

of snakes or highly magnified scales, which are reproduced in astonishingly inaccurate colours. These and the highly magnified black-and-white drawings of scales and photographs of chopped-off pieces of dead snakes might have been replaced with advantage by a few good photographs of snakes and drawings on a somewhat smaller scale.

The book contains scarcely any references to the habitats of the snakes, and as a result one is apt to get a very misleading idea of the prevalence of certain species. Moreover, a knowledge of the habitat is often an aid to the identification of species, as, for example, in distinguishing such similar snakes as the black form of the boomslang and the adult of *Thrasops occidentalis*.

It is regrettable that so much expense and trouble should have been devoted to a work of this nature, when Angel's "Les serpents de l'Afrique occidentale" was available, and still more so since the recent publication of A. Villiers's "Les serpents de l'Ouest Africaine".

E. HINDLE

The Birds of the North Kent Marshes

By E. H. Gillham and R. C. Homes. Pp. 320+23 plates. (London and Glasgow: Wm. Collins, Sons and Co., Ltd., 1950.) 12s. 6d. net.

THIS book is a painstaking survey of the birds of the north Kent coastal area, the district from Gravesend to the mouth of the River Medway and running inland to Rochester, Gillingham and Sittingbourne. The marshes of the Thames Estuary are ornithologically of considerable interest, not only by reason of their resident birds but also because of their migrant visitors. The authors devote a chapter to the discussion of migration as it may be observed on these marshes, remarking that the spring movements are not so conspicuous as those of autumn, which begin in late summer—for example, by the middle of July the flocks of curlews have reached full strength. The authors note that August sees the peak of the movement for a number of species. Many flight lines seem to intersect here, birds, probably from the Continent of Europe, being seen flying up the Thames, no doubt soon to cut across land to the south coast, while other parties are seen flying from north to south.

The contents of this book are divided into two parts: in the first the history and physiography of the marshes, the various bird communities and migration are dealt with; and in the second part a systematic list is given in which the birds of north Kent are dealt with individually. With the exception of one or two maps, the illustrations are from photographs and are fine examples of the work of the bird photographer. This book is to be commended to the attention of both those interested in general ornithology and those specializing in the bird life of the Thames Estuary.

FRANCES PITT

John Constable's Clouds

By Kurt Badt. Translated from the German by Stanley Godman. Pp. ix+102+8 plates. (London: Routledge and Kegan Paul, Ltd., 1950.) 12s. 6d. net.

THIS is more of a philosophical than a meteorological treatise. The author is mainly concerned to demonstrate the influence upon John Constable and, incidentally, also upon Goethe, of Luke Howard's system of cloud classification. There have been other great cloud painters such as Turner and Ruysdael; but Constable's work rests on a knowledge of

Howard's system and it is this which makes the dynamical quality of his cloud studies, so suggestive of rapid change, highly interesting to meteorologists. This is surely a striking example of the aid which science can render art.

The author then goes on to discuss the parallelism and divergencies between the outlook upon Nature of Constable and Wordsworth. Both the painter and the poet belonged to the Romantics, who sought a fresh interpretation of natural beauty in direct observation. But, whereas Constable seems to have remained content with external Nature, to the study of which he resorted to escape from the harassing affairs of men, Wordsworth was led through external Nature to man as part of Nature.

There can be no doubt that the author establishes his main thesis; but he could have made the book more pleasing by introducing himself to his readers with some kind of preface or introductory note.

L. C. W. BONACINA

Papers of the British School at Rome

Vol. 17 (New Series, Vol. 4), 1949. Pp. viii+183+17 plates. (London: British School at Rome, 1949.) n.p.

THIS volume maintains the high level to be expected from the British School at Rome. More than ever is it essential to keep that balance between thought and action which archaeological work rightly involves. The value of a 'dig' can be assessed by the man of science not only as evidence, but as the visible revelation of the standard which, at a given period, technique had attained. In consequence, too, problems of conservation arise.

Two instances, culled from the impressive erudition of these pages, are perhaps apt illustrations. One is the deposit of Buccero ware found near Ardea (Latium) during military operations in 1949. The clay of these vessels is a dark grey, with mica inclusions, originally covered with a glossy black. Inside, however, this coat is continued downwards to rather more than one-tenth of the height, and is thought to have been peptized, thus accounting for the sheen and darker tone.

The second example concerns the prominent place assigned to early Christian ivory rather than to sculpture as a basis for views about the survival of Hellenism in Alexandria. The broad conclusion seems to be that sculptors active in Egypt around the fifth and sixth centuries were more strongly influenced by classical ivories than by Coptic styles.

F. I. G. RAWLINS

Colloques Internationaux du Centre National de la Recherche scientifique, 18

La liaison chimique, Paris, 12-16 Avril 1948. Pp. v+243. (Paris: Centre National de la Recherche scientifique; London: H. K. Lewis and Co., Ltd., 1950.) 2,200 francs; 49s.

THIS volume contains papers, accompanied by discussions, by several authorities on different aspects of the modern theory of the chemical bond. Each article includes a list of references to literature. Although this type of publication tends to be rather chaotic and lacking in the coherence one expects in a treatise, it serves a useful purpose, and in this case it brings together much information which would not otherwise be easily assembled. The papers are, almost without exception, highly mathematical, and readers without the necessary mathematical equipment will not find them very intelligible.