

caves. However, many American zoologists will take issue with Vandell's contention that the "regressive" evolutionary changes in cave animals are the result of an orthogenetic "phyletic senescence" (I am one of those who will protest this position). According to this view, troglobites have not undergone "subterranean evolution" because they live in caves, but rather, they live in caves because at their particular (senescent) evolutionary stage they are unable to survive in other habitats. A short section on paleogeography (pp. 324-326) evokes continental drift as an explanation of faunistic similarities between cave faunas of different continents. This, too, is subject to alternative interpretations.

Biospéologie is the only recent, unified treatment of the subject in any language. It is published at a time when cave biology has been receiving increased attention in many parts of the world, and it will serve as an indispensable reference on the subject. Considering the scope of the book, there are surprisingly few errors. The illustrations are fairly numerous (79 figures and 11 plates), and each chapter is exceptionally well documented with sectional bibliographies.

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Symposia in Biology

Meristems and Differentiation. Brookhaven Symposia in Biology, No. 16. Jerome P. Miksche, Ed. Brookhaven National Laboratory, Upton, N.Y., 1964 (order from the Office of Technical Services, Washington, D.C.). xviii + 240 pp. Illus. Paper, \$2.50.

This report of the symposium, held 3 to 5 June 1963, contains 14 papers on current developments in the field of plant growth and differentiation. Most of the papers are heavily slanted toward biochemistry, reflecting the current mood of biology.

In the section dealing with experimental investigations on meristems, I. M. Sussex points out that the shoot apical meristem is largely self-regulating, while that of the leaf passes through a series of "critical stages" when its development can be extensively modified by exogenous agents. In an extensive and well-illustrated

article, K. Soma and E. Ball present arguments that the angiosperm apical meristem has no permanent initials. F. A. L. Clowes discusses the quiescent center found in root apical meristems and its responses to irradiation. He is careful to point out that no such center occurs in shoot apical meristems and that the French school's *méristème d'attent* has been completely discredited.

The articles that treat physiological aspects deal with the synthesis of RNA, protein, and various other metabolic events associated with cell differentiation. They are often speculative. The effect of the photoperiod on the alteration of sex expression in several plants is treated by J. Heslop-Harrison. E. M. Gifford, Jr., describes biochemical changes associated with the induction of flowering, whereas R. A. Popham's treatment of floral induction is more along classical lines.

W. A. Jensen's article on plant embryogenesis features use of the electron microscope to document changes in ultrastructure associated with fertilization and post-fertilization events. P. B. Green discusses the role of the plant cell wall in the determination of form. Finally, the polarity of auxin transport is reviewed by A. C. Leopold.

At the end of each article a discussion, in the form of a dialogue, is presented. These extemporaneous discussions add considerable interest to the reports, although they emphasize the speculative nature of much that has been presented. Nevertheless, the articles are very timely, and anyone interested in plant growth would do well to have a copy of the volume.

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Note

Spectroscopy

Volume 4 of **Absorption Spectra in the Ultraviolet and Visible Region** (Akademiai Kiado, Budapest, 1963; Academic Press, New York, 1964. 414 pp. \$20), edited by L. Lang, presents spectra and numerical spectral data for 187 additional compounds [vols. 1 and 2 were reviewed in *Science* 136, 519 (1962) and vol. 3 in *Science* 142, 223 (1963)]. The format in which the ma-

terial is reported and the types of compounds dealt with are the same as in the preceding volumes. Scientific workers whose research requires reference to electronic spectral data will find this volume as useful as its predecessors in the series.

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New Books

New Ways in Psychoanalysis. Karen Horney. Norton, New York, 1964 (© 1939). 313 pp. Paper, \$1.55.

Opinions and Personality. M. Brewster Smith, Jerome S. Bruner, and Robert W. White; with the collaboration of David F. Aberle, Stanley G. Estes, Eugenia Hauffmann, and Sheldon J. Korchin. Wiley, New York, 1964 (© 1956). 302 pp. \$8.50.

Other Cultures. Aims, methods, and achievements in social anthropology. John Beattie. Free Press of Glencoe (Macmillan), New York, 1964. 295 pp. \$5.50.

The Papaloapan Project. Agricultural development in the Mexican tropics. Thomas T. Poleman. Stanford Univ. Press, Stanford, Calif., 1964. 181 pp. Illus. \$4.50.

Prehistoric Man in the New World. Jesse D. Jennings and Edward Norbeck, Eds. Published for Rice Univ. by Univ. of Chicago Press, Chicago, 1964. 643 pp. Illus. \$10.

The Problem of Anxiety. Sigmund Freud. Translated from the German edition by Henry Alden Bunker and published by Psychoanalytic Quarterly Press, New York, © 1936; Norton, New York, 1964. 127 pp. Paper, \$1.25.

The Psychological Development of the Child. Paul H. Mussen. Prentice-Hall, Englewood Cliffs, N.J., 1963. 127 pp. Illus. Paper, \$1.50; cloth, \$3.95.

Secondary Education in the United States. Harl R. Douglass. Ronald, New York, ed. 2, 1964. 487 pp. Illus. \$6.75.

The Self and the Object World. Edith Jacobson. International Universities Press, New York, 1964. 264 pp. \$5.

Social Psychology. William W. Lambert and Wallace E. Lambert. Prentice-Hall, Englewood Cliffs, N.J., 1964. 128 pp. Illus. Paper, \$1.50; cloth, \$3.95.

The Study of Abnormal Behavior. Selected readings. Melvin Zax and George Stricker. Macmillan, New York, 1964. 459 pp. Illus. Paper, \$4.95.

Supervisory and Executive Development. A manual for role playing. Norman R. F. Maier, Allen R. Solem, and Ayesha A. Maier. Wiley, New York (reprint of 1957 edition), 1964. 342 pp. Illus. Paper, \$1.95.

Syndromes of Psychosis. Maurice Lorr, C. James Klett, and Douglas M. McNair. Pergamon, London; Macmillan, New York, 1963. 296 pp. Illus.

Theory of Games and Economic Behavior. John von Neumann and Oskar Morgenstern. Wiley, New York, ed. 3, 1964. 661 pp. Illus. Paper, \$2.95.