It is, as he says, in some way a digest of the earlier works, to which material from his "Direct Entry to Organic Chemistry" (1949), which was awarded the Cortina-European Prize of a million lire, has been added. The text takes the reader from the ideas of the earliest civilizations through the long period of alchemy to modern times, the age of the benzene ring, electrons, atomic structure, and chemistry in space. The illustrations, including many excellent plates, add interest and understanding to the story; many of them would be difficult to find elsewhere. The book is designed to be intelligible to the educated reader not familiar with the details of chemistry; the only chemical equation in it is $2H_2 + O_2 = 2H_2O$, and anyone who knows the full history of all that lies hidden in this simple expression will have an idea of what could be expounded from such familiar things.

Prof. Read's book can be warmly recommended to all who care for the better things of science; to the chemist, to the young reader who will be attracted by its clarity and interest, to the historian, and to the many who are now aware that the history of science is not only of value in itself but also forms an integral, although sometimes neglected, part of the whole history of civilization.

J. R. PARTINGTON

A Practical Guide to Plant Sociology for Foresters and Agriculturists

By Prof. F. R. Bharucha and Dr. W. C. DeLeeuw. Pp. viii+44. (Bombay; Calcutta; Madras: Orient Longmans Private, Ltd., 1957.) Rs. 5.

WITH the revival of the Botanical Survey of India, the authors have brought out this little book to provide, in easily available form, some tangible suggestions for methods of studying the ecology of Indian vegetation. They have, in fact, outlined the methods of the Zurich–Montpellier school of phytosociology. The difficult task of doing this within the space of forty pages has been well tackled, but it seems questionable whether the emphasis on brevity has not been too great. One cannot help feeling that the inexperienced ecologist, when he comes to use the book for practical field studies, is likely to be left a prey to unsolved doubts as to just how he should begin. Nevertheless, the book does put into his hands useful data on the Zurich–Montpellier techniques, which, with some general guidance, should enable him to contribute towards a systematic description of Indian vegetation.

The book can also serve to give botanists who are unfamiliar with the work of the Zurich–Montpellier school a nodding acquaintance with its methods. That many British ecologists are critical of these methods is irrelevant here, but the widespread lack of understanding between the two schools of thought might be lessened by a better knowledge on both sides.

MAURICE ASHBY

Plastic Design of Portal Frames

By Dr. Jacques Heyman. (Cambridge Engineering Series.) Pp. viii+104. (Cambridge: At the University Press, 1957.) 10*s*. 6*d*. net.

QUITE apart from the interest of its subject, Dr. Heyman's book is attractive because of two features not usually encountered in modern technical publications. First, it is inexpensive, and secondly, it does not pretend to be a fully-exhaustive treatise on a wide field. The text deals with single-story portal-framed buildings only, and does not stray outside the terms of reference so set.

It is worth noting that the conception of the steel frame as part of a finished structure is constantly kept before the reader. He is not given the theoretical background only, and left to apply this to design as well as he can; throughout, the emphasis is on completing the task of translating the ideas developed at Cambridge into the completed building.

Dr. Heyman has the valuable faculty of realizing that the student of his subject may well find difficulties even in the elementary stages. He makes a considerable effort to ensure that the simplest application of plastic design—to continuous beams and purlins—is thoroughly understood, and then builds logically and gradually on this basic understanding until such complex frames as multi-bay portals and tied portals under wind loading are being considered.

The book achieves its purpose of introducing the newcomer to this powerful British method of steel design, but Dr. Heyman realizes the limitations of his space and has confined himself to a type of structure where strength of sections rather than stiffness of stanchions is likely to be the controlling factor. Those readers interested in instability or multi-story construction must turn to the excellent bibliography for further direction.

W. FISHER CASSIE

Trilinear Chart of Nuclides

By William H. Sullivan. Pp. ii+4+chart. (Washington, D.C.: Government Printing Office, 1957.) 2 dollars.

W. H. SULLIVAN'S "Trilinear Chart of Nuclides" has just appeared in its second edition. One can surely say without exaggeration that every nuclear physicist and chemist, and, in addition, the large group of people who require nuclear data in their work, will be delighted to be able to embellish the walls of their offices or laboratories with this very useful atlas of nuclides or, at least, have it handy for ready reference in their desks.

I am sorry to find that the colour scheme of the first edition has been replaced by printing the hexagons in heavier or lighter print for the naturally occurring isotopes and the artificial ones. Even with the advantage of a lower price for the chart, the sacrifice of beauty seems regrettable.

The organization of the new chart is identical with that of the first edition. The amount of information presented is very large, and great pains seem to have been taken to ensure accuracy. At a price of 2 dollars the chart should be extremely popular with the scientific world.

E. BRETSCHER

Complexometric Titrations

By Prof. Gerold Schwarzenbach. Translated and revised in collaboration with the author by Dr. Harry Irving. Pp. xviii+132. (London: Methuen and Co., Ltd.; New York: Interscience Publishers, Inc., 1957.) 21*s*. net.

MOST chemists are familiar with at least a few of these elegant methods, but all will welcome this survey and be surprised at the variety and extent of the applications. More than 300 references are given to papers, nearly all of which have appeared in the past decade or so.

Prof. Schwarzenbach, the pioneer of complexometric titrations, gives a very clear discussion, aided