

SCIENCE, ETHICS AND POLITICS, Albert Szent-Györgyi, 91 pp., \$2.50, Vantage Press, New York, 1963.

Written by a Nobel laureate, this is a small book of collected letters to the editor, essays, and excerpts from speeches. The common denominators throughout all of these writings are that mankind is faced with the decisions as to his eventual annihilation, that time is running out for a solution to mankind's problems, and that science offers the only hope that mankind has. It is a sobering book representing a famous scientist's attempt to help his conscience in a world which is faced with overwhelming armament.

THE LANGUAGES OF SCIENCE, Philippe Le Corbeiller, Ed., 224 pp., \$4.95, Basic Books, Inc., New York 16, 1963.

A compendium of lectures given over a British television network on scientific communication in various aspects. The authors include Beadle, Adrian, and Ashby. The subtitle of the book is "A Survey of Techniques of Communication," and this tells the running theme through the book. One author makes quite an excellent case for scientific education for all English citizens, and the arguments are just as cogent for American readers. The chapter on animal communication is interesting, and the section on Pavlovian conditioning is surprising and well worth reading. The index is quite useful.

THE ANCIENT ENGINEERS, L. Sprague DeCamp, 408 pp., \$4.95, Doubleday and Company, Inc., Garden City, New York, 1963.

This is a lively, scholarly, and well-documented account of what must seem to the reader—after a few pages—to be an important chapter in the history of civilization. It tells of the lives and accomplishments of an exceedingly ingenious and important group of men—the ancient engineers—but at the same time it weaves in the history of science and shows relations with the more familiar political and military events of history. Numerous anecdotes illuminate the pages of the story.

The author's enthusiasm for his subject is displayed in his jaunty style. *Progress* is a good word in his vocabulary and so is *technology*. His not too frequent interpolations of philosophical comments display his "humanism" and his optimism which is tempered by a sense of the tragic and ironic in human affairs.

The latter note is sounded with peculiar force in this story of the beneficial effect of the philosophy of Thomas Aquinas on the subsequent progress of science in the western world as contrasted with the depressing effect of the philosophy of Ghazzali in the reactionary world of Islam. Aquinas had taught that science of Aristotle was compatible with religion; Ghazzali

that it was destructive of religion. He writes, "the real irony is that Ghazzali was right and St. Thomas was wrong. Science *does* shake man's faith in God and undermine religion. It has been doing so for many years and shows every sign of continuing to do so. As to how it will all end, and whether this is a good thing or a bad thing, only our remote descendants—if any—will be able to say."

I found the story of the destruction of the libraries on page 131 the most comprehensive—for a concise statement—that I have seen, not only of the libraries of Alexandria but of many, many others. Scientists, and particularly teachers, of all disciplines will, I believe, greatly enjoy this excellent book.

Warren E. Howland
School of Civil Engineering
Purdue University

CHARLES DARWIN AND NATURAL SELECTION, Alice Dickinson, 192 pp., \$2.95, Franklin Watts, Inc., New York 22, 1964.

CHARLES DARWIN, Gavin de Beer, 290 pp., \$4.95, Doubleday and Company, Inc., Garden City, New York, 1964.

ON THE ORIGIN OF SPECIES, Charles Darwin, 502 pp., \$5.95, Harvard University Press, Cambridge, Massachusetts, 1964.

The year 1959 marked the centennial of the publication of the *Origin of Species* and appropriately a great number of books concerning Darwin and Darwinism was published in that year and the few years following. The end is apparently not yet in sight as is indicated by the appearance of these three works. Although it is nowhere stated in the book, it seems that Dickinson's account of Darwin is intended for younger readers; it can certainly be read with profit by many adult readers, however. De Beer's book, on the other hand, is for the more mature person, and I might add, it is also one which should be recommended to the superior high school biology student. One outstanding feature of de Beer's work which distinguishes it from Dickinson's is his rather complete discussions of current views on many of the subjects which Darwin studied. Both authors have provided us with interesting books and have done an admirable job of making the personality and genius of Darwin apparent. De Beer's, however, is the more stimulating account.

The more or less standard edition of the *Origin of Species* has been the seventh or last edition (1872). Why then this facsimile of the first edition? In the introduction, Ernst Mayr states, "Surely, the justification for a facsimile of the first edition . . . need not be established." However, he thoroughly establishes the justification by pointing out, among other things, that "where we go back to the *Origin*, we want the