

MIYASHIRO (A.). *Metamorphism and metamorphic belts*. London (George Allen & Unwin Limited), 1973. 492 pp., 109 figs. Price £8.60.

So many current concepts of metamorphism follow directly from Professor Miyashiro's works that a book by him must excite more than usual interest and anticipation. That such a book is a translation and modification of an earlier (1965) work in Japanese hitherto unavailable to most British petrologists should in no way diminish such interest; indeed the modern 'feel' of a book originally written eight years ago is abundant testimony to the role the author has played in shaping contemporary thought.

Metamorphism and metamorphic belts is the title, and indeed at least a third of the subject-matter, falling within the scope of metamorphic belts, is broadly geological or geodynamic rather than strictly metamorphic. Regional Petrology, illustrated by generally well-presented maps and succinct syntheses of the literature, is a valuable feature; the emphasis on experimental data and its critical appraisal is correspondingly reduced. As such the book may find rather more popularity with the general geologist than perhaps have several advanced metamorphic texts currently in print. Does the detailed treatment of metamorphic process suffer thereby? I think not; of the three main sections ('Basis of Metamorphic Petrology'; 'Progressive Metamorphism'; and 'Metamorphism and Crustal Evolution'), the second part occupies the most space (200 in 400 pages) and is in my opinion an elegantly reasoned and well-presented treatment. All authors attempting a Metamorphic Petrology must suffer agonies in deciding the happy mean between excessive generalization and the treating of each and every metamorphic region as the dissimilar product of a unique P/T gradient. Professor Miyashiro's solution to this dilemma is the composition of his second part in a series of paired chapters: a chapter treating the diversity of metamorphic patterns in the recrystallization of a particular rock-type is followed by another giving a generalized account of the progressive metamorphoses involved. While such treatment inevitably involves some unevenness and repetition it is, I think, successful; and after the rigidity of some treatments based on the facies concept the emphasis on progressive metamorphism is refreshing.

In this emphasis on progressive changes the author gives due credit to the lead of Alfred Harker, even though in an historical appendix Harker figures as the facile writer whose persuasively argued 'doctrine' of stress minerals set back the acceptance of Eskola's facies concept by two decades. This appendix is, in fact, so idiosyncratic that I feel the book would have been better without it—British readers, for example, will be amazed to find the contributions of the late Professor Tilley all but ignored. Perhaps the history of petrology is not so important that it cannot be left to the historians.

In all, however, I enjoyed this book and will recommend it without hesitation to my students. Whether or not they can afford to buy it is another matter: it is a sign of the times that a book published in Britain is now as expensive as an American publication of comparable size and quality. Librarians, guard your shelves.

G. A. C.