

namic interpretation which Zotin advocates in his monograph. As a workable alternative, changes in coupling between component processes could be studied directly during biological development (as has been done, for example, by A. Martonosi *et al.*, *Cold Spring Harbor Symp. Quant. Biol.* **37**, 455 [1973]). Concepts from network thermodynamics (as presented, for example, by G. Oster *et al.*, *Quart. Rev. Biophys.* **6**, 1 [1973]) and generalized statistical mechanics (as developed, for example, by K. Kornacker, *Progr. Theoret. Biol.* **2**, 1 [1972]) could then be used to analyze the data for any unifying principles that might govern the nonlinear dynamics of biological transformations.

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Developmental Anatomy

Patterns in Plant Development. TAYLOR A. STEEVES and IAN M. SUSSEX. Prentice-Hall, Englewood Cliffs, N.J., 1972. xviii, 302 pp., illus. \$10.95. Foundations of Developmental Biology Series.

This text presents the developmental anatomy of vascular plants in a form suitable both as an introduction for undergraduates and as an overview of the field for investigators wanting to be brought up to date with regard to it. The book's outstanding merit is that it reduces to readable and well-illustrated form the results of countless investigations applying the techniques of histology, surgery, and tissue culture to plants. Despite its age, the field of plant development is still conceptually diffuse and strikes one as being in a condition similar to that of, say, macromolecular synthesis prior to Watson-Crick—that is, many processes are somehow implicated as part of a mechanism but few can be shown to be part of a well-defined causal chain. A companion volume, *Control Mechanisms in Plant Development* by Galston and Davies, may go somewhat farther in this regard, but plant ontogeny is still awaiting the clarification and ingenious detailed modeling that has come to genetics and even ecology. Because the book confines itself to vascular plants two sources of relevant experimental work, that on lower plants (Jaffe's, for example) and simpler animal systems (Wolpert's, for example), are not drawn upon. Theory of pattern formation in general is not discussed. The book's strength is in

description. Although the circumlocution typical of the field does slip in ("The cytochemical differences . . . do not necessarily relate to differences in mitotic activity and may be quite independent of such differences if these actually exist," p. 66), I confess to not being aware of any grand generalizations that the authors have failed to present clearly. Meristem ontogeny and the course of vascular differentiation are particularly well treated.

The book summarizes the many questions that have been raised, and the few that have been answered, during the era in which studies of plant development have been greatly influenced by Wardlaw and Wetmore, to whom the book is dedicated. With the background information and issues so tidily put together for contemplation, the student or newcomer to the field has all the more opportunity to comb the literature of adjacent fields, and his own mind, for the new and we may hope the ultimate classes of mechanisms fully accounting for plant morphogenesis.

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Acupuncture Therapy. Current Chinese Practice. Leong T. Tan, Margaret Y.-C. Tan, and Illza Veith. Temple University Press, Philadelphia, 1973. xii, 160 pp., illus. \$15.

Adaptive Learning. Behavior Modification with Children. Beatrice A. Ashem and Ernest G. Poser, Eds. Pergamon, New York, 1973. xx, 440 pp., illus. \$15. Pergamon General Psychology Series, vol. 29.

Advances in Applied Mechanics. Vol. 13. Chia-Shun Yih, Ed. Academic Press, New York, 1973. x, 342 pp., illus. \$25.

Advances in Neurology. Vol. 1, Huntington's Chorea, 1872–1972. Proceedings of a symposium, Columbus, Ohio, Mar. 1972. André Barbeau, Thomas N. Chase, and George W. Paulson, Eds. Raven, New York, 1973. xxii, 826 pp., illus. \$48.

Aggression. A Social Learning Analysis. Albert Bandura. Prentice-Hall, Englewood Cliffs, N.J., 1973. x, 390 pp. \$8.95.

The Archaeology of Knowledge. Michel Foucault. Translated from the French edition (Paris, 1969) by A. M. Sheridan Smith. Pantheon (Random House), New York, 1972. vi, 246 pp. \$10.

Artificial Insemination. MSS Information Corporation, New York, 1973. 226 pp., illus. \$15.

Beyond Stonehenge. Gerald S. Hawkins. Harper and Row, New York, 1973. xiv, 320 pp., illus. \$10.

Beyond the Punitive Society. Operant Conditioning: Social and Political As-

pects. Harvey Wheeler, Ed. Freeman, San Francisco, 1973. x, 274 pp. \$8.95.

Bilingualism in the Southwest. Paul R. Turner, Ed. University of Arizona Press, Tucson, 1973. xvi, 352 pp., illus. Paper, \$7.45.

Billion Year Spree. The True History of Science Fiction. Brian W. Aldiss. Doubleday, Garden City, N.Y., 1973. xii, 340 pp. \$7.95.

Bioassay Techniques and Environmental Chemistry. Proceedings of a symposium, Washington, D.C., 1971. Gary E. Glass, Ed. Ann Arbor Science Publishers, Ann Arbor, Mich., 1973. xii, 500 pp., illus. \$18.

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Birch Creek. Human Ecology in the Cool Desert of the Northern Rocky Mountains 9000 B.C.–A.D. 1850. Earl H. Swanson, Jr. Idaho State University Press, Pocatello, 1972 (available from the Idaho State University Bookstore, Pocatello). xii, 238 pp., illus. Paper, \$5.

Bird of Jove. David Bruce. Ballantine, New York, 1973. 293 pp., illus. Paper, \$2. Reprint of the 1971 edition.

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Cafeto. Cultivo y Fertilizacion. José F. Carvajal. Instituto Internacional de la Potasa, Berne, Switzerland, 1972. 142 pp., illus. 22 Sw. Fr.

Cargèse Lectures in Physics. Vol. 5. D. Bessis, Ed. Gordon and Breach, New York, 1972. viii, 550 pp., illus. \$32.

Cell Surface Antigens. Studies in Mammals Other than Man. Papers by George D. Snell and 15 others. MSS Information Corporation, New York, 1973. 196 pp., illus. \$10.

Chemical Applications of Thermal Neutron Scattering. B. T. M. Willis, Ed. Oxford University Press, New York, 1973. xvi, 312 pp., illus. \$30.50. Harwell Series.

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(Continued on page 1180)

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BOOKS RECEIVED

(Continued from page 1160)

The Child in His Family. The Impact of Disease and Death. E. James Anthony and Cyrille Koupernik, Eds. Wiley, New York, 1973. xxiv, 510 pp. \$15.95. Yearbook of the International Association for Child Psychiatry and Allied Professions, vol. 2.

Cities and Geology. Robert F. Legget. McGraw-Hill, New York, 1973. xvi, 624 pp., illus. \$15.50.

Comprehensive Chemical Kinetics. Vol. 9, Addition and Elimination Reactions of Aliphatic Compounds. C. H. Bamford and C. F. H. Tipper, Eds. Elsevier, New York, 1973. xiv, 516 pp., illus. \$54.50.

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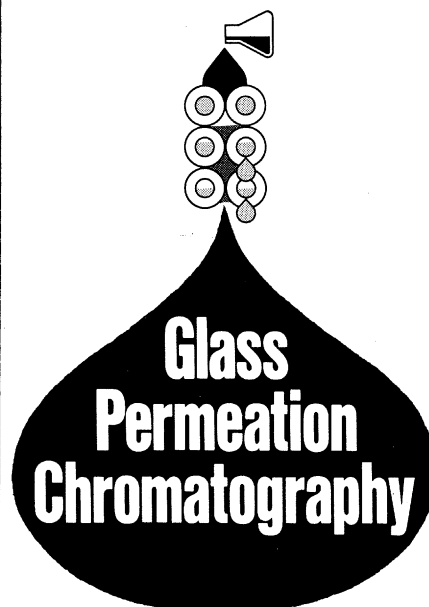
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SCIENCE, VOL. 181

French edition (1971) by Ivan Kats. Outerbridge and Lazard, New York, 1973 (distributor, Dutton, New York). x, 262 pp., illus. \$8.95.

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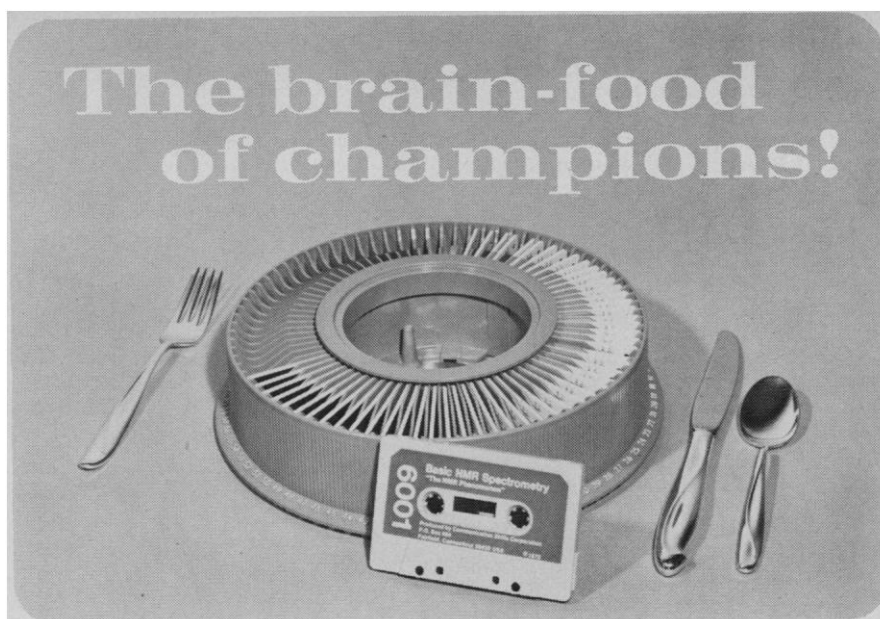
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Handbook for Prospectors. Richard M. Pearl. McGraw-Hill, New York, 1973. viii, 472 pp., illus. \$14.50. Fifth edition of *Handbook for Prospectors and Op-*

erators of Small Mines by M. W. von Bernewitz.

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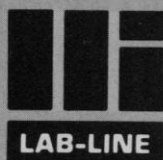
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An Introduction to Food Rheology. H. G. Muller. Crane, Russak, New York, 1973. xii, 148 pp., illus. \$9.25.

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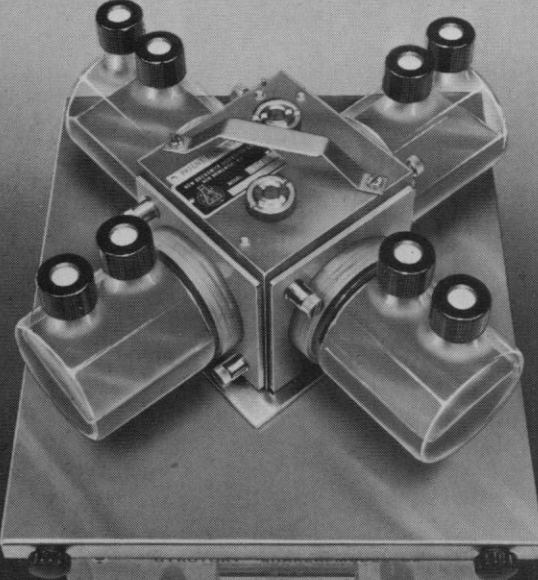
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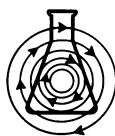


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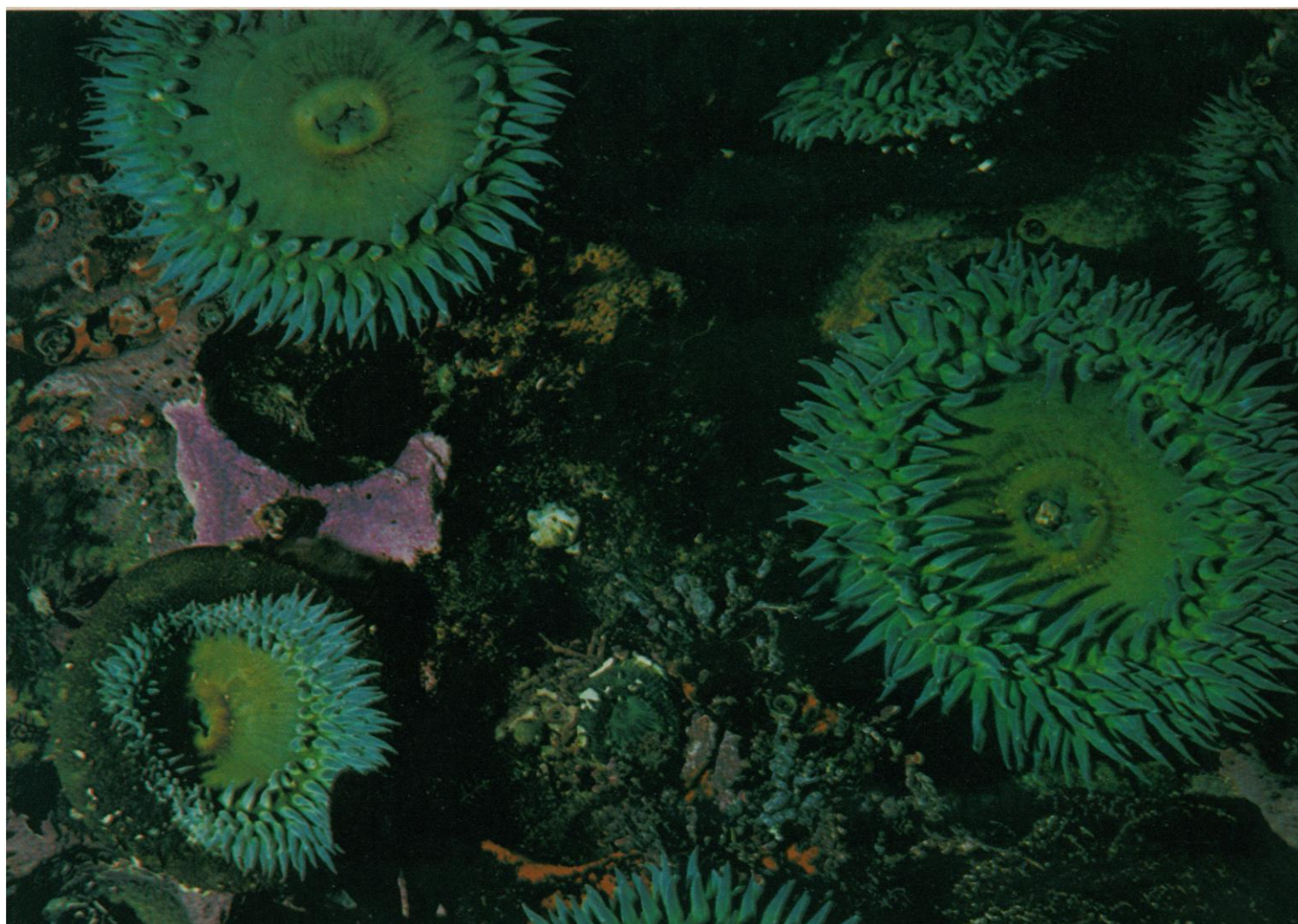
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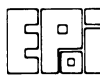
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