

brates (some 80 pages), the structural components of animals (350 pages), and structural adaptation (225 pages). On phylogeny (including morphological theory) Hildebrand presents significantly more detail than does Webster. The two books' coverage of morphology is roughly equivalent, with emphasis on different systems. Hildebrand's treatment of function represents an innovation in texts of comparative anatomy. It comprises chapters dealing with structural elements of the body, mechanics of support and movement, running and jumping, digging and locomotion without appendages, climbing, swimming and diving, flying and gliding, and feeding. Emphasis is on locomotor mechanisms, on biomechanics as a branch of functional anatomy. Other functional topics might have deserved equal attention but, in this format, only at the price of a loss of detail leading to memorization rather than understanding. Hildebrand illustrates many simple physical principles with biological examples. A few of these analyses will need to be refined. The illustrations (no photographs are used) are very clear, and their labels are well conceived; only some reptiles appear a bit stylized.

It is inevitable that a reviewer would detect minor errors and discrepancies in a first edition; these seem to be well within acceptable limits. One of the basic problems in this kind of book is the characterization of diversity. This has been solved with variable success. More important is the avoidance of simple statements untrue or misleading beyond the immediate context. Here Hildebrand does somewhat better than Webster and Webster, perhaps because his book had the longer gestation period. I do find it regrettable that neither book clearly emphasizes the importance of a selectionist approach. Too many phrases suggest that structure and function are perfectly matched, that structures have formed to permit the animal to perform actions; the innate imperfections of structures matched to a continuously changing environment are not communicated. Perhaps the course instructors will have to transmit this viewpoint; certainly these books will force the faculty into some supplementary study, which should open additional options and thus accelerate the process of change in the teaching of a once-staid subject.

CARL GANS

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12 JULY 1974

Environment and Speciation

Taxonomy and Ecology. Proceedings of a symposium, Reading, England, Sept. 1972. V. H. HEYWOOD, Ed. Published for the Systematics Association by Academic Press, New York, 1973. x, 370 pp., illus. \$19.75. Systematics Association Special Volume No. 5.

Bridging the gaps that inevitably develop between subdisciplines of a science is worthwhile, but it is no easy task. The international symposium on relationships and some interdependencies of taxonomy and ecology which resulted in the book under review was an attempt to bridge such a gap. The emphasis is heavily on botanical material, and the treatments of different aspects are uneven. Some authors miss the mark completely, there being only a faint tie-in or none at all with the stated subject of the symposium. More than infrequently there are divergent views on the same or overlapping subject matter. This undoubtedly reflects the different backgrounds of the authors and perhaps differences in their understanding of the subject itself. What has emerged in book form is a series of discrete-to-nearly-discrete chapters dealing with only a part of the subject matter that naturally falls under the title.

The most generalized chapters are those of Snaydon, on ecology, genetics, and speciation; of Ehrendorfer, dealing with the significance of major taxonomic characters and morphological trends in angiosperms; and of Heywood, treating the subject of ecological data in practical taxonomy. In other chapters, specific case histories in lichens and other cryptogams, in snails, and in *Columnea*, a genus of the family Gesneriaceae, give a focus for the role of ecological factors in speciation. Few biologists would dispute the idea that pressures exerted by the environment act as catalyzers of evolutionary divergence. That such pressures build up in diverse habitats and may be generated in specific environments is generally recognized. Less well understood is how affected genetic processes ultimately relate to the taxonomy of a given group.

A rapprochement between the practitioners of ecology and of taxonomy is called for in the opening chapter by Snaydon, but the author displays a rather biased understanding of taxonomy and therefore fails to carry such a rapprochement very far. In the final

chapter, Heywood looks at ecology from the taxonomist's position and comes closer to a clear exposé of the interlocking features of the two fields. In another chapter of considerable interest, Thompson discusses seed germination in relation to ecological and geographical distribution. The seed and seed germination show a range of responses to the environment that are critical in the higher-plant life cycle. These provide important bases for differences in plant distributional patterns both local and regional. Some interesting information is presented by H. G. and I. Baker concerning the presence and probable significance of amino acids in the nectar of flowers. After showing that amino acids are present in sufficient quantities to be a sought-after nutrition source by appropriate insects, they provide data suggesting that individuals of more advanced families of flowering plants produce a higher concentration of amino acids in their nectar than do members of more primitive families. The evolutionary implications of increased amino acid supply in nectar are discussed.

Looking at the book as a whole, it is hard to see how it fully serves either the general reader of scientific material or the specialist interested in a narrow aspect of the subjects indicated in the title. Some chapters serve to review the literature of their topics but others are more nearly straight reports of the research of their authors. No topic is given coverage complete enough to provide a standard reference.

REED C. ROLLINS

Gray Herbarium, Harvard University, Cambridge, Massachusetts

Books Received

Acetylcholine. An Approach to the Molecular Mechanism of Action. M. J. Michelson and E. V. Zeimal. Translated from the Russian edition by E. Lesser and Mira Lesser. Pergamon, New York, 1973. xviii, 242 pp., illus. \$25.50. International Series of Monographs in Pure and Applied Biology, Modern Trends in Physiological Sciences Division, vol. 38.

Active Psychotherapy. Harold Greenwald, Ed. Aronson, New York, 1974. xviii, 384 pp. \$12.50.

Advances in Heat Transfer. Vol. 10. James P. Hartnett and Thomas F. Irvine, Jr., Ed. Academic Press, New York, 1974. xvi, 300 pp., illus. \$32.

Advances in Nuclear Physics. Vol. 7. Michel Baranger and Erich Vogt, Eds. Plenum, New York, 1973. xvi, 330 pp., illus. \$20.

Advances in Sleep Research. Vol. 1. Elliot D. Weitzman, Ed. Spectrum, Flushing, N.Y., 1974 (distributor, Halsted [Wiley], New York). xiv, 424 pp., illus. \$30.

Algorithmization in Learning and Instruction. L. N. Landa. Translation of the Russian edition (Moscow, 1966) by Virginia Bennett. Felis F. Kopstein, Ed. Educational Technology Publications, Englewood Cliffs, N.J., 1974. xxxii, 718 pp., illus. \$14.95.

At Home with the High Ones. John S. Crawford. Alaska Northwest Publishing Co., Anchorage, 1974. 32 pp. + loose plates in folder. \$9.95.

Athapaskan Adaptations. Hunters and Fishermen of the Subarctic Forests. James W. Vanstone. Aldine, Chicago, 1974. xii, 146 pp., illus. + plates. Cloth, \$7.50; paper, \$2.95.

Atlas of Molecular Structures in Biology. Vol. 1, Ribonuclease. S. F. M. Richards and H. W. Wyckoff. Illustrated by J. L. Mouning and J. W. Schilling. Clarendon (Oxford University Press), New York, 1974. x, 76 pp., illus. Spiral bound, \$13.50.

Behavioral Research. Theory, Procedure, and Design. Lawrence S. Meyers and Neal E. Grossen. Freeman, San Francisco, 1974. x, 356 pp., illus. \$10. A Series of Books in Psychology.

The Biochemical Basis of Neuropharmacology. Jack R. Cooper, Floyd E. Bloom, and Robert H. Roth. Oxford University Press, New York, ed. 2, 1974, x, 272 pp., illus. Paper, \$4.95.

Bioelectric Recording Techniques. Part B, Electroencephalography and Human Brain Potentials. Richard F. Thompson and Michael M. Patterson, Eds. Academic Press, New York, 1974. xx, 328 pp., illus. \$17.50. Methods in Physiological Psychology, vol. 1.

Biological Aspects of Circadian Rhythms. J. N. Mills, Ed. Plenum, New York, 1973. xiv, 320 pp., illus. \$17.50.

Biology. Grover C. Stephens and Barbara Best North. Wiley, New York, 1974. xvi, 684 pp., illus. \$12.95.

Biology of Fibroblast. Proceedings of a symposium, Turku, Finland, Aug. 1972. E. Kulonen and J. Pikkariainen, Eds. Academic Press, New York, 1973. xiv, 690 pp., illus. \$35.50.

Biorhythms and Human Reproduction. Proceedings of a conference, Sterling Forest, N.Y., Oct. 1972. Michel Ferin, Franz Halberg, Ralph M. Richart, Raymond L. Vande Wiele, Judith A. Anderson, and Katherine F. Darabi, Eds. Wiley, New York, 1974. xxii, 666 pp., illus. \$28.50. Wiley Biomedical-Health Publication. Seminars in Human Reproduction.

Classical Groups for Physicists. Brian G. Wybourne. Wiley-Interscience, New York, 1974. xvi, 416 pp., illus. \$19.95.

Climate and Man's Environment. An Introduction to Applied Climatology. John E. Oliver. Wiley, New York, 1973. x, 518 pp., illus. \$14.95.

Competing for Stock Market Profits. Paul F. Jessup. Wiley, New York, 1974. xii, 276 pp. \$9.95.

The Complete Book of Saltwater Aquariums. How to Equip and Maintain Your Marine Aquarium and Understand Its Ecology. Robert A. Stevenson, Jr. Funk

and Wagnalls, New York, 1974. x, 182 pp., illus. \$6.95.

Complex Thermodynamic Systems. V. V. Sychev. Translated from the Russian edition (Moscow, 1970) by John S. Shier. Consultants Bureau (Plenum), New York, 1973. xii, 242 pp., illus. \$29. Studies in Soviet Science.

Documentation Standards. Keith R. London. Petrocelli Books (Mason and Lipscomb), New York, ed. 2, 1974. xiv, 254 pp., illus. \$12.50.

Ecology and Biogeography in India. M. S. Mani, Ed. Junk, The Hague, 1973. xx, 774 pp., illus. + maps. Dfl. 190. Monographiae Biologicae, vol. 23.

Edge of the World. Ross Island, Antarctica. A Personal and Historical Narrative. Charles Neider. Doubleday, New York, 1974. xviii, 462 pp. + plates. \$14.95.

Electric Networks. Hugh Hildreth Skilling. Wiley, New York, 1974. xx, 484 pp., illus. \$15.95.

Electronic Principles and Circuits. An Introduction to Electronics for the Technician. William E. Long and Paul L. Evans. Wiley, New York, 1974. xiv, 410 pp., illus. \$13.95.

Electronics. Circuits and Devices. Ralph J. Smith. Wiley, New York, 1973. xii, 460 pp., illus. \$13.95.

Electrons in Fluids. The Nature of Metal-Ammonia Solutions. J. Jortner and N. R. Kestner, Eds. Springer-Verlag, New York, 1973. xii, 494 pp., illus. \$44.10.

Guide to Design Criteria for Bolted and Riveted Joints. John W. Fisher and John H. A. Struik. Wiley-Interscience, New York, 1974. xvi, 314 pp., illus. \$19.95.

Guide to the Literature for the Industrial Microbiologist. Peter A. Hahn. IFI/Plenum, New York, 1973. x, 206 pp. \$25.

H. G. J. Moseley. The Life and Letters of an English Physicist, 1887-1915. J. L. Heilbron. University of California Press, Berkeley, 1974. xiv, 312 pp., illus. \$15.

Hemostasis Manual. Laurence A. Harker. Davis, Philadelphia, ed. 2, 1974. iv, 82 pp., illus. Paper, \$1.50.

Homogeneous Nucleation Theory. The Pretransition Theory of Vapor Condensation. Farid Fadlow Abraham. Academic Press, New York, 1974. xiv, 264 pp., illus. \$23. Advances in Theoretical Chemistry, supplement 1.

Human Hyperlipoproteinemias. Principles and Methods. Remo Fumagalli, Giorgio Ricci, and Sergio Gorini, Eds. Plenum, New York, 1973. xviii, 292 pp., illus. \$17.50. *Advances in Experimental Medicine and Biology*, vol. 38.

Human Radiation Biology. Kedar N. Prasad. Harper and Row, New York, 1974. xvi, 508 pp., illus. \$25.

Injection Electroluminescent Devices. C. H. Gooch. Wiley-Interscience, New York, 1973. x, 198 pp., illus. \$15.95.

Interferon. Theory and Applications. V. D. Solov'ev and T. A. Bektemirov. Translated from the Russian edition (Moscow, 1970) by Basil Haigh. Plenum, New York, 1973. xviii, 304 pp., illus. \$25.

Investigations in Nonlinear Optics and Hyperacoustics. D. V. Skobel'tsyn, Ed. Translated from the Russian edition (Moscow, 1972) by Albin Tybulewicz. Consultants Bureau (Plenum), New York,

1973. viii, 164 pp., illus. Paper, \$25. Proceedings of the P. N. Lebedev Physics Institute, vol. 58.

Land and Life. A Selection from the Writing of Carl Ortwin Sauer. John Leighly, Ed. University of California Press, Berkeley, 1974. vi, 436 pp. \$15.75. Reprint of the 1963 edition. California Library Reprint Series.

Lie Groups, Lie Algebras, and Some of Their Applications. Robert Gilmore. Wiley-Interscience, New York, 1974. xx, 588 pp., illus. \$24.95.

Linear Circuits and Computation. Bharat Kinariwala, Franklin F. Kuo, and Nai-kuan Tsao. Wiley, New York, 1973. x, 598 pp., illus. \$15.95.

Listening. Key to Communication. Ernest Parker Mills. Petrocelli Books (Mason and Lipscomb), New York, 1974. xii, 116 pp., illus. Cloth, \$7.95; paper, \$5.

Living Blood Cells and Their Ultrastructure. Marcel Bessis. Translated from the French edition (Paris, 1972) by Robert I. Weed. Springer-Verlag, New York, 1973, xxiv, 768 pp., illus. + plates. \$58.20.

The Mammalian Myocardium. Glenn A. Langer and Allan J. Brady, Eds. Wiley, New York, 1974. x, 310 pp., illus. \$24.50. A Wiley Biomedical-Health Publication.

The Many-Body Problem. W. E. Parry. Clarendon (Oxford University Press), New York, 1973. x, 218 pp., illus. \$20.

Materials and Design Considerations for the Attachment of Prostheses to the Musculo-skeletal System. Proceedings of a symposium, Clemson, S.C., Apr. 1972. S. F. Hulbert, S. N. Levine, and D. D. Moyle, Eds. Interscience (Wiley), New York, 1973. xii, 466 pp., illus. \$18. Biomedical Materials Symposium, No. 4.

Mathematical Psychology. Donald Laming. Academic Press, New York, 1973. xiv, 388 pp., illus. \$23.

Les Mathématiques de la Décision. Bertrand Saint-Sernin. Presses Universitaires de France, Paris, 1973. 376 pp., illus. Paper, 75 F. Bibliothèque de Philosophie Contemporaine.

Metal Ions in Biological Systems. Studies of Some Biochemical and Environmental Problems. Proceedings of a conference, Argonne, Ill., Nov. 1972. Sanat K. Dhar, Ed. Plenum, New York, 1973. xii, 306 pp., illus. \$17.50. *Advances in Experimental Medicine and Biology*, vol. 40.

Metallurgical Effects at High Strain Rates. Proceedings of a conference, Albuquerque, N.M., Feb. 1973. R. W. Rohde, B. M. Butcher, J. R. Holland, and C. H. Karnes, Eds. Plenum, New York, 1973. xii, 700 pp., illus. \$32. Metallurgical Society of AIME Proceedings Series.

Methods of Animal Experimentation. Vol. 5, Nutrition, Aging, and Artificial Organs. William I. Gay, Ed. Academic Press, New York, 1974. xiv, 400 pp., illus. \$29.50.

The Microbiological Safety of Food. Proceedings of a symposium, Reading, England, Sept. 1972. Betty C. Hobbs and J. H. B. Christian, Eds. Academic Press, New York, 1973. xvi, 488 pp., illus. \$21.

Modern China and Traditional Chinese Medicine. Proceedings of a symposium, Madison, Wis., Apr. 1972. Guenter B.

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BOOKS RECEIVED

(Continued from page 140)

Risse, Ed. Thomas, Springfield, Ill., 1973. viii, 168 pp. \$8.95.

Mössbauer Effect Data Index. Covering the 1972 Literature. John G. Stevens and Virginia E. Stevens, Eds. IFI/Plenum, New York, 1973. x, 488 pp., illus. \$37.50.

Mössbauer Effect Methodology. Vol. 8. Proceedings of a symposium, New York, N.Y., Jan. 1973. Irwin J. Gruverman and Carl W. Seidel, Eds. Plenum, New York, 1973. xii, 282 pp., illus. \$22.50.

Mycoplasma and Mycoplasma-Like Agents of Human, Animal, and Plant Diseases. Papers from a conference, New York, Jan. 1973. New York Academy of Sciences, New York, 1973. 532 pp., illus. Paper, \$44. *Annals of the New York Academy of Sciences*, vol. 225.

Natural Chelating Polymers. Alginic Acid, Chitin and Chitosan. R. A. A. Muzzarelli. Pergamon Press, New York, 1974. xii, 254 pp., illus. \$15. *International Series of Monographs in Analytical Chemistry*, vol. 55.

New Concepts III. P. Carsky, R. Zahradnik, H. Hartmann, K.-H. Lebert, and K.-P. Wanczek. Springer-Verlag, New York, 1973. iv, 116 pp., illus. \$19.70. *Topics in Current Chemistry*, vol. 43.

Organic Syntheses. An Annual Publication of Satisfactory Methods for the Preparation of Organic Chemicals. Vol. 53. Arnold Brossi, Ed. Wiley, New York, 1974. xiv, 194 pp., illus. \$10.50.

Orientation and Form. Irvin Rock. Academic Press, New York, 1973. x, 166 pp., illus. \$11.95.

The Packed Column in Gas Chromatography. Walter R. Supina. Supelco, Bellefonte, Pa., 1974. vi, 166 pp., illus. Paper, \$12.

Pétrole et Protéines. Alfred Champaignat and Jean Adrian. Doin, Paris, 1974. 196 pp., illus. Paper, 76 F.

Physical Science. George A. Williams, Max C. Bolen, and Ray D. Doerhoff. Webster Division (McGraw-Hill), New York, 1973. xii, 420 pp., illus. \$7.96. *Challenges to Science*.

Physics and Geology. J. A. Jacobs, R. D. Russell, and J. Tuzo Wilson. McGraw-Hill, New York, ed. 2, 1974. xviii, 622 pp., illus. \$17.95. *McGraw-Hill International Series in the Earth and Planetary Sciences*.

Phytochemical Methods. A Guide to Modern Techniques of Plant Analysis. J. B. Harborne. Chapman and Hall, London, 1974 (U.S. distributor, Halsted [Wiley], New York). x, 278 pp., illus. \$15.50.

The Pituitary Gland. A Comparative Account. R. L. Holmes and J. N. Ball. Cambridge University Press, New York, 1974. x, 398 pp., illus. \$28.50. *Biological Structure and Function*, vol. 4.

Policy Analysis in the Federal Aviation Administration. Steven E. Rhoads. Lexington (Heath), Lexington, Mass., 1974. xii, 160 pp. \$11.50.

The Population Problem. Stanley Johnson, Ed. Halsted (Wiley), New York, 1974. 232 pp., illus. \$9.95. *David and Charles Sources for Contemporary Issues Series*.

Practical Histochemistry. J. Chayen,

L. Bitensky, and R. G. Butcher. Wiley-Interscience, New York, 1973. xiv, 272 pp., illus. \$11.50.

Prices, Profit, and Production. How Much Is Enough? J. William Leasure and Marjorie Shepherd Turner. University of New Mexico Press, Albuquerque, 1974. xvi, 144 pp., illus. Paper, \$3.50.

Principles of Dairy Science. G. H. Schmidt and L. D. van Vleck. Freeman, San Francisco, 1974. xii, 558 pp., illus. \$15. A Series of Books in Agricultural Science.

Principles of Modern Immunobiology. Basic and Chemical. Byung H. Park and Robert A. Good. Lea and Febiger, Philadelphia, 1974. x, 618 pp., illus. \$20.

Proceedings of the First Philip Morris Science Symposium. Proceedings of a symposium, Richmond, Va., Apr. 1973. Nicholas J. Fina, Ed. Philip Morris, New York, 1973. 134 pp., illus.

The Processing of Information and Structure. Wendell R. Garner. Lawrence Erlbaum Assoc., Potomac, Md., 1974 (distributor, Halsted [Wiley], New York). xiv, 204 pp., illus. \$10.95. Experimental Psychology Series.

Psychoanalysis and Psychotherapy. 36 Systems. Robert A. Harper. Aronson, New York, 1974. x, 182 pp. \$7.50. Reprint of the 1959 edition.

A Psychology of Picture Perception. John M. Kennedy. Jossey-Bass, San Francisco, 1974. xvi, 174 pp., illus. \$10.75. The Jossey-Bass Behavioral Science Series.

Psychopathological Disorders in Childhood. Theoretical Considerations and a Proposed Classification. Group for the Advancement of Psychiatry. Aronson, New York, 1974. x, 176 pp. \$10.

Radio Frequency Heating in the Timber Industry. J. Pound. Spon, London, 1973 (U.S. distributor, Halsted [Wiley], New York). viii, 192 pp., illus. \$11.50. Second edition of *Practical RF Heating in the Timber Industry*.

Remote Sensing. Techniques for Environmental Analysis. John E. Estes and Leslie W. Senger, Eds. Hamilton (Wiley, New York), Santa Barbara, Calif., 1974. x, 340 pp., illus. \$11.50.

Research Techniques in Nondestructive Testing. Vol. 2. R. S. Sharpe, Ed. Academic Press, New York, 1973. xii, 454 pp., illus. \$25.75.

Review of Child Development Research. Vol. 3, Child Development and Social Policy. Bettye M. Caldwell and Henry N. Ricciuti. University of Chicago Press, Chicago, 1974. xiv, 582 pp. \$15.

Road Salt, Drinking Water, and Safety. Improving Public Policy and Practice. Robert C. Terry, Jr. Ballinger, Cambridge, Mass., 1973. xxviii, 164 pp., illus. \$8.50.

The Science of Life. The Living System—A System for Living. Paul A. Weiss. Futura, Mt. Kisco, N.Y., 1973. xx, 138 pp., illus. \$7.95.

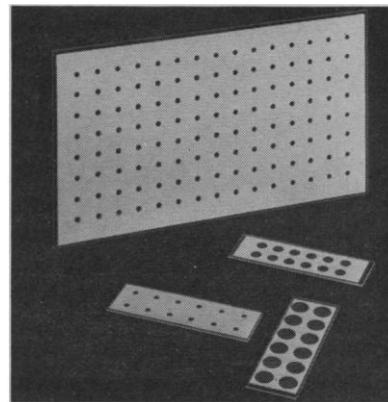
The Science and Technology of Aerosol Packaging. John J. Sciarra and Leonard Stoller, Eds. Wiley-Interscience, New York, 1974. xvi, 710 pp., illus. \$35.

The Scientific Achievement of the Middle Ages. Richard C. Dales. University of Pennsylvania Press, Philadelphia, 1973. x, 182 pp., illus. Paper, \$3.45.

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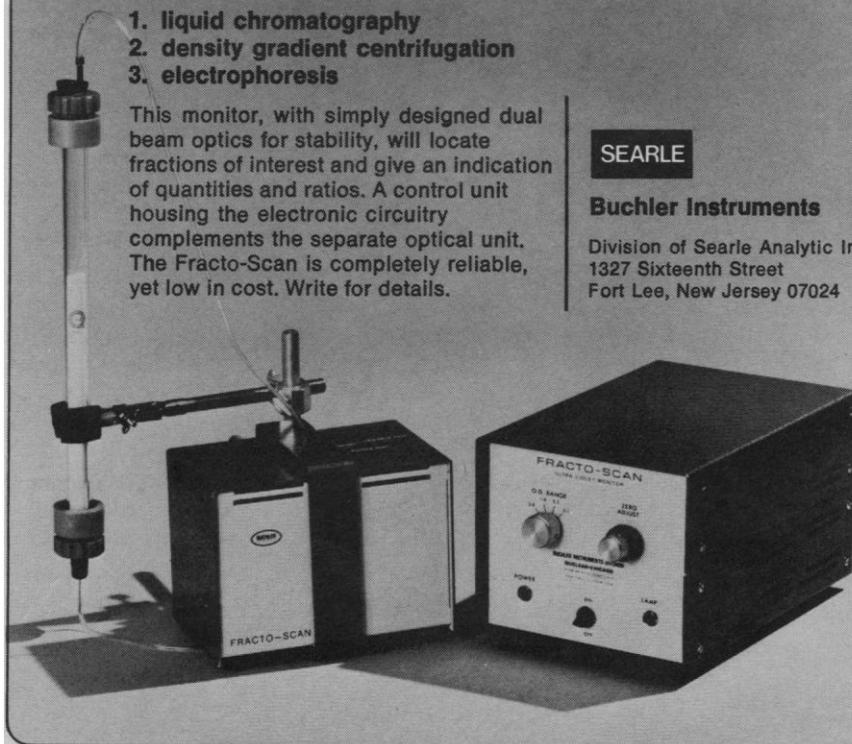
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the West Indies, Florida, and the Gulf of Mexico. Thomas P. Rebel. University of Miami Press, Coral Gables, Fla., ed. 2. 1974. 250 pp., illus. \$10.

Second Order Equations with Nonnegative Characteristic Form. O. A. Oleinik and E. V. Radkevich. Translated from the Russian edition (Moscow, 1971) by Paul C. Fife. American Mathematical Society (Plenum), Providence, R.I., 1973. viii, 260 pp. \$20.

La Séparation des Isotopes. Marius Chemla and Jacques Périé. Presses Universitaires de France, Paris, 1974. 246 pp., illus. Paper, 26 F.

Sexual Deviation. Psychoanalytic Insights. Mortimer Ostow, Ed., with the assistance of Martha H. Gillmor. Quadrangle (New York Times Book Co.), New York, 1974. xviii, 188 pp. \$7.95.

Social Indicators 1973. Selected Statistics on Social Conditions and Trends in the United States. Statistical Policy Division, Office of Management and Budget, Washington, D.C., 1973 (available from the Superintendent of Documents, Washington, D.C.). xiv, 258 pp., illus. Paper. \$7.80.

Social Problems and Public Policy. Deviance and Liberty. Lee Rainwater, Ed. Aldine, Chicago, 1974. viii, 438 pp. Cloth. \$15; paper, \$5.75.

Sociocultural Origins of Achievement. Martin L. Maehr. Brooks/Cole, Monterey, Calif., 1974. xii, 100 pp., illus. Paper. \$2.95. Basic Concepts in Educational Psychology Series.

Southwestern Groundwater Law. A Textual and Bibliographic Interpretation. John R. Chalmers. Office of Arid Lands Studies, University of Arizona, Tucson, 1974. xii, 228 pp., illus. Spiral bound, \$5. Arid Lands Resource Information Paper No. 4.

Statistical Thermodynamics. B. J. McClelland. Chapman and Hall London, 1973 (U.S. distributor, Halsted [Wiley], New York). xvi, 334 pp., illus. Cloth, \$23; paper, \$12.75. Studies in Chemical Physics.

Statistics. The Essentials for Research. Henry E. Klugh. Wiley, New York, ed. 2, 1974. xvi, 426 pp., illus. \$11.95.

Structural Geology. An Introduction to Geometrical Techniques. Donal M. Ragan. Wiley, New York, ed. 2, 1973. x, 236 pp., illus. Paper, \$7.95.

Subcellular Particles, Structures, and Organelles. Allen I. Laskin and Jerold A. Last, Eds. Dekker, New York, 1974. xiv, 312 pp., illus. \$24.75. Methods in Molecular Biology, vol. 5.

Superconducting Materials. E. M. Savitskii, V. V. Baron, Yu. V. Efimov, M. I. Kychkova, and L. F. Myzenkova. Translated from the Russian edition (Moscow, 1969) by G. D. Archard. K. D. Timmerhaus, Transl. Ed. Plenum, New York, 1973. xiv, 460 pp., illus. \$27.50. International Cryogenics Monograph Series.

Surface Carbohydrates of the Eukaryotic Cell. G. M. W. Cook and R. W. Stoddart. Academic Press, New York, 1973. xiv, 346 pp., illus. \$19.50.

System Analysis Techniques. J. Daniel Couger and Robert W. Knapp, Eds. Wiley, New York, 1974. xiv, 510 pp., illus. \$14.95.

The Technique of Psychoanalytic Psy-

cotherapy. Vol. 2, Responses to Interventions. The Patient-Therapist Relationship. The Phases of Psychotherapy. Robert Langs. Aronson, New York, 1974. xii + pp. 31-552. \$15.

Textbook of Immunology. An Introduction to Immunochemistry and Immunobiology. James T. Barrett. Mosby, St. Louis, ed. 2, 1974. xii, 418 pp., illus. \$12.50.

Theory and Applications of Antenna Arrays. M. T. Ma. Wiley-Interscience, New York, 1974. xvi, 414 pp., illus. \$22.50.

Theory and Method in a Study of Argentine Fertility. Aaron V. Cicourel. Wiley-Interscience, New York, 1974. xii, 212 pp. \$12.95.

Theory of Computation. Walter S. Brainerd and Lawrence H. Landweber. Wiley-Interscience, New York, 1974. xxii, 336 pp., illus. \$19.95.

Theory of Dielectric Optical Waveguides. Dietrich Marcuse. Academic Press, New York, 1974. xii, 258 pp., illus. \$21. Quantum Electronics. Principles and Applications Series.

Topics in Precalculus Mathematics. Donald R. Bursleson. Prentice-Hall, Englewood Cliffs, N.J., 1974. xii, 484 pp., illus. \$10.50.

Transactions of the American Neurological Association 1973. Vol. 98. Proceedings of a conference, Montreal, Canada, June 1973. Samuel A. Trufant, Ed. Springer, New York, 1974. xxx, 354 pp. \$15.

Transport for the Space Economy. A Geographical Study. Alan Hay. University of Washington Press, Seattle, 1974. xii, 192 pp., illus. \$10.

Trauma and Symbolism. Herbert F. Waldhorn and Bernard D. Fine, Eds. International Universities Press, New York, 1974. viii, 102 pp. Paper, \$6. Kris Study Group of the New York Psychoanalytic Institute, monograph 5.

Tuluak and Amaulik. Dialogues on Death and Mourning with the Inuit Eskimo of Point Barrow and Wainwright, Alaska. Stacey B. Day. Bell Museum of Pathobiology, University of Minnesota Medical School, Minneapolis, 1973. xvi, 176 pp., illus. Cloth, \$6.50; paper, \$3.75.

Ultrasonics International 1973. Proceedings of a conference, London, Mar. 1973. L. J. I. Browne, Ed. IPC Science and Technology Press, Guildford, England, 1973. 344 pp., illus. Paper, £11.

Wine and Must Analysis. M. A. Amerine and C. S. Ough. Wiley-Interscience, New York, 1974. x, 122 pp., illus. Paper, \$9.50.

World Desertification. Cause and Effect. A Literature Review and Annotated Bibliography. Wade C. Sherbrooke and Patricia Paylore. Office of Arid Lands Studies, University of Arizona, Tucson, 1973. x, 168 pp. Spiral bound, \$5. Arid Lands Resource Information Paper No. 3.

The World of Walther Nernst. The Rise and Fall of German Science 1864-1941. K. Mendelssohn. University of Pittsburgh Press, Pittsburgh, 1973. viii, 192 pp. + plates. \$11.95.

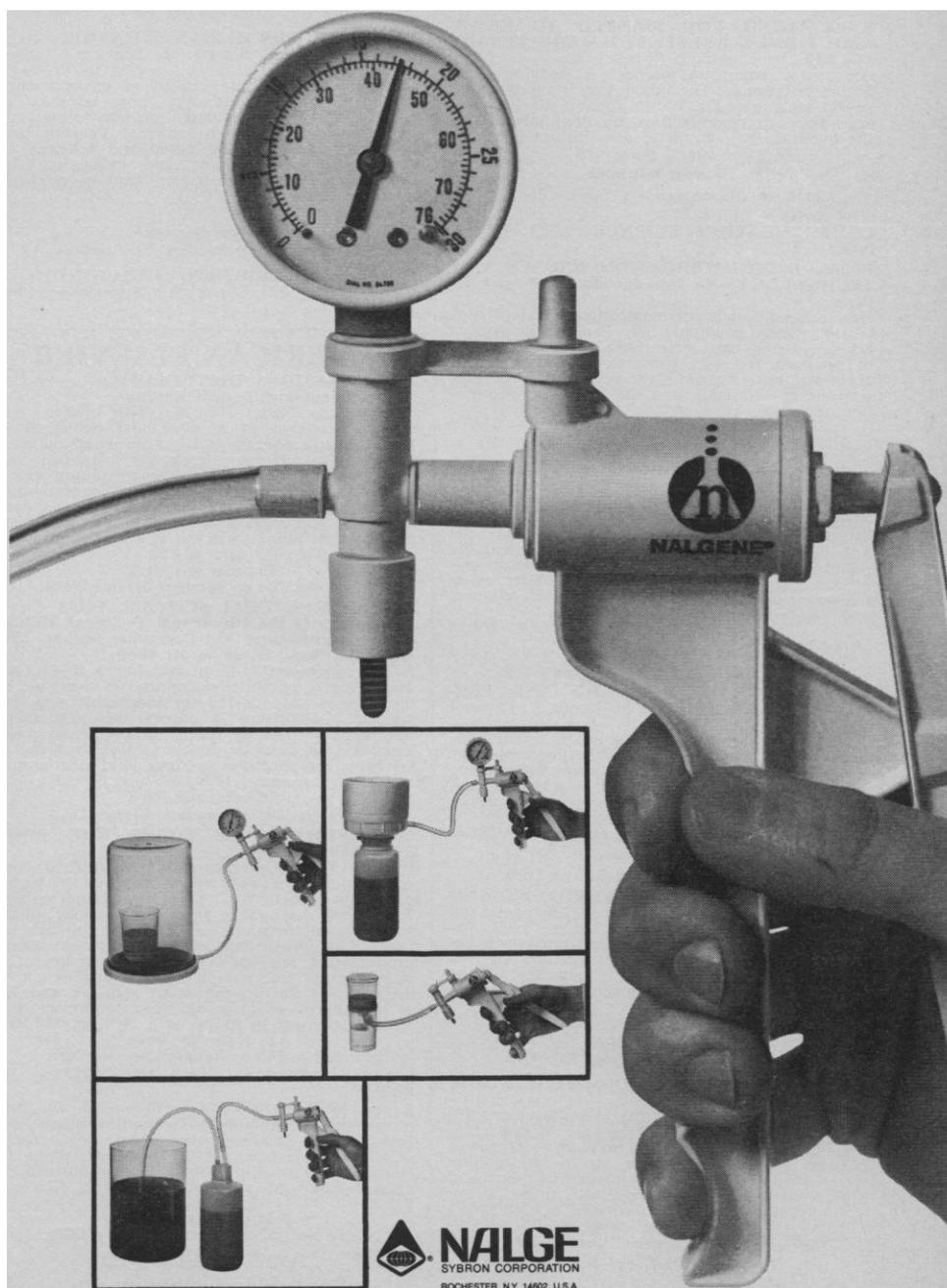
Youth. Transition to Adulthood. Report of the Panel on Youth of the President's Science Advisory Committee. University of Chicago Press, Chicago, Ill., 1974. viii, 194 pp. Cloth, \$8.50; paper, \$1.95.

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