

BOOK REVIEWS

HINTZE (CARL) [1851-1916]. *Handbuch der Mineralogie*. CHUDOBA (KARL F.) *Gesamtregister für die Bände I/1-4 und II sowie Ergänzungsbände I, II, und III*. Berlin (Walter de Gruyter & Co.), 1971, pp. xii+1-145. Price 138 DM.

The last index to Hintze's Handbook was prepared by Dr. Chudoba in 1939, and covered the main text (1889-1933) and the first *Ergänzungsband* (1938). The second (1960) and third (1968) *Ergänzungsbände* were separately indexed. The present work is a very thorough collective index and carries appreciably more detail in the way of synonymy, etc., than before. Although expensive, it is a 'must' for all owners of the Handbook and is well bound in brown half-leather.

P. G. EMBREY

PARK (C. F., Jr.) and MACDIARMID (R. A.). *Ore deposits*, 2nd edition. San Francisco (W. H. Freeman & Co.), 1970. xvi+522 pp., 159 figs. Price £4.60 (\$11.00).

The second edition of this medium-priced book retains the logical layout of the first (*M.M.* 37-634), describing the genesis of ore from fluids (magmatic, metamorphic, or meteoric), classification, and individual ore deposits that illustrate the various categories of Lindgren's classification. The book has been updated largely by the insertion of paragraphs précisng relevant recent work, which add to the comprehensive discussion; the bibliography also has been substantially enlarged.

An additional short chapter, entitled 'Metallogenic Provinces and Metallogenic Epochs', gets involved with problems of definition and speculation as to their possible genetic significance. The empirical use of metallogenic provinces in the geochemical prospecting of large tracts of virgin territory is dismissed in a sentence, despite being the most significant economic application of the concept, regardless of definition.

The addition of descriptions of Palabora and of Jamaican bauxite, as examples of magmatic segregation and weathering deposits respectively, are clear, concise, and very informative. The Palabora deposit is particularly well illustrated by diagrams showing the distributions of copper, phosphorus, iron, and titanium with lithology in the complex pipe.

The book retains the coverage of subject and impartiality of the first edition with improvement in the clarity of the illustrations. It should acquaint the student not only with the essentials of metalliferous economic geology but also with the ranges of opinion, controversy, and animosity in the subject.

R. J. L. C.

BOTTLEY (E. P.). *Rocks and minerals*. London (Wiedenfeld and Nicholson: Pleasures and Treasures series), 1969. 120 pp., 112 photographs (24 in colour). Price £1.50.

This is a slim 'coffee table' book covering physical geology, descriptions of rocks and minerals, and geological history. It is illustrated by half-tone and colour photo-

graphs, mostly of good quality. Unfortunately, the text contains many inaccuracies and in places it is quite misleading. The book has a pleasing appearance and is well produced, which makes its defects the more regrettable.

A. C. B.

WEDEPOHL (K. H.), editor. *Handbook of Geochemistry*. Vol. II/2. Berlin, Heidelberg, and New York (Springer-Verlag), 1970. iv+667 pp., 105 figs. Loose-leaf binder: Price DM 212, U.S. \$58.30 (Subscription price DM 169.60, \$46.70).

The second instalment of Volume II of this massive work is in no sense self-contained. Supplied like Volume II-1 in a fairly stout loose-leaf binder, 7 cm in thickness, it contains several almost complete chapters on the geochemistry of individual elements, together with a few odd sections of others, and some revised versions of individual pages (mostly lists of references) already supplied in Volume II-1. The recipient's first task, therefore, is to spread the contents of both loose-leaf binders systematically over the floor, carefully substitute the few revised individual pages for the corresponding originals (as detailed in a page of instructions given with Volume II-2) and redistribute the various chapters, in order of atomic number of the elements, between the two binders.

Each complete chapter will comprise the following standard sections: A-Crystal chemistry; B-Isotopes in nature; C-Abundance in cosmos, meteorites, lunar materials, and tektites; D-Abundance in rock-forming minerals (phase equilibria), minerals; E-Abundance in common igneous rock types; F-Behaviour in magmatogenic processes (pegmatites, gas transport, ore deposition, etc.); G-Behaviour during weathering and alteration of rocks; H-Solubilities of compounds that control concentrations of the element in natural waters; adsorption processes; valence states in natural environments; I-Abundance in natural waters and in the atmosphere; K-Abundance in common sediments and sedimentary rock types; L-Biogeochemistry; M-Abundance in common metamorphic rock types; N-Behaviour in metamorphic reactions; O-Relations to other elements, economic importance, etc. A comprehensive reference list is appended to each chapter.

Taking the first two instalments of Volume II together, information for some 43 elements is approaching completeness: Li, Be, C, O, Na, Mg, K, Sc, Fe, Ge, As, Rb, Cd, Sn, Sb, Cs, Y, La and R.E., W, Re, Pt metals, etc., Hg, Bi, Th, and U. Only three chapters—Fe, Sn, and Hg—are absolutely complete.

Enough of the work is now available to permit some real assessment of its ultimate worth and, although the treatment of individual elements naturally varies both in thoroughness and in emphasis, it is clear that on completion we shall have a standard reference work of inestimable value. The standard format of the layout for each chapter is logical and fits the treatment of most elements well: it is easy to turn quickly to the right place to find any particular piece of information. Some chapter sections are very brief indeed—generally where adequate data are still lacking or where the section is only marginally relevant to the element concerned.