

Ecology,
survival
and society

British scientists' report
saying only new life styles
can save mankind stirs up
a lively controversy

The list of social critics and utopians whose visions have sometimes captured the dreams (but little else) of large numbers of people is long and varied: Aldous Huxley and Charlie Chaplin, B. F. Skinner and Karl Marx, Edward Bellamy and C. Wright Mills, Germaine Greer and Ralph Nader. A fundamental thesis of most of these visionary iconoclasts has been simple: that life in modern industrial societies is mean, petty, deceitful and grubby. In the words of John Stuart Mill's description of North American industrial society, ". . . The whole of the life of one sex is devoted to dollar hunting and of the other to breeding dollar hunters."

This kind of judgment, however, has often been merely esthetic or abstract. The visions of the utopians have rarely influenced the "hard-headed" businessmen, politicians and government officials who make the real decisions. In the Soviet Union, Marxism was perverted into a rigid new authoritarianism; in America, according to its harsher critics, gimmicks and gadgets and a spurious "affluence" have been used to fool the people into thinking they have achieved the good life.

Now, however, there has come forward a new breed of utopians whose message is different. Instead of saying, "Heed us and life will be better," they are saying, "Heed us or the human race cannot survive." The new utopians are the environmentalists and the ecologists, a group whom some politicians



dismissed even two years ago as "the birds and bees lobby." But even though the environmentalists have far more credibility today, they are still hampered by an unecological fragmentation, by internecine battles (such as between Barry Commoner and Paul Ehrlich over whether mass consumption or population growth is the basic cause of the environmental crisis) and by a tendency to excessive rhetoric which is sometimes easily refuted.

In January, a new British publication, THE ECOLOGIST, put it all together for the environmentalists in a manifesto entitled, "Blueprint for Survival." The basic message of the manifesto is that humanity *must* achieve a stable, utopian, community-oriented society, plus a concomitant population reduction, or it will perish of sociological and/or ecological collapse. All of the basic contentions of the report have been asserted many times before and, in their particularity, sometimes appear to have been refuted. But the report, perhaps for the first time, links together all of the humanist and environmentalist assertions—and their documentation—into a total fabric of argument.

For instance, not only is the evidence on DDT in the oceans presented, but so are the statistics on alcoholism, mental illness and suicide. The connections between the ecological and the sociological phenomena are then clearly adduced: A society the members of which be-

come addicted to acquiring new cars or riding in faster and faster aircraft also produces addiction to drugs and alcohol, as well as the need to escape into mental illness. And when the tension between real human needs for love and community and false needs for material goods and spurious status becomes too intense, then sometimes the victim kills himself. At the same time, the garbage thrown off in meeting the unreal needs is the means whereby another kind of suicide—ecological—is committed.

The report has been assailed, of course, most notably in the influential British journal NATURE, in its Jan. 14 issue. But it has been taken very seriously, too, perhaps primarily because it carried the endorsement of 33 of Britain's most prominent scientists. They include not only longtime environmentalists such as Sir Julian Huxley but also many who never before had been associated with such statements and who, NATURE scolds, "should have known better." The impact of the report in Britain has been immense, and NEW SCIENTIST, which views it favorably, takes seriously its recommendation that a new political party be based upon it.

"So far the evidence is that the establishment in private has gone a long way towards accepting the prophets of ecocrisis," says NEW SCIENTIST. But it adds, ". . . Until the politicians are convinced that an anti-doom policy

would be acceptable to the electorate, they are unlikely to commit blasphemy against the goddess of everlasting growth." Thus the only answer may be a new party.

NATURE, in a long editorial against not only "Blueprint" but also against a group of distinguished British physicians who published a statement saying crowding in Britain is "a direct threat to the mental and physical well-being of our patients," uses many of the anti-environmentalist arguments which have become as predictable as the environmentalist ones. NATURE suggests that technology and the market system are basically benevolent and that they will evolve in such ways as to correct their own excesses. With regard to the growing shortage of petroleum, NATURE asks, for instance, "Is it not . . . likely . . . that prices for petroleum will be found to be so high [when shortages become more severe] that even the least successful nuclear power companies will find themselves able to sell reactors more easily?" The same substitution argument applies, says NATURE, to copper shortages: Use aluminum for conductors instead of copper. These kinds of arguments are often hard to evaluate. "Blueprint" maintains that substitutions and adjustments are ultimately self-defeating when resource consumption is growing at an exponential rate. The day will come when another 10-year doubling of energy consumption, for instance, will be disastrous; even with cleaner nuclear power, the problems of radioactive waste disposal or of thermal pollution will become insuperable. On the other hand, in the case of copper, feasible new sources may indeed be found: high-copper-content manganese nodules on the ocean floor, for instance (energy-intensive aluminum being a bad example).

NATURE's philosophical and sociological arguments, presented in a second commentary, in the Jan. 28 issue, are particularly critical of "Blueprint's" recommendation for a return to a more pastoral existence where small communities of people would pursue organic farming and the cultivation of human relations in a framework of material frugality.

"Are these not potentially illiberal arrangements?" asks NATURE. "Is there not a serious danger that to strive for them will weaken the will of civilized communities, developed and developing, to work towards humane goals—the removal of poverty and the liberty of the subject?" But "Blueprint" suggests that the very problems that NATURE associates with rural community living are, in reality, products of a highly technologized and centralized society. Illiberal arrangements and a narrowing of opportunities *do* prevail in *today's* rural areas; but this is only

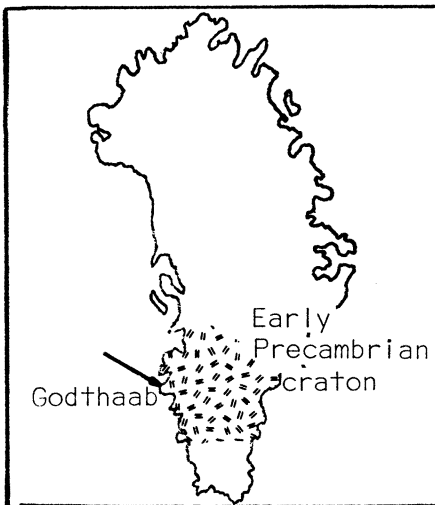
because these areas are at the bottom of a technocratic hierarchy that is essentially urban. And the choices that appear to be offered to affluent urban dwellers are unreal; the sleekest automobile in the midst of a traffic jam is not necessarily an instrument of freedom. But, NATURE might reply, what of the immense cultural advantages of the city? And so the arguments will go on about nearly every aspect of modern life. "Blueprint" for instance, decries the sterility of suburbia, the absence of any truly variegated learning environments there for children. Establishmentarians will surely reply that the space, central heating and electric dishwashers in suburban housing developments represent an immense gain in quality of life for many people.

The arguments in the United States over environmental problems have not yet reached these basic levels, even though environmentalism got its first major impetus here. For instance, the question has always been, can auto companies produce effective emission controls? Only rarely has it been asked whether autos should be done away with in cities altogether. But "Blueprint" and its argument are beginning to receive attention here, too. Loudon Wainwright editorializes in LIFE that "happiness is not a major credit card

or more garbage than the neighbors." TIME quotes an MIT systems analyst, Dennis Meadows, who has done careful analyses of resource consumption trends: "All growth projections end in collapse." The New York Times has stirred up a major spate of letters to the editor with its report on "Blueprint" and another report on a letter from 187 scientists to The Times of London generally supporting "Blueprint." A subject with which "Blueprint" concerns itself, the meaninglessness of much of the work in modern society, has been deeply examined in ATLANTIC and in The Washington Post.

According to Paul Ehrlich, a major problem has been that there has been far too little public debate over these kinds of issues. He may be right; the private and sometimes biased deliberations of National Academy of Sciences committees, for instance, have created almost no public involvement and thus politicians have been little interested. Ehrlich proposes "adversary science," a public courtroom kind of procedure where scientists would debate the issues and let the public serve as the jury. If "Blueprint" is correct in its prediction that the world has only a few more years before disaster overtakes it, it may be time to get moving on Ehrlich's proposal or a similar one. □

Western Greenland yields oldest rocks on earth



E. Cherry Doyle

Godthaab rocks: 3.98 billion years.

Some of the oldest rocks in the world have been found on Greenland. Many date back to the earliest geological era, the Precambrian, which began when the earth began and ended some 600 million years ago. A large portion of Greenland was affected by volcanic activity in the mid-Precambrian, however, so that its rocks date from that event, and earlier ages are obscured. Part of Greenland, the early Precambrian craton, escaped the effects of this

activity, and it is here that the oldest rocks yet have been found.

South and southeast of the city of Godthaab, a team of five researchers, L. P. Black, N. H. Gale, Stephen Moorbath and R. J. Pankhurst of the University of Oxford, England, and V. R. McGregor of the Geological Survey of Greenland, have found gneisses (coarse-grained granite-like rocks) 3.98 billion years old.

The researchers dated the rocks by analyzing both the rubidium-strontium ratios and the ratios of isotopes of lead. It was the first method that yielded the 3.98 billion figure. This is the oldest Rb-Sr age yet discovered. "There is little clear-cut evidence in the literature for rocks older than about 3.4 billion to 3.5 billion years on the earth's surface," the researchers comment in their report in EARTH and PLANETARY SCIENCE LETTERS (12/71, pp. 245-259). A gneiss recently found in Minnesota was about 3.55 billion years old. The five scientists believe the 3.98-billion-year date represents the time when the granitic igneous rocks that were subsequently deformed and recrystallized to form the gneisses first crystallized from mantle-derived magmas.

In dating the rocks, the five encountered some of the same problems as U.S. scientists attempting to date