

Of the Europeans with whose influence he is concerned Moyer considers at length only Tyndall and William Thomson. A fuller examination of the diffusion in America of the views of Mach, Ostwald, Boltzmann, Lorentz, and Poincaré would have been useful, as would more attention to the journalistic activities of E. L. Youmans and Paul Carus in this regard. Conversely, the specifically American and more particularly local intellectual and cultural contexts are barely apparent, since Moyer scarcely begins to exploit the richness of recent historical work on late 19th-century American science and philosophy. Furthermore, though he makes the important point in the introduction that this period of conceptual transition coincides with the institutional and professional maturing of the American physics community, he neither explores the institutional context nor plumbs the depths of this "coincidence," simply inserting references to the work of others, especially *The Physicists* by Daniel Kevles. And his concentration on "physics" obscures the fact that much early interest in special relativity came from outside the physics community, from such physical chemists as G. N. Lewis and R. C. Tolman, authors of the first paper on relativity presented to the American Physical Society (1908), and from such mathematicians as R. D. Carmichael, author of the first treatise in English on special relativity (1913).

Since the youngest of Moyer's mechanists were about 50 in 1905, and his deviationists were older or already dead, one wishes that he had examined in as much detail the development of the views of a younger generation, a "generation of 1905," the one that was actually confronted with quantum theory and relativity. Moyer's younger generation consists only of the "progressive" members of the delegation of American physicists to the 1904 St. Louis Congress, and he treats their philosophical and methodological positions very briefly.

The task Moyer set himself was modest. The historical program of achieving a full understanding of the reception of such scientific innovations as quantum theory and relativity is an ambitious one, and its realization will continue to require the work of many hands. Moyer's study is an important component of the broader program. It enlarges our understanding of physics in the American context.

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Some Other Books of Interest

Chemical Ecology of Insects. WILLIAM J. BELL and RING T. CARDÉ, Eds. Sinauer, Sunderland, Mass., 1984. xvi, 524 pp., illus. \$45; paper, \$28.50.

The objective of the editors in compiling this volume was to "delineate the major concepts" of the discipline of insect chemical ecology. The opening section, Perceptual Mechanisms, consists of papers on contact chemoreception (E. Städler) and olfaction (H. Mustaparta). In the second section there are papers on odor dispersion (J. S. Elkinton and R. T. Cardé) and chemo-orientation in walking and flying insects (W. J. Bell; Cardé). Factors affecting choice of host plant (J. R. Miller and K. L. Strickler; J. M. Scriber) and parasitoid-host relationships (S. B. Vinson) are then discussed. The section Chemical Protection consists of papers on alarm pheromones in presocial insects (L. R. Nault and P. L. Phelan) and warning coloration and mimicry (J. E. Huheey). Under the heading Chemical-Mediated Spacing there are discussions of resource partitioning (R. J. Prokopy, B. D. Roitberg, and A. L. Averill), aggregation in bark beetles (M. C. Birch), and sexual communication (Cardé and T. C. Baker). The final group of papers is devoted to sociochemicals in bees (R. M. Duffield, J. W. Wheeler, and G. C. Eickwort), ants (J. W. S. Bradshaw and P. E. Howse), and termites (Howse). The volume has a brief subject index and a detailed table of contents.

—K.L.

The Ecology of Aquatic Insects. VINCENT H. RESH and DAVID M. ROSENBERG, Eds. Praeger, New York, 1984. xii, 625 pp. \$35.

The principal goals of this book are "to present a contemporary overview of aquatic insect ecology" and "to highlight research needs and avenues of investigation . . . that currently seem most promising." An attempt has been made to avoid duplication of topics covered in other reviews, briefly surveyed in the editors' introduction. Among the 18 other contributions are two each on life histories (M. G. Butler; B. W. Sweeney) and predator-prey relations (B. L. Peckarsky; M. Healey). Other papers deal with behavioral adaptations (M. J. Wiley and S. L. Kohler), nutrient cycling (R. W. Merritt *et al.*), feeding (G. A. Namberti and J. W. Moore), secondary productivity (A. C. Benke), colonization (A. L. Sheldon), and effects of various properties of the habitat. One paper (J. D.

Allan) discusses hypothesis testing in aquatic insect ecology, and several (T. Wiederholm; J. V. Ward; H. B. N. Hynes) are concerned with problems of pollution and habitat quality. The volume has author, taxonomic, and subject indexes. —K.L.

Periphyton of Freshwater Ecosystems. ROBERT G. WETZEL, Ed. Junk, The Hague, 1983 (U.S. distributor, Kluwer Boston, Hingham, Mass.). x, 346 pp., illus. \$87.50. Developments in Hydrobiology, 17. From a workshop, Växjö, Sweden, Sept. 1982.

The word "periphyton," in the definition deemed best by the editor of this volume, refers to "a complex community of microbiota (algae, bacteria, fungi, animals, inorganic and organic detritus) that is attached to substrata" that may be "inorganic or organic, living or dead." The papers in the volume, most of which are reports of their authors' own studies, are arranged under six headings: Dynamics of Periphytic Communities (nine papers); Parameters Influencing Growth of Periphyton (ten papers); Productivity and Utilization of Periphyton (six papers); Periphyton/Substrata Interactions (four papers); Methodology (seven papers); and Periphyton and Pollution (five papers). The majority of the contributors are European; others are from North America, South Africa, Japan, and Australia. The volume concludes with recommendations for future research.—K.L.

Books Received

Antineoplastic, Immunogenic and Other Effects of the Tetrapeptide Tuftsin. A Natural Macrophage Activator. Victor A. Najjar and Mati Fridkin, Eds. New York Academy of Sciences, New York, 1983. viii, 273 pp., illus. Paper, \$55. Annals of the New York Academy of Sciences, vol. 419. From a conference, Feb. 1983.

Appearances of the Dead. A Cultural History of Ghosts. R. C. Finucane. Prometheus, Buffalo, N.Y., 1984. viii, 232 pp. + plates. \$18.95.

Arming the Heavens. The Hidden Military Agenda for Space, 1945–1995. Jack Manno. Dodd, Mead, New York, 1984. x, 245 pp. \$13.95; paper, \$7.95.

Aspects of Chemical Evolution. G. Nicolis, Ed. Interscience (Wiley), New York, 1984. xviii, 286 pp., illus. \$50. Advances in Chemical Physics, vol. 55. From a conference, Washington, D.C., April 1980.

Atlas of Continental Displacement. 200 Million Years to the Present. H. G. Owen. Cambridge University Press, New York, 1984. x, 159 pp. \$29.95. Cambridge Earth Science Series.

Atlas of Steroid Structure. Vol. 2. Jane F. Griffin, William L. Duax, and Charles M. Weeks, Eds. IFL/Plenum, New York, 1984. vi, 754 pp. \$140.

Atmospheric Turbulence. Models and Methods for Engineering Applications. Hans A. Panofsky and John A. Dutton. Wiley-Interscience, New York, 1984. xx, 397 pp., illus. \$49.95.

Automated Reasoning. Introduction and Applications. Larry Wos *et al.* Prentice-Hall, Englewood Cliffs, N.J., 1984. xiv, 482 pp., illus. \$28.95.

Avoiding Inadvertent War. Crisis Management. Hilliard Roderick and Ulla Magnusson, Eds. Lyn-