

doing research on these receptor systems. Anatomy, physiology, and function were the central topics of the conference. In the first chapter Otto Lowenstein introduces the concept of the acousticolateral system, clarifying the morphological and embryological relation of the mechanoreceptor lateral line system to the auditory and vestibular systems, a relation which engenders much broader interest in these organs than would their occurrence in fish and amphibians alone. A series of papers on anatomy, electrophysiology, and function of the mechanoreceptor system is followed by several articles which attempt by behavioral criteria to assess the role of this system in underwater hearing. Thereafter is a section of five papers devoted to the electroreceptor system. One of these papers—the contribution of Hans Lissmann—compares the two systems and speculates on their possible common origin. Otherwise they are treated separately and by different participants.

The book deals much more fully, judged in terms of number of contributions, pages allocated, and range of topics covered, with the mechanical than with the electrical sensing organs. This distribution is probably a fair reflection of the interests of the participants, the number of people working in the fields, and the extent of available knowledge.

Many difficulties are presented by the problem of assigning function to sensory systems of animals living in an aquatic environment, with respect to whose sensory requirements we have little direct experience. This book goes a long way toward specifying the adequate stimuli for these organs; yet many questions remain concerning the function of each system as a whole. Von Békésy attempts to close the air-water gap by discussing similarities in sensory perception of fish and man. He also contributes an amusing preface in which he outlines the reasons for and against attending such conferences.

One of the main goals of the conference, expressed in the editor's preface, was to bring biologists together with engineers and physicists specializing in hydrodynamics and underwater sound. These are unknown territories to most biologists, and difficulties in controlling the physical stimulus have in the past led to much confusion concerning the adequate stimuli for these organs. The success of the conference from this point of view may be diffi-

cult for the reader to assess; the flavor of interaction between these two groups of scientists seems to me in retrospect to have been present in the conference more than one would conclude from the formal presentations or from the comments that follow them. But this is one of the advantages of having attended this conference over reading its proceedings. The final sections consist largely of presentations and panel discussions on hydrodynamic and instrumentation problems of interest to biologists in the field. In the end the biologists attempt to summarize and assess the present state of understanding of the lateral line system at several levels: from structural and neurophysiological, where information is now rather good, to systemic and behavioral, where large uncertainties remain.

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Chromatography

Gas Chromatographic Analysis of Drugs and Pesticides. BENJAMIN J. GUDZINOWICZ. Arnold, London; Dekker, New York, 1967. x + 605 pp., illus. \$28.50. Chromatographic Science, vol. 2.

Gudzinowicz has prepared a monograph which should be useful to workers in the field of drug (barbiturates, various alkaloids, antihistamines, phenothiazines, and so on) and pesticide analysis. Numerous references are cited, and their content is frequently discussed in detail. Many chromatograms are reproduced, enabling the reader to see the types of separations and chromatographic behavior he may encounter in the laboratory. The author has given the structural formulas of a large number of the compounds under discussion. Although this undoubtedly contributes to the length and price of the book, it is helpful to the nonspecialist to have such information available. The use of highly sensitive and specific methods for the identification and estimation of drugs and pesticides is clearly the order of the day. This book can be recommended as a timely review and reference work for those investigators not yet familiar with the value of gas-liquid chromatography in this field.

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Books Received

The Abacus. A Pocket Computer. Jesse Dilson. Illustrated by Angela Pozzi. St. Martin's, New York, 1968. 143 pp. \$3.95.

The Academic Revolution. Christopher Jencks and David Riesman. Doubleday, Garden City, N.Y., 1968. xx + 580 pp., illus. \$10.

Adhesion or Cold Welding of Materials in Space Environments. Symposium presented at a meeting of Committee E-21 on Space Simulation, American Society for Testing and Materials, and Lubrication Fundamentals Committee and Aerospace Council, American Society of Lubrication Engineers, Toronto, Ontario, Canada, May 1967. American Society for Testing and Materials, Philadelphia, 1967. vi + 322 pp., illus. \$12.75; 30 percent discount to members.

Advances in Magnetic Resonance. Vol. 3. John S. Waugh, Ed. Academic Press, New York, 1968. xiv + 320 pp., illus. \$15.

Advances in Pharmacology. Vol. 6, part A, Biochemistry, Localization, and Physiology. Proceedings of a symposium, New York, May 1967. Silvio Garattini, Parkhurst A. Shore, E. Costa, and M. Sandler, Eds. Academic Press, New York, 1968. xvi + 440 pp., illus. \$19.

Advances in Photochemistry. Vol. 5. W. Albert Noyes, Jr., George S. Hammond, and J. N. Pitts, Jr., Eds. Interscience (Wiley), New York, 1968. x + 400 pp., illus. \$17.

Advances in Virus Research. Vol. 13. Kenneth M. Smith and Max A. Lauffer, Eds. Academic Press, New York, 1968. x + 321 pp., illus. \$14.50.

Advances in Water Quality Improvement. Earnest F. Gloyna and W. Wesley Eckenfelder, Jr., Eds. University of Texas Press, Austin, 1968. xviii + 513 pp., illus. \$15. Water Resources Symposium, No. 1.

The Ages of Life. A New Look at the Effects of Time on Mankind and Other Living Things. Lorus J. Milne and Margery Milne. Harcourt, Brace and World, New York, 1968. xiv + 311 pp., illus. \$6.95.

Aging in Modern Society. Scientific papers of a Regional Research Conference, San Francisco, March 1967. Alexander Simon and Leon J. Epstein, Eds. American Psychiatric Association, Washington, D.C., 1968. x + 248 pp., illus. Paper, \$5. Psychiatric Research Report, No. 23.

Agricultural Change and Peasant Choice in a Thai Village. Michael Moerman. University of California Press, Berkeley, 1968. xii + 227 pp., illus. \$6.

Air Pollution. R. S. Scorer. Pergamon, New York, 1968. xiv + 152 pp., illus. Cloth, \$7.50; soft cover, \$4.50. Commonwealth and International Library, Meteorology Division.

All About Telescopes. Sam Brown. Edmund Scientific Co., Barrington, N.J., 1967. 192 pp., illus. Cloth, \$6.75; paper, \$3.

Analysis of Behavioral Change. Lawrence Weiskrantz. Harper and Row, New York, 1968. xii + 447 pp., illus. \$12.50. Harper Psychology Series.

Assumption and Myth in Physical Theory. Tarner Lectures, Cambridge, Nov. 1965. H. Bondi. Cambridge University

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