

The broad-area charts do not discriminate brightness; the white dots are all about the same size. While the detailed charts faithfully allow for the brightness of individual stars, the lines joining them fluctuate greatly in intensity: here bold, there detectable only under special illumination. Another difficulty is that the beginning observer, living at a certain latitude, can nowhere find in the atlas specific instructions on where in the sky to look for a given object at the time and date he wants to look. Although the topical summaries are factual and instructive, they occur in random order. Here and there they are blemished by an error of fact or a misleading statement. I cannot agree, for example, that Mizar and Alcor "can be separated only by persons with very keen eyesight." The abbreviated summaries will have fulfilled an important function if, as the author hopes, they "induce beginners to read other works that are more complete and more learned."

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Algeria. The realities. Germaine Tillion. Translated from the French by Ronald Matthews. Knopf, New York, 1958. viii + 115 pp. \$2.50.

This concise, clear, devastating account of the impasse in French-Algerian relationships is the type of political essay that informs without overwhelming the reader with detail. Germaine Tillion is an ethnographer who did extensive field work in Algeria in the 1930's, was chief of a Resistance network from 1940 to 1942, spent three years in prison, and returned to Algeria in 1954 to restudy the people of the Aurès Mountains, the scene of her previous ethnological work. The combination of deep feeling and scientific objectivity with which the book is written was primarily generated by her recognition of the marked change for the worse among the rural people of Algeria between 1940 and 1954, in spite of the enormous economic effort that France had made to better their condition.

Miss Tillion cuts straight through the prevailing optimism—symbolized by "Point 4" in the United States—that it will be a relatively simple matter, involving some technical *expertise* and a small amount of easily found capital, to bring the underdeveloped countries up to a "developed" standard. She highlights, in the concrete knowledgeable discussion of one country, the danger that economists have been stressing for some time—that the gap between the early-industrialized and the not-yet-industrialized countries will be steadily widening, despite all the effort made to close it.

No one has stated more unequivocally

the problem of what an unindustrialized country needs in the way of immediate, full-scale construction of all of the facilities in which it pays no one to invest—schools, universities, health services, roads—in order to accomplish an immediate across-the-board transformation of the entire social system. After reading this account, no literate person can take any comfort whatsoever in the statistics of number of schools started or roads under way in the undeveloped countries of the world.

The closing section of the book deals with some of the simple political realities which are likely to be forgotten in planning, chief among them being the fact that Algeria today depends, for the merest inadequate subsistence, upon the right of unskilled Algerian laborers to work in France and bring or send their wages home—a completely politically based economy. One sees, simultaneously, Algeria as a model for the world situation in which various orders of benevolently designated activity (United Nations, "Point 4," development schemes of the various metropolitan powers, schemes for loans from the great powers to the small) are involved, and Algeria as a particular situation which must be dealt with in terms of special historical detail. The emphasis is on responsibility and possible courses of action. No time is wasted on recriminations. No time is wasted on a display of erudition. There is not an unnecessary phrase in the book. A reader who knows nothing about North Africa or mid-20th-century technical assistance can get—in a couple of hours—a satisfying grasp of both the ethical and the economic essentials.

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Introduction to Biostatistics. Huldah Bancroft. Hoeber-Harper, New York, 1957. x + 210 pp. Illus. \$5.75.

Quantitative methods continue to replace qualitative evaluation even in medical research. Diagnosis and therapy are increasingly based more on a rigorous biometric analysis of clinical, biochemical, and pharmacological data of numerous cases than on the result of the findings in individual cases. Although the indispensable tools for handling numerous observations on many individuals are the methods of statistical analysis, medical students as well as practicing physicians usually have very little statistical training and thus lack the ability to ascertain the validity of the increasing amounts of statistical inferences they encounter in the medical literature. To fill this vacuum Huldah Bancroft, pro-

fessor of biostatistics at Tulane University School of Medicine, New Orleans, La., has written a very readable textbook on the use of statistics in medicine, showing how to arrive at, as well as interpret, statistical data.

The book presents the usual course of statistical thinking (though in a very condensed form), with samples drawn from the medical practice. It starts with the frequency distribution and centering constants and goes as far as chi-square tests and correlation analysis. Most useful will be the chapter on quantitative methods of bioassay. However, it is regrettable that the author felt compelled to presuppose no more mathematical knowledge on the part of the reader than high-school algebra, which necessarily restricts her capacity to convey a better understanding of the logical basis of statistical theory, which is based upon concepts of probability. It is to be hoped that the coming generation of physicians will feel high-school algebra inadequate for a full understanding of biological phenomena and will acquire the tools essential for comprehending a universe of enormous variability.

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Actions chimiques et biologiques des radiations. Les peroxydes organiques en radiobiologie. R. Latarjet. Masson, Paris, 1958. 156 pp. Illus. Cloth, F. 3600; paper, F. 2800.

This little book presents a series of papers delivered at a symposium at the Radium Institute in Paris in January 1957. The participants were from France, England, and the Low Countries; their presentations, published in either French or English as originally presented, provoked considerable discussion, which has been admirably integrated and which makes fascinating reading.

There is little doubt that organic peroxides are now accepted as playing a major role in the radiation problem. The symposium participants were not of a mind, however, about what fraction of the role to assign to (i) the formation of peroxide directly in the gene substance, (ii) the formation of peroxides of lipids and other substances which then interact with the genetic components, and (iii) the peroxidation of the cell catalysts involved in maintaining and reproducing the genetic material. They gave no attention to the modification of building blocks about to be incorporated into the genetic system.

One gathers that the adherents of the target hypothesis are in a compromising mood and are willing to extend the borders at least slightly beyond the general understanding of the original con-

ception. Specifically, the papers deal with the peroxides of lipids, cumene, amino acids, nucleic acids, and related compounds; with the inactivation of the transforming substance and of bacteriophages; with genetic effects of radiation-produced peroxides in *Drosophila*; and with the "oxygen effect" as measured by increased radiosensitivity of biological materials.

While, because of its nature and origin, this book omits too much to serve as a useful reference, it will inform those who did not attend the symposium about what was occupying the attention of this active segment of radiation biologists. Those who made major contributions to the symposium and the discussion include R. Latarjet, C. Paquot, M. Durup, J. Durup, J. A. V. Butler, J. Weiss, S. Okada, J. St. L. Philpot, F. H. Sobels, L. H. Gray, D. Maxwell, P. Douzou, M. Ebert, H. Marcovich, C. Vermeil, Tikvah Alper, and M. Haïssinsky.

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New Books

Handbuch der Virusforschung, vol. 4, supplement 3. C. Hallauer and K. F. Meyer. Springer, Vienna, Austria, 1958. 703 pp. \$35.25.

Homosexuality, Transvestism and Change of Sex. Eugene de Savitsch. Thomas, Springfield, Ill., 1958. 128 pp. \$3.50.

Hospital Planning for the Anesthesiologist. William H. L. Dornette. Thomas, Springfield, Ill., 1958. 128 pp. \$5.25.

The Human Situation. The Gifford lectures delivered in the University of Glasgow, 1935-1937. W. Macneile Dixon. Penguin Books, Baltimore, 1958. 443 pp. Paper, \$0.95.

Industrial Noise Manual. American Industrial Hygiene Assoc., Detroit 27, 1958. 198 pp. \$7.50.

Information and Communication Practice in Industry. T. E. R. Singer. Reinhold, New York; Chapman & Hall, London, 1958. 310 pp. \$8.75.

Management's Stake in Research. Maurice Holland. Harper, New York, 1958. 157 pp. \$3.50.

Morphologische, Biologische, und Serologische Eigenschaften der Batronellen. Reinhard Wigand. Thimen, Stuttgart, Germany, 1958 (order from Intercontinental Medical Book Corp., New York 16). 106 pp. \$1.85.

Naming-Day in Eden. The creation and recreation of language. Noah Jonathan Jacobs. Macmillan, New York, 1958. 170 pp. \$3.95.

Nuclear Reactor Metallurgy. Walter D. Wilkinson and William F. Murphy. With a chapter by Warren J. McGonnagle. Van Nostrand, Princeton, N.J., 1958. 391 pp. \$5.60.

L'Origine photochimique de la vie. A. Dauvillier. Masson, Paris, 1958. 214 pp. Paper, F. 1300.

The Older Population of the United States. Henry D. Sheldon and Clark Tibbitts. Wiley, New York; Chapman & Hall, London, 1958. 236 pp. \$6.

The Petroleum Chemicals Industry. Richard Frank Goldstein. Wiley, New York, ed. 2, 1958. 473 pp. \$16.50.

Physical Chemistry of High Polymers. Maurice L. Huggins. Wiley, New York; Chapman & Hall, London, 1958. 188 pp. \$6.50.

The Physical Theory of Neutron Chain Reactors. Alvin M. Weinberg and Eugene P. Wigner. Univ. of Chicago Press, Chicago, 1958. 813 pp. \$15.

Physiology of Prematurity. Transactions of the second conference 25-27 March 1957, Princeton, N.J. Jonathan T. Lanman, Ed. Josiah Macy, Jr. Foundation, New York, 1958. 160 pp. \$3.75.

Le Pollen. Armand Pons. Presses Universitaires de France, Paris, 1958. 125 pp.

The Practice of Nuclear Medicine. William H. Blahd, Franz K. Bauer, Benedict Cassen. Thomas, Springfield, Ill., 1958. 430 pp. \$12.50.

Science and Education at the Crossroads. A view from the laboratory. Joseph William Still. Public Affairs Press, Washington, D.C., 1958. 151 pp. \$3.25.

Science and the Detection of Crime. C. R. M. Cuthbert. Philosophical Library, New York, 1958. 244 pp. \$10.

Solving the Scientist Shortage. David C. Greenwood. Public Affairs Press, Washington, 1958. 77 pp. \$2.

Space-Charge Waves. And slow electromagnetic waves. A. H. W. Beck. Pergamon, New York and London, 1958. 407 pp. \$15.

Textbook of Organic Chemistry. Lloyd N. Ferguson. Van Nostrand, Princeton, N.J., 1958. 636 pp.

Textbook of Microbiology. Kenneth L. Burdon. Macmillan, New York, ed. 4, 1958. 654 pp. \$5.75.

The Theory of Evolution. J. Maynard Smith. Penguin Books, Baltimore, 1958. 320 pp. Paper, \$0.85.

Traité de statistique théorique et Appliquée. Analyse aléatoire—algèbre aléatoire. Daniel Dugue. Masson, Paris, 1958. 313 pp. F. 5200.

Vinyl Resins. W. Mayo Smith. Reinhold, New York; Chapman & Hall, London, 1958. 289 pp. \$5.75.

Reprints

An Introduction to Mathematics. Alfred North Whitehead. Oxford Univ. Press, New York, 1958. 191 pp. \$1.50.

An Introduction to the Study of Experimental Medicine. Claude Bernard. Translated by Henry Copley Green. Dover, New York, 1958. 245 pp. \$1.50.

The Principles of Science. A treatise on logic and scientific method. W. Stanley Jevons. Dover, New York, 1958. 786 pp. \$2.98.

Science in a Tavern. Essays and diversions on science in the making. Charles S. Slichter. Univ. of Wisconsin Press, Madison, 1958. 206 pp. \$1.

Science, Theory, and Man. Edwin Schrödinger. Dover, New York, 1958. 247 pp. \$1.35.

Miscellaneous Publications

(Inquiries concerning these publications should be addressed, not to Science, but to the publisher or agency sponsoring the publication.)

Acoustical Evaluation of the Acoustical Treatment in the NACA 10 Ft. Wind Tunnel. WADC Tech. Note 57-393, ASTIA Document No. AD 142164. 20 pp. *Acoustical Evaluation of General Sound Control Model N-400 Jet Aircraft Noise Suppressor*. WADC Tech. Note 57-391, ASTIA Document No. AD 142162. 73 pp. Robert M. Hoover and staff of Bolt Beranek and Newman Inc. Wright Air Development Center, Wright-Patterson Air Force Base, Ohio, 1958.

Explorer IV—1958 Epsilon. Orbital Data Ser., Issue 1. Army Ballistic Missile Agency, Redstone Arsenal, Alabama, and Smithsonian Astrophysical Observatory, Cambridge, Mass., 1958. 183 pp.

Mean Monthly 300 and 200-MB Contours and 500, 300, and 200-MB Temperatures for the Northern Hemisphere. Geophysical Research Papers No. 57. ASTIA Document No. AD 146861. Eberhard W. Wahl. 80 pp. *Theory of Large-Scale Atmospheric Diffusion and Its Application to Air Trajectories*. vols. 1-3. Geophysical Research Papers No. 58. AFRCR-TR-58-228 (I), (II), and (III). Samuel B. Solot and Eugene M. Darling, Jr. 51 pp.; 362 pp.; 371 pp. Geophysics Research Directorate, Air Force Cambridge Research Center, Bedford, Mass., 1958.

Bibliography on the Effects of Ionizing Radiations on Plants. 1896-1955. BNL 504 (L-103). Arnold H. Sparrow, John P. Binnington, Virginia Pond. 222 pp. \$2.25. *Homeostatic Mechanisms*. Report of symposium held 12-14 June 1957. 270 pp. \$3. Brookhaven National Laboratory, Upton, N.Y., 1958 (order from Office of Technical Services, Dept. of Commerce, Washington 25).

Birds of Northeastern Peru. Fieldiana: Zoology, vol. 35, No. 5. Melvin A. Traylor. 64 pp. \$1. *A Geographic Classification of Neotropical Mammals*. Fieldiana: Zoology, vol. 36, No. 6. Philip Hershkovitz. 40 pp. \$1. Chicago Natural History Museum, Chicago, 1958.

Expert Committee on Poliomyelitis, Second Report. WHO Tech. Rept. Ser. No. 145. World Health Organization, Geneva, Switzerland, 1958 (order from Columbia Univ. Press, New York). 83 pp. \$0.60.

Nesting and Food Habits of the Long-Eared Owl in Michigan. Biological Ser. William Armstrong. 35 pp. *The Brush Mouse Peromyscus boylii in Southern Durango*. Biological Ser. James J. Drake. 46 pp. Michigan State Univ., East Lansing, 1958.

Earned Degrees Conferred by Higher Educational Institutions, 1956-1957. Circ. No. 527. Diane B. Gertler. 196 pp. \$1.50. *Enrollment, Teachers, and Schoolhousing in Full-time Public Elementary and Secondary Day Schools, Fall 1957*. Rev. Circ. No. 513. Samuel Schloss and Carol Joy Hobson. 13 pp. \$0.15. *Retention and Withdrawal of College Students*. Bull. 1958, No. 1. Robert E. Ifert. 177 pp. \$0.65. Office of Education, Washington, 1958 (order from Supt. of Documents, GPO, Washington 25).