

literature citations. Crystal and ligand field theory, π -bonded compounds, and similar post-1951 topics are, of course, lacking, but the editors have succeeded to some extent in remedying this by providing brief commentaries in footnotes. An entire chapter is devoted to Chernyaev's *trans* effect and its implications; the final chapter relates the complex-forming tendencies of the elements to their position in the periodic table.

The book is liberally provided with structural diagrams, equations, reaction schemes, tables, and figures, and the extensive annotated bibliography, mostly to Russian sources, is a model of organization. A short supplementary bibliography of review articles, compiled by the editors, contains one reference to a paper published in 1961. The author and subject indexes seem inadequate, if one considers the tremendous amount of material covered. The number of misspellings and typographical errors (at least 75) is far in excess of those permissible for a book of this length; almost all could have been prevented by more thorough proofreading.

This modest-sized volume is refreshingly different, and despite its shortcomings, it complements the growing Western literature on coordination compounds. I unreservedly recommend it to instructors and students alike.

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Gymnosperms

Gnetum. Botanical Monograph No. 1.
P. Maheshwari and Vimla Vasil.
Council of Scientific and Industrial
Research, New Delhi, India, 1961.
xiv + 142 pp. 40s.

This monograph on an unusual genus of gymnosperms is the first in a series on higher plants which will be published by the Indian Council of Agricultural Research; the council has already issued six volumes on lower plants. India has become a leader in some aspects of botanical science, and it behooves us to accord proper recognition to the accomplishments of Indian workers, as they have done to advances in the West.

The authors have attempted to bring together all known information on the genus *Gnetum*. The most valuable contributions are the data dealing with de-

velopment of the male and female apparatus and of the embryo following fertilization. This monograph brings together the reports of recent years, but, more important, it also includes previously unpublished descriptions and illustrations from at least three theses by students of Maheshwari, a world-famous authority on angiosperm embryogeny. The photographs and line drawings are sharply reproduced on high-quality paper, and the strong binding will ensure the book's long life. The extensive bibliography and the carefully documented references in the text make this a most desirable reference for classes studying gymnosperms.

The only previous book to contain detailed information on the morphology of *Gnetum* was H. H. W. Pearson's *Gnetales* (1929), which treated also *Welwitschia* and *Ephedra*. Despite their marked individuality, these three unusual genera share certain reproductive and vegetative features that point to a common ancestry. Since the new volume contains significant new data, it is not repetitive of the earlier work.

The authors state that *Gnetum* has been investigated more thoroughly than any other genus of gymnosperms. However, although some 30 species are known, anatomical studies have been almost confined to *Gnetum africanum*, *G. gnemon*, and *G. ula*, presumably because of their greater availability. It is unfortunate that no data more recent than 1930 were available on American species; there is now herbarium material to confirm distribution in Panama, Colombia, and Peru.

The entire report on roots is contained in one paragraph, and the discussion of leaves occupies one and one-half pages of text. Only petiolar transections and stomal peels are illustrated. With so much recent emphasis on number and morphology of chromosomes, it is remarkable that only four persons reported counts, and that among these the haploid numbers vary from 11 and 12 to between 20 and 25.

The last ten pages, "Relationships," report little new information, because, as the authors concede, "*Gnetum* remains a phylogenetic puzzle." This listing of contents is not intended to reflect on either the book or its authors, but rather to emphasize how little we really know. Not until we have gathered additional information is the phylogenetic puzzle likely to be solved.

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Linderstrom-Lang Memorial

Selected Papers. Kaj Linderstrøm-Lang.
Danish Science Press, Copenhagen;
Academic Press, New York, 1962.
584 pp. Illus. \$17.

This book, intended as a tribute and a memorial to the late K. U. Linderstrøm-Lang, is a selection of his scientific papers covering the period 1923 to 1957. These were chosen by an international committee on the basis of "... their particularly lasting value or because they have been published in less accessible scientific journals." This fact alone should earn the book a place on many library shelves.

The collection is devoted entirely to the works of Linderstrøm-Lang, with the exception of a very brief foreword. No eulogy for this truly great scientist has been included. Indeed, none is required. The scope and significance of the 25 representative papers are all that is necessary to demonstrate his greatness.

The selection committee has made an excellent choice. The papers are arranged chronologically beginning with "On the salting-out effect," published in 1923, followed by the well-known "On the ionization of proteins," published in 1924. The Lane Medical Lectures on Proteins and Enzymes, delivered at Stanford in 1952, comprise one-fifth of the book. Another long article considers the theoretical treatment of the Cartesian diver microrespirometer. All of the papers are written in English except one, "Über den Antagonismus von Zink und Bläusäure bei deren Einwirkung auf die Peptidaseaktivität."

Included in this collection are four of Linderstrøm-Lang's "special" publications. The first, "New Year 1957," which appeared in *Politiken*, is a plea for the continued hard work so necessary to achieve peace. It is an expression of uncertainty about the future and consternation at the present ways of man. The second of these, "Man, science, and industrial development," was an address to the European Brewery Convention in 1957. Here, Linderstrøm-Lang discusses the role of the scientist in industrial development and the necessity of industry to promote scientific freedom. The third is a sharp but witty analysis, "Taxi chauffeurs in New York," and the last is the classic treatise entitled "The thermodynamic activity of the male housefly," coauthored with F. Fizz-Loony.

Thus, the remarkable scientific