

## Book Reviews

### Darwin Today

**Charles Darwin.** The founder of the theory of evolution and natural selection. Gerhard Wichler. Pergamon Press, New York, 1961. xvii + 228 pp.

One would have thought that the year 1959 would bring us a definitive biography of Darwin. This was not to be. There were numerous symposium volumes and collections of essays which contributed signally to our understanding of Darwin and of the evolutionary theory. We witnessed the publication of a number of important contributions to the history of evolutionary thinking, among which Eiseley's *Darwin's Century* is outstanding. Yet, all attempts at Darwin biographies fell far short of their aim. Some of them are colorless compilations, while others are vicious denigrations which concentrate their efforts on proving that Darwin had no originality and that all that was good in the *Origin of Species* had been plagiarized from earlier authors. Perhaps it is just as well that no one tried to write the definitive biography. Not only has evolutionary research made such rapid advances in recent years that many questions now appear in a very different light from that of only a few decades before, but the Darwin centennial also led to the rediscovery of the Darwin notebooks, the contents of which are more revealing than anyone had dared to hope. The sources of his information and inspiration, the chronology and maturation of his ideas, his scientific method, all this appears in a new light. No one should attempt a biography of Darwin until the critical analysis of the notebook material has been completed.

#### Philosophical Misconceptions

He who wants to inform himself on Darwin, in the meantime, will find an objective and concise summary of Darwin's life and of his role in the history of evolutionary thought, in Gerhard Wichler's *Charles Darwin*. This is an ambitious volume. In part 1, the his-

tory of the theory of evolution from 1600 to 1859 is presented. Wichler quite rightly does not carry the history back to the ancients, because their impact on the development of evolutionary thought has been remarkably small, some classicists and historians notwithstanding. If anything, their influence has been inhibitory. Aristotle's failure, in the discussion of final causes, to make a clear distinction between causes for the development of the individual and for the development of nature as a whole (which is the proper subject of evolution), has bedeviled students of evolution until Darwin's day and up to the present. So has the futile endeavor of the metaphysical idealists to reconcile observed change with Plato's concept of the essentially unchangeable *eidos*. The history of the emancipation of our thinking from these philosophical misconceptions has not yet been written. It awaits an author who understands both philosophy and evolutionary theory. Wichler gives us a very brief glimpse. Not only is it quite impossible to cover the whole history of evolutionary thought in the 66 pages which he devotes to it, but there are numerous aspects of this history on which a great deal more original work needs to be done. For instance, what are the sources of historical thinking, a type of thinking which is so conspicuously undeveloped among the ancient and medieval philosophers, and what are the sources of thinking in terms of populations? Have the numerous books and papers on the evolution of "form" without evolution of the "essence" been a boon or a hindrance to evolutionary thinking?

Wichler's basic thesis, confirmed again and again by modern research, is that evolutionary thinking in the century before Darwin was quite widespread but that the major publications on the subject were so speculative and deductive (as well as factually ill-informed) that they did more to discredit the subject than to help it. This Darwin knew only too well, which was the main reason why he collected facts for so

many years (more than 20) after the basic formulation of his theory and why he hesitated to publish until virtually forced into it by circumstances.

Part 2 of Wichler's work is a 30-page essay on the development of Darwin's thought on the subject of evolution and, in particular, on the theory of natural selection. Part 3 (104 pages) is somewhat heterogeneous; it contains a survey of Darwin's whole literary output in biology, a description of his family (ancestors and children), his life, his chief characteristics, his relations with Wallace, Hooker, Huxley, Gray, Lyell, and other friends, as well as a bibliography of his books.

The author's encyclopedic approach has enabled him to bring the reader in contact with an enormous amount of subject matter, but this very approach in so small a volume has prevented him from achieving anything more than a cursory survey. There is little in it that could be considered novel or original. The translation (from the original German) appears to be well done, though there are a few slips (like *sea rose* for *water lily*). Much of the recent English and American literature on Buffon, Lamarck, and Darwin was apparently unknown to the author, but this is compensated for by the fact that he quotes and discusses a considerable number of European, mostly German, authors whose writings are neglected by the English-speaking world. What gives the volume its special value is that it is singularly free of the various prejudices which mar other recent Darwin biographies. It can be well recommended to anyone who wants a concise, objective introduction to Darwin's life and the history of the evolutionary theory.

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### Rocks' Longevity

**The World of Geology.** L. Don Leet and Florence J. Leet, Eds. McGraw-Hill, New York, 1961. viii + 262 pp. Illus. Cloth, \$4.25; paper, \$2.75.

This small book appears to be for the "lay" reader who is intelligent and inquiring but who is not necessarily the possessor of a university education, and its short chapters are units that can be read enjoyably at intervals. This achievement results from the compilers' careful adaption of works by many