

features of Egyptian archæology and philology, and Sir J. Rhys covering similar ground in Wales, are not inappropriate.

There is one thing, however, which we commend earnestly to the Congress, namely, the preparation and publication of a supplementary place-index, which might be brought as nearly to date as possible, and would render this volume and the annual indexes doubly or trebly valuable. The fact that some fifty-four of the journals indexed are the publications of local archæological societies speaks for itself. With Mr. Gomme's work completed the rest would be easy; but it is none the less an urgent need.

*Notions générales de Biologie et de Plasmogénie comparées.* By Prof. A. L. Herrera. Translated by G. Renaudet. Pp. xxviii+260. (Berlin: W. Junk, 1906.) Price 10 marks.

THIS is a remarkable book, full of suggestive speculation, much of which is unlikely to command general acceptance, but at the same time the analogies which the author draws between emulsions of various sorts and organic form are full of interest.

The whole book seems to have arisen out of a series of notes for students, and its rather disconnected form retains the impress of this original design. The result is rather original, and arrests the attention even where one does not agree with the author.

Prof. Herrera suggests that organic structure arises as the result of precipitation, coagulation, or solidification modified by the presence of diffusion currents and similar influences. A large number of experiments are given in which commonly occurring organic structure is closely imitated by precipitations of silica, &c., under conditions which are carefully described.

There is a refreshing freedom from dogmatism, but the author has the full courage of his own convictions, as is shown by the crisp and clear definitions which he gives of phases of organic life that most investigators find difficult of satisfactory expression.

The work is introduced by a preface from the pen of Moritz Benedikt, professor of medicine at Vienna, who is, of course, in sympathy with the general trend of the book, whilst he is, like its author, alive to the many difficulties in establishing all the conclusions. A sentence from the final essay of the volume, also contributed by Prof. Benedikt, puts the main thesis of Herrera so clearly that we may be pardoned for quoting it:—"... le monde organique, et la vie, sont nées du monde minérale dans les masses de vésicules mousseuses hautment organisées."

*Einführung in die Paläontologie.* By Gustav Steinmann. Second edition. Pp. xii+542; illustrated. (Leipzig: W. Engelmann, 1907.) Price 14 marks.

IN the matter of bulk this edition shows a marked increase over the first edition (1903); while, in most cases, at any rate, it appears to have been brought fairly well up to date. The ancestral proboscideans from the Egyptian Eocene are, for instance, duly noticed, and recent work on Patagonian Tertiary vertebrates likewise receives due attention. On the other hand, we notice an absence of any reference to Dr. Broom's opinion that the South African Triassic *Tritylodon* is, after all, a mammal; while in certain cases the author departs from the generally accepted classification without any apparent or sufficient reason. In the ungulate mammals, for example, the hippopotamus is removed from the *Artiodactyla* to find a place with *Dinoceras* and *Coryphodon* among the *Amblypoda*; in fact, *Hippopotamus* and the American Tertiary genus *Merycochærus* are actually included in the family *Coryphodontidæ*. This is bad enough, but when we find *Oreodon*—the immediate ally of *Mery-*

*cochærus*—occupying its proper position in the neighbourhood of the camels, we are at a loss whether to attribute such eccentricities to mere carelessness or to lack of knowledge on the part of the author.

Carelessness cannot, however, be pleaded in the case of the phylogeny of the vertebrata given at the close of the volume. For there we have carefully compiled tables in which the dolphins are brigaded with ichthyosaurs as *Ichthyotheria*, while sperm-whales and plesiosauroids are grouped together as *Plesiotheria*, and whalebone whales and the mosasaurs as *Thalattotheria*. The giving of definite names to these incongruous groups is of itself a sufficient proof that the author regards them as definite phylogenetic assemblies, and not mere instances of adaptive analogy; but the matter is clinched by the following statement on p. 512, viz.:—"Wir sind also vor die Entscheidung gestellt, entweder ein unverständliches und geradezu übernatürliches Eingreifen vorauszusetzen, oder uns im Rahmen des gesetzmässigen Naturgeschehens die zahlreichen einzelnen Säugerstämme voneinander gesondert aus ebensoviele Stämmen der Reptilien herworgegangen zu denken."

With such eccentricities, alike in classification and phylogeny, we are unable to recommend Dr. Steinmann's volume as a trustworthy guide to the student of palæontology. Neither can we congratulate the publishers on the illustrations, unless, indeed, a "palæographic" style of art be deemed specially suitable to a palæontological treatise. R. L.

*The Chemistry of the Diazo-compounds.* By Dr. J. C. Cain. Pp. xi+172. (London: Edward Arnold, 1908.) Price 10s. 6d. net.

WHEN we compare the steady output of monographs on chemical subjects on the Continent with the few publications of this class in English, we naturally ask whether English publishers are less enterprising than their neighbours, or English chemists less given to specialisation.

We are inclined to the former view, and regard it as a welcome sign that the new departure in English chemical literature, introduced in the form of physical chemistry manuals, and published under the editorship of Sir W. Ramsay, has found favour with another enterprising firm, and extended to organic chemistry. It is to be hoped that the present volume represents the first of a series of similar publications.

Although the chemistry of the diazo-compounds appears at first sight to be a subject of rather restricted range, it must not be forgotten that it is of direct technical importance, connected as it is with one of the largest branches of the colour industry. Moreover, a special interest attaches to the appearance of Dr. Cain's book at the present time, for it stands as a memorial of the fiftieth anniversary of Griess's famous discovery. Although Johann Peter Griess was a German, born and bred, the bulk of his researches on the diazo-compounds were carried on in this country, first whilst he was acting as assistant to Hofmann in London, and later during intervals of leisure extending over many years after his appointment as chemist to Messrs. Allsopp, brewers, of Burton-on-Trent.

The protean character of the chemical changes which the diazo-compounds exhibit, their close connection with colour chemistry, as well as their structural relations, which still furnish a perennial subject of discussion, appeal in turn to the scientific and industrial chemist (if this distinction between the two forms of chemical energy is permissible). The author has been able to write with the authority of long experience in the works and in the laboratory, and his exhaustive method of treatment has not rendered