Ursid Studies

Bears. Their Biology and Management. Papers from a conference, Alberta, B.C., Nov. 1970. STEPHEN HERRERO, Ed. International Union for Conservation of Nature and Natural Resources, Morges, Switzerland, 1972. 372 pp., illus. Paper, \$9. IUCN Publications, new series, No. 23.

This volume contains the findings of an international conference on bear research and management, and so presumably reflects the amount of work being done on the seven sorts of bears found on this planet. These can be called (though not to the satisfaction of all taxonomists) the Malayan sun bear (Helarctos), the sloth bear (Melursus) of India and Ceylon, the spectacled bear (Tremarctos) of South America, the Asiatic black bear (Selenarctos), the brown and grizzly bears (Ursus) of North America and Eurasia, the American black bear (Euarctos), and the polar bear (Thalarctos). Of these, the first four are discussed in only one paper-"The status and conservation of bears of the world-1970." The greater part of the volume concerns polar bears (7 papers), American black bears (9 papers) and brown/grizzly bears (14 papers). Most of the contributors are from North America, but Norway, Sweden, the U.S.S.R., and Japan are also represented.

The papers are arranged in five panels: The Ecology, Population Characteristics, Movements, and Natural History of Bears; Denning-Control Mechanisms, Site Selection and Physiology; Polar Bear Studies; Bear Behaviour; and Bears and Human Beings. From the contents it is apparent that over the past decade or so the two techniques of dart-drugging and radiotelemetry have been applied to good effect on the bears of North America. In addition, it is now possible to determine age by tooth annulation. Since bears can be captured, aged, marked, and followed, much new information has been obtained on their movement and population dynamics. The behavior and physiology of free-living bears are being studied also. And the fact that bears are both attractive and dangerous to human beings makes the conservation of bears—particularly grizzly bears -a complex matter. The most acute bear problems in North America are found in national parks, so national parks dominate the final panel, Bears and Human Beings.

Bears seem to have virtually no enemies but man. Man has since earliest

times been an admirer and a killer of bears. He has worshiped bears, and feared them, and eaten them and slept on their skins. The human pressures on bear populations have increased steadily over the centuries, as men and livestock occupied more and more bear habitat, and as men developed better and better weapons. Only in the last few decades have men attempted to ease this pressure on bears, and then largely in the industrialized nations. If these efforts continue, the bears of North America, Europe, and the U.S.S.R. have a reasonable chance of survival. But unless some much more effective approach to bear conservation in the less developed nations is devised the future of bears in other parts seems bleak.

RICHARD D. TABER College of Forest Resources, University of Washington, Seattle

Zooarcheology

Atlas of Animal Bones. For Prehistorians, Archaeologists and Quaternary Geologists. Knochenatlas. Für Prähistoriker, Archäologen und Quartärgeologen. ELISABETH SCHMID. Drawings by Otto Garraux. Elsevier, New York, 1972. vii, 160 pp. \$29.

Some years ago, as a vertebrate paleontologist, I became interested in zooarcheology (the analysis of animal remains from archeological sites). At that time there was only one volume dedicated to this field, Ostéométrie des Mammifères by Edmond Hue (1907). That volume was in French. In recent years a number of fine books dealing with this subject have been released by various English-language presses. Most recently the Atlas of Animal Bones by Elisabeth Schmid has become available for research workers in zooarcheology. It will also be of considerable value to most vertebrate paleontologists whose interests are with fossil mammals.

The most notable difference in this work of Schmid's is the presentation of the text in both German and English. Each page is split into two columns, with one devoted to German and the other to English. This obviates duplication of the plates, and most of the plates have Latinized legends and need no cross-captioning. In allowing a ready reference for workers not fluent in both of these languages this double text in no way confuses or detracts from the volume.

The illustrations are exceptionally well done, with a carefully worked layout of those bones most commonly found in European archeological sites. This brings me to the one criticism that I have of Schmid's book. There is a complete neglect of literature dealing with the Western Hemisphere, although there have been numerous publications in this field by American workers. The title of the book does not reveal that this is a volume devoted only to the Old World faunas and literature.

It seems that most authors hope that single works of this kind will be sufficient to solve most of the problems of the archeologists in their fields, but time usually proves that they serve as complements to those already published. The Atlas of Animal Bones belongs in this category. I believe that no single volume will solve the osteological problems of the archeologist.

Schmid's book is all in all a good volume and should be in every laboratory where mammal bones from archeological sites are under examination. In addition to aiding the expert, it will give the novice a good start in the right direction in interpreting faunal remains.

STANLEY J. OLSEN Department of Anthropology, Florida State University, Tallahassee

Books Received

Actions, Styles and Symbols in Kinetic Family Drawings (K-F-D). An Interpretive Manual. Robert C. Burns and S. Harvard Kaufman. Brunner/Mazel, New York, 1972. xvi, 304 pp., illus. \$12.50.

Adsorption-Desorption Phenomena. Proceedings of a conference, Florence, Italy, Apr. 1971. F. Ricca, Ed. Academic Press, New York, 1972. xvi, 462 pp., illus. \$20.50.

The Agrarian History of England and Wales. Vol. 1, part 2, A.D. 43–1042. H. P. R. Finberg, Ed. Cambridge University Press, New York, 1972. xviii, 566 pp., illus. \$37.50.

Air Pollution. Part A, Analysis. Joe O. Ledbetter. Dekker, New York, 1972. xiv, 424 pp., illus. Paper, \$11.75. Environmental Health Engineering Textbooks, vol. 2.

Alaska Trees and Shrubs. Leslie A. Viereck and Elbert L. Little, Jr. U.S. Forest Service, Washington, D.C., 1972 (available from the Superintendent of Documents, Washington, D.C.). viii, 266 pp., illus., + unbound map. \$3.25.

Amorphous Materials. A conference, Sheffield, England, Sept. 1970. R. W. Douglas and Bryan Ellis, Eds. Wiley-Interscience, New York, 1972. xviii, 550 pp. + plates. \$24.95.

(Continued on page 324)



Circle No. 82 on Readers' Service Card



BOOKS RECEIVED

(Continued from page 297)

Analog and Digital Electronics for Scientists. Basil H. Vassos and Galen W. Ewing. Wiley-Interscience, New York, 1972. x, 406 pp., illus. \$12.95.

M. Ewing. Whey-inciscionec, 1.5., 1972. x, 406 pp., illus. \$12.95.

Analytical Chemistry. Key to Progress on National Problems. Proceedings of a symposium, Gaithersburg, Md., June 1971. W. Wayne Meinke and John K. Taylor, Eds. National Bureau of Standards, Washington, D.C., 1972 (available as SD Catalog No. C13.10:351 from the Superintendent of Documents, Washington, D.C.). x, 472 pp., illus. \$3.50. NBS Special Publication 351.

Baer *-Rings. Sterling K. Berberian. Springer-Verlag, New York, 1972. xiv, 296 pp. \$24.10. Grundlehren der mathematischen Wissenschaften, Band 195.

Basic Immunogenetics. H. Hugh Fudenberg, J. R. L. Pink, Daniel Stites, and An-Chuan Wang. Oxford University Press, New York, 1972. viii, 214 pp., illus. Cloth, \$7.95; paper, \$5.50.

Bibliography of the History of Medicine 1964–1969. National Library of Medicine, Bethesda, Md., 1972 (available as DHEW Publication No. (NIH)71-297 from the Superintendent of Documents, Washington, D.C.). vi, 1476 pp. \$12.

The Bond to Halogens and Halogenoids. Part 1. Alan G. MacDiarmid, Ed. Dekker, New York, 1972. xiv, 374 pp., illus. \$34.50. Organometallic Compounds of the Group IV Elements, vol. 2, part

Boranes in Organic Chemistry. Herbert C. Brown. Cornell University Press, Ithaca, N. Y., 1972. xiv, 462 pp., illus. \$24.50. The George Fisher Baker Non-Resident Lectureship in Chemistry at Cornell University.

The Bureau of the Census. A. Ross Eckler. Praeger, New York, 1972. xiv, 268 pp. + plates. \$9.

Cartographic Methods. G. R. P. Lawrence. Methuen, London, 1972 (U.S. distributor, Barnes and Noble, New York). xiv, 162 pp., illus. Cloth, \$8; paper, \$3.25. The Field of Geography.

CBE Style Manual. Council of Biology Editors Committee on Form and Style. Published for the Council of Biology Editors by the American Institute of Biological Sciences, Washington, D.C., ed. 3, 1972. xii, 298 pp., illus. \$6.

Challenging Biological Problems. Directions toward Their Solution. The American Institute of Biological Sciences 25th Anniversary Volume. John A. Behnke, Ed. Oxford University Press, New York, 1972. x, 502 pp., illus. \$10.95.

Chemical Oxidations with Microorganisms. Gunther S. Fonken and Roy A. Johnson. Dekker, New York, 1972. viii, 292 pp., illus. \$19.50. Oxidation in Organic Chemistry, vol. 2.

Chemistry for the Million. Richard Furnald Smith. Scribner, New York, 1972. x, 176 pp., illus. \$7.95.

Chromosome Techniques. Theory and Practice. Arun Kumar Sharma and Archana Sharma. Butterworths, London; University Park Press, Baltimore, ed. 2, 1972. xii, 576 pp., illus. \$29.50.

1972. xii, 576 pp., illus, \$29.50.

Cohomological Methods in Group
Theory. Ararat Babakhanian. Dekker,

New York, 1972. x, 242 pp., illus. \$14.50. Pure and Applied Mathematics, vol. 11. Computer Logic Design. M. Morris

Mano. Prentice-Hall, Englewood Cliffs, N.J., 1972. xiv, 450 pp., illus. \$14.95. Prentice-Hall Series in Automatic Computation.

Coulomb's Memoir on Statics. An Essay in the History of Civil Engineering. Jacques Heyman. Cambridge University Press, New York, 1972. xii, 212 pp., illus. \$17.50.

Detergency. Theory and Test Methods. Part 1. W. G. Cutler and R. C. Davis, Eds. Dekker, New York, 1972. x, 452 pp., illus. \$28.50.

Differentiable Manifolds. Yozo Matsushima. Translated from the Japanese edition (Tokyo, 1965) by E. T. Kobayashi. Dekker, New York, 1972. x, 304 pp., illus. \$15.50. Pure and Applied Mathematics, vol. 9.

Ecology and Palaeoecology of Marine

Environments. Wilhelm Schäfer. Translated from the German edition (1962) by Irmgard Oertel. G. Y. Craig, Ed.

University of Chicago Press, Chicago, 1972. xiv, 568 pp. + plates. \$25.

Ecology and the Quality of our Environment. Charles H. Southwick. Van Nostrand Reinhold, New York, 1972. xvi, 320 pp., illus. Cloth, \$6.95; paper, \$4.95.

Electrochemistry. Calculations, Simulation, and Instrumentation. James S. Mattson, Harry B. Mark, Jr., and Hubert C. MacDonald, Jr., Eds. Dekker, New York, 1972. xviii, 466 pp., illus. \$23.50. Computers in Chemistry and Instrumentation, vol. 2.

Electron Optics and Electron Microscopy. P. W. Hawkes. Taylor and Francis, London; Barnes and Noble, New York, 1972. xvi, 244 pp., illus. \$17. Elemental Xray Analysis of Materials

(EXAM) Methods. John C. Russ. Charles J. Walsh, Ed. EDAX International, Prairie View, Ill., 1972. vi, 90 pp., illus.

Elementary Statistical Concepts. Rolene B. Cain. Saunders, Philadelphia, 1972. x, 268 pp., illus. Paper, \$5.50.

Energy Metabolism of Human Muscle. J. Keul, E. Doll, and D. Keppler. Translated from the German edition (Munich, 1969) by J. S. Skinner. University Park Press, Baltimore, 1972. xii, 314 pp., illus. \$22.50. Medicine and Sport, vol. 7.

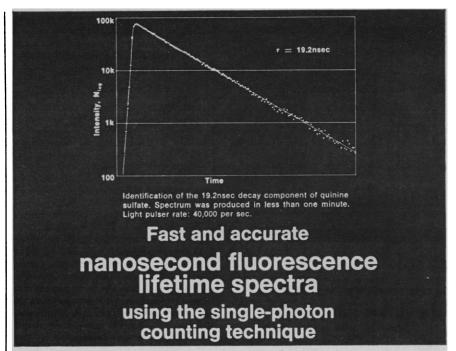
The Environmental Future. Proceedings of a conferenc, Helsinki, June 1971. Nicholas Polunin, Ed. Barnes and Noble, New York, 1972. xiv, 660 pp., illus. \$32.50

Evolution in the Genus Bufo. W. Frank Blair, Ed. University of Texas Press, Austin, 1972. viii, 460 pp. + plates. \$17.50.

Excitation in Heavy Particle Collisions. E. W. Thomas. Wiley-Interscience, New York, 1972. xvi, 436 pp., illus. \$22.50. Wiley-Interscience Series in Atomic and Molecular Collisional Processes.

Experimental Leukemogenesis. A symposium, Tokyo, Nov. 1970. Tadashi Yamamoto and Haruo Sugano, Eds. University Park Press, Baltimore, 1972. viii, 322 pp., illus. \$29.50. Japanese Cancer Association GANN Monograph on Cancer Research, No. 12.

Flora of Turkey and the East Aegean Islands. Vol. 4. P. H. Davis, Ed. Edin-



A digital approach

Single-photon counting, a highly sensitive technique which actually samples individual quanta of light, is generally acknowledged to be the best method of measuring very low light levels. Now Ortec has applied this technique to the field of nanosecond fluorescence spectroscopy. The Ortec Model 9200 Nanosecond Fluorescence Spectrometer uses a short duration optical light pulse to excite the sample and measures the decaying fluorescence intensity as a function of time over several decades.

Our system offers sensitivity and accuracy increased by orders of magnitude compared to existing analytical techniques. This new system is already producing outstanding results in studies of chemical reaction rates, molecular structure, and molecular conformation

Improved data reduction

A multichannel analyzer records each detected fluorescence photon against a time base for immediate CRT display or Teletype printout of the spectrum. Data is manipulated and stored in a digital,

computer-compatible mode. A computer interface can thus be incorporated to facilitate reduction of complex data.

The 9200 system will measure both single and multiple decay components. Multiple components are clearly represented on the spectrum and easily read. (The spectrum above shows the straight line response of a sample having a single lifetime.)

Sensitivity is better than 1 ppb quinine sulfate in sulfuric acid. Linearity is typically better than 1%.

System components

The exact system configuration will depend on the user's particular requirements, but the basic system consists of a nanosecond light pulser, sample chamber including photomultiplier, multichannel analyzer, and associated electronics. The entire system is designed around NIM-standard modules for enhanced flexibility, reliability, and ease of servicing.

Data sheet on request

If you'd like more information on the Ortec Model 9200 Nanosecond Fluorescence Spectrometer, we'd be happy to send you a data sheet that tells all about it. Just write or call Ortec Incorporated, 110 Midland Road, Oak Ridge, Tenn.

In Europe: Ortec Ltd., Dallow Road, Luton, Bedfordshire. Phone: LUton 27557. Ortec GmbH, 8 München 13, Frankfurter Ring 81, West Ger-



burgh University Press, Edinburgh, 1972 (U.S. distributor, Aldine-Atherton, Chicago). xx, 658 pp., illus. \$37.50.

From Problem to Program. Computing in Mathematics. M. E. Wardel. Cambridge University Press, New York, 1972. x, 130 pp., illus. Cloth, \$8.75; paper, \$4.45. The School Mathematics Project.

Functional Anatomy and Histology of the Lung. Chuzo Nagaishi with the collaboration of Naoyuki Nagasawa, Masayuki Yamashita, Yoshio Okada, and Nobuo Inaba. University Park Press, Baltimore, 1972. xxviii, 296 pp., illus. \$49.50.

Functions of Language in the Classroom. Courtney B. Cazden, Vera P. John, and Dell Hymes, Eds. Teachers College Press, New York, 1972. lx, 394 pp. Cloth, \$9.50; paper, \$5.95. Anthropology and Education Series.

General Physics Workbook. Physics Problems and How to Solve Them. Foster Strong. Freeman, San Francisco, 1972. x, 502 pp., illus. Paper, \$5.95.

Gonadotropins. A symposium, New York, June 1971. Brij B. Saxena, Carl G. Beling, and Hortense M. Gandy, Eds. Wiley-Interscience, New York, 1972. xxxii, 800 pp., illus. \$32.50.

Graduate School in the Sciences. Entrance, Survival, and Careers. Jack G. Calvert, James N. Pitts, Jr., and George H. Dorion. Wiley-Interscience, New York. 1972. xii, 304 pp., illus. \$9.95.

Growth and Ecology of Fish Popula-tions. A. H. Weatherley. Academic Press, New York, 1972. x, 294 pp., illus. \$13.50. Hematologic Reviews. Vol. 3. Julian L.

Ambrus, Ed. Dekker, New York, 1972. xii, 424 pp., illus. \$24.50.

The Hopi Indians of Old Oraibi. Change and Continuity. Mischa Titiev. University of Michigan Press, Ann Arbor, 1972. xii, 380 pp. + plates. \$12.50.

Hospital Information Systems. George A. Bekey and Morton D. Schwartz, Ed. Dekker, New York, 1972. xii, 402 pp., illus. \$19.75. Biomedical Engineering, vol. 1.

Hypnosis. Research Developments and Perspectives. Erika Fromm and Ronald E. Shor, Eds. Aldine-Atherton, Chicago, 1972. xiv, 656 pp., illus. \$27.50. Modern

Applications of Psychology.

Informe Anual del Director de la Oficina Sanitaria Panamericana. 1971. Pan American Health Organization, Washington, D.C., 1972. xxii, 372 pp., illus.

Infrared Spectroscopy. Applications in Organic Chemistry. Margareta Avram and Gh. D. Mateescu. Translated from the Romanian edition (Bucharest, 1966) by Ludmila Bîrlădeanu. Wiley-Interscience, New York, 1972. 528 pp., illus. \$14.95.

Inorganic Chemistry of the Transition Elements. Vol. 1. A Review of the Literature Published between Oct. 1970 and Sept. 1971. B. F. G. Johnson, senior reporter. Chemical Society, London, 1972. xiv, 418 pp., illus. £7. Specialist Periodical Report.

The International Handbook of Medical Science. A Daily Reference Book for Medical Practice. David Horrobin and Alexander Gunn, Eds. University Park Press, Baltimore, ed. 2, 1972. viii, 832 pp., illus. \$14.50.

Introduction to Compact Transformation Groups. Glen E. Bredon. Academic Press, New York, 1972. xiv, 462 pp., illus. \$23.10. Pure and Applied Mathematics, vol. 46.

Introduction to Ergonomics. W. T. Singleton. World Health Organization, Geneva, 1972 (U.S. distributor, American Public Health Association, Washington, D.C.). 146 pp., illus. Paper, \$5.

Introduction to Humanistic Psychology. Charlotte Bühler and Melanie Allen. Brooks/Cole, Belmont, Calif., 1972. viii, 120 pp. Paper, \$2.75.

Introduction to Materials Science. Arthur L. Ruoff. Prentice-Hall, Englewood Cliffs, N.J., 1972. xx, 697 pp., illus. \$15.50.

Invertebrate Oogenesis. II. Papers by Meredith C. Gould, A. Lima-de-Faria, Everett Anderson, C. A. Verhey, Frank Moyer, and others. MSS Information Corp., New York, 1972. 322 pp., illus.

Joint FAO/WHO Expert Committee on Nutrition. Eighth Report. A meeting, Geneva, Nov. 1970. United Nations Food and Agriculture Organization and World Health Organization, Rome, 1971 (U.S. distributor, UNIPUB, New York). 104 pp. Paper, \$1.25. FAO Nutrition Meetings Report Series, No. 49. WHO Technical Report Series, No. 477.

Keratinization. A Survey of Vertebrate Epithelia. Paul F. Parakkal and Nancy J. Alexander. Academic Press, New York, 1972. iv, 60 pp., illus. Paper, \$3.85. Ultrastructure of Cells and Organisms.

Kinetic Systems. Mathematical Description of Chemical Kinetics in Solution. Christos Capellos and Benon H. J. Bielski. Wiley-Interscience, New York, 1972. xiv, 138 pp. \$11.95.

Lecture Notes in Economics and Mathematical Systems. Operations Research, Computer Science, Social Science. Springer-Verlag, New York, 1972. Vol. 67, Lectures on Mathematical Theory of Extremum Problems. I. V. Girsanov. B. T. Poljak, Ed. Translated from the Russian edition (1964) by D. Louvish. vi, 136 pp., illus. Vol. 68, Computability and Decidability. An Introduction for Students of Computer Science. vi, 76 pp., illus. Each vol., paper, \$5.10.

Lectures on Algebraic Topology. A. Dold. Springer-Verlag, New York, 1972. xii, 378 pp., illus. \$21.60. Grundlehren der mathematischen Wissenschaften. Band 200.

Liquid Metals. Chemistry and Physics. Sylvan Z. Beer, Ed. Dekker, New York, 1972. x, 732 pp., illus. \$35. Monographs and Textbooks in Material Science, vol.

The Macrophage. B. Vernon-Roberts. Cambridge University Press, New York. 1972. viii, 242 pp., illus. \$21. Biological Structure and Function, 2.

The Management of American Foundations. Administration, Policies, and Social Role. Arnold J. Zurcher. New York University Press, New York, 1972, viii, 184 pp. \$6.95.

Marine Chemistry. Vol. 1, Analytical Methods. Dean F. Martin. Dekker, New York, ed. 2, 1972. xii, 390 pp., illus. \$9.50.

The Mature Society. Dennis Gabor.



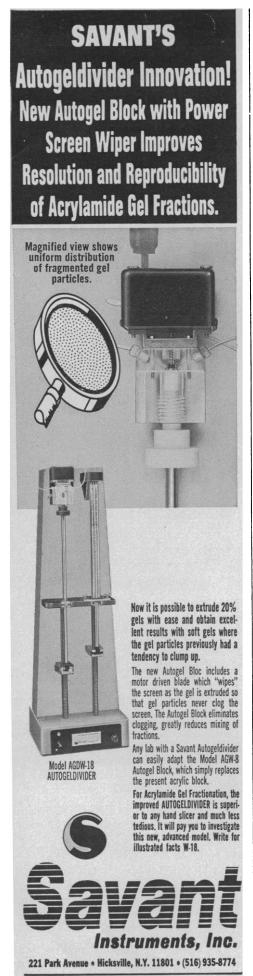
500. Bacterial Culture 200. E Coli 350.

This is also the centrifuge with up to 40,300xG; up to 4 litre capacity with fail-safe brush life control; sliding top door for easy loading, automatic solid state speed control, temperature control -20° C to +400 C

Lourdes' Beta-Fuge. You ought to look into it. Write Vernitron or contact your local dealer today. And you, too, will praise the Lourdes.



Vernitron Medical Products, Inc. Empire Blvd, & Terminal Lane, Carlstadt, N.J. 07072



Praeger, New York, 1972. viii, 208 pp. \$7.50.

The Meaning of Information. Doede Nauta, Jr. Mouton, The Hague, 1972. 316 pp., illus. 60 guilders. Approaches to Semiotics, 20.

Medical Care in the USSR. Report of the U.S. Delegation on Health Care Services and Planning. Jesse L. Steinfeld, John A. Cooper, Robert Q. Marston, Russel B. Roth, and Patrick B. Storey. National Institutes of Health, Bethesda, Md., 1972 (available from the Superintendent of Documents, Washington, D.C.). vi, 38 pp., illus. Paper, \$.50. John E. Fogarty International Center for Advanced Study in the Health Sciences, Geographic Health Studies Program Publication.

A Medicine-Man's Implements and Plants in a Tiahuanacoid Tomb in Highland Bolivia. S. Henry Wassén with contributions by Wolmar E. Bondeson and seven others. Göteborgs Etnografiska Museum, Göteborg, Sweden, 1972. 196 pp., illus. Paper, 50 Kronor. Etnologiska Studier, 32.

Meiosis. Current Research III. Papers by John Melnyk and 19 others. MSS Information Corp., New York, 1972. 214 pp., illus. \$15.

Membranes. A Series of Advances. Vol. 1, Macroscopic Systems and Models. George Eisenman, Ed. Dekker, New York, 1972. xxii, 334 pp., illus. \$19.50.

Memoria 1971. Sociedad Privada Municipal Transportes de Barcelona, 1972. xxii, 146 pp., illus., + charts.

Men and Molecules. Second Series. Norman Metzger. Grown, New York, 1972. x, 246 pp., illus. \$5.95.

Metal π-Complexes. Vol. 2, Complexes with Mono-Olefinic Ligands. Part 1, General Survey. Max Herberhold. Elsevier, New York, 1972. xvi, 644 pp., illus. \$86.

Methods in Clinical Bacteriology. A Manual of Tests and Procedures. Dorothy Branson. Thomas, Springfield, Ill., 1972. xiv, 228 pp. Spiral bound, \$6.50. American Lecture Series, No. 840.

Methods in Microbiology. Vol. 7A. J. R. Norris and D. W. Ribbons, Eds. Academic Press, New York, 1972. xiv, 480 pp., illus. \$26.50.

Methods of Neurochemistry. Vol. 2. Rainer Fried, Ed. Dekker, New York, 1972. xii, 294 pp., illus. \$18.50. Microbiology of Foods and Food Pro-

Microbiology of Foods and Food Processing. John T. Nickerson and Anthony J. Sinskey. Elsevier, New York, 1972. x, 308 pp., illus. \$12.50.

A Mingled Yarn. Chronicle of a Troubled Family. Beulah Parker. Yale University Press, New Haven, Conn., 1972. viii, 334 pp. \$7.95.

Miscellaneous Studies in Mexican Prehistory. Michael W. Spence, Jeffrey R. Parsons, and Mary Hrones Parsons with a contribution by George Fraunfelter. University of Michigan Museum of Anthropology, Ann Arbor, 1972. vi, 170 pp., illus., + charts. Paper, \$4. Anthropological Papers, No. 45.

Mitochondria. Bernard Tandler and Charles L. Hoppel. Academic Press, New York, 1972. iv, 60 pp., illus. Paper, \$3.85. Ultrastructure of Cells and Organisms.

Nature and Nurture in Alcoholism. A conference, Apr. 1971. Frank A. Seixas,

Gilbert S. Omenn, E. David Burk, and Suzie Eggleston, Eds. New York Academy of Sciences, New York, 1972. 230 pp., illus. Paper, \$26. Annals of the New York Academy of Sciences, vol. 197.

Nerve Membranes. A Study of the Biological and Chemical Aspects of Neuron-Glia Relationships. Patricia V. Johnston and Betty I. Roots. Pergamon, New York, 1972. xii, 274 pp., illus. \$27. International Series of Monographs in Pure and Applied Biology: Zoology, vol. 36.

New Horizons for Veterinary Medicine. National Research Council Committee on Veterinary Medical Research and Education. National Academy of Sciences, Washington, D.C., 1972. viii, 172 pp., illus. Paper, \$5.25.

Nuclear Magnetic Resonance. Vol. 1. A Review of Recent Published Literature up to June 1971. R. K. Harris, senior reporter. Chemical Society, London, 1972. xviii, 344 pp., illus. £7. Specialist Periodical Report.

Nutrient Requirements of Laboratory Animals. Cat, Guinea Pig, Hamster, Monkey, Mouse, Rat. National Research Council Subcommittee on Laboratory Animal Nutrition. National Academy of Sciences, Washington, D.C., ed. 2, 1972. vi, 118 pp., illus. Paper, \$4.95. Nutrient Requirements of Domestic Animals, No.

Open Admissions. The Pros and Cons. Proceedings of a symposium, Washington, D.C., Oct. 1971. Jacques Barzun, moderator. Council for Basic Education, Washington, D.C., 1972. iv, 76 pp. Paper, \$1.50.

Organic Chemicals in the Soil Environment. Vol. 1. Cleve A. I. Goring and John W. Hamaker, Eds. Dekker, New York, 1972. xiv, 440 pp., illus. \$24.50. Books in Soils and the Environment.

Organic Selenium and Tellurium Chemistry. Papers from a conference, Mar. 1971. Yoshiyuki Okamoto and Wolfgang H. H. Günther, Eds. New York Academy of Sciences, New York, 1972. 226 pp., illus. Paper, \$21. Annals of the New York Academy of Sciences, vol. 192.

Organization Research on Health Institutions. Basil S. Georgopoulos, Ed. Institute for Social Research, University of Michigan, Ann Arbor, 1972. xiv, 418 pp., illus \$12

Origin of Sedimentary Rocks. Harvey Blatt, Gerard Middleton, and Raymond Murray. Prentice-Hall, Englewood Cliffs, N.J., 1972. xx, 634 pp., illus. \$16.

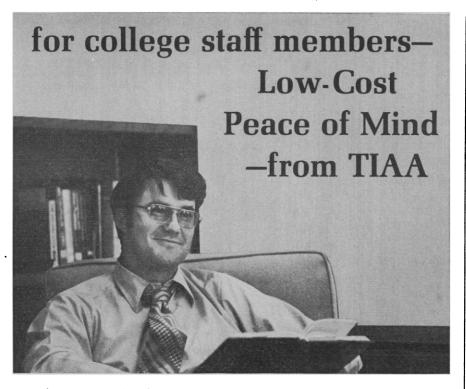
Oscillations. I. B. Hopley. Methuen, London, 1972 (U.S. distributor, Harper and Row, New York). viii, 64 pp., illus. Paper, \$3. Methuen Studies in Science.

Our World in Space and Time. Kingsland Camp. Vantage, New York, 1972. 230 pp., illus. \$6.

The Oxidation-Reduction Potential in Geology. Mikhail F. Stashchuk. Translated from the Russian edition (Moscow, 1968) by J. Paul Fitzsimmons. Consultants Bureau, New York, 1972. x, 122 pp., illus. Paper, \$30.

Phase Transitions and Critical Phenomena. Vol. 2. C. Domb and M. S. Green, Eds. Academic Press, New York, 1972. xviii, 518 pp., illus. \$31.

Physical Methods in Macromolecular



\$50,000 of life insurance costs less than \$100 at age 30.

That's right! For a man, age 30, the annual premium for a 20-Year Home Protection policy providing \$50,000 initial amount of insurance is \$159.00. The first-year dividend, based on our current dividend scale, is \$61.50, making a net payment of \$97.50. Dividends, of course, are not guaranteed.

The Home Protection plan is level premium Term insurance providing its largest amount of protection initially, reducing by schedule each year to recognize decreasing insurance needs. This is just one example of the many low-cost TIAA plans available.

If you need more protection for your family, ask us to mail you a personal illustration with figures for a policy issued at your age. We'll also send the Life Insurance Guide describing other TIAA policies.

ELIGIBILITY

Eligibility to apply for this or other TIAA life insurance is limited to persons employed at the time of application by a college, university, private school, or other nonprofit educational or scientific institution that qualifies for TIAA eligibility.

| Please mail the Life Insurance Guide and a personal illustration. | | Your |
|---|--------|---------------|
| Name | , | Date of Birth |
| Address | | |
| | Street | |
| City | State | Zip |
| Dependents' Ages | | |

Chemistry. Vol. 2. Benjamin Carroll, Ed. Dekker, New York, 1972. x, 370 pp., illus. \$23.50.

Point Defects and Diffusion. C. P. Flynn. Oxford University Press, New York, 1972. xii, 826 pp., illus. \$51. International Series of Monographs on Physics.

The Porphyrias. J. Lyndal York. Thomas, Springfield, Ill., 1972. xii, 126 pp., illus. \$10.75. American Lecture Series, No. 842.

Principles of Enzymology for the Food Sciences. John R. Whitaker. Dekker, New York, 1972. xvi, 636 pp., illus. \$26.50. Food Science, vol. 2.

Problem Solving, Systems Analysis, and Medicine. Ralph Raymond Grams. Thomas, Springfield, Ill., 1972. xvi, 226 pp., illus. \$19.75. Systems-Analysis Workbook. viii, 62 pp., illus. Paper, \$4.75.

Problems and Theorems in Analysis.
Vol. 1, Series, Integral Calculus, Theory of Functions. G. Pólya and G. Szegö.
Translated from the German edition (1970) by D. Aeppli. Springer-Verlag, New York, 1972. xx, 390 pp. \$31.10.
Grundlehren der mathematischen Wissenschaften, Band 193.

Proceedings of the Scientific Program. International Union of Biological Sciences. An assembly, Washington, D.C., Oct. 1970. National Academy of Sciences, Washington, D.C., 1971 (available from the Department of Biology and Agriculture). iv, 100 pp., illus. Paper.

The Procession of Life. Alfred S. Romer. Doubleday, Garden City, N.Y., 1972. xii, 384 pp. + plates. Paper, \$2.95. Reprint of the 1968 edition.

Production, Pollution, Protection. W. B. Yapp. Wykeham, London; Springler-Verlag, New York, 1972. xii, 182 pp., illus. Cloth, \$8.30; paper, \$5.80. Wykeham Science Series.

A Programmed Introduction to Infrared Spectroscopy. B. W. Cook and K. Jones. Heyden, New York, 1972. xvi, 192 pp., illus. Paper, \$3.90.

Programming Language One. Don Cassel. Reston, Reston, Va., 1972. xiv, 266 pp., illus. Cloth, \$8.95; paper, \$6.50.

Progress in Surface and Membrane Science. Vol. 5. J. F. Danielli, M. D. Rosenberg, and D. A. Cadenhead, Eds. Academic Press, New York, 1972. xii, 352 pp., illus. \$21.45.

Properties of Polymers. Correlations with Chemical Structure. D. W. Van Krevelen with the collaboration of P. J. Hoftyzer. Elsevier, New York, 1972. xii, 428 pp., illus. \$30.

Psychology of Women. A Study of Bio-Cultural Conflicts. Judith M. Bardwick. Harper and Row, New York, 1972. viii, 242 pp., illus. \$7.95.

Psychotherapy 1971. Joseph D. Matarazzo and five others, Eds. Aldine-Atherton, Chicago, 1972. xx, 594 pp., illus. \$20. An Aldine Annual.

Le Quaternaire. L'Histoire Humaine dans son Environnement. Jean Chaline. Doin, Paris, 1972. 338 pp. + plates. 92 F.

The Quantitative Analysis of Plant Growth. G. Clifford Evans. University of California Press, Berkeley, 1972. xxviii, 734 pp., illus. \$22. Studies in Ecology, vol. 1.

Radiation Dosimetry. Electrons with Initial Energies between 1 and 50 MeV. International Commission on Radiation Units and Measurements, Washington, D.C., 1972. x, 64 pp., illus. Paper, \$4. ICRU Report 21.

Radioisotope Engineering. Geoffrey G. Eichholz, Ed. Dekker, New York, 1972. x, 418 pp., illus. \$26.50.

Readings on the Psychology of Women. Judith M. Bardwick, Ed. Harper and Row, New York, 1972. xiv, 336 pp., illus. Paper, \$5.95.

Report on Investigations of Oral Cancer and Precancerous Conditions in Indian Rural Populations, 1966-1969. Fali S. Mehta and 16 others. Munksgaard, Copenhagen, 1971. x, 142 pp., illus. \$12.50.

Reproduction in Mammals. C. R. Austin and R. V. Short, Eds. Cambridge University Press, New York, 1972. Vol. 1, Germ Cells and Fertilization. viii, 136 pp., illus. Vol. 2, Embryonic and Fetal Development. viii, 158 pp., illus. Vol. 3, Hormones in Reproduction. viii, 148 pp., illus. Each vol., cloth, \$11.95; paper, \$3.95.

Riemannian Symmetric Spaces of Rank One. Isaac Chavel. Dekker, New York, 1972. x, 84 pp., illus. Paper, \$7.50. Lecture Notes in Pure and Applied Mathematics, vol. 5.

Ring-Forming Polymerizations. Part B, 1, Heterocyclic Rings. Robert J. Cotter and Markus Matzner. Academic Press, New York, 1972. xxii, 422 pp., illus. \$37.95. Organic Chemistry, vol. 13B,1.

Robert H. Lowie. Robert F. Murphy. Columbia University Press, New York, 1972. xii, 180 pp. Cloth, \$7.50; paper, \$2.95.

Safety Last. The Dangers of Commercial Aviation: An Indictment by an Airline Pilot. Captain X. Dial, New York, 1972. 264 pp. \$7.95.

The Salt River Project. A Case Study in Cultural Adaptation to an Urbanizing Community. Courtland L. Smith. University of Arizona Press, Tucson, 1972. viii, 152 pp., illus. Paper, \$3.75.

Sand and Sandstone. F. J. Pettijohn, Paul Edwin Potter, and Raymond Siever. Springer-Verlag, New York, 1972. xvi, 618 pp., illus. \$31.10.

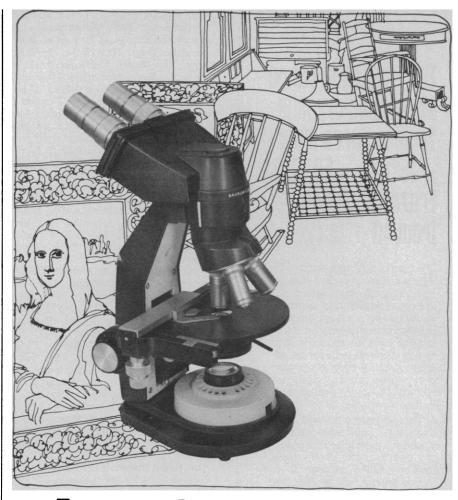
Scandinavian Caledonides. T. Strand and O. Kulling. Wiley-Interscience, New York, 1972. x, 302 pp., illus., + charts. \$49.95. Regional Geology Series.

Scattering Theory. The Quantum Theory on Nonrelativistic Collisions. John R. Taylor. Wiley, New York, 1972. xviii, 478 pp., illus. \$14.95.

The Schultz Site at Green Point. A Stratified Occupation Area in the Saginaw Valley of Michigan. James E. Fitting, Ed. University of Michigan Museum of Anthropology, Ann Arbor, 1972. xii, 318 pp., illus. Paper, \$8. Memoirs of the Museum of Anthropology, No. 4.

Scientific Institutions of the Future. An AAAS Symposium, Dec. 1971. Philip C. Ritterbush, Ed. Acropolis, Washington, D.C., 1972. 164 pp., illus. Paper, \$3.95. The Prometheus Series of Original Paperbacks.

Scientific Report 1969-1971. Zoological Society of London, London, 1972. pp. 499-610, illus. \$3.75. Reprinted from the *Journal of Zoology*, vol. 166.



For you who have a sharp eye for value

Your instinct for picking the best buy will point you directly to Bausch & Lomb Academic 257's. These low cost binocular flat field microscopes meet requirements of modern learning methods and general laboratory use but are priced to permit quantity purchases out of lean science budgets.

For instance: here's what you get with the Academic 257, Model B-57-02W:

- O Flat field optical system.
- O Choice of reversible binocular or monocular head. Monocular takes a teacher's observation eyepiece.
- O Wide field eyepieces.
- O Low position coaxial coarse and fine adjusments.
- O Harmonic drive with continuous fine adjustment.
- O Choice of built-in base illuminators.
- O Interpupillary distance adjustment with constant tube length.
- O Choice of plain, glide or ball-bearing graduated mechanical stage with low position coaxial controls.
- O Focusable rack and pinion substage with removable 1.30 N.A. Abbe condenser with iris diaphragm in 360° full ring mount.

Get our catalog 31-2366 and our free demonstration offer.



Scientific Instrument Division

77410 Bausch Street, Rochester, N.Y. 14602

The First Wide Range Microtome-cryostat... Temperatures from -15°C to $-50^{\circ}\text{C}...$ Frozen Sections from $40\,\mu$ to 1μ .

The Harris LoTemp model WRC is two microtome-cryostats in one. A single unit that can do both routine diagnostic procedures and such sophisticated research procedures as thin section light microscopy, autoradiography, fluorescence microscopy and other histological procedures, at a cost comparable to presently available routine cryostats.

The Harris model WRC is compact...can be moved anywhere it's needed. The cold chamber has extra room for tissue handling, storage or freeze drying. Full opening top with special access ports combines the features of a totally closed system with the easy accessibility of open top models.

Available equipped with Jung or International Equipment Corp. microtomes, or cryostat only prepared for installation of your present I.E.C. microtome Installed stereo zoom microscope also available.

For a full description of the Harris WRC and its wide range of additional features write or call . . .



Harris Manufacturing Co., Inc. 308 River St., Cambridge, MA 02139 (617) 864-4000

Circle No. 94 on Readers' Service Card

Second-Level Basic Electronics. Prepared by the U.S. Navy Bureau of Naval Personnel. Dover, New York, 1972. vi, 324 pp., illus. Paper, \$3. Dover Books on Electronics. Basic Electronics Volume 2, U.S. Government Printing Office, 1971.

Seminal and Contemporary Leaders in Anthropology. Their Theories and Methods. An Exploration of Anthropologists' Contributions to the Understanding of Man, Society and Culture, Jack F. Kinton and Evelyn Kinton. Social Science and Sociological Resources. Mt. Pleasant, Iowa, 1972. ix, 79 pp. Paper, \$5.50.

Sex and the Single Cell. Dolores Elaine Keller. Pegasus (Bobbs-Merrill), Indianapolis, Ind., 1972. xiv, 110 pp., illus. Cloth, \$6.95; paper, \$1.95. A Biological Sciences Curriculum Study Book. Science and Society Series.

II Simposio y Foro de Biologia Tropical Amazonica. Leticia, Colombia, Jan. 1969. J. M. Idrobo, Ed. Association for Tropical Biology, Washington, D.C., 1972 (available from the Office of the Secretary-Treasurer, c/o Anthropology, MNH 368, Smithsonian Institution, Washington, D.C.). xx, 496 pp. + plates. Paper, \$5.

Simulation of Discrete Stochastic Systems. Herbert Maisel and Giuliano Gnugnoli. Science Research Associates, Chicago, 1972. xiv, 466 pp., illus. \$12.50.

The Social Contexts of Research. Saad Z. Nagi and Ronald G. Corwin. Wiley-Interscience, New York, 1972. xiv, 410 pp., illus. \$13.50.

The Social Influence Processes. James T. Tedeschi, Ed. Aldine-Atherton, Chicago, 1972. xiv, 432 pp., illus. \$10.75. Aldine Treatises in Social Psychology.

Social Psychology in the Seventies. Lawrence S. Wrightsman in collaboration with Stuart Oskamp and seven others. Brooks/Cole, Monterey, Calif., 1972. xxii, 698 pp., illus. \$10.95.

Solid State Chemistry. Proceedings of a symposium, Gaithersburg, Md., Oct. 1971. Robert S. Roth and Samuel J. Schneider, Jr. National Bureau of Standards, Washington, D.C., 1972 (available as SD Catalog No. C 13.10:364 from the Superintendent of Documents, Washington, D.C.). xvi, 787 pp., illus. \$7.50. NBS Special Publication 364.

Solid State Electronic Devices. C. V. Morgan and M. J. Howes. Wykeham, London; Springer-Verlag, New York, 1972. xii, 190 pp., illus. Paper, \$6.50. Wykeham Science Series.

Speech Analysis, Synthesis and Perception. James L. Flanagan. Springer-Verlag, New York, ed. 2, 1972. xii, 444 pp., illus. \$27.30. Kommunikation und Kybernetik in Einzeldarstellungen, 3.

Stand Up! But Don't Get Off! Louis A.

Stand Up! But Don't Get Off! Louis A. Warner. NELF Press, Waterbury, Conn., 1972. xii, 306 pp., illus. Paper, \$2.75.

Statistics of Directional Data. K. V. Mardia. Academic Press, New York, 1972. xx, 358 pp., illus. \$19.50. Probability and Mathematical Statistics.

Stellar Evolution. An institute, Stony Brook, N.Y., June 1969. Hong-Yee Chiu and Amador Muriel, Eds. M.I.T. Press, Cambridge, Mass., 1972. xiv, 812 pp., illus. \$15.

Step-Growth Polymerizations. D. H. Solomon. Dekker, New York, 1972. xiv.

396 pp., illus. \$34.50. Kinetics and Mechanisms of Polymerization, vol. 3.

Stereochemistry and Its Application in Biochemistry. The Relation between Substrate Symmetry and Biological Stereospecificity. William L. Alworth. Wiley-Interscience, New York, 1972. xvi, 312 pp., illus. \$16.95.

Steroid Hormones and Brain Function. Proceedings of a conference, Los Angeles, May 1970. Charles H. Sawyer and Roger A. Gorski, Eds. University of California Press, Berkeley, 1972. xiv, 388 pp. + plates. \$30. UCLA Forum in Medical Sciences, No. 15.

Strong Materials. J. W. Martin. Wykeham, London; Springer-Verlag, New York, 1972. viii, 114 pp., illus. Paper, \$5.80. Wykeham Science Series.

The Study of Time. Proceedings of a conference, Oberwolfach, West Germany, Aug. 1969. J. T. Fraser, F. C. Haver, and G. H. Müller, Eds. Springer-Verlag, New York, 1972. viii, 550 pp., illus. \$20.30.

Sulfur in Organic and Inorganic Chemistry. Vol. 2. Alexander Senning, Ed. Dekker, New York, 1972. xiv, 360 pp., illus. \$33; by subscription, \$27.

Superconductive Tunnelling and Applications. L. Solymar. Wiley-Interscience, New York, 1972. xii, 406 pp., illus. \$22.95.

Switching Machines. J.-P. Perrin, M. Denouette, and E. Daclin. Translated from the French edition (Paris, 1967). Reidel, Dordrecht, Holland; Springer-Verlag, New York, 1972. 2 vols. Vol. 1, Combinatorial Systems, Introduction to Sequential Systems. xviii, 396 pp., illus. Vol. 2, Sequential Systems. xiv, 422 pp., illus. Each vol., \$34.50.

Symmetry and Stereochemistry. J. D. Donaldson and S. D. Ross. Halsted (Wiley), New York, 1972. viii, 234 pp., illus. \$8.75.

System/3 Programming. RPG II. Solomon Martin Bernard. Prentice-Hall, Englewood Cliffs, N.J., 1972. xii, 368 pp., illus. \$11.95.

Systems Analysis in Public Policy. A Critique. Ida R. Hoos. University of California Press, Berkeley, 1972. viii, 260 pp., illus. \$10.

A Systems Approach to Community College Education. David E. Barbee. Auerbach, Princeton, N.J., 1972. viii, 184 pp., illus. \$9.95.

Tables of Resolving Agents and Optical Resolutions. Samuel H. Wilen. Ernest L. Eliel, Ed. University of Notre Dame Press, Notre Dame, Ind., 1972. 308 pp., illus. \$14.95.

Teaching Science in an Outdoor Environment. Phyllis Gross and Esther P. Railton. Drawings by Lynne and Toni Justino. University of California Press, Berkeley, 1972. 188 pp. + plates. Paper, \$2.95. California Natural History Guides, 30.

Techniques of Polymer Syntheses and Characterization. Dietrich Braun, Harald Cherdron, and Werner Kern. Translated from the German edition (Heidelberg, 1971). xiv, 282 pp., illus. \$17.95.

Technological Forecasting for Decisionmaking. Joseph P. Martino. Elsevier, New York, 1972. xviii, 750 pp., illus. \$30. Technology and Culture. An Anthology. Melvin Kranzberg and William H. Davenport, Eds. Schocken, New York, 1972. 364 pp. \$10.

Tectonics of Africa. Tectonique de l'Afrique. Unesco, Paris, 1971 (U.S. distributor, Unesco Publications Center, New York). 602 pp., illus., + maps. Cloth, \$35; paper, \$29. Earth Sciences, 6.

The Thalassaemia Syndromes. D. J. Weatherall and J. B. Clegg. Blackwell, Oxford, England, ed. 2, 1972 (U.S. distributor, Davis, Philadelphia). x, 374 pp., illus. \$27.

The Theory and Design of Cycloconverters. William McMurray. M.I.T. Press, Cambridge, Mass., 1972. xii, 166 pp., illus. \$12.50.

The Theory and Practice of Programmed Instruction. A Guide for Teachers. Jerry Pocztar. Unesco, Paris, 1972 (U.S. distributor, Unipub, New York). 178 pp., illus. Paper, \$4. Monographs on Educa-

Third Conference. Advisory Group of Forest Statisticians, I.U.F.R.O. (L'Union Internationale des Organismes de Recherches Forestières). Jouy-en-Josas, France, Sept. 1970. Institut National de la Recherche Agronomique, Paris, 1972. 332 pp., illus. + appendix. Paper, 139.75 F. Third International Conference on Hy-

perbaric and Underwater Physiology. III" Journées Internationales d'Hyperbarie et de Physiologie Subaquatique. Marseilles, June 1970. Doin, Paris, 1972. 224 pp., illus. Paper, 88 F.

This Blue Planet. Introduction to Physical Science. Charlotte R. Ward. Little, Brown, Boston, 1972. xiv, 418 pp. + plates. \$10.95. Instructor's manual, xiv, 72 pp., illus.

Topology. An Outline for a First Course. Lewis E. Ward, Jr. Dekker, New York, 1972. x, 112 pp., illus. \$8.50. Pure and Applied Mathematics, 10.

Trace Analysis by Mass Spectrometry. Arthur J. Ahearn, Ed. Academic Press, New York, 1972. xiv, 460 pp., illus. \$24.75.

Trace Substances in Environmental Health-V. Proceedings of a conference, Columbia, Mo., June 1971. Delbert D. Hemphill, Ed. Curators of the University of Missouri, Columbia, 1972 (available from Publications, B-9 Whitten Hall, University of Missouri). xvi, 560 pp., illus. Paper, \$7.50.

Training of Research Workers in the Medical Sciences. Proceedings of a conference, Geneva, Sept. 1970. Published for the Council for International Organizations of Medical Sciences by the World Health Organization, Geneva, 1972 (U.S. distributor, American Public Health Association, Washington, D.C.). 186 pp. Paper, \$6. CIOMS Publications.

Transmission of Information by Orthogonal Functions. Henning F. Harmuth. Springer-Verlag, New York, ed. 2, 1972. xii, 394 pp., illus. \$20.

Transport and Communication in Early Medieval Europe AD 500-1100. Albert C. Leighton. Barnes and Noble, New York, 1972. 258 pp., illus. \$12.75.

Transporting Epithelia. Michael J. Berridge and James L. Oschman. Academic Press, New York, 1972. iv, 92 pp., illus. Paper, \$5.45.



Circle No. 83 on Reader's Service Card

