REVIEWS

THE PRINCIPLES OF PETROLOGY. By G. W. Tyrrell, Chapman and Hall, London, Reprinted 1978, 349 pages, 78 text figures. Price £ 4.50.

First published in 1926, this "Introduction to the Science of Rocks" which is the sub title of this book on Petrology has been a god-send to generations of students of geology. It has fulfilled the hope of Dr. Tyrrell who in his Preface to the first edition expressed his expectation that the book will appeal to elementary as well as advanced students, and to workers in other branches of geology who desire a general knowledge of the fundamentals of petrology.

The second edition was printed almost exactly 50 years ago and since then has been reprinted 21 times, testifying to the popularity of this publication. The book has now been issued as a Science Paperback. Bacause of the great lapse of time since it was first published, and in view of the considerable amount of recent investigations, some parts of the book are naturally out-dated. Obviously there are no references to any publications later than 1929.

In the brief space of about 330 pages the author has given a masterly summary of the main principles of the petrology of igneous, secondary, and metamorphic rocks. The book is written from the genetic standpoint, and so petrology, as contrasted with petrography, has been emphasised throughout, omitting purely descriptive mineralogical and petrographical details.

Dr. Tyrrell was probably the earliest to suggest in the 1st Edition of this book (1926) that charnockites could present plutonic igneous rocks which have undergone slow recrystallisation in the solid state on being subjected to conditions of plutonic metamorphism, such a transformation having taken place without notable chemical change.

This book is still one of the best introductions to Petrology and should be in the hands of every University student who is taking a course in geology.

C. S. PICHAMUTHU.

MINERAL RESOURCE MANAGEMENT IN DEVELOPING COUNTRIES REPORT NO. 6. Association of Geoscientists for International Development (1978).

This is a report of the symposium held on 17th August 1976 at the time of the International Geological Congress, Sydney to consider the issue of mineral resource management in developing countries. An interesting cross section of views held by persons with different ideological background is presented. 'Where should the resources needed for development come from—multinational corporations? The World Bank? Bilateral aid or through self reliance and mobilization of internal resources?' The advantages and disadvantages of the different approaches are considered in a series of contributions from persons with experience in the field of mineral development.

It is recognised that a 'Wise and full utilisation of a nation's mineral resources could make a major contribution to the betterment of the life of mankind'. Differences, however, lie in the methods of approach. The case of the multinational mining corporations and private enterprise who are stated to possess a wealth of technical expertise and access to international sources of capital is forcibly put forward by several speakers. The views of the developing countries have received less attention. The goal for these countries is not merely making extra money or earning foreign exchange. For them, the making use of a mineral is as important as discovering it. The utilisation of mineral resources for meeting the needs of the people must gain precedence over large scale exploitation for export.

One speaker has rightly emphasized the need for developing small scale metallic mines, industrial minerals and constructional materials through intermediate or appropriate technology contributing significantly to development, especially in the developing countries.

These and varying view points have been well covered within the twenty and odd pages of this interesting pamphlet. Those interested in mineral development will find a perusal of these pages a rewarding exercise. B.P.R.