

of religion, which he defines as an attitude "of personal relationship towards the universe." This leads him, finally, to the region of mysticism, where his counsel is that we should seek to transcend time and in such wise follow the exhortation of Aristotle "to be immortal as far as possible even in this life."

On the whole, Dr. Brown ranges over an extraordinarily wide field. But for so doing he can at least claim the high sanction: *Wer vieles bringt, wird manchem etwas bringen.*

C. SPEARMAN.

### A New Approach to Zoology.

*The Elements of General Zoology: a Guide to the Study of Animal Biology, correlating Function and Structure; with Notes on Practical Exercises.*

By Prof. William J. Dakin. Pp. xvi + 496. (London: Oxford University Press, 1927.) 12s. 6d. net.

ZOOLOGY has been suffering during recent years under the unjust and wholly undeserved criticism that it does not readily lend itself to experiment and is therefore, in this respect, inferior to botany as a subject for inclusion in the school curriculum. It is true that there is still a tendency to lay too much stress on structures and to neglect the functions served by those structures, but this is the fault of the teachers rather than the subject. Prof. Dakin's book is at once a complete justification of the right of zoology to be considered as an experimental subject for school work, and a guide to the teacher as to how the relative claims of function and structure can be adequately met in their courses. Function is the dominating note of the book and, except for a chapter specially devoted to the Protozoa, the subject matter is arranged under the headings of the various functions of animals and not under the customary systematic groups. In dealing with any one function, the author has given just so much structural detail of the organs concerned as is necessary for a proper comprehension of their uses, and has saved much valuable space by the free use of carefully annotated drawings and diagrams to impart the details of anatomy.

Among the most valuable parts of the book are the experiments, which are carefully outlined in each chapter, for practical demonstration of the physiological processes underlying function. The material chosen for these experiments is readily obtainable and easy to manipulate; the experiments themselves are simple and the apparatus

inexpensive. With these as their guide, teachers should have little difficulty in making intelligible, even to their younger pupils, the life processes of the living animal. They will at least be able to make zoology a living science.

The book is intended mainly as a guide to the study of animals through their functions, but in order to meet the needs of laboratories where one type is studied at a time in the practical classes (and this must inevitably be the case in most school laboratories), the author has assembled in the index all references to a particular type under one heading, so that the book readily lends itself for use as a practical text-book from the systematic point of view. Special praise must be accorded to the illustrations. Not only are they clearly and beautifully reproduced, but also they have been chosen with great care, and in nearly all cases have been modified and specially annotated. Their value has been enhanced enormously thereby.

Prof. Dakin has, in our opinion, abundantly justified the preparation and publication of this book. It strikes a new note in text-books of zoology, and should prove of incalculable help to teachers of biology in schools, while university teachers will find much in it of real use for their intermediate courses. It is the most refreshing and stimulating text-book, from the teachers' point of view, that has been published for some time. The Oxford Press deserves special commendation, not only for the admirable way in which the book has been produced, but also for its remarkably low price.

### Our Bookshelf.

*Ancient Cities and Modern Tribes: Exploration and Adventure in Maya Lands.* By Thomas Gann. Pp. 256 + 32 plates. (London: Gerald Duckworth and Co., Ltd., 1926.) 21s. net.

FOR several years past, Dr. Gann has published annually a volume containing an account of his adventures and experiences while engaged in archaeological exploration in Central America during the preceding winter. Entertaining and instructive as the preceding narratives have been, the present surpasses them in interest, as it contains not only an account of the further exploration of the remarkable site of Lubaantun, opened up in the preceding year, but it also records one of the most sensational discoveries hitherto made in American chronology, as well as the revelation of an entirely new and unexpected centre of Mayan culture, of which many features are unique.

Any one of these achievements would have served to assure the success of the expedition from the scientific point of view, and would have afforded ample compensation for the hardships it entailed.