

and activities. They show the difficulty of applying Western terms and concepts relating to society, economy, land tenure, market, labor, money, and gifts to what the Tiv are thinking and doing in these spheres. They also frequently suggest that the Western scholar's or administrator's attempts to determine formal and concrete rules about Tiv social and economic behavior may impose some very artificial and misleading limits on what is really a far more flexible and situationally adjusted system. Indeed, they might well have systematically stressed this point as a useful corrective to those researchers who feel compelled to fit the variable behavior of the people they study into the tight categories and classifications already well established and endorsed in their discipline even when they feel that this constricts their data. On the other hand, the Bohannans do point out the need for simplifying ideas and analytical concepts.

As they have done elsewhere, the Bohannans interpret the Tiv material in part according to seminal and organizing ideas derived from association with Karl Polanyi, an economic historian, and George Dalton, an economist, who have delineated major analytical differences between Western and non-Western economic systems (for example, see P. Bohannan and G. Dalton, *Markets in Africa*, 1962). In line with this approach, the Bohannans show ways in which Tiv economy is "imbedded" in Tiv social organization. They also apply other heuristic tools which they have previously made use of, such as the analysis of land rights as "social relations in terrestrial space" and the concept of "multicentric economies" (for example, see P. Bohannan, *Social Anthropology*, 1963).

The authors mention some of the difficulties of collecting accurate data on market activities, commodities sold, prices and profits, and attendance, and they rather casually suggest some techniques for gathering such data. It is unfortunate that they do not elaborate upon these in more detail, perhaps in an appendix.

In short, therefore, while not offering new data, analysis, or theory, the Bohannans have presented a good synthesis of material and concepts on the Tiv and economic anthropology which they have developed during the past two decades.

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A Group IV Element

The Chemistry of Germanium. FRANK GLOCKLING. Academic Press, New York, 1969. viii + 236 pp., illus. \$11.

The Chemistry of Germanium fills a definite need. Until its publication no such book existed, although a monograph on the organic chemistry of germanium in the Russian language by Mironov and Gar appeared in 1967. The principal virtue of the present book is that it discusses both the inorganic and the organic chemistry of germanium. This is quite sensible since in order to do effective research in organogermanium chemistry one must of necessity be familiar at least superficially with the inorganic chemistry of this element. The preface states that this book is designed "partly to appeal to the general chemical reader who is likely to be interested in the chemistry of germanium especially in relation to silicon, tin and lead." This approach is especially commendable since so much of present-day research in organogermanium chemistry is carried out in the context of research in the chemistry of these other group IV elements. The literature coverage in this book is in general good, and I was pleased to see that not only the literature in the English language but also the quite considerable contributions published in the French and Russian languages have been adequately covered.

Rather brief but still very useful discussions of bond properties of germanium compounds, including discussions of electronegativity, types of bonding, thermodynamic data and bond lengths, and spectral characteristics start off the book. Especially useful is the discussion of mass spectra of organogermanium compounds. The second chapter is devoted to the inorganic chemistry of germanium, and in relation to the succeeding chapters on organogermanium chemistry, its sections on germanium hydride chemistry and divalent germanium compounds are especially useful. A more or less standard development of the organic chemistry of germanium follows, with chapters on tetraorganogermes, organogermanium hydrides, organogermanium-nitrogen and -phosphorus compounds, organogermanium-group VI compounds, organogermanium halides and pseudohalides, and organogermanium-metal bonded compounds. One might object to the fact that one of the longest chapters is devoted to organogermanium-metal bonded compounds, the research area of the author. It is

doubtful that this particular subject merits the extended discussion it receives as compared to the length of the other chapters in this book. However, the area in question is one of the more active ones in current organogermanium research and certainly is a very interesting one.

The book is well written and well organized. Liberal use is made of equations and formulas, and most of the important references are supplied. The organogermanium chemist will find some opportunities for nit-picking, but on the whole the exposition is a very good one. The author is an inorganic chemist and, understandably, he has given organofunctional germanium chemistry a treatment which the reviewer considers inadequate in terms of the organic chemistry involved. This, however, is the only major criticism that can be made of this book. A few statements in the book are somewhat puzzling, for example one on page 78 to the effect that the chemical inertness of perfluorophenylgermanium compounds is most probably due to the inductive effect of the C_6F_5 group in inhibiting nucleophilic attack in germanium. There are, however, very few technical books one can read with one's critical faculties in a dormant state.

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Books Received

Analogue and Hybrid Computers. Zdeněk Nenádál and Bohumil Mirtes. Translated from the Czech edition (Prague, 1962) by the authors. R. J. M. Grew, Transl. Ed. Iliffe, London; Elsevier, New York, 1968. 616 pp., illus. \$16.

Atlas of the Great Barrier Reef. W. G. H. Maxwell. Elsevier, New York, 1968. viii + 260 pp., illus. \$32.50.

The Basis of Progressive Evolution. G. Ledyard Stebbins. University of North Carolina Press, Chapel Hill, 1969. x + 150 pp., illus. Cloth, \$5; paper, \$1.95. John W. Harrelson Lectures.

The Biogenesis of Starch Granules in Higher Plants. N. P. Badenhuizen. Appleton-Century-Crofts, New York, 1969. viii + 122 pp., illus. \$5.

Biogeography and Ecology in South America. Vol. 1. E. J. Fittkau, J. Illies, H. Klinge, G. H. Schwabe, and H. Sioli, Eds. Junk, The Hague, 1968. xvi + 448 pp., illus. + map. \$20.80. Monographiae Biologicae, vol. 18.

Biographical Memoirs of Fellows of the Royal Society. Vol. 14. The Royal Society, London. (Continued on page 1206)