

This Is the American Earth. Ansel Adams and Nancy Newhall. Sierra Club, San Francisco, Calif., 1960. xviii + 89 pp. Illus. \$15.

Any child can snap the shutter and hold a mirror up to nature, but great photography is more than luck, or even craftsmanship. Those extra ingredients of art, the artist's deep emotion and his controlled ability to communicate it, are present in many of the pictures that make up this beautiful book. Ansel Adams, whose own work makes up more than half of this collection, is a master who wields the camera's mindless eye exactly as a painter does his brush. The result is pure esthetic delight, a "stirring book," as David Brower calls it in his introduction, a fitting celebration of the glories of our national parks, and a splendid tribute to the farsighted citizens who fought to preserve them.

If this were a commercial publisher's bid for a share of the Christmas trade, one need say no more about it. The book would be a handsome gift for anyone. Far from being intended as an eye-catching gift package, however, it has a Message, promulgated by the Sierra Club, a leading conservationist organization. The message is grafted onto the photographs in the form of a text by Nancy Newhall. At the risk of seeming to throw spitballs at Home and Mother, I have to say that what comes through to me is not Conservation, but Conservationism. By this I mean a tendency to effusive overstatement that makes some conservationists sound like members of a cult.

Ordinarily the tendency is harmless enough, perhaps; but ridicule is a dangerous political weapon in the hands of one's opponents. Conservation, as a political movement, stands for intelligent, ecologically sound use of man's environment, with due regard for ethical and esthetic as well as economic standards. The preservation of wilderness is one of the essential steps in the wise use of resources, for many reasons, but scenery is not the only resource. If the proponents of preservation can be made to look ridiculous or, worse, can be charged with cant, the whole political program suffers. And it sometimes appears that we are asked to set aside more wilderness, not because it is essential, but so that more voices crying there can go unheard, except by the elect.

Nancy Newhall is a writer, not a

conservationist, and cannot be held responsible for all the excesses of conservationism. For a professional writer, however, she is remarkably insensitive to language; from her wide (and probably hasty) reading she has picked up virtually all the more pretentious clichés of the cultist fringe. The consequence, if not exactly cant (it is too obviously well-intentioned for that), is a pseudo-poem, so full of Message that there is no room for poetry. Even more surprising is its disharmony with the photographs: its mood is relentlessly epic where lyrics would seem to have been called for.

Fortunately, any purchaser who can get past the book's repellent title will probably not even notice the text, and the pictures *are* magnificent.

EDWARD S. DEEVEY
*Department of Zoology,
Yale University*

Foundations of Modern Analysis. J. Dieudonné. Academic Press, New York, 1960. xiv + 361 pp. Illus. \$10.

Dieudonné is a member of the famous group of mathematicians called N. Bourbaki, a group which is very formal, pure, and abstract. This book displays these traits in a humanly palatable form; however, the reader is assumed to be familiar with "advanced calculus" and an abstract variety of "elementary algebra." The purpose of the book, in the author's words, is "(a) to provide the necessary elementary background for all branches of modern mathematics involving 'analysis'; (b) to train the student in the use of the most fundamental mathematical tool of our time—the axiomatic method (with which he will have had very little contact, if any at all, during his undergraduate years)."

The author states: "It will be very apparent to the reader that we have everywhere emphasized the conceptual aspect of every notion, rather than its computational aspect, which was the main concern of classical analysis; this is true not only of the text, but also of most of the problems." He then speaks of "the necessity of a strict adherence to axiomatic methods, with no appeal whatsoever to 'geometric intuition,' at least in the formal proofs: a necessity which we have emphasized by deliberately abstaining from introducing any diagram in the book. My opinion

is that the graduate student of today must, as soon as possible, get a thorough training in this abstract and axiomatic way of thinking, if he is ever to understand what is currently going on in mathematical research. This volume aims to help the student to build up this 'intuition of the abstract' which is so essential in the mind of a modern mathematician." This statement must sound very mystical to the uninitiated; its source is the fact (proved in this century) that all of the ideas of mathematics can be developed formally without any reference to the "real world." This fact sets the stage for the mathematician to act as a disembodied spirit; time and space no longer play any part in his deliberations; any intuitions he has must be of the abstract. That such intuition is possible (?) is an amazing ability of *homo sapiens*; of course, man's ability to create mathematical ideas is derived from the use of several (if not all) human faculties.

In the following interesting passage from the book, it is worth noting that words which refer to time and space are enclosed in quotation marks: "The student should as soon as possible become familiar with the idea that a function f is a single object, which may itself 'vary' and is in general to be thought of as a 'point' in a large 'functional space'; indeed, it may be said that one of the differences between the classical and the modern concepts of Analysis is that, in classical mathematics, when one writes $f(x)$, f is visualized as 'fixed' and x as 'variable,' whereas nowadays both f and x are considered as 'variables' (and sometimes it is x which is fixed, and f which becomes the 'varying' object)."

I recommend this book to those who want to be professional mathematicians and who already have had some experience with abstract methods; others enter at their own risk.

PETER FRANK
*National Bureau of Standards and
Syracuse University*

Algenkunde. Bohuslav Fott. Fischer, Jena, 1959. vii + 482 pp. Illus. DM. 48.90.

Algae, in the broadest definition of the term, are the subject of this treatise, which is based on the author's *Sinice a Rasy*, written in Czech and published in 1956. The bulk of the book is de-