

Short Reviews

The Chemistry and Physics of Clays: and other Ceramic Materials. By Alfred B. Searle. Second edition, revised and enlarged. Pp. xvi+738. (London: Ernest Benn, Ltd., 1933.) 55s. net.

THIS is the second edition of a book first published ten years ago. The same main divisions and chapter headings are again employed, although much of the contents has been rewritten to include a selection of the vast body of work published in recent years. The physics and chemistry of ceramic materials covers such an extensive ground that it is impossible for any one man to deal completely with it, or even to maintain exactly the same perspective in its different sections; specialists in each of the numerous restricted fields included in this book will, no doubt, find points for criticism. But ceramists, for whom it is primarily intended, are not immediately and directly concerned with current theories; they require information and guidance on practical points, and if they obtain a successful rule-of-thumb from some hypothesis that is incomplete or even wrong in some important particulars, their immediate need is satisfied. When the rule-of-thumb breaks down—as *ad hoc* solutions inevitably do, sooner or later—the theorist and the practical man are supplied with another point of reference for a more complete theory.

The author disclaims any intention of providing a critical scientific discussion of current theories, on many of which, indeed, there is wide disagreement; instead, he has merely retained a sufficient theoretical background against which the facts and processes of the ceramic art can be displayed. There is no doubt that the current and immediate future needs of the ceramists are best met by this arrangement and, to judge from the results of a number of test questions the reviewer put to the book, the author has fairly covered his embarrassingly wide subject.

The Human Problems of an Industrial Civilization. By Prof. Elton Mayo. Pp. vi+194. (New York: The Macmillan Co., 1933.) 8s. 6d. net.

PROF. ELTON MAYO approaches the human problems of to-day through a study of 'fatigue'. He shows that although it was once considered "a simple and special study", it is now known to embrace so wide a sphere as to make simple definition hopeless. He traces the development of industrial psychology along these lines in Great Britain, and pays tribute to the important and penetrating work of British investigators.

Several interesting experiments and investigations in an American factory are described in detail, and the gradually increasing round of problems leads to consideration of sociological problems and a conception of the 'new administrator'. Prof. Mayo concludes that the primary need of the industrial world is to develop a

technique that will enable people to live in easy social relationships with each other. At the same time, every individual should have the right to feel that he is of economic value to the community. The whole of this most important aspect of human nature we have recklessly disregarded in our "triumphant industrial progress".

The book is excellent in that it shows psychological insight and wide reading, combined with sociological purpose.

The Fresh-Water Algae of the United States. By Prof. Gilbert M. Smith. Pp. xi+716. (New York and London: McGraw-Hill Book Co., Inc., 1933.) 36s. net.

UNTIL the appearance of this volume, there was no recent work available on the algal flora of the United States. Its appearance thus marks a distinct advance in botanical literature and the more so as the North American genera of algae are mostly represented in Europe and hence are of great interest to students in Great Britain.

The volume describes the characters and morphology of all genera of fresh-water algae found in the United States and of the closely related forms present in the salt lakes. Species are not specially described, although characteristic and common ones are indicated and illustrated. All the genera are illustrated, and the illustrations, although occasionally somewhat generalised, are exceptionally clear. A notable and valuable feature of the work is that the keys are based, so far as possible, on vegetative characters, a method of great utility to the average worker. Altogether this is a book to be recommended to those interested in algae.

Les textiles anciens du Pérou et leurs techniques. Par Raoul d'Harcourt. Pp. 170+108 plates. (Paris: Les Éditions d'Art et d'Histoire, 1934.) 180 francs.

In this volume the author, who has already published a work dealing with more general questions relating to the ancient textiles of Peru, is concerned only with technique. In addition to his description of the various methods of producing the patterns by variation in the interweave, as described from the examination of the fabrics themselves, he has given a section dealing with embroidery. The methods described have been tested by the author in practice.

The technique of the Peruvian textiles appears to have attained an advanced stage at an early date. There is little variation throughout the whole pre-Inca period, that is, according to Kroeber's chronological estimate, so far back as the beginning of the Christian era.

The fabrics are illustrated in a lengthy series of admirably reproduced plates, each of which is accompanied by a detailed description.