

for the mess we are in." To salvage the future there must be "a revolution in human behavior, one which embodies fundamental reforms in our economic and political institutions, coupled with the wisest technological enterprises, the necessary ingredient of population control, and a new perception of man's place in nature"—in short, an "ecological revolution."

The 31 papers are grouped into seven sections, each with an introduction that promotes continuity and unity and affords the editors the opportunity to state their views clearly. The authors, mainly scientists and economists who might be categorized as liberal-progressive, wrote originally for such journals as *Science* (about a third of the selections), *Saturday Review*, and *Bulletin of the Atomic Scientists*; their works vary in purpose, quality, style, and information content. The views of some are generally accepted and those of others are controversial, but all are expressed in an interesting, often provocative manner.

The past year has produced a large number of books and collections of papers on environmental problems (paper pollution?), including a set from *Scientific American* by these same editors. This one, although its appeal is sometimes overly visceral and despite the inevitable inclusion of a number of previously reprinted articles, is above average. It will provide additional information and, perhaps, new viewpoints for the informed student. As the supplement to courses in the biologic and social sciences and in human ecology for which the book was designed, it will be informative, stimulating, and convincing, but it is necessary that the reader be made aware that the spectrum of rational viewpoints is broader than that presented here.

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THE SURVIVAL EQUATION: MAN, RESOURCES, AND HIS ENVIRONMENT, ed. by Roger Revelle, Ashok Khosla, and Maris Vinovskis. 1971. Houghton Mifflin Co., Boston. 525 p. \$5.50 (softback).

Perhaps a better subtitle for this collection of 38 articles, mainly reprinted from other sources, would be "Population, resources, and the environmental crisis." The first third of the book includes two major groups of articles: the first on determinants and consequences of population growth, the second on controlling human fertility. The discussion is comprehensive, and the articles range from the statistical treatment found in an article by Roger Revelle through a detached treatment of the abortion debate by Ralph B. Potter, Jr., to a poignant, emotional exchange in an article entitled "Poor Black Women."

Authors represented in the second third of the book, called "Resources, Food, and Development," are also preoccupied with overpopulation and the problem of enough food and resources for all. Only one short section deals with minerals and energy. Frequent mention of Pakistan evokes haunting images of the present political, food, and health crises there. An article by William and Paul Paddock proposes that a system similar to triage (sorting of the wounded in military field hospitals) may have to be adopted in the future to distribute increasingly small food surpluses to countries that can still be "saved." The problem of having to cross some countries off as too far gone to be saved is gory but may well arise if present trends of population versus resources continue.

The last third of the book is devoted to the environmental crisis. It juxtaposes doomsday ideas, such as those expressed by Paul Ehrlich, against the arch-conservative views of John Birchler Gary Allen, who would turn the entire environmental problem over to private initiative for a solution. Action plans for creating a better environment form the last group of articles. The book ends with a plea for environmental education, written by Robert S. Morison, who says, "The choice of what to do is . . . our most important problem and . . . the ultimate basis of choice is aesthetic."

In addition to providing a provocative and well-organized set of articles complete with substantial bibliographies to facilitate further study, the editors have also done a masterful job of selecting the photographs. These, inserted without captions, provide a visual counterpoint to the text. Some evoke a hopeful, whimsical, or humorous mood; others induce feelings of sadness, horror, or hopelessness. The editors are to be congratulated for the inclusion of these forceful visual metaphors.

I intend to recommend this book to colleagues and to undergraduate and graduate students.

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MAN'S IMPACT ON ENVIRONMENT, ed. by Thomas R. Detwyler. 1971. McGraw-Hill Book Co., New York. 731 p. \$5.95 (softback).

The current proliferation of paperback books focusing on environmental problems may be doing more harm—through increased demand on paper pulp and other resources—than good. But occasionally one comes along that has provocative impact . . . and *Man's Impact* is certainly one of these.

Detwyler, a University of Michigan geographer, has put together a pertinent anthology that covers the environmental field: atmosphere and climate,

waters, land and soils, spread of organisms by man, destruction and extinction of animals and destruction of vegetation by man, and man as maker of new plants and animals. In addition, there are fitting prologue and epilogue selections, including an initial overview and summary by the editor himself. Each article—and they have been derived from a variety of published sources and written by a diversity of authorities—is introduced with an appropriate review by Detwyler; and concluding each article is a list of further readings.

Man's Impact should prove an invaluable reference for concerned students and teachers who want well-chosen, literate, and factual considerations of our species' manifold relations with its environment. Use of paper pulp for this particular publication may, in the long run, prove to have been a good investment.

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MAN AND THE ECOSPHERE: READINGS FROM Scientific American, ed. by Paul R. Ehrlich, John P. Holdren, and Richard W. Holm. 1971. W. H. Freeman & Co., San Francisco. 307 p. \$11.00.

This compilation of some of the more outstanding articles published in *Scientific American* over the past 15 years should serve the biology teacher well as he prepares for instruction, and it should also serve as a reference for his students. It has the added feature of commentary by three of the more outspoken and farsighted of present-day ecologists. At the outset it may appear that the authors are doom-saying; but I view the book as one of the more optimistic treatments. It not only tells us what we have done wrong but what we must do to correct our errors.

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Education

SHOULD STUDENTS SHARE THE POWER?, by Earl J. McGrath. 1970. Temple University Press, Philadelphia. 124 p. \$2.45 (softback).

This is a brief but substantial introduction to the question of student participation in college and university governance. The result of a study the author made for the American Academy of Arts and Sciences, it presents data on existing practices (in the appendix), opinions on their effectiveness, and "proposals concerning desirable policies." Included is a bibliography of more than 100 titles, all but a few of which were published within the last