Ridge, J. D. *Annotated Bibliographies of Mineral Deposits in Europe. Part I: Northern Europe including examples from the USSR in Europe and Asia.* Oxford and New York (Pergamon Press Ltd.), 1984. 785 pp., 11 figs. Price £66·50.

This volume provides a good overview of the metallogenic distribution of ores on the basis of ore types and age groups in northern Europe and is the second in a series[1] designed to discuss the major ore deposits of the world. The book contains over 1000 references on Ireland, Great Britain, Norway, Sweden, Finland, Poland, and a small sample on the USSR. The references are largely in English, though relevant Scandinavian, German, French, and Soviet literature has been included where pertinent. Each country section has a general bibliography followed by a detailed survey of the geology of the more important ore zones, and under each ore zone there is a specialized bibliography and descriptive notes on (1) where the deposits are located, grade and tonnage of ore contained (not always possible for Soviet Union), (2) the stratigraphy and structure of the rocks of the district, sedimentary, igneous, and metamorphic, (3) the characteristics of the ore bodies in relation to stratigraphy and structure and to ore and gangue minerals, (4) the information bearing on the age of the deposit, and (5) the reasons for the position assigned to it in the modified Lindgren classification. Several indices are provided, which list the authors of the papers cited in the references, the names of the deposits given in the references or in the notes, the metals and minerals produced from each deposit, the ages of the various deposits, and the classification of the various deposits. Included also are outline maps of each country showing the location of the deposits.

The book is aimed at students of economic geology. The notes, in particular, provide some explanation of the ideas of those who have worked on the ore deposits (and the author's where they differ from those already in print). This concise bibliography with its descriptive surveys is complementary to the 1978 edition of *Mineral Deposits of Europe. Volume 1* published by the Institution of Mining and Metallurgy and the Mineralogical Society, though it does not match that volume in quality of presentation because Ridge's typescript has been reproduced in its original form. It is a pity the author has not taken the opportunity of updating his references post-1978 in the main body of the book; however, there is a supplementary list of references which includes more up-to-date material at the back of the book. Also, at the price of £66, his bibliography is not likely to be a student acquisition, but remain a reference tool in the University library.

A. RAMSDEN

[1] Ridge, J. D. Annotated bibliographies of mineral deposits in Africa, Asia (exclusive of the USSR), and Australia. Pergamon Press.

Ridge, J. D. Annotated bibliographies of mineral deposits in Europe. Part 2: Southern and Central Europe. Pergamon Press (in preparation).

Notholt, A. J. G., and Hartley, K. *Phosphate Rock: a Bibliography of World Resources.* London (Mining Journal Books), 1984. 147 pp. Price £10.

Of all the multifarious projects carried out under the International Geological Correlation Programme, that on 'Phosphorites' must surely rank as one of the most economically and socially important. The vital role of phosphate fertilizers in the world's agriculture ensure that this is so. This volume is a product of that project. The literature on phosphorites is scattered through agricultural, geological, historical, and commercial journals, and the authors have performed an excellent service in bringing them together. Over 2000 references are listed country by country; within the sections the order is chronological. The bibliography is prefaced by an essay on phosphate rock, largely from the production and supply point of view, but which does provide a useful overview of the industry on a worldwide basis.

J. E. PRENTICE

United Nations: Ocean Economics and Technology Branch. *Assessment of Manganese Nodules Resources: the Data and the Methodologies.* London (Graham and Trotman Ltd.), 1982. x+79 pp., 7 figs., 4 maps. Price £12.

This book forms the first volume of a proposed nine volume 'Seabed Minerals' series. It reviews in a thorough way the various estimates of the resource potential of manganese nodules based on grade and abundance criteria, and the background to the estimation of these parameters. The limitations of the published data base are stressed, and a plea is made for a more co-ordinated approach in the future to collecting data needed for nodule resource estimation. The section dealing with methodologies of resource assessment provide a particularly useful comparison of the various resource estimates that have been made.

The book is both clearly and simply written, is well laid out, and covers the subject comprehensively. If the remaining books attain the same degree of thoroughness, the series will be a very worthwhile contribution.

D. CRONAN