

## REVIEW

**FELDSPARS.** By Tom F. W. Barth, Wiley-Interscience, New York, 1969, 261 pages.  
Price: dollars 14.50.

Feldspars constitute the most important of all the rock-forming minerals. They are formed under many different geological conditions and are more abundant than any other mineral group. Because of their wide-spread occurrence and preponderance over other minerals, the classification of rocks is generally based upon the amount and nature of the feldspars present. This mineral group has been studied in great detail from early days; and it has also, at the same time, presented many problems which are not easy of solution. It is good, therefore, that Professor Barth who is an outstanding worker in this field, should have published this informative book. For the first time all available data on feldspars have been brought together and discussed in this book, but the author has intentionally omitted description of determinative methods. At the present time so much work is being done in feldspar mineralogy that the literature is flooded with new data, concepts, and theories. While most of them have been assessed and incorporated, Professor Barth has stated that the more recent information which appeared while the book was in production could only partly be included in the present work.

The subject matter of this book includes general mineralogy and classification of rock-forming feldspars, survey of pseudosymmetry and twinning, the structure of feldspars, physical properties of feldspars, and thermodynamic properties of feldspars. The book concludes with a brief account of the history of investigation on the feldspars, and a glossary of special feldspar names arranged alphabetically.

Students and teachers who are interested in the study of feldspars will be greatly indebted to Professor Barth for this authoritative and instructive book. The numerous references given at the end of each chapter are invaluable to the research worker.

The printing and production of this book is of the high order which one expects from John Wiley & Sons Inc.

C. S. PICHAMUTHU.

**ECONOMIC GEOGRAPHY.** By M. R. Chaudhuri, Oxford & IBH, Publishing Co., New Delhi, 1969, pp. 291, 74 figs., Price Rs. 12/-.

The book constitutes an introductory work in economic geography, which concerns with the production, distribution and utilization of commodities for the benefit of mankind. A major part of the book therefore deals with the natural and cultivated wealth of our planet, the former including natural vegetation, mineral wealth and power resources, and the latter including agricultural and pastoral wealth. A proper harnessing and utilisation of these is not only essential to meet the fundamental requirements of man—food, shelter and clothing,—but also forms the back-bone of all human activity which shapes the economic progress and stability of the world.

Giving the setting of our planet in the solar system, the factors influencing climate, the division of the world into different natural regions, and the impact of climate on civilization are discussed. The distribution of forests and its relation to human civilization and the utilization of the products of forests are assessed. The details on the soils of the world aptly precedes the chapter on agriculture. The influence of population on the occupation and economic condition of a country is dealt with. The countries with larger population have remained mostly agricultural and underdeveloped.

The conditions favourable for cultivation, classification and world distribution in the production of chief cereals are dealt with, followed by other raw materials for sugar and beverages. The author gives a lucid description of crops like cotton, jute, rubber etc., used as industrial raw materials. Fish, cattle, sheep and pig form the important live-stock, satisfying the food and clothing needs of mankind over a major part of the world.

Chapters are set out to deal with the human activities which help to gain higher standards of living by way of industrialisation which is largely dependent on the proper assessment, development and utilisation of the mineral wealth of the world, which are classified into ferrous, ferro-alloys, non-ferrous metals, precious metals, and energy mineral groups. Details with respect to their distribution, metallurgy, mining, trade situation etc., are all discussed.

Industries rising very fast need proper assessment of the favourable factors determining their location and development in relation to the availability of raw materials, power resources, market, transport facilities and other related factors. The development of a major industry will actually be responsible for the sprouting of a number of subsidiary and ancillary industries producing an industrial complex. The uneven development of industries and a consequent uneven progress of the various countries into advanced, self-sufficient, developing and underdeveloped countries is a true situation of the world today. 'Dependence on economic grounds upon one another may help to create better understanding among nations—a climate for a one-world order!' To achieve this, communication by transportation and suitable trade policies that are beneficial to all the countries of the world are required. These aspects find a fitting place in the final chapters.

There are certain minor short comings in the book. The diagram illustrating the Earth shells (Fig. 1, p. 9) is rather out of date and should have been drawn to scale to keep up the proportion of the various zones. The chapter on soils deserves a little more elaboration in view of their importance in the field of agriculture. The picture of the iron ore industry is not up-to-date as far as India is concerned; its importance in the Indian export trade has not been included. Some of the world's richest iron ores from Mysore are omitted.

A discussion on the relation between gold and the economic position of the country would have been well within the scope of this book. Though coal, oil and water are the chief sources of energy even today, atomic power is taking over as one of the main power resources. A discussion on the atomic power resources and their use for peaceful purposes, and their role in stabilising the economic and political power of a country would have made the discussion on mineral commodities and the industries based on them more complete.

The book is a very useful work. The simplicity in presentation and its fine style should make it easily an attractive book among students and teachers of economic geography as well as the general reader. Its low price is a definite advantage to the student.

M. N. V.

INDEX TO A SET OF SIXTY TOPOGRAPHIC MAPS ILLUSTRATING SPECIFIED PHYSIOGRAPHIC FEATURES FROM INDIA. By R. Vaidyanadhan, Department of Geology, Andhra University, Waltair. Printed at the Andhra University Press, 1968.

Under a project sponsored by the Geological and Mineralogical Research Committee of the C. S. I. R., Dr. Vaidyanadhan has prepared sixty maps illustrating physiographic features from different parts of India and an 'Index to a set of sixty Topographic Maps', on the lines prepared by William B. Upton in the United States Geological Survey in the early 1950s.

The maps have been prepared mostly on a scale of 1:63,360, only 3 of them being on a scale of 1:50,000, representing and illustrating the 'Physiographic Regions of India', shown on Plate 41 of the *National Atlas of India* published in 1964. Sixty areas are discretely chosen in such a way that as many related features as possible (not less than five) are represented in a sheet; and the areas afford good accessibility by road, if not by rail. The maps are published by and are available at the Survey of India Office, Dehra Dun.

The 'Index to a set of sixty Topographic maps' contains 3 sections along with an index map of India at the end, indicating the serial number of the areas for which maps are prepared. Section I gives the main physiographic characteristics of each area depicting the features related to them; Section II, contains the text of each selected map. In addition to the serial number given by the author, each map bears the Survey of India sheet number. The geological formations outcropping in the area are listed by the terms denoting these features as defined in the Glossary of Geology and Related Sciences. Section III is a list of all the features identified earlier and arranged categorically with the serial number of the maps in which they are clearly recognisable.

This is the very first attempt to group the maps representing the geomorphic features in the Indian region, and Dr. Vaidyanadhan has to be highly commended for his thorough work. It brings to light examples of different land forms present in India. In the maps prepared, examples of all the land forms may not be found; perhaps some of the land forms are not the best in the country. This is because of the limited nature of the work. The publication is very helpful to students and research workers in geology, as also to the defence personnel, in the study of land forms, and gives an impetus to the study of the geomorphic evolution in different parts of India.

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