

BOOK REVIEWS

POPULATION, RESOURCES, ENVIRONMENT

Issues in Human Ecology

PAUL R. EHRLICH AND ANNE H. EHRLICH

San Francisco, W. H. Freeman and Company
1970, 383 pp., \$8.95.

Ecology has become a household word, after a century in retirement, except for the learned biologist. Now, legislators, newscasters, song writers, club members and even nursery rhyme producers ask frightening ecologic questions. Can we drink the water in New York City? Because of CO_2 are we going to freeze to death or melt? Is the earth running out of water and oxygen? Will DDT kill us? Should we stop breathing during an inversion? Will nuclear power destroy by insidious radiation releases? These and dozens of other "simple" questions now plague the public—aided and abetted by a strange coalition of doomsday soothsayers, political opportunists, and alarmed citizens. And in the meantime populations grow.

People search for validated answers to these problems of environmental determinants. The authors are moved to contribute enlightened analyses of these so-called world "crises" of overpopulation and the resulting impacts on food, resources and the environment. They tackle the issues, with prodigious accumulation of data, via chapters on *The Crisis; Numbers of People; The Limits of the Earth; Food Production, Environmental Threats to Man's Ecosystems in Jeopardy; Optimum*

Population and Human Biology; Birth Control; Family Planning and Population Control; Social, Political and Economic Change; The International Scene; and Conclusions.

The authors leave no doubt as to their central theme that the world is catapulting to a disastrous end, with Delphic Oracle wisdom of not naming the exact date. Their courage in covering the universe of problems is to be admired, particularly since their style and language are both free-flowing and stimulating. The central question remains, however, as to whether the answers provided have major objectivity and scientific verity and also avoid biased selection of material.

The present reviewer finds these characteristics are lacking. The deficiencies vitiate the total impact of an otherwise attractive document. The volume is an excellent example of special pleading, rather than of an orderly exposition of what is known, what is false, what is real and what needs further deep inquiry. One is warned by the authors that such criticism is, of course, highly suspect, if complete "revelation" is not wholly accepted. They say that "Society has always had its visionaries who talked of love, beauty, peace and plenty. But somehow the "practical" men have always been there to praise the smog as a sign of progress, to preach 'just' wars and to restrict love while giving hate free rein" (p. 324). Such "argumentum ad hominem" should not give "free rein" either to exaggeration, mixture of fact and fancy or the assumption that all who differ have not seen the handwriting on the wall.

A few examples may suggest why it is felt that the authors might have exhibited a higher degree of equilibrium with respect to that "Space Ship, the Earth." The analogy itself is not too accurate, even though it is the password to ecologic doom.

Fresh water (p. 65): "the world faces an extremely grave water crisis." In the U. S., official assessments and those by the National Academy of Sciences find to the contrary. Global assessments disclose problems of transmission and cost, rather than availability.

Food (p. 67): At least some contrary opinion to the gloomy

picture may be found in the Reports by George Harrar, of the Rockefeller Foundation. The discussions by the authors of malnutrition and infant mortality are pertinent and sound. Perhaps their conclusion is sound, even though pessimism reigns supreme: "Only time will bring the answers. Obviously, the most prudent course is to work for the best but prepare for the worst." (p. 113).

Air Pollution (p. 118): "A 1968 UNESCO conference concluded that man had only about twenty more years before the planet started to become uninhabitable because of air pollution alone." Do the authors really believe this?

(p. 119) The discussions of CO and SO₂ neglect to give any indication that contrary views by respectable workers in Great Britain and expert Committees of WHO do exist.

(p. 120) Is the extrapolation of the disasters in Donora, London, Meuse Valley and Mexico to the globe a valid scientific foray?

(p. 122) "Any one of the examples we have given might be open to question, but taken in toto the picture is clear. Air pollution kills." Does a series of less than positives add up to a positive?

(p. 125) Is it true that Los Angeles has been unable to improve its air quality after millions of dollars have been spent?

Water Pollution (pp. 126-128): The authors arrive at a compound of unsupported conclusions, largely because they did not take the trouble to get at the facts. This is particularly true with respect to the statements re infectious hepatitis and chlorination.

(p. 131) The entire DDT discussion and its effects upon man ignores much medical findings that these effects are still insignificant. The 1970 AMA committee on DDT, and a recent WHO memorandum, confirm this conclusion. The authors, here and elsewhere, have recourse to "the possibility of subtle effects" yet undisclosed. Most investigators suggest continued observation, without again indulging in scare tactics about the unknown.

(p. 134) The emphasis on lead poisoning, particularly from fuels in combustion engines, reflects or even anticipates the present excitement in the United States. It is fascinating to note that in May, 1970, the White Paper of the British Government on "The Protection of the Environment" states that:

"Lead is a well-known poison, but the amount that is emitted from motor vehicle exhausts is, in this country, trivial."

It is interesting furthermore to note that the White Paper concludes:

"There is in fact no evidence that the carbon monoxide in our streets has any adverse effects on health or environment."

These examples of omissions of the "other side of the coin" may be multiplied manifold, as in the discussions of fluoride treatment of water, radiation, chemical mutagens, urban stresses and everything else in life. No one can argue that all such daily artificial adjustments in ecology should be ignored. They should be observed, evaluated and the balance of equities be continually assessed. This is not the same as saying the world is beset by all the evils of man, leading to his early self-destruction.

This book, which has so many charming attributes, fails of its scientific objective because it falls into the trap of Madison Avenue methods. To the student and lay public it offers a mine of information, but entices the less than discriminating reader into conclusions not always scientifically supportable.

President Philip Handler of the National Academy of Sciences, in his testimony on July 21, 1970, before the Congressional Subcommittee on Science, Research and Development, summed up the inadequacy and perhaps even the hazard in the present volume, in the following terms:

It is imperative that we recognize that we know little and badly require scientific understanding of the nature and magnitude of our actual environmental difficulties. The current wave of public concern has been aroused in large measure by scientists who have occasionally exaggerated the all-too-genuine deterioration of the environ-

ment or have overenthusiastically made demands which, unnecessarily, exceed realistically realizable—or even desirable—expectations. . . . The nations of the world may yet pay a dreadful price for the public behavior of scientists who depart from . . . fact to indulge . . . in hyperbole.

ABEL WOLMAN