

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

three years. This reflects the fact, as McGrath points out in his introduction, that until recently there was little actual information on the topic and only a limited literature on the theoretic issues of student involvement in policy-making.

A background section presents a brief history and a survey of actual practices. The history shows that the problem is not peculiar to our era. The section on existing practices should help counter many current myths, held by faculty as well as persons outside Academia, about "student power" and the governance of colleges and universities.

The book probes deeply enough to raise, if not thoroughly discuss, the question of the nature of an academic community in relation to political power. It also points up the contrast between participation in policy-making committees and real power.

The lack of preparation of faculty, as well as students, to participate in college and university governance is pointed out in the section called "Specific Preparation for Governmental Services." This section also suggests some ways to provide the needed preparation.

The author shows the basis for student feelings of exclusion from genuine membership in the academic community, and he notes the deterioration of democratic processes that has occurred on some major campuses. However, he does not relate the one to the other.

This is an important book for high school, as well as college, teachers and administrators to read. Although it deals with the issue in higher education, much of the discussion is pertinent to questions now being raised in high schools about student rights and participation in the school community.

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Human Biology

YOUTH AND DRUGS: PREVENTION, DETECTION AND CURE, by Francis H. Wise. 1971. Association Press, New York. 191 p. \$4.95.

Wise gives an excellent description of the drugs we fear today. This "un-reasoning fear of the unknown" (his phrase), which is creating havoc with parents, is made less formidable as it is related to a known problem: alcohol. There is no basic difference in a person's psychologic reaction and his behavior in the use of alcohol and the use of drugs, Dr. Wise says. Society today has learned to accept degrees of involvement with alcohol and to recognize the diseased individuals; drugs can be regarded in much the same way. The use of beer and of marijuana may be

comparable. (However, teenagers must remember that the legal use of alcoholic beverages is restricted to adults.)

Wise shows how the pharmaceutical companies, licensed physicians, criminal elements, the Hollywood jet set, attorneys, and parents share the responsibility for the distribution of drugs throughout our society. The greatest need, however, is to be aware that there is something wrong with our children—especially their upbringing—which has allowed such an upsurge in the drug habit since the 1950s. The influence of the group, or gang, is recognized as a powerful influence on lonely, inept youngsters. Woodstock is described here in language far different from the usual "love" and "peace."

As the first ounce of prevention (years 1-12), Wise advocates that parents help create within the child a good opinion of himself, teach him to appreciate basic authority, listen to the child (not tell him), and provide religious training. As the second ounce of prevention (after age 13), adults should set the example. Permissive attitudes towards morals, sex, education, and the like have set negative forces in motion. To counteract these influences on their teen-agers, parents need to be assured that group activities are adequately chaperoned. Reasonable hours should be expected and parents should know their child's friends. This book is a must for all parents.

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MARIHUANA RECONSIDERED, by Lester Grinspoon, M.D. 1971. Harvard University Press, Cambridge, Mass. 773 p. \$9.95 hardback; \$2.45 softback.

Grinspoon has attempted to bring together the mass of information on marihuana and "to present a reasonably accurate and comprehensive account of the drug and its properties and to put into perspective its dangers and utilities." He has only partly accomplished his purpose. *Marihuana Reconsidered* is not consistent throughout as to its literary or scientific merits. In places it is interesting and well written and in places it is boring, hard to read, and full of inconsistencies and irrelevancies. Some portions seem to be objective; others tend to be biased. Grinspoon has occasionally used data selectively to support or refute a hypothesis. His use of anecdotal quotations and of case histories (some incoherent, some irrelevant, and others poorly written or edited) is excessive and has weakened his text. This is especially noticeable in the chapters on acute intoxication and turning on, in contrast to his chapters on the history of marihuana in the United States, motivation of the

user, the campaign against marihuana, and the question of legalization, which are lucid, well organized, and interesting. Grinspoon has usually documented his statements, but the quality and reliability of the sources of his information varies considerably.

In spite of its weaknesses, the book is a valuable contribution to the literature and effectively brings considerable information into focus. It points out the difficulties of evaluating the past reports on *Cannabis sativa* products and of carrying out research on these products. The chapter on crime and sexual excess nicely dispels many of the myths about marihuana: the drug does not act as an aphrodisiac or turn the user into a sex-crazed killer. The chapters on the history of marihuana in the United States and the place of *C. sativa* in medicine clearly point out the potential usefulness of this plant and the irrationality of any total eradication program.

The chapter on motivation of the user presents some excellent psychologic insight into why people use drugs and what effects repressive laws and punitive actions have on their use. The chapter on addiction provides convincing arguments opposing the stepping-stone hypothesis, which states that the use of marihuana inevitably leads to the use of heroin. And the chapter on the campaign against marihuana reveals the extent to which government agencies and other organized groups will go in order to repress people or acts that do not conform with the accepted norm, even though that norm may be equally or more harmful.

Marihuana Reconsidered leaves many questions unanswered and raises many new ones. Is marihuana (or any drug) really hallucinogenic? How does the drug-sensitization hypothesis apply to marihuana use? How dangerous is a distortion of time and spatial perception? Can increased sensitiveness and heightened suggestibility lead to clearer thinking and deeper awareness of the meaning of things? Can enjoyment or sensation be real if it has to be learned? How real is psychologic addiction? Is the use of marihuana under existing laws and their enforcement really harmless?

One may disagree with certain parts of Grinspoon's thesis, such as his implication that marihuana is harmless; but it is hard to disagree with his criticism of the present fanatic and punitive approach to controlling marihuana use in the United States. Grinspoon says, "A more rational approach to the problem of smoking marihuana in the United States would include legalization of the use of marihuana, regulation of its distribution, and the development of sound educational programs about it." It should be obvious that we must take another look at