pathways of neurons utilizing the established transmitters and more about different transmitters and their receptors. Biochemists may note with some alarm that drugs used to treat schizophrenia (phenothiazines, butyrophenones) or L-Dopa itself can induce dyskinesias. Nevertheless, the cover of this

book, which displays a partly dissected human head surrounded by a halo of transmitters (dopamine, GABA and something else), is a very modest statement of the art as it stands at present.

J. J. Barlow

Aging Vol. 1:

Clinical, Morphologic, and Neurochemical Aspects in the Aging Central Nervous System

Edited by Harold Brody, Denham Harman and J. Mark Ordy Raven Press; New York, 1975 xi + 221 pages. \$ 19.75

This book is the first in a series on the ageing brain. In this volume there are seven chapters that mostly concern morphological and biochemical aspects of normal brain.

The contributors are in agreement that there are correlations between mental deterioration in the elderly and morphological changes. Although some authors put emphasis on the importance of senile plaques and neurofibrillary degeneration the Scheibels conclude that the deterioration of psychomotor function with advancing years is in part a function of the quality of neuropil. Since senile plaques may contain an immunoglobulin-derived 'core' of amyloid this may be indicative of a humoral involvement in the pathogenesis of the aging brain.

The deposition and properties of lipofuscin and neuromelanin are reviewed in considerable detail. Both pigments may be derived from lysosomes, possibly due to abnormal autoxidation while neuromelanin accumulates characteristically in catecholamine-containing neurones.

There are very few original papers dealing with neurochemical changes either the ageing human or primate brain. Despite this, the chapter on this topic accounts for almost one-third of the book. Much of the extraneous material could have been either omitted or possibly discussed in an additional chapter on 'Theories of brain ageing'. As more becomes known about the ageing human brain many neurochemists will be debating the relevance to functional and organic brain disorders of the elderly of studies on laboratory animals. This is because there is a great increase in neocortical development in man as compared with most experimental animals.

David M. Bowen