

from achieving its baleful ends. This leads to an interdependence between the royals and the commoners and is a key element in the working of their political system and in the integration of a society composed of two groups which consider themselves historically distinct. Carlston, although he discusses both politics and supernatural belief at some length, gives little that would allow the reader to infer the presence of this supernaturally based and politically crucial interdependence.

However, the ethnographies in *Social Theory and African Tribal Organization* are interestingly written and sound enough to allow the reader to gain some understanding of some of the best-described societies in Africa. This statement is as far as I can go in being positive about Carlston's latest efforts. The remainder of his book is made up of a presentation of his "theory of the organization of action"; a "statement of findings: principles and propositions" which includes about 250 inductively derived propositions based upon the 13 ethnographies found in the body of the book and 8 more briefly summarized in two appendixes; and a chapter entitled "modern implications" in which the author gives his views on the problems facing developing nations, especially African ones, and his solutions for these problems.

His theory of organization is rather diffuse, but a paragraph from the text may give some idea of its tone and level if not of its precise substance, which is rather elusive.

In tribal societies, kinship relations are predominantly the means for creating structures of social action. However, pluralistic societies also appear characterized by a variety of types of social structures based on other criteria than kinship relations, such as age and the performance of specific functions. Modern societies are characterized by the movement of individuals to attain valued goals through the instrumentality of the organization. The course of human history has been a movement from kinship to organizational structures of social action. It has been a movement from acceptance of the father or the father-figure, as the repository of authority, to the acceptance of the official or executive, as the holder of authority. It has been a movement from role performance in institutions to role performance in organizations [p. 15].

"Organizations," it needs to be added, are present when "impersonal authority in the form of the office [is used] to coordinate action and to control conflict" (p. 16).

Carlston's basic position seems to be

that social advancement is attained through authority's being in the hands of other than kinsmen, and his endless division of the population of the earth into "tribal" and "modern" (with a residual category of "pluralistic" appearing from time to time) is based primarily upon whether or not authority is vested according to kinship or according to "impersonal" criteria. This is a very old idea in anthropology, going back to the 19th-century speculative anthropologists, of whom Maine and McClellan (both lawyers like Carlston) are among the best known, but it is not a very fruitful one. This is so partly because coordination of action by impersonal authority is found in such simple societies as that of some groups of Bushmen (who are not complex in technology, social structure, or much else) and partly because there is little profit in saying that "advancement" comes in moving from one form of organization to another (to do this is only to state one's preferences) without specifying the conditions under which such movement occurs and does not occur.

If the author had used his ethnographic data to test his theory of organization in some way, it might have been possible to evaluate the 113 "elements of a theory of the organization of action" he presents, but he does not do so explicitly, and even implicitly it is hard to relate much of the theory to most of his findings and impossible to see how his findings contribute to his basic position concerning the organization of action. His findings, like his "elements," are only vaguely related to one another, and neither the findings nor the elements have anything obvious to offer as an augmentation of our understanding either of African tribal society or social theory.

As loosely related to one another as may be the theory to the data, and the theory to the findings, the relation of the "modern implications" to any data at all is even less easy to discern. In general, tribalism, with its loyalties to kinsmen and fellow villagers, is seen as a very serious obstacle to the development of the African nations, and Carlston's prescriptions for overcoming the obstacles are, in general, summarizable as getting rid of tribalism and its consequences. His stereotypes about tribes and tribalism are so numerous as to make it impossible to list them all, so it will have to suffice to note that he is under the impression that

"tribesmen" are more like one another than they are like "modern men" in having very narrow loyalties and being full of envy, fear, conformity, and resentment. For the African states to become really effective "organizations for action," according to the author, who offers us no explicit information about the states and who seems quite uninformed about modern national politics in Africa, their citizens must abandon all their tribalistic ways and become modern men in their orientation. All one can say of this is that there is no basis for believing that Africans, or anyone else, can be usefully divided into modern and tribal men, and that the author's modern implications, like his theory, are compounded of elements which are already known, oversimplified, or false; or various combinations of the three.

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An Agricultural People

Tiv Economy. PAUL BOHANNAN and LAURA BOHANNAN. Northwestern University Press, Evanston, Ill., 1968. xiv + 265 pp., illus. \$8.75. Northwestern University African Studies, No. 20.

This is an interesting, informative, and well-written book which describes and analyzes ways in which the Tiv people of Nigeria produce and allocate the goods and services important to their subsistence requirements and socio-cultural means and ends. It should prove a useful contribution to African studies, ethnology, and economic anthropology. It does not represent anything especially new in these fields. Most of its data and concepts have appeared in varying form in other works by the authors, who carried out fieldwork among the Tiv from 1949 to 1952. But it is good to have all this material combined so effectively in one place.

Tiv Economy presents, clearly and carefully, a wealth of detail about pertinent aspects of Tiv life and livelihood, especially means and ends of food production and distribution. It also provides limited but adequate background information on relevant aspects of Tiv social structure. The authors are adept in delineating Tiv "folk" concepts, the ways in which the Tiv express, understand, and conceptualize their world, beliefs,

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)