcap was found with two paired, dented breaks — breaks which in depth and separation matched the form of the end of the antelope arm bones. *Australopithecus* clubbed each other to death.

Dart's theories of the bone tool culture and of the murders were not enthusiastically accepted by scientists. But Robert Ardrey had come to believe that human nature is fixed, not flexible, and is defined by innate and ancient behaviour patterns. The cold-shouldering of Dart's ideas, said Ardrey, (6) is just another example of the blind liberalism of some scientists. He took up the cudgel in a series of dramatic and very successful books, beginning with *African Genesis*. When Lorenz added his voice, and Kubrick captured the image on film, the grisly lesson of Swartkrans and Makapan became an idea deeply imbedded in popular consciousness. Warfare seemed a natural part of human heritage.

## Evidence from Bone Deposits

The "killer ape" idea is just a myth. Careful examination of Dart's evidence shows that his interpretations of the Makapan and Swartkrans deposits employs more imagination than scientific method. Since the time of Dart's discoveries, scientists have developed methods of analyzing such deposits that show how deposits form. The science, called taphonomy, reveals what happens to bones during their collection, if they are disturbed, and during burial and fossilization. Scientists can show conclusively whether such chippings and cuttings on bones were made by animals or by humans.

Analyses of collections such as Makapan by South African anatomist C.K. Brain (7) and others (8) (9) show that all the various breaks, chippings, and jamming of one bone into another can be duplicated in other animal collections. The exact proportions of bones that Dart found can be duplicated by leaving carcasses to scavenging dogs. Eventually, detailed examination of individual chipped bones by scanning electron microscopy will provide conclusive evidence whether proto-humans had anything at all to do with the damage. The deposit itself, and most of Dart's results, are similar to normal bone accumulations. Humans need not and should not be invoked. As for the Swartkrans skullcap, C.K. Brain (10) pointed out that the canine teeth of a leopard fit the dents better than any hypothetical bone club. *Australopithecus* at Swartkrans was prey, not predator or murderer.

## THE HUNTER — MYTH AND FACT

Both Ardrey (11) and Wilson (12)(13) believe that a transition to plains life was crucial in the origins of humanity. Says Wilson, humans were, and biologically still are:

. . . . the ecological analogues of lions, wolves and hyenas

. . . . the primate carnivores of the plains.(14)

Humans must have been so, says Ardrey, because:

The teeth of *Australopithecus africanus* . . . . are small, the enamel is not very thick . . . . and the crowns, like our own, are totally inadequate for the endless grinding and munching of a vegetarian creature. (15)

This just is not so. The teeth of *A. africanus* are large, thick-enamelled, and eminently like the teeth of grinding vegetarians. (16) In fact, the latest studies, (17) using scanning electron microscopy to examine minute scratch marks formed by the wear of different diets, show that *Australopithecus* and even early *Homo* seem to have eaten a diet dominated by tough, fibrous fruit. The meat content of the diet appears inconspicuously small.

## Archeology and the Hunter Myth

The other source of evidence for carnivorous activities of early hominids is archeological findings. Wilson draws his evidence from archeological studies of the few sites in East Africa where there are signs of butchery of animals. A couple of sites, at Olduvai and Koobi Fora, dating from around 2 to 1.5 million years B.P. do, on first examination, appear to show signs of butchery of large animals, and of breaking of bones to get marrow. However, studies of breakage patterns, in individual bones are incomplete. Wilson does not mention this in his books, and he totally ignores the fact that the author of the article he cites notes that archeologists have no evidence of early hominid hunting.

Cooperative hunting of large game is at the core of the Wilson/Tiger and Fox model of the origins of the sexual division of labor. Archeologists simply do not know whether early *Homo* and *Australopithecus* hunted large animals or scavenged. They do have inconclusive evidence that some butchery occurred, but they have no strong evidence of any systematic hunting until much later (500,000 B.P. at Torralba-Ambrona in Spain where elephants were systematically mired and butchered in a narrow mountain pass). Wear pattern analysis of teeth indicates that meat was not a major food item until this late date.

Wilson's model of the development of male dominance as a genetic adaptation to hunting life represents an unacceptable distortion of the available data, or at best, pure speculation. Wilson claims it is based on what scientists "know" — early humans were plains carnivores, big game hunters. This is not known, and is, based on present evidence, unlikely.

## Was There Hunting on the Plains?

What about the shift to plains life so important to Wilson's model? Unfortunately, there is no evidence of this. Further, taphonomy has shown that archeologists are most likely to find fossils and ancient campsites preserved in slow-moving streams or lakeshore environments, and least likely to find sites in the forest. Burial and preservation possibilities are low in the forest, so it is not surprising that there are no sites in ancient forest environments. There are no sites in the plains either. Sites are near lakeshores and streams and in floodplains, both at Koobi and Olduvai. It is possible that because these areas are diverse ecological zones they were optimal habitat for the early hominids. The "plains" hypothesis is pure speculation.

The co-operative hunting hypothesis does not follow from available data. It runs contrary to fact in some instances, and it is unlikely that the small early hominids made a living chasing after elephants and other large plains game armed with poorly made stone tools. Archeologists do not have any evidence that indi-

cates that early hominids had fired hardened wooden spears: these turn up at around 500,000 years B.P. Even if earlier hominids had them, it is difficult to imagine early *Homo* or *Australopithecus* chasing elephants with such tools with any success: at Torralba the larger, more advanced *Homo erectus* merely dispatched mired elephants. Modern elephant-hunting pygmies use long, metal-tipped (sometimes poisoned) spears and traps.

### Early Sexual Division of Labor: Another Myth

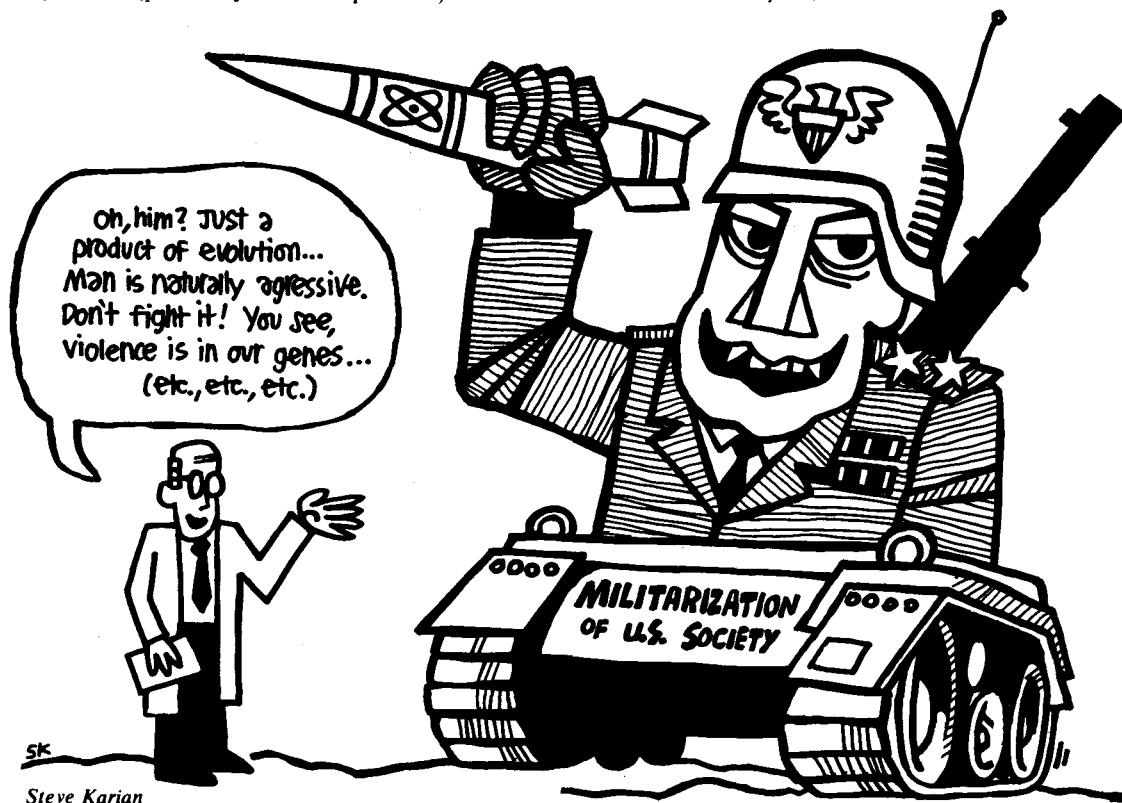
In Wilson's "hunting hypothesis", co-operation in the hunt leads to the sexual division of labor. Wilson uses two pieces of evidence in putting forward his view that human "hunting" forbearers were male-dominated — men hunted, and women, peripheral to evolution, did what they were told.

Wilson uses difference in sports skills between modern men and women athletes to support his ideas. He notes that men run faster (but not further), throw better and shoot arrows long distances better. These are all relevant to hunting, says Wilson, so men hunted. Bows do not turn up in the archeological record until the Upper Paleolithic, some 20,000, not 2 million years ago. Where bows are used in modern hunter-gatherer societies they are universally a short range weapon, so archery skills are irrelevant. (Incidentally, women are better at short-range precision shooting.) In modern hunting societies, fishing, trapping and poisoning are at least as important (probably more important) methods

of catching animals than the chase. (18) (19) When a chase does occur, the slow running-down of wounded or arrow-poisoned animals over long distances is important, and the differences between male and female endurance runners are small. The hunter's skills are tracking, snaring and poisoning, and Wilson does not indicate any genetic superiority of men over women in these skills. Moreover, it is absurd to make extrapolations from modern male and female athletes of species *Homo sapiens* to individuals of genus *Australopithecus* or species *Homo habilis* 1.5-3.5 million years ago.

Wilson's other piece of evidence about sex-roles in the Paleolithic concerns what modern hunter-gatherers do. The major example in both of Wilson's books is the !Kung San of the Kalahari desert in Botswana. These are the remnants of a people that once lived all over Southern Africa until they were nearly exterminated by the Bantu expansion from the north and by European settlement from the south. The only !Kung San left today are those who lived in a desert too inhospitable to be of interest to anyone else. Wilson examines them because they are, "primitive": Who is to say who is primitive? Are Westerners not "primitive" — they have the same marriage system as the Eskimo — another hunting people? Or are the aboriginal peoples of Australia "primitive" — their technology is simpler than that of the !Kung, but their marriage system is the most complex known?

(continued on p.34)





## Abortion Controversy

# IS A FETUS A PERSON?

by Carol Donovan

### The Experts on Abortion

From a sociological and political point of view, the history of western science has been the history of the gradual replacement of religious sources of knowledge and power by scientific ones. The substitution of scientist for priest has had beneficial consequences: some diseases, at least, respond more favorably to medicines than to the casting of spells. The rise of the scientific expert, on the other hand, has also had somewhat less visible and less salutary consequences. In many of the arenas where religious figures, drawing on divine inspiration, once advised us how we ought to live, the scientific expert, relying on an understanding of the inner workings of things, now often prescribes the "scientific" solution to essentially political and moral problems. Scientific treatment of disease may be progress. Scientists' answers to socio-political problems on occasion threaten to return us to the dark ages.

The abortion controversy illustrates the folly and the danger of removing religious elites from the position of authority only to replace them with scientific ones. A central question in the abortion controversy is the status of the fetus. Some abortion rights opponents turn to religious authorities, who answer that the fetus is a person. They rely on this apparent fact to argue that a fetus has a right to life equal to that of a pregnant woman. However, the authority of religions, when it comes to facts, has been substantially eroded, particularly when religions disagree, as they do on whether the fetus is a person. The scientific expert is increasingly drawn in to bolster the case for the personhood of the fetus. In the context of our cult of the expert, a doctor's or a biologist's claim that a fetus is a person is accorded special weight. For those skeptical of clerics, the wisdom of the scientist is substituted. This tactic is also used by some advocates of choice, who counter with their own expert scientists' assertions that fetuses are not persons.

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*Carol Donovan is a member of the New American Movement, and she is active in the women's movement in New Haven, Connecticut.*

### A Moral Not a Scientific Question

This battle of the experts obscures a critical point. Whether a fetus is or is not a person is a moral and not a scientific question. Determining whether a fetus is a person is not like determining whether a newly-discovered plant is edible or inedible. It is instead like determining whether it is morally acceptable to remove the plant from land belonging to the people who inhabit it. There is no fact to be discovered about the personhood of fetuses. What could possibly constitute such a discovery?

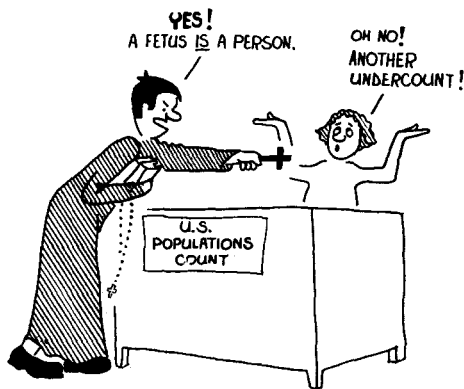


Ellen Armstrong

Knowing all of the facts about fetuses would not be sufficient to answer this question. To determine that something is a person is by definition to confer on it certain rights, and to create for other people certain obligations with respect to it. To decide whether fetuses are to count as people is to make a moral decision. To accord special weight to "expert" opinion on this question, as we do on the question of fact, is to misconstrue the question.

## Deciding the Moral Question

How do we decide this moral question for ourselves? How, indeed, do we ever decide a moral question? Generally, we proceed by considering the consequences of answering the question. If removing a plant from the land where it grows provides those who remove it with a pleasant and exotic supplement to their already adequate diet, but leads to malnutrition for the inhabitants of that land, we would conclude that it is immoral to remove it. The negative consequences outweigh the benefits of removal. Similarly, we must consider the consequences of deciding to count the fetus as a person and compare them to the consequences of deciding not to count the fetus as a person. We then make a moral judgement as to the relative desirability of the consequences.



Ellen Armstrong

If fetuses are counted as persons, abortion is killing a person. Since killing persons can be allowed only in extraordinary circumstances, abortion could seldom be a moral choice. By counting the fetus as a person, society is burdening women who have unwanted pregnancies. Not only are their bodies occupied and used against their will for nine months, their prospects for a good life beyond this nine month period are substantially impaired. Women who do not want a child are often economically and psychologically unable to properly care for that child. Their decisions about whether to continue their education, what kind of work they will pursue, where and with whom they will live may be crucially affected.

### Consequences of Abortion Decisions

The implications of counting fetuses as persons are not limited to women with unwanted pregnancies although the consequences for them are of first importance. Feminist social scientists have noted that throughout history women have been at the mercy of our reproductive systems.\* This has been closely related to the secondary status of women socially, politically and economically. If women have little control over when they have children, or whether they have them or how many

they have, their lives will be severely restricted. Women will have difficulty establishing themselves on an equal footing with men as long as they lack control over the central events of their lives, and as long as there is a social presumption that they lack this control. Since there are no safe and effective contraceptives, abortion is essential as a backup solution when an unwanted pregnancy occurs. The consequences of deciding whether or not women's reproduction is under their control have an important bearing on the larger social context which affects everyone, not just women with unwanted pregnancies.

In weighing the consequences of deciding the status of the fetus, we must take account of the considerations on the other side. Yet, fetuses indisputably are capable of becoming persons. Insofar as we accord such high value to persons, we ought to respect that potential. Reverence for human life, it is argued, must extend to treating fetuses as full-fledged persons from the moment of conception. If no one were to be substantially harmed by such a decision, we would find this argument compelling. Its fatal flaw is demonstrated by the following analogy.

Suppose members of a certain society notice that certain mammals which they are accustomed to killing for food are in many respects like persons. There are after all, striking similarities. Suppose a concerned person suggests that these mammals ought to be counted as persons. One way of reinforcing their reverence for human life is to treat things which are very much like them as persons. People should no longer be permitted to eat them. In certain situations this argument has something to recommend it. Suppose, however, that if this society were to prohibit killing these mammals, a certain portion of the population would suffer severe protein deficiencies. The resulting inevitable burden on individuals who clearly are persons must be taken into account. This society can be generous in what it considers as a person, only if it sacrifices some substantial interests of individuals who clearly are persons. By analogy, to decide that a fetus is a person is to sacrifice the substantial interests of some people in the absence of sufficient reasons for doing so.

### Women Must Have the Right to Choose

To count fetuses as persons is grossly unfair to women. It creates a moral climate in which a segment of the population which has been historically oppressed is required to bear an extraordinary burden for the sake of what is no more than a verbal relic, in a society which practices capital punishment, glorifies militarism and minimizes the value of persons in a thousand other ways. A weighing of the consequences of counting

1. See Linda Gordon, *Woman's Body, Woman's Right* (New York: Penguin Books), 1974.

fetuses as persons is a balancing of the most fundamental concrete interests of women against an abstract principle of ambiguous meaning and rare application in this society. We cannot reasonably sacrifice the people for the principle.

Once the question of whether a fetus is a person is correctly perceived to be a moral question, we can see what sorts of considerations should guide us in our decision. By considering the status of the fetus as a question of fact and referring it to experts, the abortion controversy is distorted. We overlook or underestimate the factors which should be decisive in resolving the question. The Supreme Court, in its 1973 decision that pregnant women have a fundamental constitutional right to

choose abortion (*Roe v. Wade*), was forced to give little weight to the opinions of religious, philosophical and medical experts on whether the fetus is a person since they largely disagreed. Rather than insisting that our "experts" on fetuses prevail, abortion rights advocates must educate themselves and others as to where the real issues lie.

The recent cutting back on the right to abortion in the legislatures and in the courts must be seen for what it is. It is not the product of disagreement amongst authorities as to a matter of fact. It is a discounting of the rights of women. These cut-backs must be fought with the intensity that comes from an appreciation of their true significance. □

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## Women Fight Back

# THE POLITICS OF FEMALE GENITAL MUTILATION

by Fran Hosken

### Seminar on Traditional Practices Affecting the Health of Women and Children

"Traditional Practices Affecting the Health of Women and Children" was the title of an international, five-day seminar held in Khartoum, Sudan in February, 1979. The seminar, which was sponsored by the World Health Organization, marks the first time that genital and sexual mutilation, practices that blight the lives and destroy the health of millions of women and girls in Africa and the Middle East, have been addressed in an international forum. Participants included health department delegations from Sudan, Egypt, Somalia, Djibouti, Ethiopia, Kenya, Oman, Southern Yemen and Nigeria. Upper Volta sent the president of the National Women's Organization as an observer. The meeting was also attended by representatives from international nongovernmental organizations, and by the U.S. Agency for International Development (AID).

Physicians, midwives and other health professionals described the ways that external genitalia, including the clitoris, of tens of millions of female children are cut off or mutilated. The most frequently practiced operation, clitoridectomy or excision, involves cutting out, without anesthetic, most or all of the external genitalia of female children, at any age from birth to puberty. The most dangerous operation, infibulation or pharaonic circumcision, involves removing the exterior genital organs of the child and closing the vagina by sewing or scarification. The legs of the child are tied together for several weeks until the wound is healed; only a small opening, created by inserting a splinter of wood into the wound, is left for elimination.

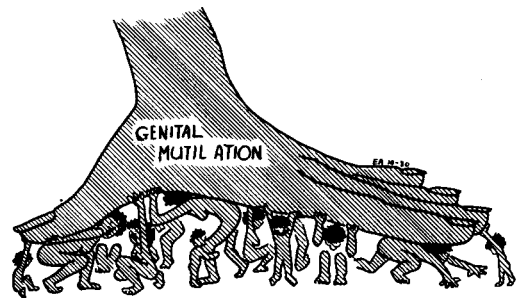
These operations often have serious medical consequences including: hemorrhage, which may be fatal; dangerous infections, including tetanus; terrible scar-

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*Fran Hosken is the Editor of the Women's International Network News. She is an architect planner concerned with modernization and urbanization worldwide.*

ring, which results in difficult childbirth and even infertility; menstrual problems; fistulas (rupture of the vaginal walls); incontinence and other permanent disabilities. The operations can result in life long frigidity and painful intercourse; chronic inflammations; and infections of the internal genitalia may finally cause infertility.\* The mental problems which result have never been systematically studied.

The Egyptian Country Report presented at the WHO Seminar, showed that excision continues to be widely practiced all over Egypt by a majority of families, except the western-educated upper class. The operations continue despite a 1959 statute (which was further strengthened in 1978) that states that the operations are forbidden "for scientific and health reasons...". According to all estimates, more than half of Egyptian female children under the age of eight continue to be mutilated. The results of a survey conducted at a Family Planning Clinic in Cairo, showed that 90% of the women attending the clinic were mutilated, 46% of their



*Ellen Armstrong*

daughters were already excised, and 34% more intended to do so. Moreover, the survey revealed that female clinic personnel not only were excised themselves, but the majority already had or were planning to have their own

---

\*One clinical study of the medical effects of genital mutilation is by Dr. Abu el Futuh Shandall, "Circumcision and Infibulation of Females: A General Consideration of the Problem and a Clinical Study of the Complications in Sudanese Women", published in the *Sudan Medical Journal*, 1967.

## SOMALIAN WOMAN DESCRIBES OPERATIONS

Edna Adan Ismail from Somalia, a midwife and head of the training division of the Somalian Health Department, described the operations practiced in her country\*:

*The operation consists of clitorodectomy and excision of the labia minora as well as the inner walls of the labia majora; and the suturing together or approximating of the raw edges of the labia majora in order that the opposite sides heal together and form a wall over the vaginal opening. A small opening is left for the passage of urine and menstrual flow.*

*The operations are carried out by women who earn their living by the performance of such operations, including the opening up after marriage of the bride, and they are often also the village midwives. Such women have no knowledge of asepsis or anatomy, and use no form of anaesthesia.*

*The operations may also be done by paramedical personnel in their spare time; such people use local anaesthesia, sterile instruments and have some knowledge of the importance of asepsis. However, because of the local anaesthesia, the child struggles less and more tissues may be cut away.*

*In Somalia, the operations are done on young girls between the ages of five and eight, and may be done on individuals or groups of girls, either related or neighbors...*

*The physical complications are, immediate shock from fear, pain and hemorrhage. Extensive lacerations may be sustained which may involve vaginal and urethral openings, as well as sometimes the rectum. The hemorrhages may be so severe that quite a few are brought into the hospital for suturing of deep lacerations and for blood transfusions.*

*Within the first ten days: sepsis ranks high in the list of complications, and tetanus may also result. Retention of urine is another common complication due to the fact that the urethra is now covered with a flap of skin, thorns and blood clots, as well as the swelling which develops and obstructs the small opening which has been left to permit the passage of urine. In the case of failure of infibulation, which means that occasionally*

*the walls of the labia majora fail to stick together, another attempt at infibulation is usually made.*

*At the time of marriage: forcible penetration of the skin barrier by the husband may cause lacerations, which may involve the perineum, the urethra, and sometimes even the rectum, particularly if a knife is used by the husband.*

*At childbirth: the scars of the external genitalia have very little elasticity and require being opened up in order to permit the passage of the baby through the obstructed birth outlet. Once more, infections may occur and this unnecessary suffering is imposed on the woman during every childbirth.*

*Other complications: rectovaginal and vesico-vaginal fistulae are often seen. The rupture of the uterus results in incontinence. The slow trickle of urine (as opposed to the strong jet of her bladder) reminds her constantly of the operation. The onset of menstruation, with its accompanying discomfort and odors, forces her to recall her agony. Marriage and the opening up of the infibulation to permit the consummation of the marriage is an ordeal. The birth of the first child, and the knowledge that subsequent deliveries are not going to be any easier on her scar riddled genitals, haunts every woman constantly.*

Edna Adan Ismail also describes from her own experience some of the mental complications that affect the female child from an early age, that "remain with her throughout her life":

*Well before the child is operated on, she hears tales of horror relating to the act of infibulation. At the same time, girls who have been operated taunt others with insults and call them 'unclean'.*

*In this frame of mind of fear, mixed with a sense of inferiority, the girl reaches her turn for surgery. Many of the physical wounds will heal; their pain and discomfort subside. But at each stage of her later life, further mental injuries are added.*

\*From *WIN News*, Spring 1979, Vol. 6 No. 2, pp. 30-31. Edna Adan Ismail made these remarks at a Regional Conference in Lusaka, Zambia.

daughters excised. These women are trained with the assistance of Western-devised programs, including training programs financed and designed by U.S./AID, to teach family planning and health.

### WHO Seminar Recommendations

Four recommendations on "Female Circumcision", the traditional term still used all over Africa (though medically incorrect), were unanimously adopted by the delegations. They read:

- Adoption of clear national policies for the abolishment of female circumcision.
- Establishment of national commissions to coordinate the activities of the bodies, including where appropriate, the enactment of legislation prohibiting female circumcision.

- Intensification of general public education, including health education, on the dangers and the undesirability of female circumcision.
- Intensification of education programs for traditional birth attendants, midwives, healers and other practitioners of traditional medicine, showing the harmful effects of female circumcision, with a view to enlist their support in general efforts to abolish these practices.

### Action on the International Level

Since the Khartoum Resolutions, very little action has taken place despite WHO's call for "collaborative action at the international level..." The proceedings of the Seminar were published in 1980, as well as an article in May 1979 in the international journal, *World*

*Health.\** Aside from this, there has been mostly silence on the part of the international community, with a few exceptions.

UNICEF, which until last year refused to acknowledge the operations, has drastically reversed its position. This has not happened easily: it took concerted political effort, led by *WIN NEWS* to make the facts about the operations known. Then, UNICEF had to be urged — especially by women contributors — to address the issues. As the foremost agency concerned with maternal and child health it is their responsibility to speak out against genital mutilation.

In March, 1980, UNICEF finally joined WHO in a “joint action program of research, education and training designed to support governments in their approach to female circumcision and its health hazards.” At the United Nations Mid-Decade Conference on Women, held in Copenhagen during July 1980, UNICEF announced its support of the Khartoum Seminar recom-

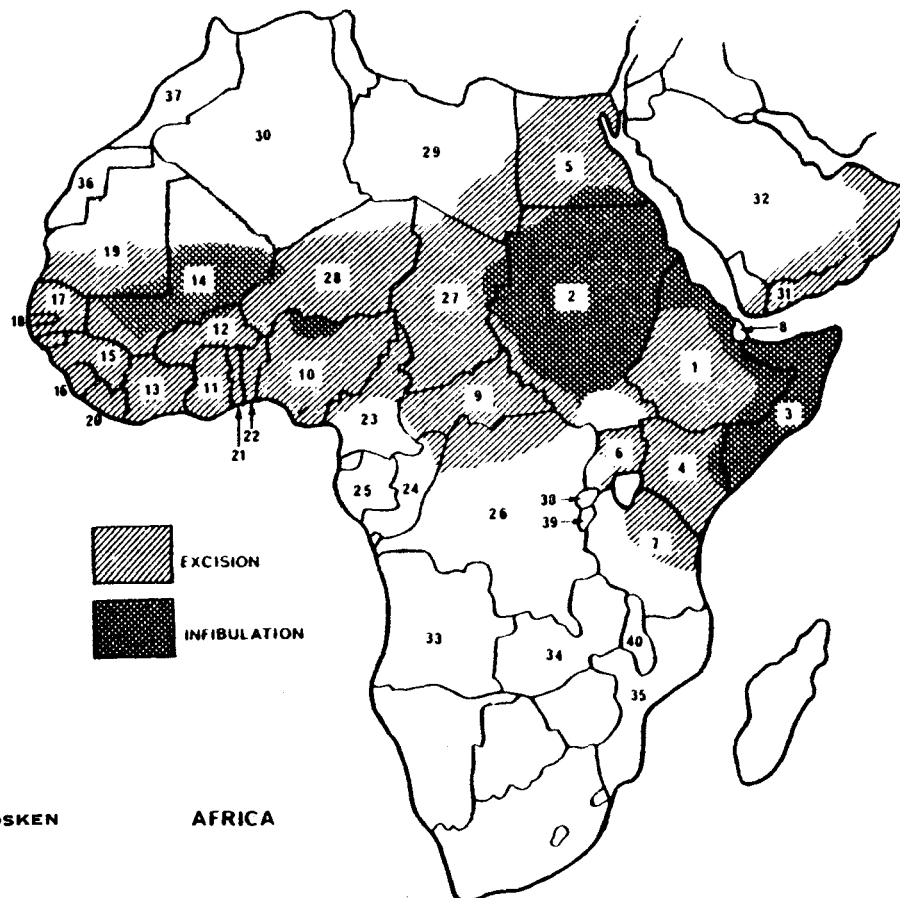
mendations. The UNICEF program included “encouragement of community initiated activities,” provision of “information to media to address the issue,” integration of the “discussion of female excision into all educational and training programmes — including the development and preparation of training materials,” and “the direction of strong advocacy efforts towards national policy and decision-makers, as well as health workers and the general public in affected area.”

In Copenhagen, aside from WHO and UNICEF, the only delegation that addressed the issue was Sweden. Karin Andersson, Swedish Cabinet Minister for Equality, delivered the following statement:

We, too, share the widespread concern over the practice of female circumcision. The serious medical and social consequences of this practice are of concern to women in many countries. We welcome recent initiatives by the World Health Organization (WHO) and the United Nations Children’s Fund (UNICEF) to take up this issue. My government stands ready to support all health programmes which include measures designed to abolish female circumcision . . .

\*The proceedings are available from The World Health Organization’s Eastern Mediterranean Regional Office, P.O. Box 1517, Alexandria, Egypt. *World Health* is published in many languages, and is available from WHO, 1211 Geneva 27, Switzerland.

- 1 ETHIOPIA
- 2 SUDAN
- 3 SOMALIA
- 4 KENYA
- 5 EGYPT
- 6 UGANDA
- 7 TANZANIA
- 8 DJIBOUTI
- 9 CENTRAL AFRICAN
- 10 NIGERIA
- 11 GHANA
- 12 UPPER VOLTA
- 13 IVORY COAST
- 14 MALI
- 15 GUINEA
- 16 SIERRA LEONE
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- 18 THE GAMBIA
- 19 MAURITANIA
- 20 LIBERIA
- 21 TOGO
- 22 BENIN
- 23 CAMEROON
- 24 CONGO
- 25 GABON
- 26 ZAIRE
- 27 CHAD
- 28 NIGER
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- 34 ZAMBIA
- 35 MOZAMBIQUE
- 36 SAHARA
- 37 MOROCCO
- 38 RWANDA
- 39 BURUNDI
- 40 MALAWI



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AFRICA

All other governments working in affected areas of Africa and the Middle East have been silent. In addition, private organizations including charitable and church groups have not taken a position against the operations. Christian converts all over Africa mutilate their female children. This is condoned and tolerated by international Christian organizations, although local Protestant ministers have tried to stop the mutilations, especially in Kenya. The Catholic authorities have never opposed them. The Pope in the 18th century sent a medical mission to Ethiopia who determined that the operations were necessary on medical grounds. Rome has ever since provided approval by silence.

### U.S. Agencies are Silent

AID, despite the Khartoum Seminar recommendations and the recent changes in UNICEF's policy, remains silent. Yet, AID collaborates in health and family planning programs all over affected areas of Africa. AID is involved in a \$14,000,000 Rural Health Delivery Program in Somalia; a \$4,000,000 Rural Health Program in Mali and an \$8,000,000 Sudanese Primary Health Care Project. Excision is not included among the health hazards named in any of these projects, although most female children in these countries are excised; in Somalia and Sudan, the prevailing operation is infibulation, the most dangerous of the operations.



Ellen Armstrong

### POLITICS OF ERADICATING GENITAL MUTILATION

African women express a range of feelings about genital mutilation, and are often divided about whether or not to stop the practices, and if so, how. Within Africa, many women are unaware of the practices, or unaware that it is not universal. Many of them resent strongly the anti-mutilation activities of Western women, feeling that it is an African women's problem and must be dealt with by them alone. Others feel that, while they want to be consulted and involved, African women need the sensitive help and active support of women from the West. Indeed, even though it will take a long time to eradicate genital mutilation, many are convinced that eradication cannot come about without outside help.

Observers of the controversy have expressed concern that there is already the beginning of a "backlash", an intensification of the practices out of resentment over perceived Western imperialist and racist criticisms of African culture. All of this is being exacerbated by the rise in the operations through the spread of anti-Western Islam through Africa (even though female circumcision is only culturally associated with Islam and not actually part of the Koran's teaching.)

Clitoridectomy and infibulation are "cultural" practices in the sense that their purpose is not to mutilate or punish women, (even if the effects are harmful), but rather to control and protect women in the context of African patriarchy. These operations are based upon ideas about male and female sexuality in African mythology and legend, and upon the importance of the survival of the family, a whole fabric of beliefs sustaining the way of life of many different African peoples. It is only with the modern Western ideas of anatomy and medicine that evidence can be presented which shows the damage from these procedures. Only in the context of modern and relatively recent ideas and information about female sexuality can the full implications of the operation for women and their political status be comprehended. Reform of marriage laws, including abolition of polygamy, and many changes in education, employment and general status of women will have to go hand in hand with the campaign to eradicate female circumcision in Africa.

*Norma Swenson, co-author of Our Bodies, Ourselves, and member of the National Women's Health Network.*

This is the framework, then, in which international agencies like UNICEF and the World Health Organization (WHO) are becoming involved in female circumcision in Africa. AID has become notorious throughout the developing world for the proliferation of damaging drugs, devices, and procedures forced on women without their full knowledge or consent, primarily for the purpose of population control. It becomes a strange irony for AID, then, to be asked to build into its expansion of health and family-planning services in Africa, a model plan to stop the damage to women and children done through female circumcision. Thus far, AID has refused to become involved. Yet it is entirely appropriate to insist on accountability from international agencies, for example to insist that any rural health program not ignore such a profound and basic cause of maternal and child disability and death. Once again it will be up to women to monitor, if they can find out where and how to look, the role of AID and other international agencies in pursuing their own interests against the interests of women, as the issue of female circumcision becomes even more publicized and controversial than at any point in the past.

The larger questions of what techniques patriarchal societies use to control the sexuality and autonomy of women, and what kinds of damage are done in order to assure that control, need also to be extended to women outside of Africa. Our Western institutions, particularly medicine, have found many ways to mutilate women and deprive them of the knowledge of their full human and sexual potential. Childbirth and gynecological practices have damaged and continue to damage both women and infants, and psychiatry has created elaborately worked out "scientific" rationales to convince women that their sexuality is infantile. Outside of the West, in India, young brides are set on fire "accidentally" in order to acquire dowry money. In China, foot binding was an ancient practice which controlled women until modern times. It is no longer so easy to be sure that one technique that male dominated societies have used to control women is so much more horrible than another. We hope that Western women who do become involved in trying to eradicate African female circumcision also become knowledgeable about their own culture's techniques for controlling women.

There are many people in those countries, including in the Health Ministries, who are actively trying to abolish the operations. In Somalia, a National Commission for abolishment of the operations was formed in 1978, with the Ministries of Health and Education represented, and the Somali Women's Democratic Organization as executor. In the Sudan, the Fifth OB/GYN Congress voted unanimously for abolishment as their official position.

At the present time, genital mutilations are being introduced into modern medical practice and hospitals. In urban areas of Africa, the operations are often performed on newborn babies, as sexual castrations and stripped of all traditional rites. This is a gross abuse of modern medicine and medical ethics. Increasingly, health equipment and training contributed by AID and other western donors is used to mutilate female children in affected countries.

AID has been repeatedly informed about this situation, but no action has been initiated to prevent such abuse and no preventive education has been included in any of their training programs. The official AID position remains, "We cannot interfere with tradition practices."

In a meeting in early summer, 1980, with the Health Coordinator of AID, Dr. Stephen Joseph, Deputy Assistant Administrator, preventive measures were discussed, specifically childbirth education materials and programs to teach positive, reproductive health. Several months later AID still had taken no action. AID's only action to date is to initiate the development of a bibliography via a library computer search: this despite the fact that a bibliography was provided to AID by *WIN News* some time ago. AID has appointed a coordinator to address the issue of genital mutilation, but she has yet to

integrate programs to eliminate genital mutilation into some of the major AID health programs.

Recently, testimony about AID's failure to act and take preventive measures was presented before the Subcommittee on Foreign Operations of the Committee on Appropriations. AID's response to a request by the committee for an explanation produced no fact nor any proposals for preventive measures. Preventive education is now especially important as the operations are performed on even younger children who have no choice. As a result of population growth, more children are mutilated today than ever before.

It is intolerable that AID, whose programs are financed by tax dollars, has continued to ignore the wishes expressed by African and Middle Eastern Health Departments, and that they have refused to collaborate in international actions sponsored by WHO and UNICEF. The unwillingness of AID and other national and international agencies to stop genital mutilation reveals the politics of deliberate neglect and obfuscation which are fatal to many children in Africa and the Middle East. □

#### Update

To support preventive actions, write to Senator Daniel K. Inouye, the Chairperson of the Foreign Affairs/Foreign Relations Committees (Committee on Foreign Affairs, The Congress, Washington, D.C. 20515); and to AID Administrator, Mr. Douglas Bennett (U.S. Agency for International Development, Department of State, Washington, D.C. 20523).

For further information write to *WIN News*, 187 Grant Street, Lexington, MA 02173. *WIN News* has published many reports on Genital Mutilation, including *The Hosken Report: Genital and Sexual Mutilation of Females* and *Female Sexual Mutilations: The Facts and Proposals for Action*.

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## Black Hills Gathering

# PEOPLE UNITE FOR SURVIVAL

Photographs by Ellen Shub



Ellen Shub

For 10 days, from July 18 to 27, a community of over 10,000 people from over forty countries convened in the rolling hills of South Dakota for the 1980 Black Hills Alliance International Survival Gathering. What marked this unique and historic event was the diversity of the participants — anti-nuclear activists, farmers, Native Americans, city dwellers, alternative technology

activists, natural healers — all came together to work toward a common goal, *survival*. Participants developed a larger understanding of the problems which threaten human survival in this nuclear and technological age. People left the gathering prepared to attack these problems locally.

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*This article was compiled from a variety of sources by the Boston Editorial Committee. The quote by Ellen Shub recently appeared in Sojourner, a Boston area feminist journal. Ellen Shub is a Boston area free-lance photographer. She is active in feminist and anti-nuclear organizations. The section called, "The Gathering — An Overview" is excerpted from Liberation News Service, copyright 1980; and part of the section called, "Plans for Action" was excerpted from Paha Sapa Reports, August/September, 1980. Other sources of information include, leaflets and reports by Women of All Red Nations, The Black Hills Alliance, Miners for Safe Energy and Pacific News Service.*

*People got an education and deeper appreciation of how important it is to be unified. And that means understanding the more subtle aspects of racism. It takes education about other cultures to be really unified.\**

Participants returned excited by the different people, nations, and walks of life represented at the conference, moved by the dangers of radiation, and determined to work in a united way. Ellen Shub, who contributed the photographs in this article, summarized her feelings about the conference, "My family has become

\*Laura Witdowski, Northern Sun Alliance, Minnesota.

larger, with the people from other states and countries that I met there." She has brought the work of the Gathering back to Boston — sharing her tapes, photographs and literature and supporting the legal defense of Rita Silk Nauni.

In a recent article, published in *Sojourner*, a Boston women's journal, Shub described her experience:

*I go to workshops daily between 9 and 7. I learn about Indian genocide and the planned extinction of the family farm; radiation and the contamination of all living things; health and education for survival; appropriate technology and land use; and the multinational corporations and organizations who are at fault: Union Carbide, United Nuclear, Kerr-McGee, Exxon, the Export-Import Bank, the Trilateral Commission, the Council of Energy Resource Tribes, the TVA, and the DOE.*

*I visit Edgemont, South Dakota, where the Tennessee Valley Authority mills uranium. By a dirt pile near the Cheyenne River, the "Nuke Buster" geiger counter jumps off scale and wildly beeps. The background radiation level registers 50 times "acceptable." In nearby, pristine Craven Canyon, as eagles soar above and archeologists examine petroliiths, a spokesman from Union Carbide assures the media that mining will not disturb the natural environment, while an attorney from*

*the Black Hills Alliance refutes his claim. We visit the Braffords. Their six year old son tells me radiation causes cancer and you die from it. Their house, like others in Churchrock, New Mexico, and Grand Junction, Colorado, has been built with radioactive tailings by a contractor saving money. The government has known for years that the radon gas readings were excessive, but they failed to inform the Braffords, who lived there with their three children, now aged 6, 3, and 6 months (see box). A woman from Washington tells them how to be in touch with people from Love Canal, New York. There is a victim's support network. Ironically, the Edgemont Atomic Drive-In Theatre is playing "American Gigolo." I swim in chilled waters to wash off the days radiation: I cry, and eat miso.*

*It is daybreak, 5 a.m. I go with a Belgian woman from Radio France, a California reporter, and a former member of the Karen Silkwood Defense Committee to a sacred sunrise ceremony. A circle of prayer and respect with people of all colors and nations conducted by the Grandson of Black Elk, Wallace Black Elk, his wife and partner Grace, and the women Elders of the Big Mountain of the Dine Nation. As an Anglo, a cultural imperialist, myself a colonized person in a racist culture, I learn something of traditional spiritual life of the Red Nations of the Lakota, the Hopi, and the Dine. As a city dweller, I relearn a sense of connection to the earth and elements, the sacredness of natural existence and my relatedness to all creatures and spiritual powers. And to honor and respect ceremonies to the Mother Earth, the Great Spirit and to all our relations still present with us. I relearn the principle expressed so simply by Crazy Horse, 19th century Lakota Sioux — 'One does not sell the land on which people walk.' One does not allow energy corporations to mine the sacred Black Hills (the Paha Sapa) in violation of the 1868 Fort Laramie Treaty.*



Ellen Shub

Sign near Edgemont Nuclear Power Plant.

### The Gathering — An Overview

The Gathering stressed the threats posed by corporate and governmental energy development policies and the need to develop tools and knowledge to overcome those threats. To that end, the Gathering divided into five major work areas: The Citizens' Review Commission on Energy Developing Corporations; the Forum on Indian Genocide and the Planned Extinction of the Family Farm; Appropriate Technology/Land Self-Sufficiency; Health for Survival; and Education for Survival.



*Group listens to speaker.*

*Ellen Shub*

The Citizens' Review Commission, through panel sessions and workshops, examined the multinational corporations and their activities throughout the world. Union Carbide, Rio Tinto Zinc, Kerr-McGee and other firms were identified as directly involved in the uranium and energy resource exploitation now going on in the Black Hills.

The story that emerged from these sessions was one of greed, lack of concern for the environment, and domination of people throughout the world. Steven Beckerman, a researcher examining the corporations involved with the destruction of the Hills, testified about the difficulty of learning who actually owns and controls these firms. Beckerman reported that only 30 percent of the stock in any one of these firms can be accounted for; even the U.S. Congress cannot force corporations to disclose the identities of their stockholders. Of the stockholders revealed, certain names, such as Morgan Guaranty Trust, Lord Abott and Company, and William Acheson appeared repeatedly.

Another focus of the corporate review was the Trilateral Commission. Researcher Holly Sklar presented information demonstrating the mentality of this international economic cartel. The Commission places profits above all else — it supports the use of military intervention to protect profits, and advocates limiting civil rights to insure the security of large corporations. Orig-

inally formed by David Rockefeller, president of the Chase Manhattan Bank, the Trilateral Commission includes Henry Kissinger, John Anderson, and its members are found in firms such as Time-Life, Levi Strauss, 3M and Walt Disney. Jimmy Carter is one of its alumni.

### **Fighting Indian Genocide**

As part of a joint session of the Review Commission and the Forum on Indian Genocide and the Planned Extinction of the Family Farm, Bill Means of the American Indian Movement presented a history of the treaties and struggles by Native Americans since the 1820's. In particular he emphasized the history of the Lakota Nation. Originally bordered by the Wisconsin Delta on the east, the Big Horn Mountains of Wyoming in the west, on the south by the Republican River of Kansas, and extending into southern Canada on the north, the Lakota Nation was gradually whittled away over fifty years by various wars and treaties. In 1868, the Fort Laramie Treaty was signed, which gave the Lakota an area of land in South Dakota, Wyoming, Nebraska for eternity. But much of this land was taken from them in 1877 when gold was discovered in the Black Hills (see box). "The Black Hills of South Dakota represent to our nation what Jerusalem represents to the religions of the Middle East," Means explained. He went on to ask if Catholics would consider selling the Vatican.



Ellen Shub

A Lakota Elder from the Pine Ridge Reservation.



Adults and children learn new games at Gathering.



Ellen Shub



Thomas Benyaka of the Ho

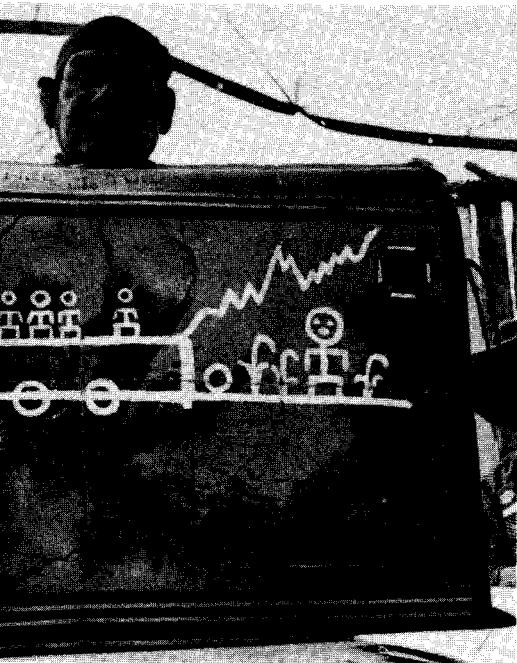
Chris Brafford (left) gets help from a fr where Chris lived for 6 years. The hou graph on p. 24).



Ellen Shub



Ellen Shub



Ellen Shub

their prophecy of the end of the world.

measuring excessive levels of radiation near the house built from radioactive uranium tailings (see photo-

Debbie Harry talks about displacement of Shoshoni Nation by MX missile system in Nevada. Marvin Kammerer (upper right) who donated his ranch for the Gathering assists in workshop.

The Black Hills contain about 8 million tons of usable uranium. They are by no means the only Indian lands coveted by energy multinationals. Fully two-thirds of the U.S. uranium reserves and one-third of the low sulphur coal reserves needed for fuel production under President Carter's energy development plans lie on Indian lands.

Uranium mining, near and on Native American reservations, has been correlated with serious health problems. A report presented by Women of All Red Nations (WARN)\* documented radioactive contamination of surface and ground water on the Pine Ridge Reservation. This reservation was the site of extensive uranium mining and milling from the 1940's through the 1970's. This study reports increased incidences of cancer on the reservation. Reports presented by other Native American groups outlined similar problems in other regions. What the Gathering hoped to accomplish, as one of its top priorities, was to guarantee that Indian people will not fight alone against this genocide.

#### **Appropriate Technology, Health and Education**

Appropriate Technology/Land Self-Sufficiency was a collection of practical and informative workshops on as many different energy and ecologically sound devices, processes and philosophies as one could possibly imagine. The workshop on distilling alcohol for fuel covered the process from start to finish, simply and comprehensively. Other workshops presented information on solar cookers, french intensive gardening and bio-mass methane generation; others dealt with the social implications of appropriate technology and energy planning. Solar-heated showers and photovoltaic-powered public address systems and radios were used to meet the needs of the Gathering.

\*WARN reports are available from: WARN, P.O. Box 2508, Rapid City, SD.

Health for Survival divided its work into four areas: radiation and chemical contamination; women's health; holistic health; and midwifery. Each was a cornucopia of workshops on topics such as the nuclear fuel cycle, subtle body healing, low level radiation, and massage. The midwifery classes were three days of intensive study aimed toward teaching the skills needed to assist in birthing.

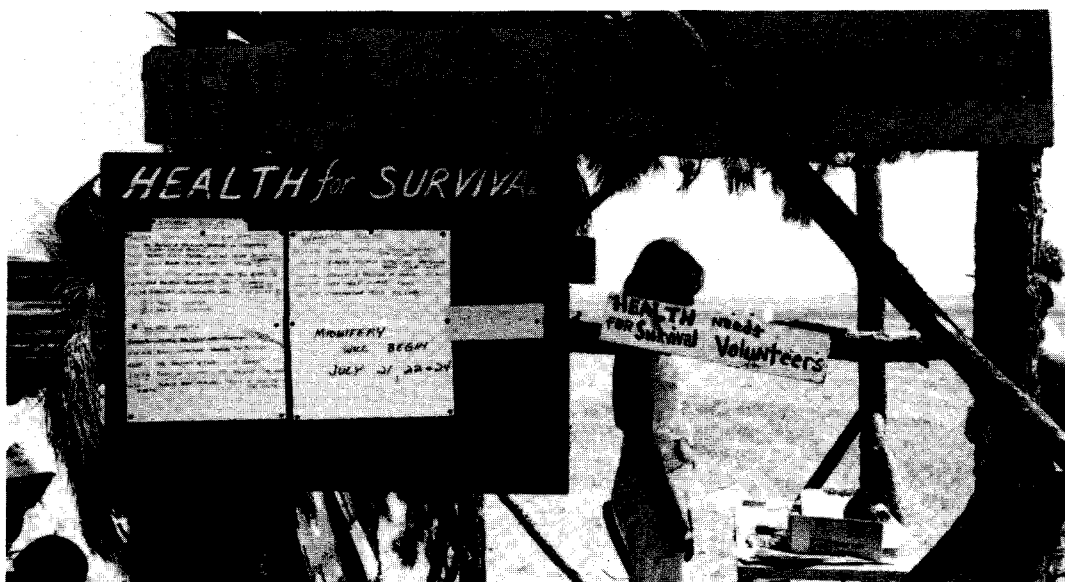
Education for Survival concerned itself with teaching children the skills needed for survival and with giving educators the materials and background to carry out this work.

#### **Declarations**

What comes of a mix of thousands of activists, with nine days of workshops, seminars, jet aircraft, dust and scorching sun? That is a hard question to answer. Certainly not all of the results of the Gathering have been realized or are as tangible as the two specific statements that were drafted.

The Declaration of Dependence on the Land was drafted by the Forum on Indian Genocide and the Planned Extinction of the Family Farm. It concluded:

We are people of the land. We believe that the land is not to be owned but to be shared. We believe that we are the guardians of the land. The future of our children, and of all generations to come, will depend on our efforts today to prevent corporate seizure and abuse of the land. We challenge our concerned sisters and brothers throughout the world to unite with us in the struggle to liberate the land and all people from the economic and political domination of the transnational corporations and the governments that serve them.



Ellen Shub

Perhaps this view, which was the basis for the Gathering, was best summarized by Marvin Kammerer, the rancher who donated his land for the event, "If I live to be 100, I will never own the land. The land owns me."

The second statement, the Declaration of Non-Indian People's Defense of Indian Sovereignty, recognizes the rights of American Indians to the lands ceded to them by the Treaty of 1868. It warns that our "survival demands that we understand the solidarity with native cultures is necessary before we can produce any real change."

### **Plans for Action**

Plans for action were developed at regional and international workshops held on the next-to-the-last day of the Gathering. The workshops addressed the need to develop strategies for survival adapted to the problems encountered in each region. People came away from the Gathering with a new appreciation of the importance of building a united front of opposition to all threats to human survival.

While some regions represented urban areas and others rural areas, each committee agreed that we are all dependent on the land. The direct threats in our neighborhoods and regions differ from one state to the next, but common ground was found by recognizing that without a healthy land base to grow food, support wildlife, retain religious heritage, and provide outdoor recreation, none of us can survive. This is best summarized by the slogan from southern Minnesota, "If you kill our farms, our cities will die."

Most people in the workshops agreed — whether from the city or the country — that getting the information into the hands of the public was an important problem. Some suggestions on how to solve this problem were: 1) establish community newsletters and encourage others to do the same; 2) establish phone trees and other direct, local communication systems; 3) contact all potentially concerned organizations: including labor unions, food coops, schools, religious groups, 4-H clubs, environmental groups, civic clubs, and more; 4) involve the established media by writing letters to the editor, issuing press releases, and holding press conferences; 5) establish information centers and hold regional gatherings; 6) get involved in Parent-Teacher Associations in order to provide our children with a more realistic education. There are more ways for people to network and communicate in their regions. These are just a few of the most general strategies.

There were many suggestions for direct action that can be taken right away. Many areas of the country, including the Black Hills, Harrisburg, and southwestern Minnesota have taken corporations, utilities, and state agencies into court, hoping to force recognition of environmental and health concerns. Some communities,

especially large cities, have been holding mass demonstrations and rallies to draw attention to issues and educate those around them. Other people including Indians in the Southwest, farmers in the Midwest, and urban people in the Northeast, have been using civil disobedience, both to prevent destructive actions (such as mining and powerline and power plant construction) and to alert their communities to the dangers. Still other groups are pushing for nuclear moratoriums in their counties and states.

And finally, participants recognized the importance of Indian treaties and Native American sovereignty. There was a commitment from all regions to raise awareness of Indian people's needs and history, and the current importance of violated treaties.

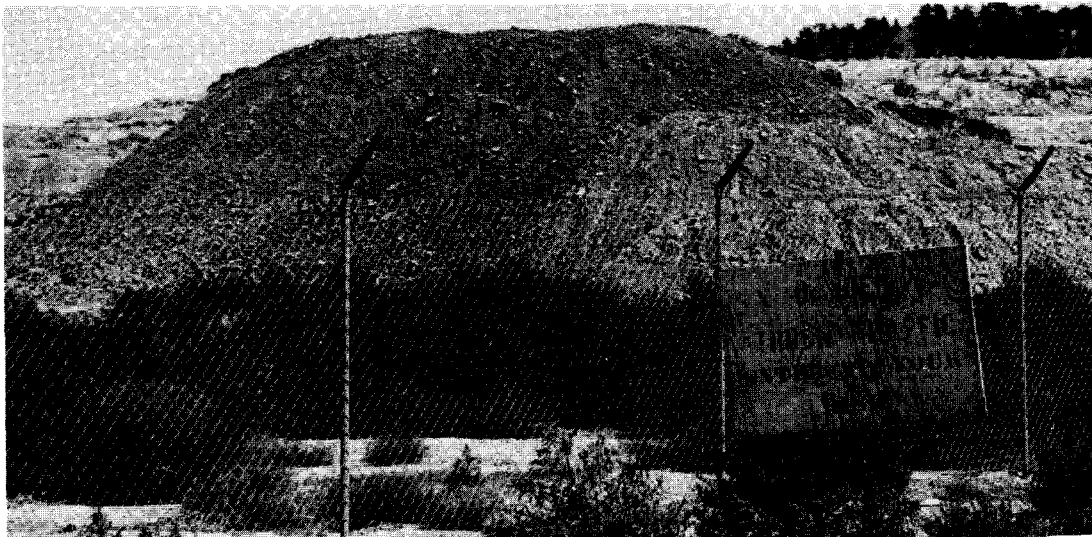
### **Energy Development and Native American Land**

The U.S. comprises 8% of the world's population yet consumes 40% of its natural resources. This country has depended largely on foreign nations for energy sources, especially the Middle East. Now with increased nationalization of mining and oil production in Third World countries, the U.S. corporations are coming back to North America because it offers the most politically receptive setting for energy resource exploitation. The United States now leads the world in uranium export; much of it, along with other energy sources, is sold to Third World countries, the so-called "export zones".

Corporations such as Kerr-McKee, Union Carbide, Rockwell, Gulf, and Exxon are operating or planning uranium mining and milling in the West and Southwest, including the Black Hills. The federal government is also involved in uranium development: for example the Tennessee Valley Authority is involved in all stages of uranium processing and nuclear power generation. Private companies are aided in their explorations by the U.S. Geological Survey, the National Uranium Resources Evaluation Program and several satellites of NASA.

Uranium was first mined in southwestern counties of South Dakota in the 1950's, then discontinued as government price supports were withdrawn and the price fell to \$6 per pound. When the price rose to \$40 per pound (down now to \$30 per pound), uranium mining became profitable again, for use in power plants and weapons.

One hundred percent of all federally controlled uranium production comes from Indian reservations. One third of the U.S. coal reserves are also on Indian lands. If U.S. Indian nations were considered one nation, it would be the fifth largest producer of uranium in the world; U.S. and Canadian Indian uranium resources added together would comprise the third or fourth largest producer worldwide. The world's largest uranium strip mine is on the Laguna Pueblo reserva-



Ellen Shub

*Pile of uranium tailings in South Dakota. Uranium tailings are the wastes from mining and processing of uranium.*

tion; it has been operated for 25 years by Anaconda, a fully owned subsidiary of Arco Oil Company. Exploitation of other energy resources including coal and oil and related operations such as coal slurry pipelines, high-voltage powerline transmission, and coal gasification processing — some in operation and some in development stages — affect Native Americans in crucial ways.

In some areas, uranium mining is a major employer of Native Americans. One out of five workers on Laguna Pueblo is employed at the mine. On the Spokane reservation in Washington State, one out of four laborers is employed by a uranium mine. The 7 million acre resource-rich Navajo nation, located at Four Corners, where Colorado, Utah, New Mexico and Arizona meet, is a prime source of energy for the U.S. The Dine Navajo are the largest Native American population in the U.S. Until the 1970's, Kerr-McGee, a major uranium producer operated a number of uranium mines and a uranium mill in the Navajo nation.

The people who most directly feel the effects of uranium development are the miners and other uranium processing workers. The most serious health hazard is exposure to radioactivity. Radon gas, released when uranium is mined and processed, breaks down into highly radioactive elements which cause lung cancer and leukemia. Radon gas, which also spreads to people in areas near mining sites, is inhaled by mine workers in very high concentrations. The lung cancer rate for uranium miners is four times higher than the rate for the general population. As of 1978, 25 of 100 Navajos employed at the mines had died of and 20 more were ill with uranium-induced lung cancer. Although uranium mining brings relatively high-paying jobs, the miners become victims of corporate quest for profits.

In 1975, 25 tribal chairpersons of western Indian reservations, supported by an organizational structure of economic and technical advisors from the U.S. and

other countries, formed the Council of Energy Resource Tribes (CERT). Most of the CERT-represented reservations have been the site of active energy development for over 50 years, primarily oil, and more recently uranium. CERT recently received some Federal money to study and implement energy resource development projects for the joint benefit of Native Americans, corporations and the government.

Indian energy resources have always been appropriated with ease. The Bureau of Indian Affairs and the Department of Interior approved leases which gave corporations coal for 15 cents a ton when the market price was \$20 a ton. Uranium royalties for Indians have been 60 cents a pound when the market value increased from \$15 to \$50 per pound. These agreements were designed to be in effect for "as long as the ore is producing in payable quantities." This situation has exploited tribes and their land. The aim of CERT is to get Native Americans a fair price for the resources from their lands, and to make sure that these resources are developed with the environmental and cultural needs of the tribes in mind.

So far only a few of the Native American resource leases have been negotiated. The tribal chairperson of CERT does not always represent the interests of all their people. For example, the Navaho chairperson, Peter MacDonald, who along with LaDonna Harris is one of the leaders of CERT, at first supported development of a coal gasification project on Navajo land, citing the jobs and revenue it would bring. However, many Navajos opposed the project because of the environmental and social hazards it would present, and got MacDonald to withdraw his support of the project. CERT has been criticized for not including poor and traditional people in its meetings and organization; therefore some groups feel it does not represent them.



## Nuclear Weapons and the People of the Southwest

People at the Survival Gathering could not fail to consider the encroachment of the military on their lives. B-52 bombers from the Ellsworth Air Force Base were rumbling overhead as they met. Ellsworth houses 150 Minutemen and 11 ICBM's (each carries 1.5 megaton nuclear warheads), as well as thirty strategic bombers.

The trend in the nuclear arms race for both the U.S. and the U.S.S.R. is toward "counterforce" weapons, weapons specifically designed to attack the nuclear forces of the opposing side. The Pentagon estimates that over 300 nuclear bombs might be set off at Ellsworth during a first strike counterforce attack. The ability to attack nuclear forces, as well as cities and conventional forces, has made nuclear war appear less suicidal in some people's opinion. This attitude greatly increases the chance of nuclear attack, either by design or by accident.

For the people living in Nevada and Utah, there is a new nuclear weapons threat to contend with. Construction of the MX missile system, designed to have missiles moving from silo to silo, is slated to begin soon. The U.S. Defense Department is willing to sacrifice the land and its inhabitants to the cause of their nuclear "shell game". And if nuclear war should occur, an Air Force general once described the MX deployment area as a giant nuclear "sponge".

The MX will require 10,000 miles of extra-strong roadway, 2,000 miles of special railroad, 4,600 missile shelters, two missile assembly complexes, at least one military base, and numerous support centers and security alert sites. The environmental impact of this system would be devastating.

The energy and nonrenewable resources required for the MX project are staggering. The Air Force states that the demand for electricity "may require development of local or imported sources such as oil, gas, coal, uranium, and geothermal waters", and "it is the Air Force's intention to permit mining exploration and exploitation to the maximum extent possible...". The government is planning to build the world's largest nuclear power plant in Nevada for MX related consumption. The plant would need huge amounts of precious water for cooling, and it would present all the risks associated with any nuclear power facility.

The Air Force estimates that during the MX construction period elevated water demands will arise from population increases, cement requirements and dust suppression. The MX will use about 12% of Nevada's and Utah's scarce water supplies during construction, and comparable amounts when in operation. Legally, Indian water rights take precedence over all other water rights; the Air Force plans to negotiate these rights with the particular affected tribe. Jerry Millett, chairperson of the Duckwater Shoshone reservation, says, "The Duckwater tribe's water is not a negotiable or compensable item."

Ellen Shub



*B52 from Ellsworth Air Force Base flying over gathering.*

At least seven bands of Southern Paiute in Utah and seven bands of the Western Shoshone Nation in Nevada would be directly impacted by the proposed MX. Construction of the MX will destroy tribal grazing lands, hunting areas, food, and medicinal-plant-gathering sites. Water, already a scarce commodity, would be depleted. Many native people would be displaced.

The Indian Claims Commission has awarded the Western Shoshone people \$26 million for 24 million acres of aboriginal land allegedly taken in 1872 by white settlers in Shoshone territory. However, Western Shoshones are fighting the ICC proceedings and trying to secure a land title based on the claim that their treaty rights were never extinguished. It was revealed recently that negotiations had been in progress between the Western Shoshone and the Dept. of Interior which would have secured about half of the original Great Basin landbase as a permanent Shoshone reservation. Early in 1979, however, the Dept. of Interior suddenly cut off negotiations, and shortly thereafter the President revealed government plans to construct the MX system in the Great Basin.

## HISTORY OF NATIVE AMERICAN TREATIES

The stakes in the Paha Sapa go well beyond \$122 million. The plans for industrializing the Black Hills region are staggering. They include a gigantic energy park featuring more than a score of 10,000 megawatt coal-fired plants, a dozen nuclear reactors, huge coal slurry pipelines designed to use millions of gallons of water to move crushed coal thousands of miles and at least 14 major uranium mines. The 1868 Fort Laramie Treaty will be a valuable ally to those who want to prevent further uranium mining in the Black Hills.

Unlike the battles which forced Indians out of their ancestral lands a century ago, this one is no longer being fought alone. The significance of the Black Hills Alliance — and the issues which generated it — lies in its bridging the gap between Indians and whites, between Americans and the rest of the world, between the menace of land expropriation and the more general dangers posed by hasty exploitation of the land's resources. In that sense, the effort to preserve Native American culture has much broader repercussions, and its import may eventually close divisions between the Indians themselves.

"The destruction of the Hills would constitute a direct assault on the spirit of everything native culture stands for," said Winona Laduke. "This really is the last battle."

Just over 100 years ago, an expedition led by General George Armstrong Custer publicized the discovery of gold in the Black Hills, setting the stage for the 19th century struggle for control of Native American land. The more recent discovery of uranium deposits gives Indian land claims momentous new importance. The continuing Native American conflict with modern technology and resource development ties in with a world-wide movement. As Madonna Thunderhawk, an organizer of the Gathering points out, "... (We) ... want people to focus on the issue of survival in general. It won't do us any good to have the Paha Sapa if the rest of the planet falls to pieces."

The current struggle centers around renewed efforts by the Lakota Nation to recover treaty lands illegally seized by the federal government in 1877. According to the 1868 Fort Laramie Treaty, the Hills were guaranteed in perpetuity to the Lakota Nation. Article XII of the treaty states that no agreement by the Lakota to give up any of their reserved lands "shall be of any validity or force" unless it is signed by at least three fourths of all adult male Indians occupying or interested in the same."

But, in 1877, shortly after Custer's Last Stand, Congress passed an act which transferred the Black Hills to the federal government without Indian consent. No compensation was offered at the time.

On June 30, 1980, 59 years after *United States vs. the Sioux Nation* entered the courts, the Supreme Court ruled that the Black Hills region had been illegally taken from the Lakota Nation by the 1877 Congressional Act. The Court also ruled that the government owed the Lakota Nation \$122 million, representing a purchase price of \$17 million (the official estimate for the 1877 worth of the land) plus 103 years of interest.

There is no real unity among the Lakota on whether or not to accept the federal payment. Some traditionalists, opposing arrangements to allow uranium mining in the sacred lands, have joined young activists in protesting industrialization of the Hills. Others are not completely opposed to mining, but feel they can get a better deal. After 10 percent is deducted for lawyers, it is estimated that each Lakota would receive between \$300 and \$2000. As Wally Feather, a Black Hills Alliance organizer, points out: "The government is already cutting way back on subsidy and employment programs on which the reservations have been dependent. They obviously mean to make it real hard on people and to try to substitute this payoff for the regular programs. It's a strong blackmail but I don't think it will work."

Indeed, a strong movement has developed among the Lakota to reject the offer of payment outright and, instead, to use the decision as official confirmation that title to the Hills remains with its original owners. "The U.S. government has determined that the Sioux Nation does own the Black Hills, says Reginald Cedar Face. I think we all agree that the Black Hills are not for sale."

Within 10 days of the Supreme Court decision, the Oglala Sioux Tribal Council asked the Court to declare a mistrial. According to Tribal attorney Mario Gonzalez, the Washington-based lawyers who brought the case to the Supreme Court had no contract with the Lakota Nation and were acting illegally.

A second lawsuit has been filed, asking \$11 billion in damages to compensate for the suffering endured by the Lakota due to the loss of the Hills and for the vast mineral and other resources taken from them in the last 103 years. The suit also asks for the return of federally held land and a halt to all mining in the area.

John Redhouse, of the American Indian Environmental Council observed, "It is ironic that the U.S. government is violating a treaty with one nation (Shoshone) to secure passage of a treaty with another nation (Soviet Union)".

### The Work of the Gathering Is Now Beginning

After 10 days at the Gathering, people felt a great deal had been accomplished; they had shared impressive amounts of information, formed and strengthened alliances and reaffirmed their commitment to the common struggle for survival. As Black Hill Alliance activist Evelyn Lifsky remarked, "The Gathering is over; the work is just beginning." □

For further information on the following topics contact:

#### NUCLEAR WEAPONS

Institute for Defense and Disarmament Studies  
251 Harvard St.  
Brookline, MA 02146

National Action Research on the Military-Industrial Complex  
1501 Cheffy St.  
Philadelphia, PA 19102

#### JOBS AND ENERGY

Environmentalists for Full Employment  
1536 16th N.W.  
Washington, D.C. 20036  
Miners for Safe Energy  
Box 247  
Leads, S.D. 57754

#### URANIUM MINING AND NATIVE LANDS

Black Hills Alliance and WARN  
P.O. Box 2508  
Rapid City, S.D. 57709  
American Indian Environmental Center  
P.O. Box 2508  
Rapid City, S.D. 57709  
International Treaty Council  
777 United Nations Plaza  
New York, N.Y. 10017

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## Star Wars

# MIRRORS OF REALITY

by Christopher Jennings

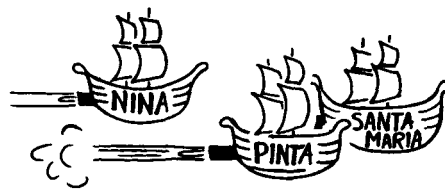
The success of *Star Wars* and its sequel, *The Empire Strikes Back*, lies in their accurate reflection of the attitudes and concerns of our society. The film's cinematic imagery depicts the pressing issues and trends of our time, lending form to our fears and doubts. Protagonists strive and conquer where the viewer cannot; frustrations are released through vicarious action and pyrotechnics.

The dramatic screenplay, at the outset of *Star Wars*, strikes a chord of empathy within us. The movie opens with a shot of a space vehicle pursued by a gargantuan battlecruiser. The audience immediately identifies with the rebellious protagonists, who are struggling against a totalitarian bureaucracy. This scene shows the forms of technology used by the heroes compared with that used by the villains. Here, George Lucas, the producer of *Star Wars*, contrasts our own society's conflicting expectations of science and technology.

The Empire is a symbolic spectre of the fears that technology will be used to subjugate humanity. It is

represented by large, awesome and intricate technological structures. The Death Star exemplifies the ultimate dream of mankind — the achievement of planet-destroying technology. A cancerous cell capable of killing all living cells, its destruction is cosmically just.

elicit no pity from the audience as they fall like bowling pins. Even the Empire's higher echelons are not exempt from this expendability. In *The Empire Strikes Back*, Darth Vader disposes of a couple of commanding admirals for their failure to capture Han Solo's ship.



### NEW WORLDS TO CONQUER



Ellen Armstrong

Human societies within the Empire resemble insect civilizations; rigid in strata and specialization. The Empire's warriors are little more than clone-like lackeys, practically tripping over one another in order to get shot up by the manly rebel heroes. Individuality is obscured by their battlegear, and they

Only Darth Vader is portrayed as unique and non-expendable. In *Star Wars*, his cold robotic manner and total lack of compassion or even anger, casts doubts on his humanity. Is he a super robot or some fusion of man and machine? Whichever, he elicits both fear and fascination. Evil, he is still the ultimate, analyti-

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*Christopher Jennings is a freelance science writer living in Somerville, Massachusetts. He is science editor for Living Alternatives. He is interested in issues concerning energy, environment and technology.*

cal bossman, one we hate, but whose efficiency we might admire. The Empire could represent the final conglomeration of corporations, an inexorable machine consuming its human components and spitting them out. If so, then Darth Vader is one of those mystical corporate, demi-god managers, who runs corporations by parameters of efficiency regardless of the consequences. Vader's visage is altered slightly in *The Empire Strikes Back*. One suggestive scene hints that Vader, though humanoid, has been grotesquely changed by his power.

The Empire is also the Government. Our disillusionment with the present U.S. Administration, and several past ones, finds an outlet through the actions of the rebels. Parallels between the Empire and the Government are very strong, as both creep into personal affairs.

The movies raise strong doubts about whether the government or the corporations are in charge; many people see both as incompetent, disinterested, self-serving, and sometimes evil.

Rebels appeal to audiences raised on American folklore and mythology. In our culture, the individual rules supreme, the lone warrior is the agent of justice. The rebels' technology is cast in this mold. Small familiar looking spacecraft allow individual action and volition; smallness also presents an illusion of technical simplicity. The X-wing fighters incorporate technology straight out of Vietnam aerial bombing. Strapped into the cockpit along with the pilot, the audience enjoys the movie's cheap thrills: speed, exhilaration, the sense of danger, and aesthetic pyrotechnic displays of death. In one moment we cringe from the technological spectre of the Empire, and in the next, we exalt in the momentary fulfillment of our desires for a faster phallic symbol.

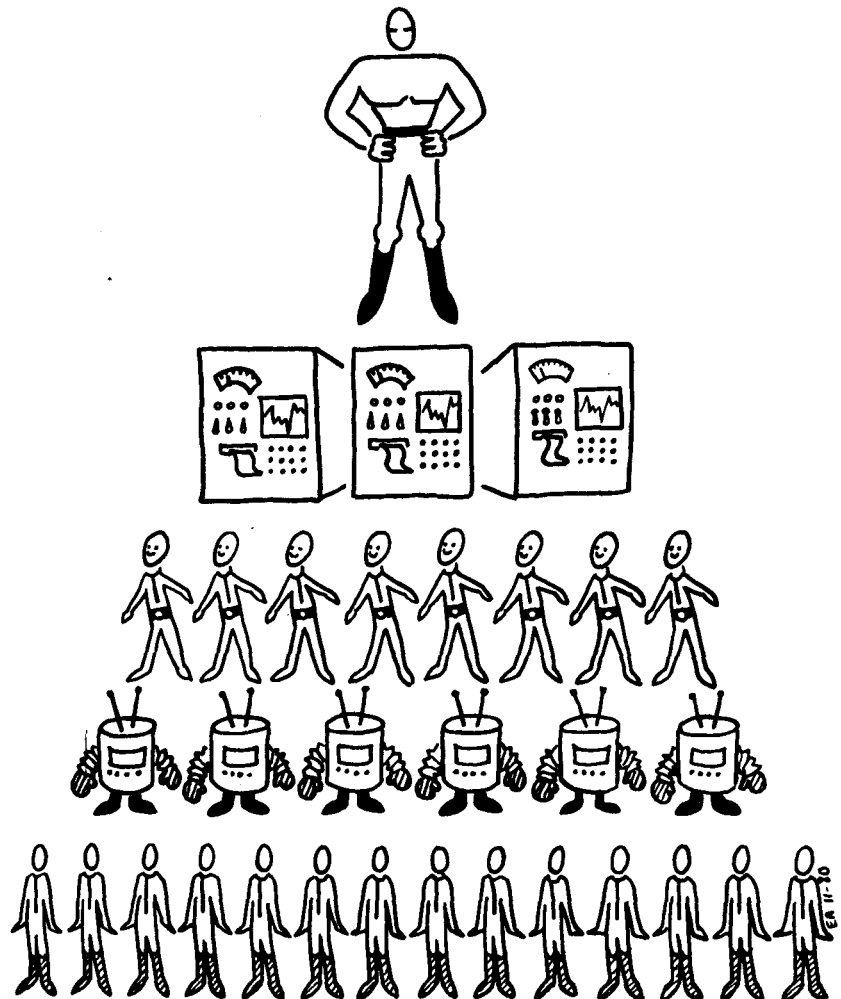
Yet, placed amidst this technological circus are downright trite characters. Colloquialisms run rampant throughout the film. When Hans

Solo boasts, "I've added some special modifications myself!" about his spaceship, the Millennium Falcon, he might have been talking about his '55 Chevy. There is little doubt that the colloquial aspect of *Star Wars* adds to its popularity, but it is disappointing that the filmmaker made no attempt to imagine a different kind of society that could coexist with advanced technology.

The film presents instead, a fantastical confrontation of our own society's social forces. The plot of *Star Wars* is veiled by the shoot-em-up action, but the rebels are fighting to restore the free Republic, whose authority was usurped by Vader and the Empire. Luke Skywalker's father was a member of the Jedi knights, an aristocratic order of the Repub-

lic, so his longed for victory over the Empire would enable him to claim his heritage. Skywalker's victory over the Empire would bring back the good ol' days, when any good-hearted, hard-working person could attain power and prestige in the free universe. People in the audience, feeling paralyzed by the specialization of this society and the "impingement" of its government, wish they could do the same.

Prevalent in *Star Wars*, is the theme of mysticism and morality versus technology. With the development of test tube babies and genetic engineering, people are questioning the shaky moralistic foundations of our technologically oriented civilization. The legitimacy of science as a religion is under attack.



## SPACE-AGE STRATIFICATION

Ellen Armstrong

People are looking for answers, and organizations such as churches or cults are swelling their ranks. When the going gets rough, it is good to have God (or a secular counterpart) on your side. Lucas intentionally made the Force a non-personified, but omnipresent power. The notion of the Force recognizes and prods the search for a personal WATS line connecting to "All That Is."

The Force is a Judeo-Christian concept. Like everything touched by Christian ideals, it is cleft in half: good on one side, bad on the other. On an individual level our conscience sits perched on one shoulder, personified as an angel, while the devil whispers into our other ear. This leads to a constant conflict between two or more voices within our heads. Enveloping our well-meaning, but naive, hero is an aura of Calvinism. Luke Skywalker exemplifies the belief that humans are supreme, inherently able and knowledgeable; and that one human can make all the difference — if he/she merely overcomes his/her mortality and allows the divine to blossom within. In *Star Wars*, the Force does little else but to allow Luke to shoot straight with his electronic eyes shut. The concept of the Force does not include self-actualization (except if one wants to climb the social ladder), nor communications with the universe. The calm presence of mind displayed by Luke's mentors, Ben Obiwaan Kenobi and Yoda, derives from supreme confidence in their ability to manipulate their environment, not from acceptance of peace with the divine plan or with nature.

In summary, *Star Wars* portrays the schizoid character of our Judeo-Christian technocracy: while humans desire and strive towards power incarnate, we also seek solace, or protection from an outside force.

This attitude is expressed in another popular and recent film, *Close Encounters of the Third Kind*. In this film, it is the space brothers, in their loving and technological

wisdom, that come to save humanity from itself.

*Star Wars* does represent a change in the mode of thinking of filmmakers. It is a science fiction revival in mainstream media reincarnated as science fantasy. Earlier science fiction (in the 1950's) concentrated on visualizing quasi-feasible scientific, technological or sociological trends. Its creators were, in fact, overly concerned with the legitimacy of their futuristic imagery. Science fiction writers believed that any proposed device or trend had to have some foundation. Thus, factory robots were combined with artificial minds to create awesome machines; and V-2 rockets became, through the power of imagination, star-traversing spaceships. In a similar manner, science fiction writers overcame the limitations of time and space with abstract concepts existing only in the minds of physicists and mathematicians. The belief that with a screwdriver and a little ingenuity, humankind could accomplish anything was intrinsic in their stories.

In contrast, science fantasy, *Star Wars*, takes technology and energy resources for granted. In *The Empire Strikes Back*, Luke's small X-wing fighter, obviously a limited-range fighter in concept, easily travels from one solar system to another. Spaceships such as the Empire's behemoths are not even hindered by size. Yet the source of energy is of little concern.

Hollywood has done it again: profitably marketed the same old human conflicts, good versus evil spiced with the eternal love triangle, this time neatly packaged in a unique space box.

Hollywood's progression from John Wayne to Flash Gordon to *Star Wars* shows a clear lack of emotional, intellectual or creative development, despite the advances in cinematic technology. This is a dangerous pattern because science fiction/fantasy expresses and influences the expectations people have

of science — and the aims of scientists as well. *The Foundation Trilogy*, one of Isaac Asimov's early writings (1951), is an excellent example of this. In it, Asimov extrapolated the rhetoric of his fellow scientists during the birth of the nuclear power industry. His scenario of the future contained atom-powered spaceships, automobiles, and even a walnut-sized nuclear reactor which fit into a belt buckle. People utilized the inexhaustible resources of the universe. Asimov's writing was in tune with that era. America was in an economic boom; the New West and all of its opportunities were open to the adventurous; spaceflight was possible and Americans believed in unlimited expansion. A whole generation was raised on these unreal expectations of the future.

Although *Star Wars* is set "A long, long time ago ... far, far away", its implications are clear: people have the ability to overcome physical limitations, enabling them to escape their environment. Thus, the movies are devoid of any sense of ecology; demonstrated by intergalactic spaceships obviously dumping garbage (and heaven knows *what* else) into space. The same attitude has been rife in American culture since the first white people landed on this continent: "Let us burn up the resources here, dump the garbage, and then go someplace else."

The *Star Wars* series may be one of the last visual indulgences of this style of thinking. For we, as a society, are being confronted with our limitations. We feel the pinch of depleting resources and the occurrence of events like Three Mile Island and Love Canal have made some people realize that since we will be on this planet for a long time to come we cannot destroy it. For the recession-burdened consumer who is tired of the thought-stimulating entertainment of the sixties and seventies, relief is spelled *S-T-A-R W-A-R-S*. It is an escapist fantasy. □

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## book review

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# BEYOND THE MARGIN OF ERROR

by Ross Feldberg

## *The Bias of Science*

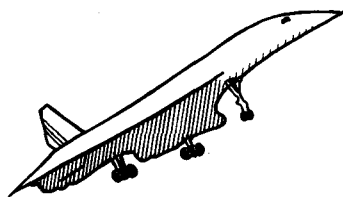
Brian Martin, ISBS, Inc. \$6.00

Once, when I was in Heathrow Airport, the bus I was taking from one terminal to another came around a building, and I found myself suddenly no more than fifty feet away from the British/French supersonic transport (SST), the Concorde. That first moment was breathtaking, like coming face to face with a spaceship. The SST, like no other passenger aircraft, is sleek, tapered to a needle point at the nose, and with abbreviated, swept wings that hinted that this machine danced above the atmosphere. As we passed the craft, I felt a little guilty and reminded myself that this was one of those prime examples of a technology that was of marginal usefulness and of potentially vast destructiveness.

I was living in Scotland at the time the U.S. was deciding whether or not to construct a fleet of SST aircraft. From that vantage point, I could observe the contending parties, as arguments over national prestige and economic viability were being fought. The most telling arguments seemed to concern the environmental effect of these planes. Opponents argued that nitrogen oxide from the plane would react with and destroy stratospheric ozone, causing levels of harmful ultraviolet radiation to be increased at the surface of the earth. Propon-

ents argued that such reactions would be insignificant and that the ozone layer would not be diminished. But who was "right" and what was the "truth"?

As a radical and as a scientist concerned about the adoption of unnecessary and potentially harmful technologies, my instincts were to side with the opponents of the SST. After all, did we really need this machine? Was it worth taking a risk with this indispensable layer of ozone for this technology? Who would pay for its development? And who would end up benefiting from



*Ellen Armstrong*

it? It was my answer to *these* questions that molded my negative response to the SST development and not the technical issue of ozone concentrations. Yet, the technical issue still stands and indeed raises important issues.

As a scientist, and as a Marxist, I believe that there is a fundamental material reality to the world, inde-

pendent of our beliefs and perceptions. The methods of scientific thought provide us with one (and, in general, I would argue the best) way of perceiving this reality and of interpreting it. However, science is not the *same* as the reality it attempts to measure. The myth of a neutral, unbiased science measuring and reporting on physical realities above and apart from the constraints of the broader belief system is a fiction that arises from the belief that science is reality. As a Marxist, I know that science is, above all, a human endeavor; science is no more separate from political, social, psychological and economic forces than is any other sphere of human activity.

Science carried out in a capitalist society reflects the goals, values, limitations, contradictions, etc. of that society. Yet people educated in our science-dominated society do not believe that science is political. Which view of science is correct? To many of us, this "little" argument is an incredible gulf that separates us from many of our fellow scientists.

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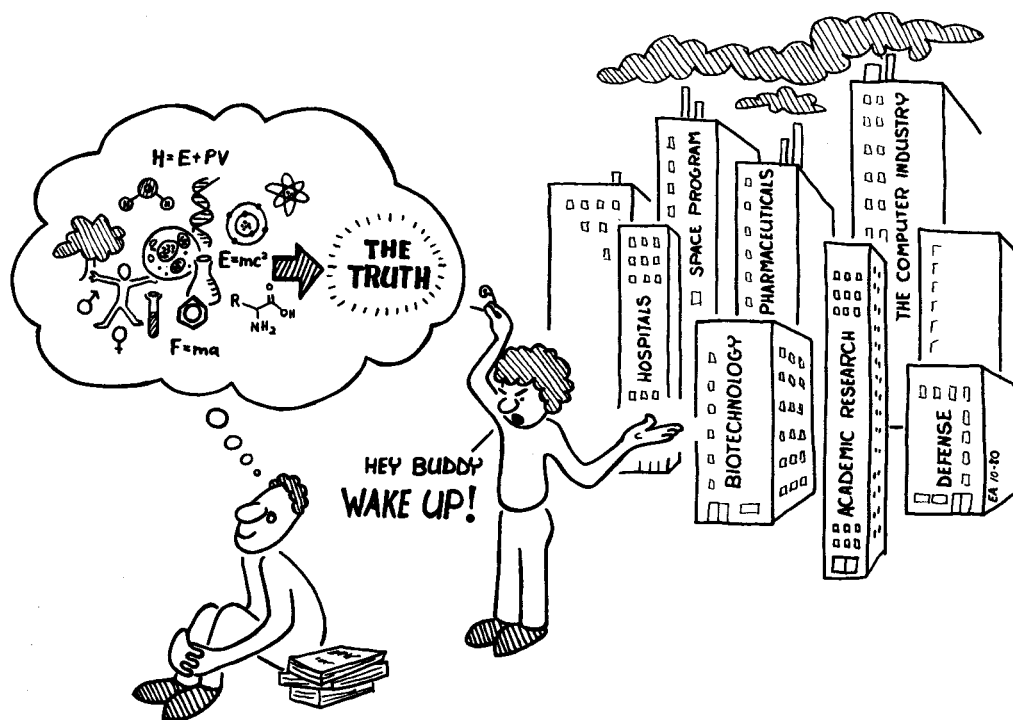
*Ross Feldberg is on the faculty of the Biology Department at Tufts University. He has been a long-standing member of Science for the People.*

Brian Martin's *The Bias of Science* provides us with a unique tool for bridging that gulf. Through a detailed analysis of a single example of scientific work, he demonstrates by necessity how the belief of a scientist influences his or her perception of reality. This is the book that many progressive scientists have been wanting to write for years, but never quite found the time or energy to put down on paper. I hope that Martin's book will provide a model for similar case studies.

*The Bias of Science* begins with two papers reprinted in their en-

Johnston, basing his argument on the potential chemical reactivities, concentrations and altitude distributions of the various molecules, concludes that a fleet of SSTs would result in a significant decrease in stratospheric ozone. Goldsmith and his associates examine potential nitrogen oxides released from nuclear weapons explosions and ozone concentration measurements carried out during and following the years of maximal atmospheric weapons testing. They conclude that other unknown factors predominate in determining ozone levels and that SST-generated nitrogen oxides would

appraisal. In his book, Martin uses the two papers to illustrate the impossibility of doing science in this manner. He gathers a variety of threads of evidence to demonstrate that in each case the authors selectively "push" only one of the possible conclusions. In some detail Martin shows how the authors do this by: a) stressing or ignoring certain technical assumptions, b) selective use of evidence, c) selective use of results, and d) coloration of words. Martin demonstrates how the choice of words or phrases can color the tone of a paper and thus support its "scientific" conclusions.



tirety: "Reduction of Stratospheric Ozone by Nitrogen Oxide Catalysts from Supersonic Transport Exhaust" by H. Johnston, first published in *Science* and "Nitrogen Oxides, Nuclear Weapon Testing, Concorde and Stratospheric Ozone" by P. Goldsmith, *et al.*, first published in *Nature*. Both papers are quite formidable, containing complex mathematical models, and simultaneous chemical reactions. Martin provides a glossary and a brief guide to help the reader.

have little or no effect on the ozone layer. Whose version of reality corresponds then to the true physical reality? Indeed, if science is an objective, value-free, neutral search for truth, how is it that different scientists can reach such opposite conclusions?

The view that science is material reality is based on an idealistic view of science as neutral, disinterested examination of evidence followed by a balanced analysis and

Thus, Johnston refers to a "threat to stratospheric (ozone)" while Goldsmith refers to the same phenomenon by the term "interact with and so attenuate". Martin provides us with an invaluable service in his close analysis of how arguments are actually pushed in real scientific work.

Martin next turns to the somewhat broader question of what presuppositions are held by scientists that might lead them to push arguments in one direction or another.

Ellen Armstrong

This provides him with a bridge to move from the specifics of a single debate to the questions of the value content (politics) of scientific work. In an inspired move, Martin sent his manuscript off to each of the principal authors for their comments. Johnston, although he disagreed with Martin's analysis of his work, does enter the debate and contribute some valuable insights into both sides of the debate on atmospheric chemistry. Goldsmith, in contrast, simply dismissed Martin's detailed analysis as derogatory.

In the last half of the book, Martin goes on to a more general analysis of the social and political values underlying scientific work. In these final five chapters he addresses questions such as, why is scientific research done?; who can use scientific research?; what is science used to justify?; what is scientific knowledge? and who does scientific research? These chapters contain some valuable insights as well as an extraordinarily useful set of detailed reference notes which make up a critical annotated bibliography to other writings in the field. However, I found this portion of the text least satisfying. This may be due to my impatience with more general analysis, but I felt the writing here was somewhat less focussed and the organization more idiosyncratic.

Overall, Brian Martin's book provides a valuable tool for demonstrating how scientific work is tied up in social and political forces. The book should be of particular value in academic courses which deal with the nature of the scientific process and I hope it will serve as a model for analyses of topics such as environmental science, energy, medical research and transportation. Martin has pointed a way and I hope others follow up on it. Do not miss this book. □

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## LETTERS

(continued from p.2)

then, is reinforced by the needs of the capitalist economic system (which remain unspecified), the authors conclude that "the struggle against capitalism and the struggle against patriarchy must be carried on side by side."

While I agree (as I will elaborate presently) that our attention needs to be focused on these larger social conditions, without a more coherent theory of how they have given rise to and serve to perpetuate the problem, several unintended consequences arise. Perhaps the most potentially self-defeating consequence of this inability to clearly focus on the structural determinants of sexual harassment is that by default then, we end up at what is essentially an individual level approach to the problem. This is reflected in the tone of much well-intentioned writing on sexual harassment which directs its argument at a malicious male conspiracy for lack of a better target.

Beckwith and Beckwith exemplify precisely this confusion. While they pay some deference to the notion that the origin of the problem does in fact lie in basic social conditions, without an adequate understanding of how these conditions impinge on the consciousness and behavior of both men and women in our society, they are uncertain what to do with the idea or how to develop it into a program for change. Thus they arrive at female militancy as the appropriate response to domination by their evil male oppressors. Although I believe that in an immediate sense such militancy is entirely appropriate, making the workplace an arena for a battle of the sexes is, as a comprehensive strategy, sadly inadequate, and ultimately self-defeating.

As an alternate orientation in emphasis, I would propose we first return to an examination of those social conditions which Beckwith and Beckwith merely gloss. Certainly further historical analysis of the relationship between patriarchy and capitalism is a worthwhile endeavor. However, it may be more useful here to hold speculations about the nature of this relationship in abeyance for the moment, while accepting the proposition that we do have a genuinely male-dominated capitalist economy. Then doing away with the

artificial distinction between the workplace and the world, I would propose an examination of these social conditions aimed at understanding how capitalism and the more general forms of social relations it engenders, have distorted the sexuality of both men and women.

Preliminarily, I would suggest this occurs on two levels. One is more visible and immediate, the other more insidious. The former refers to the images of male and female sexuality propagated in our society for capitalist ends. Every year billions of dollars of accumulated surplus is poured into advertising which seeks to sustain images of male sexuality associated with power, aggressiveness, and often violence. At the same time images of female sexuality are associated with youth, the superficialities of physique, and a latent desire for male domination. These images do a great deal more than sell cigarettes, clothes, and cosmetics. Their pervasiveness works to shape the very definitions of sexuality we incorporate into our individual self-concepts. Often we accent these images uncritically as the way we ought to be sexually; when we are not, or cannot, our self-esteem suffers.

These are definitions of sexuality which dehumanize relations between men and women in spheres of interaction not limited to the workplace. Under these conditions sex comes to be conceived as a commodity which men and women may buy, sell or trade in pursuit of sexual profit. Such a conception of sex as commodity appears a logical outgrowth of the more insidious level at which capitalism has warped social relations among all human beings. Men and women no longer see each other as ends in themselves, as human beings, but as means to ends, be they economic or sexual.

I am not proposing this brief outline in itself goes beyond the debates in "left political analysis" which Beckwith and Beckwith are surely aware of, or many of the standard arguments of the feminist movement. I do think however, it represents an important shift in emphases. If we can identify the fundamental social conditions which give rise to and sustain problems such as sexual harassment in society at large, then it should be clear that more than a case-by-case approach will be required to eradicate them. What is required are basic changes in the sexual consciousness of both men and women in our society.

Critically examining one's own sexuality and the social conditions which have shaped it represent the first steps in this process. Beyond this however, we also need to critically examine how our active expression of this sexuality may either serve to change or reinforce those social conditions. For example, the woman who desires to be treated like a competent professional in the office, but uncritically accepts an oppressive definition of female sexuality outside the office, may be acting to reinforce those very conditions which constrain her professional achievement.

What is most important to emphasize in a program of social change based on this orientation is, that these social conditions constitute a constructed reality. As such they can be reconstructed to allow men and women to relate to each other as human beings, complete with a sexual dimension which is not distorted by conceptions of sexual profit, loss or domination. This is not an entirely idealist view of society. Social conditions do objectively constrain human consciousness and action. However through a critical examination of social conditions and the consciousness it produces, we can begin to develop new understandings of social conditions and the consequences of our actions on them. It is this type of action with understanding which can lead to truly emancipatory change for both men and women. Thus when we approach change on the individual level as Beckwith and Beckwith, and others, have done, we must at the same time remember that even as individuals we are inseparable from society and the social conditions which describe it.

*Michael L. Schwalbe  
Pullman, WA*

Dear SftP:

I would prefer a greater number of shorter articles per issue. More topics could be covered. I think most articles are excellent, but at the same time I am exasperated to read single-topic articles of six pages or so, or 3-4 page book reviews.

*Tina Castanares  
Los Angeles, CA*

Dear SftP:

I find most of the articles in SftP very good. I personally would like to see more on the politics of our food systems and the exploitation of the third world. Otherwise great stuff.

*Martin Gursky  
Nova Scotia, Canada*

## Hunter Myth

(continued from p.8)

It is not possible to go back into the Stone Age by taking a jet to Botswana. The !Kung San have a long history and they are not in an hermetically sealed time capsule from the dawn of humanity. They use metal arrowheads and not stone tools, and they wear khaki shorts. Furthermore, would our Stone Age ancestors, living in an empty world, choose to live in a desert?

It is legitimate to make precise and careful analogies from fact to fact using a living people to compare with others. It is not legitimate to make judgements about the social behaviour and psychology of proto-humans living 1.5-3.5 million years ago, (with an at present unknown diet and economy), on the basis of what a remnant population of modern people does when hunting and gathering in a desert.

## WHY DO HUNTER-GATHERER MYTHS SURVIVE?

The myths of "man the hunter" and "the killer ape" are vital elements in the evolutionary stories and speculations that biological determinists use to support their theories about the genetic boundaries of human nature. But like the "genetic boundaries" themselves, they are *entirely* speculative, and often represent major distortions or contradictions of the facts. Why do these myths not only survive but continually re-appear, each time under a slightly different guise, (but each time fervently denying their connection with the earlier fallacious determinisms)?

In part, these stories claim that what exists now should be; they are convenient to segments of society that wish to cut back on "Headstart" and other expensive programs of social progress. Affirmative action becomes less attractive if one believes that women were gatherers rather than hunters. Furthermore, even reputable scientists begin their work with pre-conceptions of what the results should be: in this case the pre-conception is that humans are aggressive and males are dominant.

The appealing and insidious nature of myths like "the killer ape" are dangerous. They become part of the human consciousness, the common set of pre-conceptions and biases that colour thinking, and linger on against any number of devastating scientific criticisms. Responsible scientists, armed with these preconceptions and a natural desire to make their work more interesting and popular, feed the flames of misconception by making illegitimate and unwarranted speculations when publically announcing their data. The media picks up on these myths as the results of "science." For instance, early this year the discovery of a large sample of fossils of a primitive ape, *Aegyptopithecus* was announced in several papers and magazines. Some of the individuals that were found, possibly males, had longer canines.

The reports mentioned that this evidence lead scientists to conclude that these animals were members of a social group who were "more aggressive, courageous, inventive and intelligent than any other groups or species that lived in monogamous and pair bonded societies." (21) We might be inclined to think that biologists know what they are talking about, but the jump-in logic between canine length and the establishment of a high degree of individual courage in apes 30 million years ago is absurd, and unjustified.

## Politics and Myths About the Past

Political from inception, concepts of "man the hunter" and "the killer ape" are no less political in conclusion and application. They are also dishonest, speculative and often untrue. But even if "man" (never "woman") were a hunting animal during the dawning years of our lineage, even if this hunting lifestyle had imposed genetic pressures on us, knowledge of the genetic components of a behaviour pattern and its adaptive origins can tell us nothing of how such genetic characteristics might respond to a change in environment; how they might be changed or even eradicated as behaviours.

Careful, scientific study of human origins, not speculation, may tell us much about where we have come from, and how we got here. It has little to tell us of where we may go from here. □

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# news notes

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## EL SALVADOR — ANOTHER VIETNAM?

After the success of the Nicaraguan revolution and the unpublicized success of the Grenadian revolution, the United States has been investing resources in Latin America to prevent the triumph of other popular movements.

El Salvador is the country where the greatest confrontation is currently taking place. On one side is the military-civilian junta which overthrew General Carlos Humberto Romero in October, 1979 — the junta is a facade for the oligarchy, the military and U.S. interests — and on the other side is the rest of the population led by the Democratic Revolutionary Front and its armed organizations.

The tactic that the U.S. is utilizing to repress the popular forces in El Salvador is the same one it utilized 20 years ago in Vietnam. The program called the "Phoenix Program" consisted of the pacification of certain regions of what was then South Vietnam through the assassination of between 20,000 to 45,000 suspected Vietcong people. The same man who was one of the Phoenix Program's principal organizers, Dr. Roy Prosterman, a Professor at the University of Washington School of Law, is presently advising the Salvadorean junta on its "Land Reform" program.

The Land Reform program is the pretext that the U.S. backed junta is using to carry out a systematic repression of the population in the country side. Since its installation, the junta has assassinated 7,000 people by using the formula of "reform" combined with repression. Between 1979 and 1981, the U.S. will have spent \$12.2 million on El Salvador's military. This represents 73% of what it spent there from 1950 to 1979.

What are the reasons for such heavy U.S. involvement and for such a genocide in El Salvador? It is important for the U.S. to preserve its image as the world's greatest power. An overthrow of

a U.S. sponsored regime in its own "backyard" would be a great setback to U.S. leadership. The killings are the only way to confront the popular forces. The *Boston Globe* reported on October 10 that the "U.S. is training military officers from El Salvador to deal with suspected guerrillas. . . ." Suspected guerrillas include everyone in El Salvador today, since the popular forces have been organizing people during the last 20 years, farm by farm, factory by factory, block by block.

U.S. Ambassador White has acknowledged that the size, the depth and the organization of the popular forces are beyond what the U.S. and the junta can possibly control. The popular armed forces are carrying out harassment of the army all across the country with such an intensity that U.S. advisors have been taking command of army operations because Salvadorean army officers have deserted. In August, a general strike took place. It was an insurrection rehearsal intended to coordinate the factories and neighborhood organizations with the guerrilla forces.

Meanwhile, in the U.S., a national solidarity movement is growing. In New England, there will be a Regional Conference on Central America at the end of November. For more information contact the Coordinating committee for Solidarity with El Salvador, P.O. Box 1919, Boston, MA 02105.

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## THIRD WORLD WOMEN SPEAK OUT

Third World women at the NGO Forum want to express our particular concerns growing out of our history as victims of slavery, colonialism, and imperialism, both to the official United Nations Conference and as a record of our priorities for action to change our situation. We are concerned about:

1) The continuous imperialist and racist activity around the world, directed not only against the so-called developing nations, but also against ethnic minorities in the United States and Europe.

2) The role of multinational corporations in the so-called developing nations, a role based on the exploitation of cheap labor in those countries and aimed at meeting the needs of industrialized countries, not those of the so-called developing ones. We draw attention also to the unacceptable work conditions in their factories.

3) The communications imperialism which controls the modes of communication and disseminates a distorted picture of world events, especially of national liberation struggles everywhere. We are especially concerned with the black-out on the news from smaller regions where acts of aggression are still taking place.

4) The dumping of expired drugs that cannot be sold legally in the United States onto the markets of the so-called developing nations.

5) The attempts at forcing birth control and family planning on the so-called developing nations by various means, including that of tying it to economic aid.

6) The conditions of migrant workers from the so-called Third World who are suffering acute discrimination, affecting their economic, educational, psychological, and family situations.

7) The choice of the South Pacific as a nuclear testing area, in complete disregard of the peaceful and anti-nuclear sentiments of the inhabitants of the area.

8) The exploitation of deep-sea resources without regard for the rights and sentiments of the world community, especially that part of it which is most concerned by virtue of its geographical proximity to the areas of exploitation.

9) The colonialist activity which is still being conducted in Guyana and New Hebrides.

10) The destruction and violence that has befallen Lebanon as a whole for the last five years, and we draw attention to the fact that civil wars and internal conflicts have traditionally been the result of imperialist intervention. We are also concerned about the continuous Israeli attacks on southern Lebanon which have created new refugee problems and caused extensive destruction and death.

11) The plight of the Palestinian people and we affirm their national rights for self-determination through the PLO, their sole representative.

12) The status of women's agricultural work and housework, which has so far either been undervalued or given no monetary value at all.

We reject totally the designation 'Third World' or 'developing countries' as expressing a Western point of view regarding the achievements of our people.

We call for a women's conference representing only our nations, whose struggles, hopes, and problems differ substantially from those of the West.

The Third World caucus of the 1980 NGO Forum.

—From *Newsfront International*, #239, September, 1980.

### OSHA JUDGES OKAY "STERILIZE OR TRANSFER" POLICY

The rights of workers, especially women workers and their unborn children, to a safe environment took a beating recently when two administrative law judges attached to the Occupational Safety and Health Review Commission threw out citations issued by the Occupational Safety and Health Administration (OSHA) against the Willow Island Plant of the American Cyanamid Company.

In 1978, the company began excluding women of child-bearing potential from working in its lead pigment department. Exposure to high levels of lead may harm unborn children, the company explained. The plant was not about to spend money to free all its workers from exposure to lead — a highly toxic substance that can cause severe kidney and neurological damage.

Women working in the pigment department had two alternatives — eliminate their "child-bearing potential" by submitting to sterilization, or accept transfer to other jobs with a substantial cut in pay and benefits. Of the eight women in the department, five felt coerced into being sterilized and two refused and were demoted. One was already sterile.

At the request of the Oil, Chemical and Atomic Workers Union (OCAW), OSHA inspected the plant. Four months later, the agency issued 14 citations and a \$34,000 fine against American Cyanamid, stating that the company should have made the workplace safe for the workers. The citations and fines dealt with several different health violations as well as the exclusion policy.

When the company contested the matter, the two administrative law judges vacated most of the fines and citations. The penalty for the exclusion of women was thrown out completely on technical considerations. OSHA is appealing the decision to the full Occupational Safety and Health Review Commission and officials say they will take it to the United States Court of Appeals if necessary.

At the same time, 13 women are bringing a sex discrimination suit against American Cyanamid because of the exclusion policy. Joan Burton, a lawyer for the women, said that the chances for success are very good.

In addition, the Equal Employment Opportunity Commission (EEOC) has suggested possible guidelines dealing with reproductive hazards in the workplace and employer discrimination. The EEOC has not yet decided whether to implement the guidelines, however, and may not make that decision for some time.

Altering workers to fit the workplace is not such an unusual occurrence. The same type of policy excluding fertile women from certain jobs is common in the chemical and metal industries. A case very similar to the one involving

American Cyanamid is brewing at the Bunker Hill Smelters in Idaho. According to Steve Wodka of the OCAW, companies simply will not pay to improve the workplace if they can get away with it. "Essentially, people are subsidizing the company with their health," he said.

—*Liberation News Service, Inc.*  
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### ARE PSYCHIATRISTS BIASED?

Two reports in recent issues of the APA's *American Journal of Psychiatry* examine psychiatrists' attitudes toward the elderly and the treatment of black inpatients in a psychiatric hospital ward. The results of both studies indicate that the psychiatric establishment has a considerable way to go in its handling of these two types of patients.

In their report in the May issue of the journal, University of California at Los Angeles researchers Charles V. Ford and Robert J. Sbordone estimate that although the elderly comprise 10 percent of the total population, psychiatrists spend only 2 to 4 percent of their professional time with older persons. Moreover, they cite underlying anti-elderly "negative views" — coined "ageism" by National Institute on Aging Director Robert Butler — among medical students in general. Many such students routinely refer to older patients as "gomer," "turkey" or "troll," say the researchers. "It is readily apparent that psychiatrists are by no means unique within the medical profession in their distaste for treating the elderly," the researchers say.

It was psychiatrists, however, at whom the researchers aimed their survey instrument: a questionnaire describing four cases of specific psychiatric impairment. In each case, the psychiatrist was told the hypothetical patient was either a younger person or an elderly one; the respondents were then asked to assess the "idealness" and prognosis of the patient. The 179 returned questionnaires "revealed that the vignettes of younger patients who had problems of agoraphobia [fear of open spaces], alcohol abuse, mania and neurotic depression

were rated as coming significantly closer toward meeting the criteria of being an ideal patient than older patients with the same problems," report Ford and Sbordone.

"The vignettes of younger patients who had problems of alcohol abuse and neurotic depression were given significantly more favorable ratings for prognosis than older patients." They also found that younger patients with problems of agoraphobia and mania generally received more favorable ratings for prognosis than did older persons — however, those differences did not reach statistical significance, according to the researchers. In addition, nearly one-third of the psychiatrists recommended psychotherapy without any medication for a 32-year-old woman with neurotic depression, but only 7.8 percent recommended the same treatment for an older patient with the same symptoms.

"Our findings confirm previous reports that psychiatrists are inclined to regard older patients as less ideal for their practice than younger patients," say Ford and Sbordone. "[O]lder patients are regarded as less ideal because they are viewed as having a poorer prognosis. Why psychiatrists should regard younger patients as having a better prognosis is unclear."

Though there is an APA committee on minorities, it appears as though inpatient treatment procedures may be lagging behind the committee's intentions. In a study of 66 black and 36 white male schizophrenic inpatients, University of Illinois researchers Joseph A. Flaherty and Robert Meagher report evidence of "racial bias" among the staff toward the blacks; they attribute it to subtle stereotyping and the staff's greater familiarity with whites.

In comparing the two groups in the June issue of the journal, the scientists found that the black patients:

- spent considerably less time in the hospital (a mean of 29 days, compared with 49 days for whites) and often left "against medical advice";
- were given antipsychotic drugs significantly more often;
- were in seclusion or restraints for nearly eight of every 10 days of hospitalization (compared with less than five days for whites); and

- received far fewer privileges and less recreational and occupational therapy by discharge time than had whites.

After studying the symptoms of each patient and examining the results of psychiatric rating scales, the researchers "feel confident . . . that there were no major differences in global pathology between black and white patients. Based on their measured treatment differences we conclude that there is some indication of racial bias . . . this bias is not due to hostility or contempt for black patients but from subtle stereotyping and greater familiarity with and preference for white patients."

Stone acknowledges that "we live in a racist society, and I think psychiatrists have to confront this." While he concurs with the researchers that black professionals may find it easier to establish rapport with black patients in certain situations (Flaherty and Meagher called for recruitment of more blacks), he suggests that some psychiatrists should make a greater effort in dealing with minorities. "I don't believe it's impossible for a black person to talk to a white person," Stone says. "[But] the white person talking must have some sophistication and insight. And I'm not prepared to say that all psychiatrists have this."

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## MASSACHUSETTS VOTERS BACK PRO-CHOICE CANDIDATES

Despite the efforts of "right-to-life" groups and pressure from the Catholic Church, pro-choice supporters scored two important victories in the Massachusetts Democratic primary September 17, when voters chose two liberal, pro-choice candidates for the Democratic ticket for Congress. The winners of the election were Barney Frank, the liberal candidate in the Fourth Congressional District, and James Shannon, incumbent representative in the Fifth District. Both were running against anti-choice candidates.

The Sunday before the election, Humberto Cardinal Medeiros, the Archbishop of Boston, issued a pastoral letter clearly aimed at Frank and Shannon, which was read in the 410 churches of the archdiocese. Medeiros told parishioners not to vote for candidates who favor permitting abortions and providing public funds for poor women who could not afford them otherwise. Part of his message read, "Those who make abortions possible by law — such as legislators and those who promote, defend and elect these same lawmakers — cannot separate themselves totally from the guilt which accompanies this horrendous crime and deadly sin."

Ironically, Frank was running for the seat vacated by Representative Robert F. Drinan, the Roman Catholic priest ordered to give up politics by Pope John Paul II, possibly at the urging of Medeiros. Medeiros did not draw any comparison between Drinan and his own intervention in the political process. Father Drinan endorsed and campaigned for Frank.

Although about 45 percent of the voters in the Fourth District and 75 percent of the voters in the Fifth District are Catholics, the parishioners did not blindly obey the Archbishop's plea. To the extent that the letter succeeded in making the elections a referendum on abortion, it appeared to have backfired against Medeiros.

Other "right-to-life" efforts have also failed in this year's primaries. Pro-choice incumbents Senator Bob Packwood, Senator George McGovern and Representative Harold Hollenbek were all renominated despite being targeted for defeat on anti-abortion "hit lists."

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### CORRECTION

The photograph which accompanied the article, "Vietnam War Legacy" on page 30 in the September/October issue of *Science for the People* was taken by Lana Reeves (not Laura). The man in the picture is a member of the Massachusetts Veterans Against Foreign Wars (418 Washington St., Somerville, MA 02143). The group publishes a free newsletter, and they are affiliated with the National Association of Concerned Veterans.

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# resources

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## SCIENCE AND POLITICS IN CHINA

**Technology and Science in the People's Republic of China: An Introduction**, Job Sigurdson, Pergamon Press, Inc. (Maxwell House, Fairview Park; Elmsford, NY 10523), 1980, 168 pp., \$26.00 (hardback).

**Micropolitics in Contemporary China — A Technical Unit During and After the Cultural Revolution**, Marc Blecher and Gordon White, M.E. Sharpe, Inc. (901 North Broadway; White Plains, NY 10603), 1980, 135 pp., \$17.50 (hardback).

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## POLITICS OF TECHNOLOGY

**Paper Heroes — A Review of Appropriate Technology**, Witold Rybczynski, Anchor/Doubleday (501 Franklin Ave.; Garden City, NY 11530), 1980, 181 pp., \$4.95 (paper).

**Technocracy and the American Dream — The Technocrat Movement 1900-1941**, William Akin, University of California Press (2223 Fulton Street; Berkeley, CA 94720), 1977, 227 pp., \$10.95 (hardback).

A "Special Technology Issue", June 1980 of *Covert Action Bulletin* is available for \$2.00 from Covert Action Publications (P.O. Box 50272; Washington, D.C. 20004), \$10.00/six consecutive issues.

"Making Decisions on Technology" is the special issue title of the *Journal of Community Communications*, Summer 1980, (Village Design, P.O. Box 996; Berkeley, CA 94701), \$2.50/single copy, \$9.00/year (quarterly).

"Technology and Pessimism" is the special issue title of *Alternative Futures: The Journal of Utopian Studies*, Spring 1980, (Human Dimensions Center, Rensselaer Polytechnic Institute; Troy, NY 12181), \$3.50/single issue, \$10.00/year (quarterly).

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## MEDICINE AND POLITICS

**Resources For Third World Health Planners — A Selected Subject Bibliography**, Philip Singer and Elizabeth Titus, Trado-Medic Books/Conch Magazine Ltd. (102 Normal Ave.; Buffalo, NY 14213), 1980, 150 pp. \$9.95 (paper).

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**Birth in Four Cultures**, Brigitte Jordan, Eden Press Women's Publications (245 Victoria Avenue, Suite 12; Montreal, Quebec, Canada H3Z 2M6), 1978, 130 pp., \$6.95 (paper). A cross-cultural investigation of childbirth in Yucatan, Holland, Sweden and the United States.

\*\*\*\*\*

## WOMEN AND SCIENCE

**Alice Through the Microscope — The Power of Science Over Women's Lives**, Brighton Women and Science Group, Virago Ltd. (5 Wardour Street; London, England W1V 3HE), 1980, 320 pp., \$12.00 (paper).

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## ENERGY

**The Sun — Our Future Energy Source**, David McDaniels, John Wiley and Sons, Inc. (One Wiley Drive; Somerset, NJ 08872), 1980, 271 pp., \$18.95 (hardback).

**Stock Ownership Directory — Energy**, Stephen Abrecht, Corporate Data Exchange, Inc. (198 Broadway, Room 707; New York, NY 10038), 1980, 217 pp., \$75.00.

**Scientists in Power**, Spencer R. Weart, Harvard University Press (Cambridge, MA), 1979, 343 pp., \$17.50 (hardback).

**Seabrook and the Nuclear Regulatory Commission, The Licensing of a Nuclear Power Plant**, Donald Stever, University Press of New England, (Hanover, New Hampshire), 1980, 248 pp., \$15.00 (hardback).

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## HISTORY OF MATHEMATICS

**Black Mathematicians and Their Works**, edited by Virginia Newell, Joella Gipson, Waldo Rich, and Beaugard Stubblefield, Dorrance and Company (35 Cricket Terrace; Ardmore, PA 19003), 1980, 327 pp., \$12.50 (paper).

**A Young Genius in Old Egypt**, Beatrice Lumpkin, DuSable Museum Press (740 East 56th Place; Chicago, IL 60637), 1980, 24 pp., \$2.50. A children's book about the first system of written numbers.

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## POLITICS OF THE ENVIRONMENT

**Capitalism, Socialism and the Environment**, Hugh Stretton, Cambridge University Press (32 West 57th Street; New York, NY 10022), 1976, 332 pp., \$7.95 (paper).

**The Pesticide Conspiracy**, Robert van den Bosch, Anchor/Doubleday (501 Franklin Ave.; Garden City, NY 11530), 1980, 212 pp., \$4.95 (paper).

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## CORPORATIONS

*Multinational Monitor* (P.O. Box 19367; Washington, D.C. 20036), \$15.00/year (Monthly). This journal seeks to promote critical discussion of the impact of international firms in developing countries.

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## OCCUPATIONAL SAFETY AND HEALTH

**Index to Articles on Occupational Safety and Health, July 1 - Dec. 31, 1979**, Health Commission of the New American Movement, New American Research Institute, (NAM, 3244 N. Clark Street; Chicago, IL 60657), 1980, 98 pp., \$6.00 (paper).

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## U.S. FOREIGN AID

**AID as Obstacle: Twenty Questions on our Foreign Aid and the Hungry**, Institute For Food and Development Policy (2588 Mission Street, San Francisco, CA 94110), 1980, 200 pp. \$4.95 (paper).

## CHAPTERS AND CONTACTS

Science for the People is an organization of people involved or interested in science and technology-related issues, whose activities are directed at: 1) exposing the class control of science and technology, 2) organizing campaigns which criticize, challenge and propose alternatives to the present uses of science and technology, and 3) developing a political strategy by which people in the technical strata can ally with other progressive forces in society. SftP opposes the ideologies of sexism, racism, elitism and their practice, and holds an anti-imperialist world-view. Membership in SftP is defined as subscribing to the magazine and/or actively participating in local SftP activities.

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