

There are several diagrams, including one showing the arrangement of the crystal-lattice of cobaltous hydroxide.

The concluding part of the volume on iron deals with compounds of the metal with other elements from lithium to cobalt (according to the numerical

system indicated at the beginning of each published part), together with the various complex salts which are formed. There is a triangular diagram of the complex system $\text{Na}_2\text{O} - \text{Fe}_2\text{O}_3 - \text{SiO}_2$ and a comprehensive index for the five parts of Section B on iron.

Short Reviews

Lehrbuch der ökologischen Pflanzengeographie. Von Prof. Dr. Eug. Warming und Prof. Dr. P. Graebner. Vierte Auflage, nach Warmings Tode bearbeitet von P. Graebner. Lieferung en 1-4. Pp. 1-960. (Berlin: Gebrüder Borntraeger, 1930-32.)

WARMING'S well-known "Ecology of Plants" (English edition, Oxford, 1909) is a book of reference which still has much value apart from its historical importance. The fourth (German) edition, edited, since Warming's death in 1924, by Prof. P. Graebner, is not only considerably enlarged, but also improved and somewhat modified in scope. The habitat factors (light, water and soil), the life-forms, and symbiotic and other relationships are dealt with in turn. There follows a short account of general vegetational physiognomy and then the communities of vegetation are dealt with under a classification based primarily on habitat characters. In the four parts so far published, the halophytic and fresh-water communities, the series of mesophilous and hygrophilous formations, the formations on acid soils, the series of the cold deserts, and the series of rocky and sandy soils (incomplete) are considered.

A feature of the work is the large number of figures, many of them excellently reproduced photographs. In spite of a large number of references to a bibliography, presumably to be published in a later part, it would appear that much important recent literature, especially English and American, has been overlooked. A minimal value is allowed to succession, only one and a half pages being devoted to a general consideration of this important subject. A full evaluation of the new edition must, however, await its completion. W. B. T.

Early Steps in Human Progress. By Harold Peake.

Pp. xii + 256 + 74 plates. (London: Sampson Low, Marston and Co., Ltd., n.d.) 12s. 6d. net.

MR. PEAKE has written a popular account of the beginnings and early stages of development of material culture, which ranges from the earliest use of stone as an implement to the working of iron, and incorporates the most recent results of archaeological investigation, especially in Egypt and Mesopotamia, bearing upon his problems. His method of arrangement is both chronological and logical; for his chapters, in following the order of development of the means devised by man to satisfy his needs, first as a food gatherer, then as hunter, pastoral nomad and agriculturist, give a

generalised picture in the order of succession of the ages of stone, copper, bronze and iron. As might be anticipated from Mr. Peake's preoccupations elsewhere, and on other occasions, full weight is given to the development of agriculture in relation to its effect on progress in the other arts of life.

It must not be concluded too hastily that because Mr. Peake's book has primarily a popular appeal, it has no interest for his archaeological colleagues. This is far from being the case. His book is no mere compilation. It is a synthetic study, and much of its value lies in the bringing together and interpretation of data from many diverse sources. Further, writing in popular form, Mr. Peake has felt at liberty to indulge in elaboration of theory; and here, if there is much to dispute, there is also much to ponder, as, for example, in the ingenious explanation offered for the occurrence of pottery in the pre-agricultural stone age of Kenya.

Caravan Cities. By M. Rostovtzeff. Translated by D. and T. Talbot Rice. Pp. xiv + 232 + 35 plates. (Oxford: Clarendon Press; London: Oxford University Press, 1932.) 15s. net.

AFTER an introductory chapter in which the author surveys the geographical and cultural conditions governing the development of desert trade routes in the Middle East from prehistoric times onward, he describes the results of archaeological investigation in four of the desert cities which grew up as caravan halts—two, Petra and Gerasa (Jerash), on the southern route between Mesopotamia and Egypt and two, Dura and Palmyra, on the road from the Euphrates to the Mediterranean littoral. In the excavation of three of these four cities Prof. Rostovtzeff has himself taken part, with expeditions from the United States; but as the official reports are not yet completely published, he has felt himself under obligation to deal with the results bearing on one period only, the Hellenistic and Roman, of the early centuries of our era. Although evidence is accumulating of the wealth of these cities, the mixed character of their population and the various cults which they embraced, evidence of their origin—except in the case of Dura which was a Macedonian military post—and early history is still missing. Dura, though unimportant compared to the other cities, has yielded much new information especially in connexion with Parthian culture and with the art of the early centuries of the Christian era.