

page biographical sketch of A. d'Orbigny by Le Calvez. As the titles indicate, there is no overall theme in this book.

I would have placed Arnold's lucid introduction to living foraminifera first. The beginning student will find most aspects of collecting and culturing explained in detail there. Arnold's historical introduction is fascinating and places current research in perspective.

Loeblich and Tappan's paper is intelligible only to the taxonomist who is familiar with the history of and reasoning behind foraminiferal classification. The authors discuss recent advances in the study of shell microstructure, but they never face up to their implications. If superfamilies are defined by optical properties of the shell wall, how can species in the same genus have granular and radial walls? Some minor modifications, mostly at the family level, are offered, but the overall structure at higher levels is left intact regardless of conflicting evidence.

Scott's article on biometry is a small book in itself and could easily serve as a text for an advanced course. Measurement, Scott points out, has not supplanted words and pictures in foraminiferal taxonomy. The difficulty of quantifying chamber shape and the inability to provide automated data capture and analysis have not been overcome. We still know virtually nothing about the function of shell design. Indeed, even if it has no function, Scott asks, shouldn't we know why? Research in shell biometry is in its infancy, and Scott's paper is required reading for anyone interested in being part of its ontology.

Lee neatly weaves together laboratory and field studies of shallow-water benthic foraminifera to arrive at some understanding of how they make their living. The research he cites represents about a decade of devoted work, and yet the importance of some basics such as substrate, competition, and predation are not understood. Those paleoecologists who with a cavalier attitude attribute all changes in abundances to changes in temperature and salinity ought to read this paper with care. In his concluding remarks Lee observes that foraminiferal ecology has evolved to more quantitative and detailed approaches requiring immense amounts of time. Like Lee, I look forward "with some trepidation."

For me the most annoying aspect of this book is the abbreviated form used for references. Some journal names are abbreviated and some are spelled

out, but no titles of papers are given. Because one of the aims of this book is to serve as a guide to the literature, a traditional bibliographic format would be welcomed.

The papers brought together in this volume are very good. They are not a rehash of material published elsewhere, but are, as the editors intended, comprehensive reviews of major lines of research. I look forward to volume 2.

MARTIN A. BUZAS

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## Books Received

**Absorption Spectra in the Ultraviolet and Visible Region.** Vol. 19. L. Láng, Ed. Academic Press, New York, and Akadémiai Kiadó, Budapest, 1974. 428 pp. In looseleaf binder, \$33.00.

**Addiction.** Peter G. Bourne, Ed. Academic Press, New York, 1974. xiv, 240 pp., illus. \$17.50.

**Advances in Applied Mechanics.** Vol. 14. Chia-Shun Yih, Ed. Academic Press, New York, 1974. x, 358 pp., illus. \$35.

**Advances in Cancer Research.** Vol. 20. George Klein, Sidney Weinhouse, and Alexander Haddow, Eds. Academic Press, New York, 1974. x, 378 pp., illus. \$29.50.

**Advances in Chromatography.** Vol. 11. J. Calvin Giddings and Roy A. Keller, Eds. Dekker, New York, 1974. xiv, 196 pp., illus. \$19.75.

**Advances in Preconcentration and Dehydration of Foods.** Proceedings of a symposium, Croydon, England, Sept. 1973. Arnold Spicer, Ed. Halsted (Wiley), New York, 1974. x, 526 pp., illus. \$60.

**Advances in Psychobiology.** Vol. 2. Grant Newton and Austin H. Riesen, Eds. Wiley-Interscience, New York, 1974. xii, 330 pp., illus. \$24.95.

**Advice and Dissent.** Scientists in the Political Arena. Joel Primack and Frank von Hippel. Basic Books, New York, 1974. xii, 300 pp. \$12.95.

**Almost Sure Convergence.** William F. Stout. Academic Press, New York, 1974. x, 382 pp. \$24.50. Probability and Mathematical Statistics.

**Analysis of Variance in Complex Experimental Designs.** Harold R. Lindman. Freeman, San Francisco, 1974. xiv, 352 pp., illus. \$15.

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**Annual Review of Ecology and Systematics.** Vol. 5, 1974. Richard F. Johnston, Peter W. Frank, and Charles D. Michener, Eds. Annual Reviews, Palo Alto, Calif., 1974. vi, 488 pp., illus. \$12.

**Biological Applications of Liquid Scintillation Counting.** Yutaka Kobayashi and David V. Maudsley. Academic Press, New York, 1974. x, 196 pp., illus. \$16.

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Papers from a symposium, Oxford, England, Jan. 1972. D. Price Jones and M. E. Solomon, Eds. Halsted (Wiley), New York, 1974. x, 398 pp. + plates. \$24.50. 13th Symposium of the British Ecological Society.

**The Biology of Estuaries and Coastal Waters.** E. J. Perkins. Academic Press, New York, 1974. x, 678 pp., illus. \$37.75.

**British-Owned Railways in Argentina.** Their Effect on Economic Nationalism, 1854-1948. Winthrop R. Wright. Published for the Institute of Latin American Studies by the University of Texas Press, Austin, 1974. xii, 306 pp. \$10. Latin American Monographs, No. 34.

**Cardiovascular Psychophysiology.** Current Issues in Response Mechanisms, Biofeedback, and Methodology. Papers from a conference, Chapel Hill, N.C., May 1972. Paul A. Obrist, A. H. Black, Jasper Brener, and Leo V. DiCara, Eds. Aldine, Chicago, 1974. xiv, 662 pp., illus. \$19.50.

**Caribbean Transformations.** Sidney W. Mintz. Aldine, Chicago, 1974. xii, 356 pp. \$12.50.

**The Chebyshev Polynomials.** Theodore J. Rivlin. Wiley-Interscience, New York, 1974. vi, 186 pp., illus. \$15.95. Pure and Applied Mathematics.

**Chemical Phase Analysis.** Roland S. Young. Halsted (Wiley), New York, 1974. viii, 138 pp. \$11.50.

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**The Concise Atlas of the Universe.** Patrick Moore. Rand McNally, New York, and Mitchell Beazley, London, 1974. 190 pp. \$19.95. Condensed and revised edition of *Atlas of the Universe*.

**Connective Tissues.** Biochemistry and Pathophysiology. R. Fricke and F. Hartmann, Eds. Springer-Verlag, New York, 1974. xii, 310 pp., illus. \$20.10.

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**The Early Life History of Fish.** Proceedings of a symposium, Oban, Scotland, May 1973. J. H. S. Blaxter, Ed. Springer-Verlag, New York, 1974. xii, 766 pp., illus. \$40.20.

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(Continued on page 285)

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(Continued from page 252)

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**Feast or Famine.** Food, Farming, and Farm Politics in America. Ed Edwin. Charterhouse, New York, 1974. xvi, 366 pp. \$10.95.

**First All-Union Conference on Non-Silver and Unusual Photographic Processes.** Transactions. Kiev, 1972. Translated from the Russian edition (Kiev, 1972). Graphic Arts Research Center, Rochester Institute of Technology, Rochester, N.Y., 1974. viii, 360 pp., illus. Paper, \$21.50.

**The Floor of the Sea.** Maurice Ewing and the Search to Understand the Earth. William Wertenbaker. Little, Brown, Boston, 1974. xii, 276 pp., illus. \$10.

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**The Gods of Life.** Neil Elliott. Macmillan, New York, and Collier Macmillan, London, 1974. xii, 180 pp. \$7.95.

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**Human Ecology and World Development.** Proceedings of a symposium, Huddersfield, England, April 1973. Anthony Vann and Paul Rogers, Eds. Plenum, New York, 1974. xvi, 180 pp. \$16.

**Interbasin Water Transfers.** A Case Study in Mexico. Ronald G. Cummings. Resources for the Future, Washington, D.C., 1974 (distributor, Johns Hopkins University Press, Baltimore). xii, 114 pp. \$7.

**International Conference on the Prehistoric and Paleoecology of Western North American Arctic and Subarctic.** Calgary, Canada, Nov. 1972. Scott Raymond and Peter Schledermann, Eds. University of Calgary Archaeological Association, Calgary, Canada, 1974. iv, 262 pp., illus. Paper, \$6.50.

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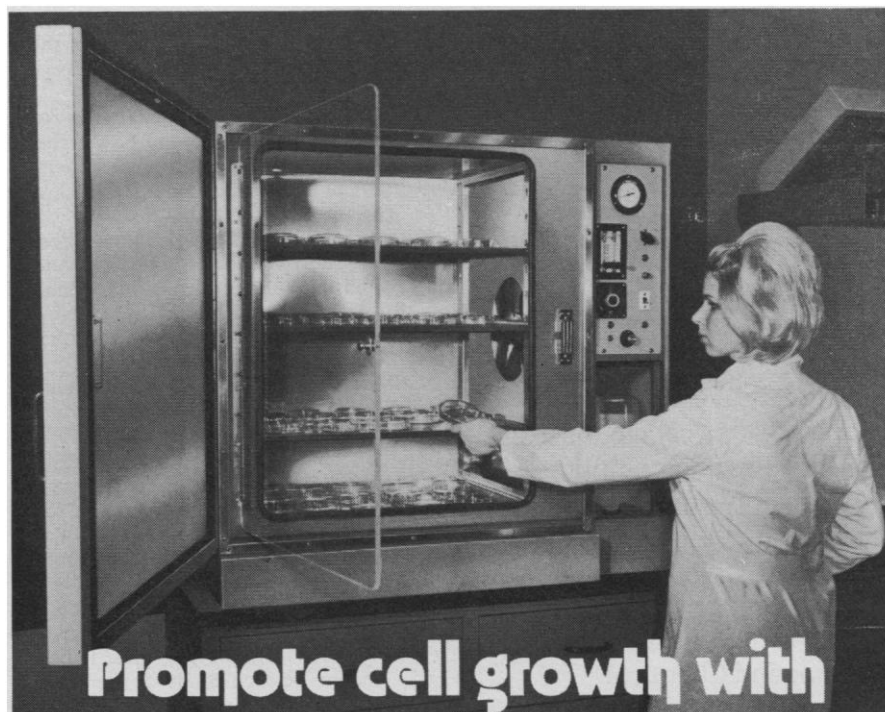
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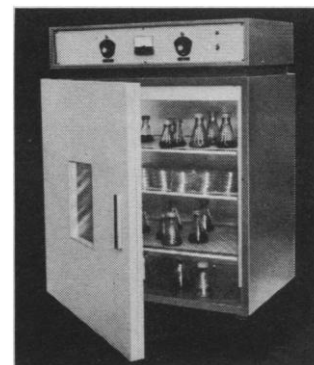
**Measurement in the Social Sciences.** Theories and Strategies. H. M. Blalock, Jr., Ed. Aldine, Chicago, 1974. viii, 464 pp., illus. Cloth, \$16; paper, \$8.95. Methodological Perspectives.

**MED.** Medical Engravings of the 19th Century. Philemon Stein. Universe, New York, 1974. Not paged. Cloth, \$8; paper, \$3.95.



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**Metal-Insulator Transitions.** N. F. Mott. Taylor and Francis, London, and Barnes and Noble, New York, 1974. xvi, 278 pp., illus. \$22.50.

**Meteorites.** Classification and Properties. John T. Wasson. Springer-Verlag, New York, 1974. x, 316 pp., illus. \$31.20. Minerals and Rocks, vol. 10.

**Methods of Biochemical Analysis.** Vol. 22. David Glick, Ed. Interscience (Wiley), New York, 1974. viii, 568 pp., illus. \$24.95.

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**Our Future Inheritance.** Choice or Chance? A Study by a British Association Working Party. Alun Jones and Walter F. Bodmer. Oxford University Press, New York, 1974. xiv, 142 pp. + plates. Cloth, \$13; paper, \$4.

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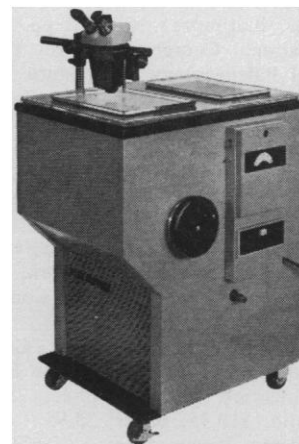
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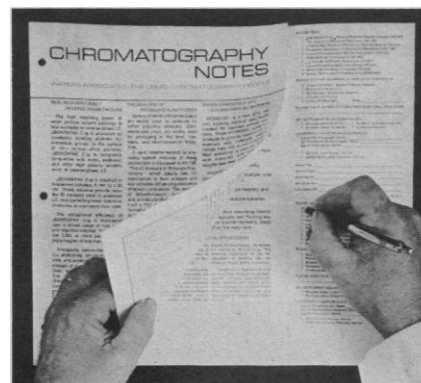
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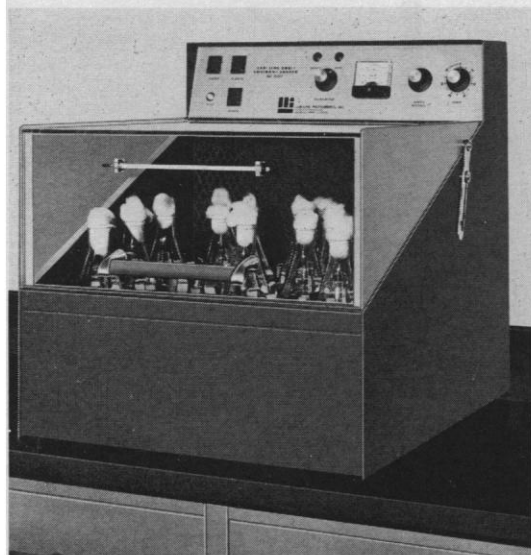
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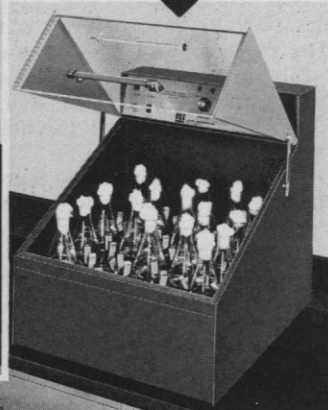
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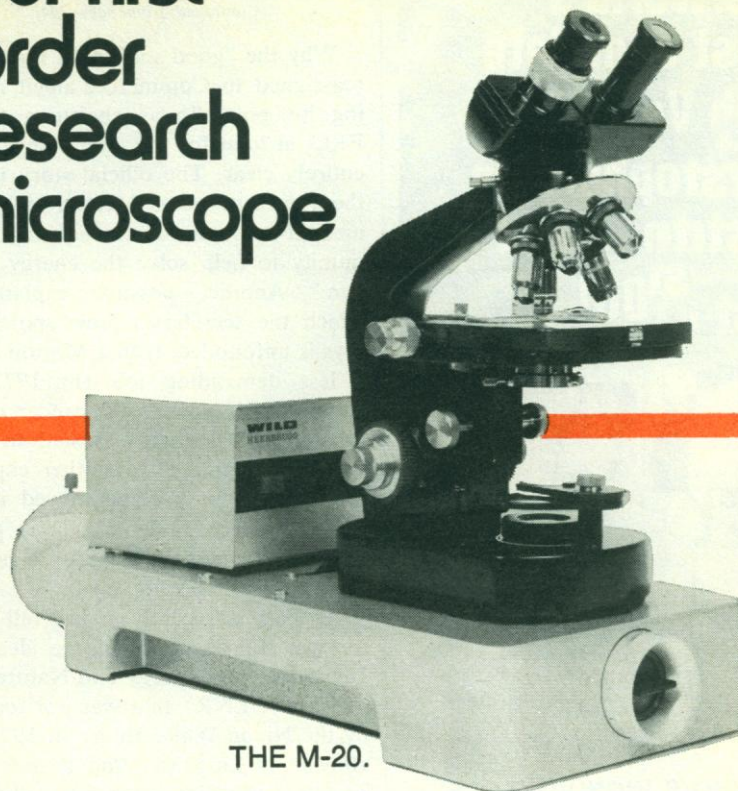
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