

potential importance in the regulation of cellular activity.

Since the discovery of ϵ -*N*-methyllysine in the flagella protein of *Salmonella typhimurium* in 1959, workers have found that not only lysine but also arginine, glutamic acid, aspartic acid, and histidine residues of proteins can be methylated to form nine major amino acid derivatives: ϵ -*N*-monomethyllysine, ϵ -*N*-dimethyllysine, ϵ -*N*-trimethyllysine, N^G -monomethylarginine, N^G , N^G -dimethylarginine, N^G , N^G -dimethylarginine, methyl ester of aspartic and glutamic acids, and 3-*N*-methylhistidine. The volume describes in detail the discovery of these derivatives and their general distribution in nature. Detailed procedures for their chemical synthesis, purification, and identification are provided.

These methylated amino acids are formed by reactions catalyzed by *S*-adenosylmethionine-dependent methyltransferases. Several of these enzymes, including protein-arginine *N*-methyltransferase, protein-carboxyl *O*-methyltransferase, and protein-lysine *N*-methyltransferase, have been purified and partially characterized. The authors provide detailed procedures for their assay and purification.

A substantial part of the book is devoted to the potential importance of protein methylation in the regulation of cellular activity. For example, the book reviews the role of lysine methylation in the regulation of the activity of histones and cytochrome *c*, in the biosynthesis of carnitine, in the assembly of ribosomes, in the visual function of rhodopsin in the retina, and in the assembly of flagellin in the bacterial flagella. Arginine methylation is reviewed from the standpoint of its possible involvement in the regulation of the activity of encephalitogenic myelin basic protein and histone and non-histone chromosomal proteins. The role of protein-carboxyl *O*-methylation in bacterial chemotaxis, in the storage and excretion of hormones, and in ligand-receptor interaction is also discussed.

Research on the biochemical significance of protein methylation, still in its infancy, is bound to yield important discoveries concerning the regulation of cellular events. This book will be important for those of us doing research on protein methylation, since it provides a concise yet extensive review of the literature. In addition, it should serve as an excellent introduction to workers entering this field of protein chemistry.

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The Anthropology of Brazil

Brazil. Anthropological Perspectives. Essays in Honor of Charles Wagley. MAXINE L. MARGOLIS and WILLIAM E. CARTER, Eds. Columbia University Press, New York, 1979. xviii, 444 pp., illus. \$20.

The study of the Brazilian people has become something of an industry at Columbia University, where for more than 25 years Brazilianist studies have flourished under the benevolent guidance of the anthropologist Charles Wagley. The 18 papers collected in *Brazil: Anthropological Perspectives* represent a sampling of that industry. In this festschrift in honor of Wagley, now at the University of Florida, Gainesville, his former students and colleagues, both American and Brazilian, have come together to attest to the value of his mentorship, while providing the reader with a collage of Brazil: its culture and society.

Wagley's introduction, "Anthropology and Brazilian national identity," is a personal account of the development of anthropology as a profession in Brazil. He chronicles the field expeditions of a group of young anthropologists from Columbia, among them Wagley himself, who beginning in the late 1930's undertook to do research in the hinterlands of Brazil. By the 1950's home-trained Brazilian anthropologists and sociologists began to take over their discipline from foreign-trained personnel. This volume contains contributions from an older Brazilian generation influenced by the teachings of French, German, and American anthropology as well as from a younger generation of American scholars.

The book provides a somewhat elliptical history of Brazilian anthropology. In some cases we are given updated work, illuminating to the initiated, perhaps puzzling to the novice (for example, Florestan Fernandes's interesting essay, "The Negro in Brazilian society: Twenty-five years later"). At times we are thrust precipitously into recent in-house arguments (for example, Marvin Harris's quarrel with Napoleon Chagnon on the causes of war among the Yanomamö). Robert F. Murphy's welcome brief on the absence of true lineages in lowland South America and Daniel R. Gross's challenge to structuralist interpretations of Gê social organization similarly presuppose a knowledge of the literature not provided in this volume. But this is a "failing" of the festschrift, when associates take the rare and welcome opportunity to rethink their previous published work and to "set the record straight."

The organization of the book presents a problem. It is apparent that the editors' intention is to place emphasis on topics (Some Perspectives from the Past, Environmental Adaptations, Social Structure, Political Organization) which cross-cut the usual divisions of single-nation studies into historical periods or regional units. For this reason, I assume, the eight papers devoted to interpretations of aboriginal life are distributed throughout the book's four sections rather than collected together. The effect of this distribution is to confound two kinds of anthropological study. Clearly the requirements for the study of a tribal society are different from the tools and techniques necessary for research in a technically more advanced society, possessed of a complex history and a written tradition. One cannot so easily ignore the qualitative leap from "cold" society to "hot" society, from "primitive" to "modern" society, by a blurring of the boundaries.

Many of the papers are concerned with the ways in which people adapt themselves to their physical environment. Emilio Moran discusses the cultural adaptation of settlers to the Trans-Amazon highway. The opportunities afforded to farmers and planters by agricultural frontiers in the southern parts of Brazil and the United States constitute the subject of Maxine Margolis's paper. Conrad Kottak provides a perspective on the way in which the differential rewards of fishing in Arembepe (Bahia) have prevented their development of "class or even group consciousness" (p. 205). In an examination of an Italian immigrant colony in Rio Grande do Sul, Thales de Azevedo shows how the Italian rural stem family and the "chapel," both Old World institutions, were preserved and accommodated in the New World. Papers by the late Eduardo Galvão and William H. Crocker also pursue the subject of cultural adaptation to changing environmental pressures on Brazilian Indians.

Other papers treat adaptations to the social environment. Their underlying, if not always explicit, subject matter is the patron-client relationship in modern Brazil. Diana Brown's work on Umbanda in Rio de Janeiro, Charlotte Miller's research on middle-class kin networks in Belo Horizonte, Robert Shirley's discussion of the legal system in rural Brazil, and Sidney Greenfield's study of "Patron-client exchanges in southeastern Minas Gerais" are instances.

In their excellent essay, "The political economy of patron-clientship: Brazil and Portugal compared," Shepard Forman and Joyce Riegelhaupt have put their

collective finger on the major problem with this volume. "Anthropologists," they say (p. 397), "must be wary of reading the past from the ethnographic present. We are perhaps most guilty of presenting a timeless 'traditional' cultural system which other social scientists now routinely feed into their developmental analyses as the antithesis of 'modernization.'" Forman and Riegelhaupt have the advantage of a historical perspective in part derived from their knowledge of "advanced" agro-industrial society. Anthropologists whose optic is the "local level" too easily extrapolate past from present as if no historical changes have occurred. By focusing on the development of the state, Forman and Riegelhaupt go beyond the timeless parochialism of an anthropological literature confined by the study of small village societies, whether tribal groups or little communities. Signaling a future for anthropology as a kind of political and economic history, which takes the study of the local group not as an end in itself but as part of a complex continuum that includes the nation-state, Forman and Riegelhaupt would rewrite the history of Brazil, looking at it from the other end of the telescope. Their paper, coming as it does at the close of the collection, makes the reader wish to go back and refocus the earlier analyses.

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