

pp. 263–359 (Foraminifera, Radiolaria, oxygen isotope ratios in fossils, bacterial sulphate reduction, radiocarbon chronology); Sediments, pp. 363–532 (chemical composition, sulphide minerals, goethite–haematite relations, isotopes of S, Pb, and U, comparison with other ironstone and iron formations); Economic and legal implications, pp. 535–56 (average assays in *Atlantis II* Deep deposits are Fe 29, Zn 3.4, Cu 1.3, Pb 0.1 %, Ag 54 ppm and Au (probably) 0.5 ppm); Summary, pp. 557–71; Indexes, pp. 575–600 (author, Latin name, and subject).

The large format ($8\frac{1}{4} \times 11$ in.) provides good clear maps, tables and text figures. It is an extremely up-to-date, if expensive, compilation of data that is widely scattered through the literature. [M.A.70–85] T. W. B.

SPRY (ALAN). *Metamorphic Textures*. Oxford (Pergamon Press Ltd.), 1969. viii + 350 pp., 65 figs., 31 pls. Price, hard cover 60s. (\$10.00); soft cover 50s. (\$8.00).

Metamorphic Textures is the first modern book on this rapidly expanding field, treating the subject rather as a series of structural transformations of crystals than as a succession of chemical reactions.

The author collects together most of the relatively modern work, and presents the information in a concise and orderly manner with clear and ample illustrations together with a very comprehensive bibliography. A very careful distinction has been made between those terms of a descriptive nature and those having a genetic connotation.

The chapters on grain boundaries, mineral transformations, and crystallization are excellent, information from the metallurgical and ceramic fields being often drawn upon, although the reviewer is left with the impression that the chapter on preferred orientations is not sufficiently well illustrated, nor is enough crystallochemical bond information given.

Although not within the subject covered by the title of the book, readers interested in the subject of metamorphic textures may feel that a section on carbonate diagenesis would have been useful.

The chapter on regional metamorphism is thorough and very comprehensive, but unfortunately the author completely misinterprets the work of Powell and Treagus on the geometrical form of inclusions within 'snowball' garnets. [M.M.36–453]

The book is the only one of its kind covering this rapidly expanding field of study, and the style is suitable for final year university students and those engaged in this field of research. The extensive bibliography and very reasonable price ensure that this volume will become invaluable to all metamorphic petrologists.

J. W. OLDHAM

LENZEN (G.). *The History of Diamond Production and the Diamond Trade*. Translated from the German by F. Bradley. London (Barrie and Jenkins), 1970. xvi + 230 pp., 21 figs., 12 pls. Price 80s.

This English translation of a work originally published in 1966 represents the first attempt to relate the history of diamond production to economics. The author is well