

as an exploratory tool' in the search for lead-zinc orebodies, and he suggests that 'the only really satisfactory method . . . is the driving of long cross-cuts' (p. 206). I wonder how many economic geologists and mining engineers would agree?

The author would have difficulty in obtaining support for the idea that thrust faulting of the Basal Grit of the Millstone Grit near the west end of the South Wales coalfield 'has been sufficiently severe to alter the sandstones to quartzites locally' (p. 146). What is the evidence?

The style of the book may be summarized by quoting Mr. Thomas's heading for chapter VII—'Sandstones, gritstones or greywackes'. Although these terms may be synonymous for the quarryman, some explanation should be made for the use of the general reader. And please, could the places where these rocks were won be described as quarries, and not 'extraction points'!

The general layout of the book is good and it is well illustrated, there being 47 text figures and 13 photographic plates (most of which are very good aerial photographs). Unfortunately some of the figures are inaccurate or incomplete; for example an unexplained symbol is used on fig. 3, and Pentremawr Colliery, which he mentions on p. 26 as one of the more successful collieries, is omitted from fig. 5. A. A. ARCHER

STEWART (G. H.), Editor; *Science of ceramics*. Vol. I. London and New York (Academic Press for the British Ceramic Society), 1962, 334 pp., price £3. 5s.

The study of ceramics is no longer confined to fired clay-based products. For many years the requirements of the metallurgical and gas-producing industries have demanded specialized refractory materials and, more recently, nuclear energy, rocketry, jet propulsion, and radio-communications have, in their turn, extended and are still extending the range of materials necessary for their further development. Indeed, virtually the whole field of non-metallic inorganic chemistry is now within the purview of the ceramist.

These broader horizons of ceramics are well illustrated in this volume, which contains twenty-three papers presented at a joint meeting of the British and Dutch ceramic societies. They range from studies on the structure and mineralogy of clays and other raw materials, the properties and development of glazes, and the study of a wide range of physical properties of ceramics—examples of traditional ceramic

problems—to more modern aspects, such as the fundamentals of sintering and its application to a wide variety of materials, and the development of ceramic dielectrics and of fluoride ceramics. For the mineralogist, particular interest may lie in papers on the formation of cordierite from sepiolite and of mullite from sericite and in one on a controversial theory of clay mineralogy.

The illustrations are both plentiful and well-produced: for example, there are some most interesting and informative micrographs and electron micrographs showing dislocation and crystallization phenomena, particularly those associated with sintering processes.

It is anticipated that similar volumes will be published from time to time to cover the proceedings of other joint meetings in instances where the normal society transactions are unable to cope with the large influx of papers. Such volumes have the advantage of collecting together groups of papers on selected topics, an important aspect for scientists or technologists searching the literature.

In the present volume, a few minor errors have escaped the vigilance of the editor, who is to be congratulated on presenting so diverse a group of papers in so logical a manner.

D. A. HOLDRIDGE

MASON (Brian). *Meteorites*. New York and London (John Wiley & Sons Inc.), 1962. xii+274 pp., 67 text-figs., 22 tables, 2 appendices. Price 60s.

It is close on 50 years since O. C. Farrington published his classic textbook on meteorites, and in that time the literature has grown enormously, both in sheer bulk and in range of subject-matter; but apart from H. H. Nininger's semi-popular *Out of the Sky* (1952; M.A. 11-515) and an indifferently edited and poorly produced translation of E. L. Krinov's Основы метеоритики (1955; M.A. 13-42) under the title *Principles of Meteoritics* (1960; Min. Mag. 32-831) no textbook in English has appeared to supplement or replace Farrington's, until now. Dr. Mason's book fills this gap admirably: his description of Farrington fits the present volume—'a definitive account of meteorites, clear, concise, and comprehensive'—and the volume is remarkably up-to-date for a book on a subject in which progress is currently particularly rapid.

After a short introductory chapter, 11 chapters deal with: Phenomena of Fall, Morphology, Classification, the Minerals of Meteorites, Chondrites, Achondrites, Stony-Irons, Irons, the Elemental Composition of Meteoritic Matter, Meteorite Ages, and the Origin of Meteorites;