

are markedly different from those of the people whose societies and governments constitute the national states of this troubled corner of the world. The Chin of the hill regions in western Burma are such people. In some ways the Chin are primitive and tribal in culture and society, but in other ways they resemble the peasantries of emerging industrial nations in other parts of the world. Lehman calls Chin society and culture "subnuclear" because it adjoins with and is heavily dependent upon the Burman civilization of the plains, yet the Chin maintain their distinctive cultural tradition, which is marginal to Burman civilization, and do not actively participate in the political affairs of the Burman state. In this monograph the author attempts to delineate precisely and in detail the distinctive ways in which the Chin relate to Burman culture and society.

The author's approach is ecological, but ecological in two senses of the word. There is the relation of various Chin groups to the resources of their territories. Historically, differences in resources as well as different adaptations to and exploitations of resources have produced notable differences among Chin groups. These differences among Chin societies have also resulted in different social ecologies—that is, relationships to Burman civilization upon which all Chin are firmly dependent. In this analytic framework, differences between northern and southern divisions of the Chin peoples with respect to land use and tenure, social structure, economics, religion, and ethos as well as differential responses to contemporary stimuli are described and compared.

Despite its brevity the monograph covers a great deal of material, clearly and concisely. It is written for anthropologists who are already familiar with the basic writings on the Chin and related peoples and with current theoretical trends (and controversies) in British and French social anthropology. It is, therefore, more technical than general. Its ecological emphasis, which is derived from the Studies of Cultural Regularities (a project at the University of Illinois), is well suited (and well applied) to the difficult task of describing differences among the Chin as well as their differing social, cultural, and economic relationships to Burma and the Burmese.

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Physical Chemistry

Ion Association. C. W. Davies. Butterworth, Washington, D.C., 1962. viii + 190 pp. Illus. \$7.50.

C. W. Davies, in the more than 30 years that he has devoted to the study of electrolytes in solution, has emphasized interpretations that involve ion association.

This brief book is a worthwhile summary of the field *from the point of view that accepts ion association as the principal explanation for diverse anomalous properties of electrolyte solutions*. The author admits several times that this approach may be open to question, but the point is not adequately discussed, and this is the book's main fault. Certainly the point of view adopted is very different from that expressed by T. F. Young—for example, see his articles in volumes 3 and 13 of *Annual Review of Physical Chemistry*.

An impression of the scope of this book may be gained from the chapter titles: "Introduction," "Conductivity methods," "Activity measurements," "Spectrophotometric methods," "Electrometric methods," "Other methods," "Review of results in water," "Results in mixed solvents," "Non-aqueous solutions," "The dissociation minimum," "Colloidal solutions," "Thermodynamic properties of the ion-pair," "Kinetics and mechanisms of reactions involving ions and ion-pairs," and "Theories of ion association." An appendix gives dissociation constants for more than 400 ion-pairs, but whether such a value as

$$[\text{Cs}^+][\text{Cl}^-]f_{\pm}^2/[\text{CsCl}]f_{\pm} = 2.5,$$

one of the tabulated values, is a chemically meaningful quantity is open to question.

The equation for the mean ionic activity coefficient of an electrolyte,

$$-\log f_{\pm} = 0.50 Z_1 Z_2 \left(\frac{I^{1/2}}{1 + I^{1/2}} - 0.20 I \right),$$

which was proposed by Davies in 1938, has been widely used. The author now modifies this equation by substituting 0.30 for 0.20 as the coefficient of ionic strength in the linear term, a modification that he bases on the consideration of a larger number of electrolytes.

Approximately one-quarter of the literature references are to papers published in 1957 or later, but only a few refer to papers published in 1960 and

1961. There are important omissions, among them several that would give the presentation a more critical flavor: Redlich's discussion of criteria for association of ions to form molecules [*Chem. Revs.* **39**, 333 (1946)], Mayer's theory of ionic solutions [*J. Chem. Phys.* **18**, 1426 (1950)], and the discussion by Frank and Thompson of the limitations of the Debye-Huckel theory [*J. Chem. Phys.* **31**, 1086 (1959)].

The lack of a more completely balanced picture of this important area of physical chemistry mars the usefulness of this book.

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Notes

Ornithology

Birds of Hampshire and the Isle of Wight (Oliver and Boyd, Edinburgh, 1963. 290 pp. 30s.), a local "ornithology" by Edwin Cohen, covers an area in England whose bird life was first extensively reported in a book (by Kelsall and Munn) published in 1905. The present volume brings together the data recorded by many observers since 1905 and carefully compares the present conditions and the current status of the included avian species with the reports published in the earlier work.

Although the main body of the text is in the form of a detailed annotated catalog, the book differs from many regional works in that it includes nine introductory chapters, written by several authors.

D. W. Wray writes on the geology of the area and A. K. Hunt on the botany. D. F. Billett contributes a chapter entitled "Survey of the south-east corner of the County." E. L. Jones discusses birds and land-use in north-west Hampshire, and J. S. Ash, the distribution of birds in relation to habitat in the Fordingbridge area. Several chapters on the birds of special parts of the region were contributed by J. H. Taverner, J. Stafford, and the main author, Cohen. The book is thus of wider usefulness than are most purely regional catalogs, although it is to be expected that its main body of readers will be local.

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