

The book can be used independently in minicourses and short-term electives or in general science courses.

This book is one unit in a series of four separately bound units for junior-high-school students or general-science classes. Other units in "The Environmental Sciences" series are *The Changing Environment*, *How People Change the Environment*, and *How Environmental Protection Affects People*. They can be used as a series or independently.

The strength of the book is in the activities, investigations, experiments, and the opportunity to coordinate local and national resources. In different sections the student has guides to "Do It Yourself" or "Find Out by Trying." At the end of each unit there is a section that contains summary statements of the chapter content, new words, and "test yourself" quizzes on chapter content. Other end-of-chapter suggestions that can bring greater depth to individual topics challenge students with experiments in reasoning, theory, and interpretation of data. This book also includes a glossary-index.

Henry J. Bindel, Jr.  
George Mason University  
Fairfax, Va.

LAND ABOVE THE CLOUDS: WILDLIFE OF THE ANDES, by Tony Morrison. 1972. Universe Books, New York. 223 p. \$12.50 hardback.

One of the few works to be concerned with Neotropica, this book attempts to fill the void found among the myriads of volumes concerned with Africa, Asia, Europe, Australia, and North America. It should be included in every high school and university library.

Morrison carefully develops his topic. He credits the early naturalists for their contributions, explains the geographical features of each area, their influence on the climate, and the resultant environmental conditions. The main portion of the text is concerned with an amazingly wide variety of habitats. Not only are there changes as one moves from northern Columbia to southern Chile and upwards in altitude; there are also the western deserts and the eastern tropics, interspersed with occasional remarkably unique local conditions. The flora and fauna of each is described along with their interactions. Even more important, Morrison draws to the reader's attention the activities (traditional and modern) of humans that have damaged the environment in these areas. The final chapter is a depressing account of the attempts made by the Andean republics to protect their wildlife and a dismal forecast for the future unless more international attention is focused in this area.

The book is not without its faults. The British author writes with dryness

and the photographic plates are placed at random with little regard to the text sequence. However, considering the dearth of material available on Andean ecology, it is an outstanding contribution and a valuable resource for the serious naturalist.

Larry Reynolds  
Homewood-Flossmoor High School  
Flossmoor, Ill.

EASY EXPERIMENTS WITH WATER POLLUTION, by Harry Sootin. 1974. Four Winds Press, New York. 99 p. \$5.50 hardback.

Of this book's 99 pages (excluding glossary and index) 38 pages deal directly with simple experiments. The remaining pages are in narrative form and cover a broad spectrum of topics including filtration, chlorination, water softening, aeration, biodegradability, toxic metals, and the construction of cess pools and septic tanks. There is also a discussion of the possibility of water pollution from the use of such sewage disposal methods.

According to the publisher, the book is written for use by students in grades 3-7, ages 8-12. The experiments are interesting, and, with the aid of a teacher, can be performed by many students in this age bracket. However, I feel that most of the narrative portion is much more suitable for above average high-school students. It is written in a terse encyclopedic style with a plethora of scientific terms and descriptions.

Most errors are made by omission rather than commission. For example, the need for chlorination of swimming pools is discussed, but no mention is made of regulating the pH of swimming pool water. In another instance, inhalation of mercury is said to be hazardous to human health, yet the reader is not cautioned against the handling of mercury in the classroom. Few chemistry teachers use free mercury in the laboratory, because small spills accumulate and mercury is volatile. The author mentions that "strong alkaline solutions feel slippery to the touch, and taste bitter." A young student might touch or taste a concentrated NaOH solution. No caution is given. The reader is left with the impression that chromium is absorbed by food cooked in stainless steel pans and is a possible cancer-producing agent. One experiment with galvanized pipe might lead the reader to assume that cadmium and lead impurities in the zinc coating of galvanized pipe is hazardous to human health. Yet galvanized pipe has been used for many years in a majority of homes throughout the country. These implications further indicate the need for the use of the book to be supervised by teachers.

The general organization of the book could be improved. For one confusing

example, the statement is made that serious diseases are carried in polluted water; yet in another chapter the author states that most pathogenic bacteria are not carried by water.

Despite its shortcomings, the book does contain more easy-to-do experiments with water pollution than any other book I've seen. I recommend this book for resource use by elementary and junior high-school teachers but not for direct use by 3-7-grade students.

Norman Abraham  
Forest Ranch, Ca.  
Interaction Science  
Curriculum Project

CONSERVATION, by Archie S. Mossman. 1974. Intext Educational Publishers, New York. 208 p. \$8.50 hardback, \$4.50 softback.

Conservation is more than applied ecology; it is the fusion of ecology with ethics. In this book the author discusses the ecological and ethical aspects of decisions regarding conservation that will affect our own and future generations. We must, he argues, choose among our options so that we, and those who follow us, will have the largest possible number of options for future choices. Since the application of sound ecological principles is essential in conservation, he presents a brief summary of these principles in the second chapter. In twenty pages, he gives the novice an outline of basic ecology illustrated with well-chosen examples. In the rest of the chapters he discusses our conservation problems: erosion, land use, weather modification, wildlife, and aquatic resources. Many readers will find the final chapter, on the quality of life, unsatisfactory. Mossman points out that it is hard to determine what constitutes a "good life" and that no two people will come up with the same answer. He points out the differences between standards for quality of life in industrialized and in undeveloped countries. Finally, he gives an example of a case in which a group of students was able to reestablish ecological balance (improve the quality of life) in an area that had been severely disturbed.

The author's diverse background comes through many times in the book. His studies at the University of Wisconsin, his field work in Alaska and Africa, and his current work in Northern California provide him with a wealth of illustrative material that is new and refreshing to the instructor who has read many thin volumes that repeat the same examples of the impact of man on his ecology.

The book is a part of a series edited by A. S. Boughey to present "our present environmental confrontation at an introductory college level." For such use, this book has a glossary, a modest selection of references, and lists of supplementary readings arranged by chapter. The text is well written, at a level