

Fleischer, M., Wilcox, R. E., and Matzko, J. J. *Microscopic Determination of the Nonopaque Minerals*. Washington, DC (US Geological Survey Bulletin 1627), 1984. viii + 453 pp., 9 figs. Price \$12.

This major revision of Bulletin 848 (Larsen and Berman, 1934) includes data from the literature up to 1 August 1983. After three short introductory chapters, the main part of the book is devoted to a tabulation of the optical properties of minerals. The principal tables deal respectively with isotropic, uniaxial positive, uniaxial negative, biaxial positive, and biaxial negative minerals. These are followed by tables of properties for the determination of minerals in thirty-one individual groups, ranging from the alunite group to the zeolite group, and including all the major rock-forming minerals. At this price this book should be available in all laboratories dealing with mineralogy and petrology.

R. A. HOWIE

Zharkov, M. A. *Palaeozoic Salt Bearing Formations of the World*. Berlin, Heidelberg, New York, and Tokyo (Springer-Verlag), 1984. viii + 427 pp., 166 figs. Price \$62.

The original edition of this book was published in 1974, in Russian. The present expanded edition, in English (translated by R. E. Sorkina, R. V. Fursenko, and T. I. Vasilieva), includes data available up to 1981. The principal Palaeozoic evaporite basins of the world are described in terms of distribution,

stratigraphy, composition, thickness, and structure, with a wealth of maps and sections. There is a brief chapter on Precambrian salt deposits. It is good to have well-illustrated accounts of the deposits of the USSR, such as the Cambrian East Siberian Basin (30 pp.), Devonian basins (36 pp.) and the Permian East European Basin (35 pp.) with a large bibliography, made available to the English-speaking world. The author's estimation of the volume of rock salt in each basin is interesting, indicating that the Permian contains as much rock salt as the whole of the rest of the Palaeozoic and that nearly 80% of it is in the Eastern European Basin. The Cambrian deposits are also surprisingly large, and those of the Ordovician and Silurian remarkably small.

The work is factual and contains little discussion of the genesis of the evaporites and of problems of paleogeography and palaeoclimatology. These aspects are covered in Zharkov's complementary book—*History of Palaeozoic Salt Accumulation* (Springer-Verlag, Berlin, Heidelberg, and New York, 1981). Both books have very large bibliographies, but the present one does not list the references contained in the other, although when these are referred to in the text they are underlined. This can be rather frustrating.

This is a reference book, containing a massive amount of information, and, with its companion volume, access to a very large body of source literature. It is most welcome.

F. H. STEWART