epilepsy on particular. Two chapters cover the chemistry of
epileptogenic substances and the pharmacology of anti-
convulsants. The major effort of the presentation of this
material is to provide a background for the central thesis of
the book—a neurophysiological model for psychomotor
epilepsy.

Conceptually, the model is based on the primary excitation
being in Ammon's horn and that there is a series of
barriers influencing the primary focus. These barriers are
serially: the temporal lobe, the medial structures of the
brain, the neocortical region, the lower part of the brain
stem, and the spinal cord. This model does indeed serve as a
framework for sorting a variety of experimental data, but
serves only in this capacity and does not generate new insights
into mechanisms. The volume has nearly a hundred pages of
bibliography.

It is with regret that this volume cannot be recommended
—certainly not for students or house officers, and the ex-
perienced clinical neurophysiologist will be disappointed.

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Serotonin — new vistas, histochemistry and pharmacology.

Serotonin — new vistas, biochemistry and behavioral and
clinical studies. Vol. 11. — E. Costa, G. L. Gessa and M.
Sandler (Editors). (Raven Press, New York, 1974, 428 p.,
$19.75).

These two volumes are the result of a symposium held in
Italy and dedicated to B. B. Brodie, a most remarkable
pharmacologist. Perhaps it is fitting that the current out-
standing investigators of the role of serotonin in brain
function should meet at this time to summarize our current
knowledge. It is my personal opinion that these two volumes
are going to stimulate much new research on the function of
serotonin in the brain. As the titles suggest, various aspects
including histochemical, pharmacological, biochemical, be-
havioral and clinical are covered. Researchers interested in
the central nervous system actions of serotonin will find these
volumes important sources of our present knowledge. Of
interest to electroencephalographers are the papers on the
role of serotonin in sleep. This only constitutes a small
percentage of the total number of papers presented. Most
electroencephalographers should know that these important
volumes exist. It is recommended that all medical libraries
purchase copies of these excellent books. The Editors are to
be congratulated on a job well done and Raven Press for
maintaining high publication standards. It is too bad that the
books are as expensive as they are but that seems to be only
a sign of the times.

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Synaptic transmission and neuronal interaction. — M. V. L.
Bennett (Editor). (Raven Press, New York, 1974, 388 p.,
$19.75).

It is now widely accepted that much of the integrative action
of nervous systems depends not only on the anatomical design
of neural circuits, but on the function of the synapses within
these circuits at membrane and molecular levels. As the editor
of this book stresses, many neurobiologists take the synapse
to be the primary focus for processing neuronal information.
The intent of this volume is to acquaint the reader with the
newer developments in thought, technique, and direction
that synaptology is providing to neurobiologists for under-
standing neuronal interactions as a primary basis for the
functional operation of nervous systems.

This book draws from a very wide variety of disciplinary
approaches to neurobiology, and it is comprehensive in its
inclusion of most of the recent advances in neurobiology.
Among the more interesting approaches discussed are
tissue culture techniques, electrical noise from post-synaptic
membrane ionic channels, neural correlates of behavior,
biochemical isolation of receptors, and the physical modeling
of neuronal systems. Each of the articles is written by a
pioneer in a particular field of neurobiology. The articles
are sufficiently comprehensive to explain both technical
details and the significance of scientific results in advancing
our understanding of synaptic function.

Perhaps, because of the contributors' intimate associa-
tion with the specific topics discussed, the chapters tend to
be somewhat isolated from each other. Therefore, the
assemble of these chapters into a book is somewhat dis-
continuous. Lateral and cross-references are few. Large
trends and historical continuity within the field of synap-
tology have to be inferred by the reader. Two efforts are made
to provide perspectives in the book. One of these, the editor's
introduction, is far too brief to do justice to this goal. The
second of these by Harry Grundfest opens the first section
of the book ("Conventional Synapses"). While excellent as
an overview of synaptic functions at the cellular level,
Grundfest's chapter falls short of providing the reader with
an overall understanding of the relation of neurochemistry
and neuronal interactions to such behavioral correlates
as learning and memory. If each of the other major sec-
tions ("Unconventional Synapses", "Neurochemical Ap-
proaches" and "Developmental and Plastic Changes") had
similar review chapters, the book would be greatly improved.
This mild criticism should not keep researchers and students
interested in neuronal function from reading it. There is a
wealth of information contained within. Indeed this book
has all the general characteristics we now associate with
symposia volumes — intense focus on narrow avenues of
research by authoritative experts chosen because of their
commitment to understanding particular fractions of a given
field of endeavor.

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