

could have foreseen such developments 20 years ago? (And what will be the living ideas in cytology 20 years hence?)

The only substantial adverse criticism that might be offered is of the photographic reproductions. The originals of these—electron micrographs of mitochondria, microsomes, viruses, chloroplasts, and muscle fibrils—are things of great beauty, but most of the beauty has unfortunately been lost in the reproduction. For the layman who is seeing these pictures for the first time, the plates will do, because he doesn't know what he is missing, but it is a pity they are not better. The author no doubt agrees with this criticism.

Toward the end of the book Butler branches out considerably from his stated topic to consider mind, instincts, memory, free will, ageing, death, and the purpose of it all. Admittedly, it may be possible some day to discuss many of these topics on a cytological basis, but that day still seems a long way off. However, since the author's discussions are short and often illuminating, one does not begrudge him these diversions. It is Tennyson's "flower in the crannied wall" again: it is only natural for the serious and thoughtful specialist to fancy he sees real connections between the tiny object to which he devotes his life and the cosmos itself. Sometimes he is right.

The author's approach is, throughout, a quantitative one; he emphasizes the importance of thinking in terms of exponential numbers and orders of magnitude. This approach may repel the layman who has become allergic to "math" (may his tribe decrease!), but it is certainly the best approach. At least physicists, chemists, and other scientists who are laymen in the field of cytology will find this a stimulating and informative work. It deserves to be as widely read as its great predecessor, *Unresting Cells*.

GARRETT HARDIN

Department of Biological Sciences,
University of California, Goleta

Communist Economic Strategy: The Role of East-Central Europe. The economics of competitive coexistence. Jan Wszelaki. National Planning Association, Washington, D.C., 1959. xii + 132 pp. \$3.

This book, the first volume in the National Planning Association's series on the economics of competitive coexistence, is useful in assembling a variety of data on the trade of East-Central Europe with the Soviet Union and with the underdeveloped countries of the Far and Middle East. Its thesis is that East-Central Europe provides an industrial base which is important to the Soviet Union, both directly and in the latter's attempt

to penetrate economically and politically into underdeveloped countries. At the same time it is admitted that the countries of East-Central Europe need raw materials and foodstuffs and that they are obliged to trade with the Soviet Union and tropical areas in order to acquire them.

The study is a short one, and it pays only limited attention to the evolving background of industrial and agricultural production in Poland, East Germany, Czechoslovakia, Hungary, Rumania, Bulgaria, and Albania, on which countries its interest is focused. It is not so rich in data, for example, as Nicholas Spulber's *The Economics of Communist Eastern Europe* (Wiley, New York, 1958). The major question it raises, however, is whether the purpose of this study, and of the series in which it is the first to appear, is analytical or pamphleteering. The task of an analytical study would be to determine how much of the expansion of Soviet and East-Central European trade (incidentally, the study does not use the words *expansion* or *increase* but always *trade drive* or *offensive*) makes no sense in economic terms, or has an economic cost and therefore can be regarded as political.

In the present instance, the National Planning Association's Special Project Committee starts out by asserting that "the recent policies of the Soviet bloc have been patently designed to secure influence and eventual domination over much of the uncommitted world" (page viii), and the author ends up by stating, "While the trade offensive of the East-Central European countries could perhaps be largely explained in economic terms, the aid drive undoubtedly rests on the political aspirations of the Soviet Union . . ." (page 113).

Many aspects of Soviet economic foreign policy, such as credits granted to underdeveloped countries and to the countries of East-Central Europe, are "patently" or "undoubtedly" uneconomic, just as United States aid to underdeveloped areas is "uneconomic" and could be described as penetration. But the expansion of foreign trade between the Soviet Union and Eastern Europe and between Eastern Europe and the countries of Asia must be described as economic, and not political, to the extent that it more closely follows the law of comparative advantage. The study does not directly pose the question of whether or not this is the case. The author asserts that trade is political; the reader is left with the uneasy feeling, however, that the facts indicate that the movement has been in the direction of more rather than less economic reason.

C. P. KINDLEBERGER

Department of Economics
and Social Science,
Massachusetts Institute of Technology

New Books

Annual Volume of Physiology and Experimental Medical Sciences. First issue, 1957-58. Dedicated to the memory of Prof. C. S. Sherrington on his hundredth birth anniversary. S. R. Mukherjee, Ed. Physiological Soc. and Soc. of Experimental Medical Sciences, Calcutta, India, 1959. 137 pp. Rs. 20.

Covered Wagon Geologists. Charles N. Gould. Univ. of Oklahoma Press, Norman, 1959. 295 pp. \$4.

Diagnostic Biochemistry. Quantitative distributions of body constituents and their physiological interpretation. Halvor N. Christensen. Oxford Univ. Press, New York, 1959. 300 pp. \$6.50.

Earth Satellites. Patrick Moore and Irving Geis. Norton, rev. ed., New York, 1959. 157 pp. \$3.95.

Électromyographie dans les maladies nerveuses et dans la cryptotétanie. Atlas d'électromyographie. N. Rosselle. Nauwelaerts, Louvain, Belgium, 1958. 159 pp. F. 150.

Elementary Astronomy. Otto Struve, Beverly Lynds, Helen Pillans. Oxford Univ. Press, New York, 1959. 404 pp.

Elements of Radio. Abraham Marcus and William Marcus. Prentice-Hall, Englewood Cliffs, N.J., ed. 4, 1959. 683 pp. \$7.

Essentials of Chemistry. Alfred Benjamin Garrett, Joseph Fredric Haskins, Harry Hall Sisler. Ginn, Boston, ed. 2, 1959. 614 pp. \$7.

The Evolution of North America. Philip B. King. Princeton Univ. Press, Princeton, N.J., 1959. 207 pp. \$7.50.

Excavations at La Venta Tabasco, 1955. Bureau of American Ethnology Bull. 170. Philip Drucker, Robert F. Heizer, Robert J. Squier. Smithsonian Institution, Washington, D.C., 1959 (order from Supt. of Documents, GPO, Washington 25). 320 pp.

Experience in Radiological Protection. vol. 23 of *Proceedings of the Second United Nations International Conference on the Peaceful Uses of Atomic Energy.* United Nations, Geneva, Switzerland, 1958. 462 pp. \$14.50.

Fallacies in Mathematics. E. A. Maxwell. Cambridge Univ. Press, New York, 1959. 95 pp. \$2.95.

Le Fil d'ariane. Variations sur deux thèmes: la fonction linéaire, la fonction exponentielle. A. Huisman. Wesmanel-Charlier, Paris, 1959. 212 pp.

The Floors of the Oceans. vol. I, *The North Atlantic.* Special Paper 65. Bruce C. Heezen, Marie Tharp, Maurice Ewing. Geological Soc. of America, New York, 1959. 122 pp.

The Fourth Branch of Government. Douglass Cater. Houghton Mifflin, Boston, Mass., 1959. 204 pp. \$3.50.

Glaucoma. Transactions of the third conference. Frank W. Newell, Ed. Josiah Macy, Jr. Foundation, New York, 1959. 272 pp. \$5.25.

The Growth of Mathematical Ideas. Grades K-12. Twenty-fourth yearbook. National Council of Teachers of Mathematics, Washington, D.C., 1959. 517 pp.

The Individual and the Universe. A. C. B. Lovell. Harper, New York, 1959. 121 pp. \$3.