

clearly ought to know what they are talking about. Notable for their clarity, depth, and intelligence are the chapters by Davidson and McCoy. Frost's story of the Fijians is flawed by the facile assumption that they are a "mixture" of Melanesian and Polynesian elements. This old-fashioned idea prejudices him to look more for "ceramic intrusions from Melanesia" in "the [sic] Fijian archaeological sequence" than for patterns of local cultural evolution and local variability from one part of the archipelago to another, patterns that are certainly observable in the biological and most recent linguistic evidence.

The final six chapters are synoptic reviews treating the origins and interrelationships of the Polynesian-speaking peoples from different specialist perspectives: linguistics (Ross Clark), physical anthropology (William Howells), ecology (Patrick Kirch), settlement patterns (Bellwood), sailing (Ben Finney), and Melanesian archeology (Peter White). For many, these will be the most exciting chapters, because they deal with themes of broad interest. Howells comes to the spirited defense of an idea codified 150 years ago by Dumont d'Urville, long before the great antiquity of mankind in the Pacific region or the complexities and uncertainties of human population biology were recognized. This idea is the popular belief that modern Polynesian-speaking peoples belong to an ancient race that had "no important gene exchange with Melanesians before or enroute to their colonization of Polynesia proper." In truth, however, we don't know if precisely the opposite interpretation of current biological differences within and among "Polynesians" and so-called "Melanesians" is not just as likely. Indeed, deriving modern Polynesian-speaking peoples from a paleo-population living somewhere in Melanesia from whom at least some present-day Melanesian peoples are also similarly derived makes much better sense of more data from linguistics, biological anthropology, archeology, and other fields than does the interpretation Howells champions. In any case, as Bellwood says earlier in this volume, "One is forced to conclude that the original relations between Polynesians and Melanesians are obscure, to say the least."

What is missing from this volume is a strong sense of intellectual excitement and scientific purpose. As the chapters by Kirch and Finney in particular reveal, all the ingredients are there. Regrettably, the editor has not been able to serve them up in a gourmet meal of provoca-

tive delights. This collection is a worthy and useful addition to any Pacific specialist's library. Lay persons and students, however, will find that dollar for dollar there is more value in Peter Bellwood's *Man's Conquest of the Pacific* (Oxford University Press, 1979), however squarely that monumental survey falls into the "culture-historical" tradition justly criticized by anthropologists.

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Inhibitory Neurotransmitter

GABA. Biochemistry and CNS Functions. Proceedings of a symposium, Strasbourg, France, July 1978. PAUL MANDEL and FRANCIS V. DEFEUDIS, Eds. Plenum, New York, 1979. xii, 506 pp., illus. \$42.50. Advances in Experimental Medicine and Biology, vol. 123.

Gamma-aminobutyric acid (GABA) is an inhibitory neurotransmitter that appears to be involved in a greater number of central neuronal synapses (and therefore in a greater number of complex functions) than any other transmitter candidate. It has also become increasingly implicated, through its apparent role in the action of anxiolytic, anti-convulsant, and convulsant drugs, in such disorders as seizures and anxiety.

This book contains short papers on the enzymology, metabolism, uptake and release, receptors, and behavioral correlates of GABA. Also included are reports of recent advances in some technically difficult aspects of neurochemistry: measurement of neurotransmitter release following sensory stimulation (no GABA release could be demonstrated, according to Abdul-Ghani *et al.*), brain circuitry and neurotransmitter interactions, and the relationship of GABA to behavior and neurological disorders (a subject deserving greater treatment). For most of these subjects, the book contains neither a comprehensive review nor many major new contributions. It does provide a forum for many European workers in the field, notably the Strasbourg people (nine papers), who may have been underrepresented in other books on GABA.

The papers on the GABA-metabolizing enzymes—L-glutamate decarboxylase (Sze; Blindermann *et al.*), GABA-transaminase (Maitre *et al.*; Schecter *et al.*), and succinic semialdehyde dehydrogenase (Cash *et al.*)—are informa-

tive, and those on GABA uptake (Schousboe; Höslí and Höslí) and turnover (Moroni) are quite well done. But the section on GABA receptors is certainly best.

The excellent discussion of pre- and postsynaptic inhibition (Krnjević) provides the only instance in the book of an informative and cogent review of the field. Certainly more neurophysiological studies on the action of GABA ought to have been included; the only other contribution on the subject is an erudite analysis (of previously published data) by Werman. GABA-receptor binding studies are well covered, with complete discussions of drug specificity (Krosgaard-Larsen and Arnt; Bowery *et al.*), brain regional differences (Enna), and assay techniques (Möhler; Maurer; Costa and Guidotti; and others). The paper by Costa and Guidotti provides the only treatment (and a very short one) of GABA-benzodiazepine receptor interactions, a subject dominating more recent GABA symposia and probably future GABA meetings as well.

The book deserves a place on library shelves along with the several other recent treatises on GABA. The coverage of the field is relatively incomplete, and advances since the papers were presented in July 1978 are of course not included, so interest in the volume will probably be limited to GABA specialists (of which, however, there are now quite a few).

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Disordered Materials

Electronic Processes in Non-Crystalline Materials. N. F. MOTT and E. A. DAVIS. Second edition. Clarendon (Oxford University Press), New York, 1979. xiv, 590 pp., illus. \$65. The International Series of Monographs on Physics.

There are several branches of physics in which the first definitive textbook was by Mott and someone, and these books served for many years as the best introduction to their subjects. In a sense, this book by Mott and Davis stands with these earlier works because, although many comprehensive reviews of particular aspects of the subject have appeared since the first edition came out in 1971, there has been no one else bold enough to attempt an overall view of the subject of disordered materials—in fact, there