

the Indo-Pakistan and the Eurasian plates. It presents the first attempt at a regional geological mosaic of approximately 165 000 cm² in northern Pakistan which was cradled by the tectonics emerging from this plate collision and which culminated in the Pamir knot, Nanga-Parbat-Haramosh loop and the Hazara-Kashmir syntaxis. The earlier data are reviewed and together with new field observations are synthesized to give a stratigraphic scheme for each geological domain together with twenty geological cross-sections to describe and illustrate the tectonic interpretations.

R.A.H.

Brown, G. C., and Mussett, A. E. *The inaccessible Earth*. London and Boston (Allen and Unwin), 1981. xii+236 pp., 133 figs. Price: hardback £18.00, paperback £9.95.

In this book about the interior of the Earth, the contributions of geophysics and geochemistry are given approximately equal weight. There are chapters on density within the Earth, the formation of the solar system and the abundances of the elements, the accretion and chemical layering of terrestrial planets, the Earth's core, and the mantle and oceanic crust, and the continental crust and its evolution. Thus although there might be thought to be an overlap with *Inside the Earth: evidence from earthquakes* by B. A. Bolt (following review), in fact this book has only one chapter directly concerned with the contribution of seismology and is much more directed to a cosmological and geochemical approach leading to a discussion on the nature of the mantle and on the composition of the crust, its behaviour, and its evolution. The intended readership is generalist rather than specialist, but the text succeeds in amalgamating recent evidence not only from geophysics and geochemistry but also from parts of astronomy and meteoritics. This breadth of input makes it very useful for undergraduate use. In addition to over 200 references at the end of the book, suggestions for further reading are given at the end of each chapter and short notes are appended on such topics as seismic velocity-depth profiles, Rb/Sr dating and ⁸⁷Sr/⁸⁶Sr initial ratios,

mean atomic weight, and heat flow. The book is nicely produced and illustrated and sensibly priced.

R.A.H.

Bolt, B. A. *Inside the Earth: Evidence from Earthquakes*. Oxford and San Francisco (W. H. Freeman & Co., Ltd.), 1982. xvi+191 pp., 77 figs. Price: board £16.90, paper £7.70.

This useful text gives an introduction to seismology with the aid of numerous simple diagrams and a text free of mathematics (some elementary and commonly used mathematics is given in panels). Each chapter is enlivened with a photograph of people famous in the earthquake field: Oldham, Jeffreys, Gutenberg, Bullen, Lehmann, Benioff, Birch, and Byerly. There are exercises (and answers) and a guide to further reading. The text aims to give a clear explanation of a central part of geophysics to undergraduates, and in this it should succeed.

R.A.H.

Haynes, R. M., ed. *Environmental Science Methods*. London and New York (Chapman and Hall), 1982. x+104 pp., 201 figs. Price £9.95.

This text for first year students includes sections dealing with particle size analysis, the petrological microscope, and geological maps. It also ranges over mathematics, statistics, computing, remote sensing, and surveying.

R.A.H.

Tennissen, A. C. *Colourful Mineral Identifier*. Poole (Blandford Press) and New York (Sterling Publishing Co. Inc.), 1982. 224 pp., 6 figs., 117 colour plates. Price £3.95.

This genuinely pocket-sized (4 × 5½ ins.) book is based on a translation of a German text and uses the same colour photographs by W. Lieber. It gives basic notes on properties and occurrences; most of the photographs show the specimens enlarged—generally ×2 to ×10—but one of a rare orange analcite is shown ×40. Most of the photographs are reasonably faithful representations.

R.A.H.