

classifiable needs affording the guiding principle, a single cultural element, such as the 'naven' ceremony, may be regarded from a number of aspects. Of these, three are considered here, the structural, the emotional and the sociological, and made, as it were, the matrix from which emanate lines of inquiry to embrace an analysis of the whole pattern of behaviour and the social complex. It deserves, and no doubt will receive, the careful consideration of all field anthropologists.

## Biology

### The Microscope

By Prof. S. H. Gage. Sixteenth edition, revised and enlarged by the addition of a Chapter on Micro-Incineration. Pp. viii+617. (New York: Comstock Publishing Co., Inc., 1936.) 4 dollars.

THIS standard work passes to its sixteenth edition, which is thoroughly revised. Probably earlier editions are in the laboratories of every university and research institute, but there is not as much evidence in respect to their use as might be expected. Indeed, few laboratories can place at the disposal of their research workers the full equipment necessary for the microscopic examination of any animal or plant tissue. Teachers may explain the structure and use of a microscope, but cannot do more, since microscopy is a subject which can only be learnt by extended experience. The sole comparison of animal and plant tissues that have been killed, fixed and stained is out of date, and attention is concentrated first on the living tissues rather than on their artificial pictures; the final result has to be a composite, derived from all available means of observation.

As to the instruments, the bright-field microscope is generally mastered, but the dark-field, so invaluable for living organisms, is too little used largely because laboratories have no adequate illuminant for such. The polarizing and ultra-violet microscopes have limited use but must be available. The latter depends on the fluorescence of the substances, for example, chlorophyll giving red, and the living cells can be studied while the rays are affecting them; its use should be greatly facilitated by Dr. Gage's recent invention of an aluminium-vapour reflector, the film being deposited on polished quartz discs. No reference is needed to the chapters dealing with drawing, projection, mounting, section-cutting and other accessory technique as they show no great advances; for hæmatoxylin staining care should be taken that the Canada balsam used for mounting be alkaline.

Lastly, there is a useful chapter dealing with micro-incineration, as to which we first learnt as a practical process about four years ago, when a study was made of the distribution of the inorganic salts in the early development of the chick. The plan here is to eliminate the organic matter without unduly disturbing the mineral matter, which can be most conveniently studied on a dark-field; here spectrographic methods should also be useful.

### Nature in Britain:

an Illustrated Survey. Introduced by Henry Williamson. With Contributions by R. St. Barbe Baker, E. G. Boulenger, L. C. Bushby, R. and E. Gathorne-Hardy, Seton Gordon and Frances Pitt. (The Pilgrims' Library, Vol. 3.) Pp. v+250+97 plates. (London: B. T. Batsford, Ltd., 1936.) 5s. net.

THIS book, containing no less than 143 illustrations from photographs of animals and plants, written by experts in their several lines, is a remarkable production. Inevitably there must be compression, and the various chapters contain little more than brief descriptions and the more recognizable identification marks and habits of Britain's wild life. This, too, is necessarily unequal. While Miss Pitt tells us something about every one of our mammals, and Mr. Boulenger about our reptiles and amphibians, Mr. Seton Gordon cannot in thirty pages mention every British bird, or Mr. Bushby every one of several thousand insects.

As an introduction to the wild life of Britain which will compel even the blasé to take an interest, however, the book can be thoroughly recommended. It is simply written. The chapter on pond life is enough to send every boy off with a jam jar and net to the nearest pond. The illustrations are wonderfully clear, and give a good idea of the astonishing advances made in this department of photography. Where all is so good, it seems churlish to criticize, or to single out any particular chapter for praise. Nevertheless, the reviewer would have liked a little more information about certain quite common creatures; for example, there is no mention of the grass snake's offensive defensive, while "Do dragon-flies sting?" is a question only too frequently asked, and it is not answered here. Still, the amount of information given, and pleasantly given, is wonderful. If the youth of to-day is no longer interested in Nature, it is not for lack of inspiring and inspired naturalists.

### The Eggs of Mammals

By Prof. G. Pincus. (Experimental Biology Series.) Pp. ix+160. (New York: The Macmillan Co., 1936.) 14s. net.

THE subject of this book is the behaviour of mammalian eggs from the time of their genesis in the ovary to their implantation in the uterus. It opens with a discussion of the origin of the ovum, its growth and that of the follicle, and then passes on to its main theme, the physiology of fertilization, parthenogenesis and cleavage.

The mammalian ovum offers many special problems because of its close dependence on a particular environment, that of the maternal uterus, which is itself under the influence of various hormones elaborated in other parts of the body. These relationships are not yet by any means cleared up, but a promising beginning has been made in their investigation, largely by Dr. Pincus himself, many of whose results are here published for the first time. The author has also been responsible for important advances in the technique of handling and cultivating mammalian eggs outside the body, and has been