Regional Traditions and Social Patterns

The thesis of this book, **The Challenge of Diversity** (Harper and Row, New York, 1964. 352 pp., $6.50), by Richard E. Engler, Jr., is that the cultural values and social institutions of American society have evolved differently in particular local communities, and that the diversity itself contributes to freedom. Although there are unifying values, we cannot understand the United States as a whole unless we take account of the regional patterns that have emerged in response to different historical traditions, local environmental settings, and the culture and aspirations of the original and subsequent settlers. The diverse patterns indicate that the social process of Americanization is an ongoing and a continuing aspect of our democratic society.

The major chapters of the book present sociologically oriented historical sketches of eight American cities: New Bedford (40 pages), Charleston (42 pages), Sante Fe (27 pages), Houston (34 pages), Iowa City (18 pages), Boise (18 pages), Racine (30 pages), and Seattle (32 pages). Each chapter begins with the origin of the urban center and surrounding hinterland and traces its development to the contemporary period, with emphasis on intergroup and interpersonal relationships. The author concludes that heterogeneous population elements have achieved a sense of community as a consequence of adjustment to others in a continually advancing frontier, and that the variability in local styles has been a constant challenge and source of vitality in American life.

It is not that similar forms of democracy have been forged as a consequence of the confrontation of man and nature in frontier settings, in which cooperation was achieved by the necessity of directing human energies to the taming of the physical environment. It is rather that diverse migrant groups, with varying cultural traditions, have adjusted to one another in different social environments at different periods of history, and, in the process of social accommodation in an essentially urban frontier, these groups have established localized and regional variants of the national pattern.

On balance, the point is well taken, particularly when contrasted with alternate approaches to American culture. Our society has been viewed as a monolithic entity; as a stratification system segmented into two, three, six, or any number of social layers; as a field of conflict and accommodation between different ethnic and caste groups; as a hierarchy of occupational and professional groupings; as an amalgam of different ways of life pursued in urban, suburban, and rural settings; or more recently as a conglomeration of hypothetical mass men, alienated of course, and constantly searching for "identity."

These alternate approaches, taken together, illuminate one or another dimension of American life, but Engler's eight sketches serve to remind us that men reside in localities, and that new migrants to a region not only bring their own traditions but must also take account of the established pattern and ideology. If American communities were all more or less alike, and if the melting-pot hypothesis operated as thoroughly and as uniformly as was thought to be the case two or three decades ago, then we would not have to consider entities circumscribed by geographical boundaries. But locality does provide one context for communication and one stage for the enactment of human interaction.

Engler has written a good book that advances our understanding because of its emphasis on patterned regionalism and the comparison of eight different cities considered through time. The major weakness, however, is that the summary treatment of the city as a whole leads to a lack of sociological depth. Possibly I am asking too much, but I would have appreciated a more sensitive treatment of the various segments, strata, and neighborhoods within a city and a more complete description of how different subsegments of urban society experience their community and participate in its institutions. Engler gives us one picture of what each city is like, but he does not fully consider the multiple perceptions and images of the community held by those occupying differential positions in the urban social structure. In his account of contemporary Sante Fe, for example, Engler reports on interviews with a bank president, a social worker, a school superintendent, a minister, and a doctor, but I wonder how the city would appear to lower-class members of the Spanish-American segment.

In my opinion, the relative importance of a locality and its history for contemporary population segments remains an open empirical question. Certainly, the traditions and social patterns that have developed in a region may provide a model of behavior and a guide to action for those subgroups within the city who are committed to and involved in community life. But others, who do not share the myths, may be less affected by their surroundings. To what extent does the behavior and beliefs of a college professor in Houston differ from his counterpart in Seattle because of residence in different urban centers? How responsive are the urban poor in Charleston or New Bedford to the localities in which they find themselves? The key question, unanswered by Engler, is this: In what sense is the city a community?

EDWARD M. BRUNER
Department of Anthropology, University of Illinois

Rhythmic Functions

Biological Rhythms. Alain Reinberg and Jean Ghata. Translated from the French edition by D. J. Cameron. Walker, New York, 1964. xiv + 138 pp. Illus. $3.50.

This book is a translation of the second edition (1964) of *Rythmes et Cycles Biologiques*, first published in France in 1957. The 1964 editions contain new explanatory and introductory materials, in keeping with the fluid state of knowledge in the study of temporal biology.

The authors begin with a discussion of elementary rhythmical activity in living matter, and deal in turn with circadian rhythms in general, rhythms with longer periods (for example, sex-

ual cycles, rhythms in dormancy of plants, hibernation of mammals, and seasonal migrations), and, finally, specifically with circadian rhythms in man. These latter, most conspicuous and extensively studied rhythms in man are treated in a separate chapter, with special attention to the sleep-wakefulness rhythm. Circadian variations of interest to the clinician, such as those in body temperature, blood pressure, pulse, and basal metabolic rate, are noted. The reader may wish for more specific reference to some of the studies mentioned, but perhaps the indications given in the bibliography of the books and articles where such specific reference can be found will be sufficient.

The recurring biologic phenomena discussed by the authors are those with a more or less similar time interval separating two comparable states. Terminology has been modernized according to current usage. Because a clear understanding of the reason for the use of certain terms—for example, *circadian* to designate rhythms with periods of about 24 hours—is basic to the ensuing discussion, the reader should give particular attention to the preface.

The text is further brought up to date by a succinct discussion of rhythms in their relationship to work hygiene as well as to intercontinental and extraterrestrial flights. Extensive work on rhythms done at the University of Minnesota is well summarized in the new edition.

By recent cave studies Michel Siffre, who lived for 2 months without known time cues, has produced substantial evidence that the sleep-wakefulness rhythm is to a large extent endogenously free-running rather than merely "learned"; thus, the discussion of Pavlov's hypothesis concerning the nature of this rhythm no longer occupies a prominent place in the second edition or in this translation.

An elementary but sound and lucid discussion of biological rhythms is not easy to come by in this rapidly developing field of study. In this respect, Reinberg and Ghata have made a positive contribution. Their book is not intended for, nor is it recommended to, the specialist, but it will be useful to students and to researchers starting work on rhythmic functions. And it will be of interest also to clinicians and investigators in other fields.

ELLEN REEKER
Department of Pathology,
University of Minnesota, Minneapolis

Organic Chemistry: Instrumental Techniques

Physical Methods in Organic Chemistry. J. C. P. Schwarz, Ed. Holden-Day, San Francisco, Calif.; Oliver and Boyd, Edinburgh, Scotland, 1964. xii + 350 pp. Illus. $9.75.

This attractive and well-produced little book is the most recent addition to a quite numerous family of treatises, surveys, and reviews in which modern techniques for determining physical constants are related to applications where they are particularly useful. The editor and contributors (all teachers of chemistry in the United Kingdom and Australia) are aware that, on the one hand, they are competing with more detailed compendia which cover similar ground (and even have almost identical titles) and, on the other, that there is no lack of monographs in which individual methods are treated in great detail.

Wisely, a decision was made to fit this collection of essays primarily to the needs of students who are exposed to instrumental techniques for the first time and who are not yet expected to select one for a particular purpose or to familiarize themselves with details of the state of the art. Application to structural problems in organic chemistry are stressed. From this point of view, the book is successful. The introductory section and nine chapters ("Ultraviolet, visible and infrared spectroscopy" by P. Bladon and G. Elington; "Infrared and raman spectroscopy" by G. Elington; "Ultraviolet and visible spectroscopy" by P. Bladon; "Magnetic resonance spectroscopy" by L. M. Jackman; "Optical rotation" by J. C. P. Schwarz; "The determination of molecular weight" by C. T. Greenwood; "Diffraction methods" by G. A. Sim; "Mass spectrometry" by R. I. Reed; and "Dipole moments" by B. L. Shaw) are clearly written. Examples of applications are up to date; the references lead on to more detailed treatments. Commendably, the book does not contain a single meaningless photograph of the outside of a "black box."

The level of sophistication varies among the various chapters. For instance, the chapter on magnetic resonance spectroscopy assumes a far greater appreciation of physical principles than the brief introduction to mass spectroscopy. Separation techniques, without which many of the physical methods are unusable, are omitted all together. But, no matter. The book is a good introduction to an important field. It will stimulate the imagination of a perceptive student, and as he progresses toward more involved problems, he can find more detailed assistance elsewhere.

W. G. BERL
Applied Physics Laboratory,
Johns Hopkins University

Decision Making and Its Application

Operations Research: Process and Strategy. David S. Stoller. University of California Press, Berkeley, 1964. viii + 159 pp. Illus. $5.

Operations research is concerned with the science of decision making and its application. In this small volume, David S. Stoller, a senior research scientist at the RAND Corporation, does not attempt to provide a comprehensive survey of the techniques adopted by operations research; rather, he focuses briefly on its history, characteristics, and two types of operational problems: servicing and strategy. These are handled by queueing theory and game theory, respectively.

It appears that this book, which is divided into 23 chapters that average about six pages each, stems from the author's numerous lecture series on selected topics in operations research. In keeping with the typical mathematical background of the audiences for such lectures, only an introductory knowledge of calculus, statistics, probability, and the theory of equations is required for reading this work. Although he verifies many mathematical assertions, Stoller makes the material more palatable to the nontechnical reader by avoiding the Satz-Beweis style of exposition so frequently encountered in the mathematical sciences. In short, this is a book intended for the reader who seeks a "feeling" for operations research instead of an overall training in its techniques.

The treatments of both queueing theory and game theory are thus rather limited in scope. The servicing systems studied deal mainly with Poisson arrivals having negative exponential serv-