The influence of the carbohydrate on protein chemistry is treated in excelchapters on physicochemical methods, amino acid analysis, amide determination, and the interaction of sugars with amino acids. The structural and chemical analysis is dealt with in chapters on the chemistry of sugars, methods of qualitative and quantitative analysis of sugars, structural analysis of the heterosaccharide units (including gas-liquid chromatography), carbohydrate-peptide linkages. Large sections of one chapter are devoted to individual glycoproteins, including ovalbumin, ovomucoid, casein, fetuin, α_1 -acid glycoprotein, immunoglobulins, transferrin, submaxillary gland glycoproteins, urinary glycoprotein, blood-group substances, thyroglobulin, and various hormones, enzymes, mucins, and connective-tissue glycoproteins. The chapter on biosynthesis and metabolism of amino sugars is concerned mainly with hexosamines and sialic acid.

In general, this book details and integrates its material with skill. The treatment is straightforward and reasonably comprehensive, and all in all the book is a welcome addition to the bookshelf and laboratory bench.

EDWIN H. EYLAR
Salk Institute for Biological Studies,
San Diego, California

The Uses of Statistics

Research Papers in Statistics. F. N. DAVID, Ed. Wiley, New York, 1966. 476 pp., illus. \$16.75.

This is a collection of 26 papers whose only connection is that they are dedicated to the great statistician Jerzy Neyman on his 70th birthday. In view of the space limitations it has seemed best to describe each paper in a sentence or two. Thus the interested reader may choose where to read further. One cannot but wonder why so many of Neyman's most distinguished students are not included in the list of contributors.

- E. S. Pearson describes his collaboration with Neyman in 1926–34.
- M. S. Bartlett describes recent developments and problems in the theory of epidemics.
- J. Berkson examines data with a view to deciding whether the emission of α -particles takes place according to a Poisson process.

- D. R. Cox discusses estimation and testing of hypotheses for a generalized form of the logistic qualitative response curve.
- H. Cramér discusses the distribution of extreme values of a class of normal stochastic processes, which includes the normal stationary processes as a subclass.
- D. Dugué describes the result of the late Pierre Dufresne on the distribution of the number of changes of sign of the partial sums in drawing without replacement from an "urn" containing a plus ones and b minus ones.
- R. Fortet formulates generally and gives results on the problem of optimal division of a population on the basis of characteristics which determine the distribution of the observed chance variables.
- U. Grenander discusses the problem of getting information about the number of internal states of an automaton from observations on its behavior.
- J. M. Hammersley gives results on the number of ways in which a d-dimensional rectangular parallelopiped with sides whose lengths are integers (a "brick") and whose volume is n can be dissected into s bricks of volume two $(0 \le 2s \le n)$ and n 2s bricks of volume one. The particular case d = 3 is one of the classical unsolved problems of solid state chemistry.
- K. Ito discusses the consequence to a test of the linearity of a regression which results from a departure from homoscedasticity.
- D. G. Kendall studies the asymptotic (with n) behavior of the nth-generation (in a branching process) transition probability $P_{ij}^{(n)}$ from a fixed positive state i to a fixed positive state j.
- L. Le Cam describes, under certain assumptions, the limiting local behavior of likelihood functions when the number of observations is large.
- P. Lévy gives an exposition of Brownian motion in general Euclidean space and in Hilbert space and lists important unsolved problems.
- P. A. P. Moran considers approximate *t*-tests which make it unnecessary to use tables unless the number of observations is very small.
- T. Page gives an exposition of studies on the problem of evolution of galaxies.
- G. Polya describes a series for Euler's constant.
- C. R. Rao applies his generalized inverse of a matrix to fitting a regression
 - A. Renyi discusses, from a Bayesian

- point of view, the amount of information about an unknown parameter contained in a sample of observations whose distribution is determined by the parameter.
- S. Rios and I. Yanez discuss a game played between two players by linear programming.
- L. Schmetterer discusses the asymptotic efficiency of the maximum likelihood estimator in the regular case.
- H. Solomon discusses applications of statistical methods to legal questions.
- C. Stein discusses the recovery of interblock information as estimating the mean of a multivariate normal distribution.
- P. V. Sukhatme gives an exposition of recent developments in sampling theory and practice.
- H. Wold discusses iterative methods for calculating many of the most important estimators.
- D. E. Barton and F. N. David study the tendency for cases of certain diseases to form clusters in time and space as evidence for epidemicity.
- F. N. David and E. Fix discuss the distribution of the (noncircular) serial correlation coefficient under permutation of the observations.

J. Wolfowitz

Department of Mathematics, Cornell University, Ithaca, New York

New Books

Algebraic Functions. Gilbert Ames Bliss. Dover, New York, 1966. 230 pp. Illus. Paper, \$1.85. Reprint, 1933 edition.

The Anatomy of the Aeroplane. Darrol Stinton. Elsevier, New York, 1966. 345 pp. Illus. \$12.50.

Anthropology and Early Law. Lawrence Krader, Ed. Basic Books, New York, 1967. 352 pp. \$6.95. Eleven papers.

Archaeology: Historical Analogy and Early Biblical Tradition. William F. Albright. Louisiana State Univ. Press, Baton Rouge, 1966. 79 pp. \$2.75. Rockwell Lecture Series.

The Art of Conjecture. Bertrand de Jouvenel. Translated from the French edition by Nikita Lary. Basic Books, New York, 1966. 319 pp. \$7.50.

Automatic Control Theory. Benjamin E. DeRoy. Wiley, New York, 1966. 286 pp. Illus. Paper, \$4.50; cloth, \$7.95. Wiley Series in Electronic Engineering Technology.

Automatic Translation of Languages. Papers presented at NATO Summer School (Venice), July 1962. Y. Bar-Hillel and others. Pergamon, New York, 1966. 242 pp. Illus. \$15. Nine papers.

Basic Principles of Electronics. vol. 1, Thermionics. J. Jenkins and W. H. Jarvis. Pergamon, New York, 1966. 238

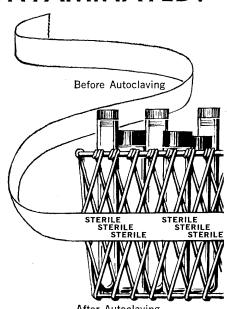
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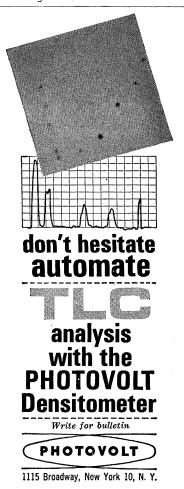
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NEW BOOKS

(Continued from page 316)

pp. Illus. Paper, \$5.50. Commonwealth and International Library.

The Binding Force. Daniel Berg et al. Walker, New York, 1966. 255 pp. Illus. \$5.95.

Biological and Chemical Aspects of Oxygenases. Proceedings of the United States—Japan Symposium (Kyoto, Japan), May 1966. Sponsored by the United States—Japan Committee on Scientific Cooperation. Konrad Bloch and Osamu Hayaishi, Eds. Maruzen, Tokyo, 1966. 477 pp. Illus. \$6.95. Thirty-eight papers.

Biologie Générale. vol. 1, Bases
Physico-Chimiques de la Biologie. J.
Tremolieres. Dunod, Paris, 1966. 441 pp.
Illus. Paper, F. 28.

The Bone Dynamics in Osteoporosis and Osteomalacia. Harold M. Frost. Thomas, Springfield, Ill., 1966. 192 pp. Illus. \$9.50.

Breeding for Milk Production in Tropical Cattle. P. Mahadevan. Commonwealth Agricultural Bureaux, Farnham Royal, England, 1966. 164 pp. Illus. \$4.50.

Catalogue of Meteorites. With special reference to those represented in the collection of the British Museum (Natural History). Max H. Hey. British Museum (Natural History), London, ed. 3, 1966. 705 pp. £6.

Cell Division and the Mitotic Cycle. G. B. Wilson. Reinhold, New York, 1966. 123 pp. Illus. Paper, \$1.95. Selected topics in Modern Biology Series.

The Changing Climate, H. H. Lamb. Methuen, London; Barnes and Noble, New York, 1966. 248 pp. Illus. \$8. Eight papers and lectures published or given between 1959 and 1964.

Clinical Electroretinography. Proceedings of the Third International Symposium (Highland Park, Ill.), October 1964. Hermann M. Burian and Jerry Hart Jacobson, Eds. Pergamon, New York, 1966. 384 pp. Illus. \$21.

Computer Programming for Science

Computer Programming for Science and Engineering. B. A. M. Moon. Van Nostrand, Princeton, N.J., 1966. 256 pp. Illus. Paper, \$5.95.

Dendochronology in Mexico. Stuart D. Scott. Univ. of Arizona Press, Tucson, 1966. 88 pp. Illus. Paper, \$4.50.

Denumberable Markov Chains. John

Denumberable Markov Chains. John G. Kemeny, J. Laurie Snell, and Anthony W. Knapp. Van Nostrand, Princeton, N.J., 1966. 451 pp. Illus. \$12.50. The University Series in Higher Mathematics.

Developments in Applied Spectroscopy. vol. 5. Proceedings of the Sixteenth Annual Mid-America Spectroscopy Symposium (Chicago, Ill.), June 1965. L. R. Pearson and E. L. Grove, Eds. Plenum Press, New York, 1966. 516 pp. Illus. \$18.50. Thirty-seven papers.

A Dictionary of Botany: Including Terms Used in Biochemistry, Soil Science and Statistics. George Usher. Van Nostrand, Princeton, N.J., 1966. 410 pp. Illus. \$10.

Differential Algebra. Joseph Fels Ritt. Dover, New York, 1966. 192 pp. Paper, \$2. Reprint, 1950 edition.

Ecology of Parasites. N. A. Croll. Harvard Univ. Press, Cambridge, Mass., 1966. 144 pp. Illus. \$3.25.

Econometric Models and Methods. Carl F. Christ. Wiley, New York, 1966. 729 pp. Illus. \$14.95.

Elastic Elements of Instruments. L. E. Andreeva. V. I. Feodos'ev, Ed. Translated from the Russian edition (Moscow, 1962) by A. Baruch. H. Schneider, Translation Ed. Israel Program for Scienific Translations, Jerusalem; Davey, New York, 1966. 409 pp. Illus. \$15.

Electronic Testing. Compiled and edited by L. L. Farkas. McGraw-Hill, New York, 1966. 316 pp. Illus. \$12. Fourteen papers.
Electronics and Nucleonics Dictionary

Electronics and Nucleonics Dictionary John Markus. McGraw-Hill, New York, ed. 3, 1966. 751 pp. Illus. \$16.50.

Elementary Functions: An Algorithmic Treatment. Kenneth E. Iverson. Science Research Associates, Chicago, 1966. 239 pp. Illus. \$4.95.

Encyclopedia of Industrial Chemical Analysis. vol. 2, General Techniques, F-O. Foster Dee Snell and Clifford L. Hilton, Eds. Interscience (Wiley), New York, 1966. 781 pp. Illus. \$45; subscription, \$35.

The Encyclopedia of Oceanography. Rhodes W. Fairbridge, Ed. Reinhold, New York, 1966. 1037 pp. Illus. \$25. Encyclopedia of Earth Sciences Series, vol. 1.

Encyclopedia of Polymer Science and Technology. vol. 5, Dielectric Heating to Emulsion. Herman F. Mark, Norman G. Gaylord, and Norbert M. Bikales, Eds. Interscience (Wiley), New York, 1966. 873 pp. Illus. \$50.

Evolution of the Forebrain: Phylogenesis and Ontogenesis of the Forebrain. A symposium (Frankfurt and Sprendlingen, Germany), August 1965. R. Hassler and H. Stephan, Eds. Thieme, Stuttgart, Germany, 1966. 472 pp. Illus. DM. 96.

Field Analysis: Experimental and Computational Methods. D. Vitkovitch, Ed. Van Nostrand, Princeton, N.J., 1966. 519 pp. Illus. \$18.50.

Filter Design Tables and Graphs. Erich Christian and Egon Eisenmann. Wiley, New York, 1966. 320 pp. Illus. Paper, \$9.95.

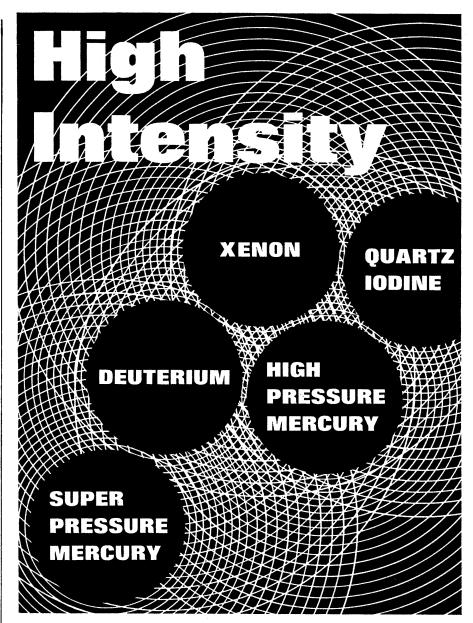
Foundations of the Theory of Prediction. William W. Rozeboom. Dorsey, Homewood, Ill., 1966. 636 pp. Illus. \$14.

Fundamenta Genetica: The Revised Edition of Mendel's Classic Paper with a Collection of 27 Original Papers Published During the Rediscovery Era. Selected by Jaroslav Kríženecky. Czechoslovak Acad. of Sciences, Prague, 1965. 400 pp. Illus.

Galileo Galilei, His Life and His Works. Raymond J. Seeger. Pergamon, New York, 1966. 298 pp. Illus. Paper, \$6. Commonwealth and International Library.

General Cytology. An introduction to functional morphology of the cell. Ekkehard Grundmann. Translated from the German edition by Dieter M. Kramsch. Williams and Wilkins, Baltimore, 1966. 438 pp. Illus. \$22.

The General Inquirer: A Computer Approach to Content Analysis. Philip J. Stone, Dexter C. Dunphy, Marshall S. Smith, and Daniel M. Ogilvie. M.I.T. Press, Cambridge, Mass., 1966. 671 pp. Illus. Paper, \$7.95.



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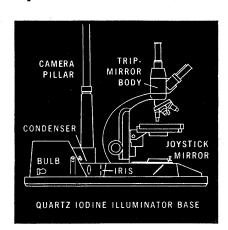


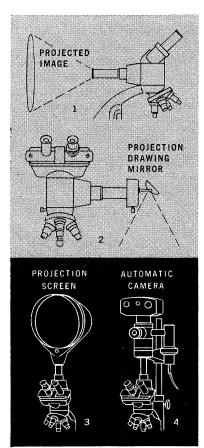
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15 WAITE COURT, MALDEN, MASS. 02148 • (617) 324-6666 IN CANADA: 1570 MIDLAND AYE., SCARBOROUGH, ONTARIO • (416) 751-4360 Genetics of Interracial Crosses in Hawaii. Newton E. Morton, Chin S. Chung, and Ming-Pi Mi. Karger, Basel, Switzerland, 1967 (order from Phiebig, White Plains, N.Y.). 166 pp. Illus. \$10.50. Monographs in Human Genetics, vol. 3.

Geography of Israel. Efraim Orni and Elisha Efrat. Translated from the Hebrew. Israel Program for Scientific Translations. Jerusalem; Davey, New York, ed. 2, 1966. 375 pp. Illus. \$8.50. Great Ideas in Information Theory

Great Ideas in Information Theory and Language and Cybernetics. Jagjit Singh. Dover, New York, 1966. 348 pp. Illus. Paper \$2.

Growth, Function and Regulation in Bacterial Cells. A. C. R. Dean and Sir Cyril Hinshelwood. Oxford Univ. Press, New York, 1966. 453 pp. Illus. \$13.45.

Gymnosperms: Structure and Evolution. Charles Joseph Chamberlain. Dover, New York, 1966. 496 pp. Illus. Paper, \$2.75. Reprint, 1935 edition.

Handbuch der Histochemie. vol. 3, Nucleinsäuren. C. Leuchtenberger, R. Leuchtenberger, and J. Fautrez. Fischer, Stuttgart, Germany, 1966 (order from Intercontinental Medical Book Corp., New York). 133 pp. Illus. \$11.50.

The Id and the Regulatory Principles of Mental Functioning. Max Schur. International Universities Press, New York, 1966. 220 pp. \$5. Journal of the American Psychoanalytic Association Monograph Series, No. 4.

Infra-Red Physics. J. T. Houghton and S. D. Smith. Oxford Univ. Press, New York, 1966. 333 pp. Illus. \$9.60.

Interferons. N. B. Finter, Ed. Saunders, Philadelphia, 1966. 358 pp. \$15. Frontiers of Biology, vol. 2. Nine papers.

Interprétation Géologique des mesures effectuées su spectromètre de masse dans le domaine de la Géochronologie Absolue. A colloquium (Nancy), May 1965. Éditions du Centre National de la Recherche Scientifique, Paris, 1966. 377 pp. Illus. F. 55. Twenty-five papers.

Introductory Titrimetric and Gravimetric Analysis. Evelyn M. Rattenbury. Pergamon, New York, 1966. 200 pp. Illus. Paper, \$4.50. Commonwealth and International Library.

Iterative Methods in Structural Analysis. S. Blaszkowiak and Z. Kaczkowski. Translated from the Polish edition (Warsaw, 1959) by A. Kacner and Z. Olesiak. Pergamon, New York; Państwowe Wydawnictwo Naukowe, Warsaw, 1966. 600 pp. Illus. \$21.50.

Kinematics. Howell Newbold Tyson. Wiley, New York, 1966. 419 pp. Illus. \$10.95.

Laboratory Studies in Animal Biology. Peter Abramoff and Robert G. Thomson. Freeman, San Francisco, 1966. 287 pp. Illus. Paper, \$3.75.

Lambda-matrices and Vibrating Systems. Peter Lancaster. Pergamon, New York, 1966. 210 pp. Illus. \$8. International Series of Monographs in Pure and Applied Mathematics, vol. 94.

The Life of the Desert. Ann Sutton and Myron Sutton. McGraw-Hill, New York, 1966. 232 pp. Illus. \$4.95. Our Living World of Nature Series.

Mankind in the Making: The Story of Human Evolution. William Howells. Doubleday, Garden City, N.Y., ed. 2, 1967. 384 pp. Illus. \$5.95.





CIVIL DEFENSE

symposium presented at the 1965 Berkeley meeting of AAAS. Arranged by Henry Eyring. 144 pp., paper, July 1966. \$4.00; AAAS members' cash orders: \$3.50.

Participants: Owen Chamberlain, Barry Commoner, Wolfgang K. H. Panofsky, Fred A. Payne, Anatol Rapoport, John Howard Rust, Victor W. Seidel, Edward Teller, and Eugene P. Wigner.

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The Mathematical Apparatus for Quantum-Theories: Based on the Theory of Boolean Lattices. Otton Martin Nikodym. Springer-Verlag, New York, 1966. 964 pp. \$36.

Mendelian Inheritance in Man. Catalogs of autosomal dominant, autosomal recessive, and X-linked phenotypes. Victor A. McKusick. Johns Hopkins Press,

Baltimore, 1966. 364 pp. \$8.

Modern Microscopy or Seeing the Very Small. V. E. Cosslett. Cornell Univ. Press, Ithaca, N.Y., 1966. 160 pp. Illus. \$5

Molecular Organization and Biological Function. John M. Allen, Ed. Harper and Row, New York. 1966. 255 pp. Illus. Paper, \$5; cloth, \$9. Eight papers.

Molecular Spectra and Molecular Structure. vol. 3, Electronic Spectra and Electronic Structure of Polyatomic Molecules. Gerhard Herzberg. Van Nostrand, Princeton, N.J., 1966. 763 pp. Illus. \$20.

Multiple Integrals in the Calculus of Variations. Variations. Charles B. Morrey, Jr. Springer-Verlag, New York, 1966. 518 pp.

On Invariants and the Theory of Numbers. Leonard Eugene Dickson. Dover, New York, 1966. 120 pp. Paper, \$1.50. Reprint, 1914 edition.

On-Line Computing: Time-Shared Man-Computer Systems. Walter J. Karplus, Ed. McGraw-Hill, New York, 1967. 348 pp. Illus, \$14.50.

Organic Synthesis. vol. 46. E. J. Corev. Ed. Wiley, New York, 1966. 156 pp. Illus.

The Palace of Nestor at Pylos in Western Messenia. vol. 1, pts. 1 and 2, The Buildings and Their Contents. Carl W. Blegen and Marion Rawson. Princeton Univ. Press, Princeton, N.J., 1966. 470 pp. Illus. Plates. \$40.

People of the Noatak. Claire Fejes. Knopf, New York, 1966. 380 pp. Illus. \$6.95.

Phonons in Perfect Lattices and in Lattices with Point Imperfections. R. W. H. Stevenson, Ed. Pleaum, New York. 1966. 462 pp. Illus. \$22.50. Fifteen lectures given at the Scottish Universities' Summer School, 1965.

Phylo-Genetic Systematics. Willi Hennig. Translated from the German by Dwight Davis and Rainer Zangerl. Univ. of Illinois Press, Urbana, 1966. 271 pp. Illus. \$12.50.

Physical Optics. D. V. Skobel'tsyn, Ed. Translated from the Russian edition (Moscow, 1965). Consultants Bureau, New York, 1966. 280 pp. Illus. Paper, \$27.50.

Miscellaneous Publications

U.S. Geological Survey. Bulletin: No. 1185-C, "The uraniferous zirconium deposits of the Poços de Caldas Plateau, Brazil," Gene E. Tolbert (28 pp., maps, 70¢); No. 1198-E, "Geochemical reconnaissance in the Pequop Mountains and Wood Hills, Elko County, Nevada," R. L. Erickson, A. P. Marranzino, Uteana Oda, and W. W. Janes (20 pp., maps); No. 1198-F, "Phytoecology of a greenstone habitat at Eagle, Alaska," Hansford T. Shacklette (36 pp., 20¢); No. 1214-E, "Element distribution in some shelf and eugeosynclinal black shales," James D.