

greater value if it had been somewhat more comprehensive. More detailed information on aqueous binary systems, at various temperatures, is given in Tables 2-1694. The remainder of the book is devoted to some other binary systems (Tables 1,695-3,750). Material is classified according to the Periodic Table for inorganic compounds and in order of increasing number of carbon atoms for organic compounds. No difficulty was experienced in the retrieval of information, but complete assessment of this factor will have to await the publication of Part 2, which contains the index and references for the whole of Volume 1. The editors state that there is a two-part index which is generally similar to the familiar one contained in *Chemical Abstracts*, so it appears that the work is fully indexed. The nomenclature used for inorganic and organic compounds is that recommended by the Nomenclature Commission of the International Union of Pure and Applied Chemistry, and this will facilitate reference by avoiding ambiguities. In the index of formulae, a periodic classification is adopted for inorganic compounds and organic compounds are arranged in order of increasing number of carbon atoms.

It is of some importance that a reference work of quantitative data should be free from error so that a chemist is able to consult it with complete confidence, but this is rarely achieved in a first edition. Unfortunately, a few errors have crept into the text of this work, which is to some extent a first edition, and although a list of errata has been included some errors remain uncorrected. In Table 1, gallic aldehyde, phosphonopropanoic acid, cytosine and methyl propanate are misplaced in the classification. The *m*- and *p*-nitrophenyldimethyl-sulphonium picrates appear twice and the formula given for methyl butonate is not quite correct.

The book is well bound, which is essential for a reference work which will be consulted frequently, and, although large, this volume is not too bulky for convenient handling.

The wide scope of this work no doubt makes it an essential acquisition for any library, but unfortunately, in common with nearly all translations from the Russian, its cost is somewhat high, being £10 for this part alone.

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EGYPTIAN GEOLOGY

The Geology of Egypt

By Rushdi Said. Pp. xv + 377. (Amsterdam and New York: Elsevier Publishing Company, 1962.) 160s.

TO the European geologist, so often starved of outcrops of rock, Egypt is the field-worker's paradise. In the south of that desert country the relationship between the igneous and the metamorphic rocks of the basement can be studied in all its intimate detail. In the Gulf of Suez, the pattern of Tertiary faulting is probably more clearly exposed than in any other sector of the great African Rift. In the north, and especially across the isthmus of Sinai, the bare rock anticlines of the Alpine 'Syrian arc' rise, in great whale backs, out of the plain.

The most recent chapter in the geological exploration of Egypt began shortly before the discovery of oil at Ras Gharib in 1938, and for the past 25 years geologists from the Egyptian Survey, the Egyptian universities and from the international petroleum companies have greatly expanded our knowledge of this important region of the Earth's crust.

In his book, *The Geology of Egypt*, Prof. Rushdi Said has summarized this new information, linked it to the groundwork provided by Egypt's earlier workers and has presented a well-illustrated and highly readable account. This, together with its appendixes of measured sections and well-logs, its list of formation names and its long columns of selected references, will prove a most valuable guide to any geologist who wishes to study the rocks of Egypt.

After outlining the topography, geomorphology, stratigraphy and structure of the country, the author considers in detail the four main geological divisions of Egypt, namely, the Arabo-Nubian Massif, the Stable Shelf, the Gulf of Suez Taphrogeosyncline and the Unstable Shelf. Of these four divisions the igneous and metamorphic rocks of the Arabo-Nubian Massif are least well known, whereas those of the Gulf of Suez region, and certain areas of the Unstable and the Stable Shelves, have been extensively surveyed.

Among all the many aspects of Egyptian geology, perhaps the rift faulting in the Gulf of Suez region is the most fascinating. Any summary of its structural history would emphasize the great post-Eocene block-faulting movements which occurred before, during and after Miocene times. But, in addition, Prof. Said has directed attention to new evidence, mainly from oil wells, showing that movements of some of these blocks must have begun at a much earlier date. What still seems uncertain, however, is the extent of their movement in pre-Miocene times. In Gebel Zeit, for example, were the Cenomanian, Turonian, Santonian, Senonian and Eocene beds laid down and afterwards eroded away? Alternatively, was the Zeit block an elevated area of non-deposition during these periods, to sink only in Oligocene times, thus permitting the Miocene transgression over 'Nubia' sandstone?

In a chapter on oil, Prof. Said suggests that the prospects in Egypt are not altogether unfavourable. Though the Gulf of Suez region with its small group of established oilfields is unlikely ever to rival that of the Persian Gulf, nevertheless there are areas, especially beneath the waters of the Gulf itself, which are as yet unexplored. Furthermore, the discoveries in Libya might well be repeated in the Western Desert, which still remains substantially untouched by the drill.

In this comprehensive account of the geology of Egypt, one would like to have read a more detailed survey of the facies changes in the Miocene of the Gulf of Suez and some description of their relation to the taphrogenic movements along the rift faults. More information about the diachroneity of the 'Nubia' sandstone would also have been welcome; and a volume with such a good standard of printing and line-illustration is surely worthy of more and better photographic reproductions. However, these are minor criticisms of a book which will long remain a valuable source of information.

Indeed, Prof. Said's work once more underlines the value of Egypt as a training ground for geologists. Might not this fact afford university departments in Europe an opportunity for international co-operation with their colleagues in the Middle East? Even in the more accessible areas of the Egyptian deserts, students can gain enormous practical experience of mineral deposits, igneous and metamorphic rocks, facies changes and structural patterns. Carefully arranged winter or spring vacation courses, with the co-operation of the Egyptian Government, the universities and industry, would surely be of benefit to all concerned.

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FUNDAMENTALS OF ISOTOPE GEOLOGY

Progress in Isotope Geology

By Prof. Kalervo Rankama. Pp. xvii + 705. (New York and London: Interscience Publishers, a Division of John Wiley and Sons, 1963.) 150s.

PROGRESS in Isotope Geology is a sequel to Prof. Rankama's book *Isotope Geology*, published in 1954. The first publication successfully presented to the geologist a source-book which contained an introduction to instrumental methods, a detailed description of the advances made in isotope abundance investigations, and their application to problems of geology and cosmology.