

riety of material concerning analysis, special functions, vector analysis, and so on in order to pursue their studies of the physical sciences and that furthermore, this material should be presented in a single course. There is, of course, substantial room for controversy with respect to this position; however, having adopted it Boas proceeds to develop the material she considers essential lucidly and with a variety of examples. The material she covers encompasses rudimentary real and complex analysis; ordinary and partial differential equations, including Fourier series, special functions, and integral transforms; vector and tensor analysis; determinants and matrices; the calculus of variations; and probability. None of these receives a very modern or sophisticated treatment but each is treated adequately for the purposes of solving the kinds of problems that characterize advanced undergraduate courses in the physical sciences. One of the strong points of the presentation is the inclusion of a number of worked problems in the text. These examples might, however, have been distinguished a little more definitely from the actual expository material in order to accommodate those students (and faculty) who can master the material more quickly. A large selection of exercises is included with each chapter, enough so that the problem of complete overlap of homework assignments in successive years should not be troublesome. The book is well produced with pleasant typography and clear illustrations. In general I would recommend its consideration for use in a junior-level course.

F. J. MILFORD

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Religion in Indian Life

The Peyote Religion among the Navaho. DAVID F. ABERLE. Aldine, Chicago, 1966. 480 pp., illus. \$10.

Probably no phenomenon of American Indian life, and certainly no nativistic religious movement, has been as thoroughly documented as the Peyote religion. Peyotism as a cult of Christianity came into being in the latter half of the 19th century, and both its spread and its study were vastly facilitated by the speeding up of communications and transportation which had occurred by that time.

Today peyotism is a political as well as a religious issue to the Navaho people. "Progressives," who have had more frequent contacts with other tribes and are aware of the need for unified Indian thought and action, are more likely to support—or at least not oppose—peyotism as a way of life than are the "long hairs" or old-timers. A large part of David F. Aberle's scholarly and impressive contribution is devoted to this aspect of peyotism. Aberle has attended meetings among the Navaho in several parts of the reservation and has interviewed both Navahos who support and Navahos who attack the cult.

To one who has been attending peyote ceremonies in Oklahoma since the mid-1930's, the Navaho peyote ceremonialism appears to be a curious mixture of rites from various tribes. The ceremonies are held inside permanent buildings set aside specifically for that purpose, as is the case with the "East Moon" rite of the Osages, Poncas, and their southern Siouan relatives. However, Navaho peyote rites lack some of the Roman Catholic elements present in "East Moon" rites, and the dominant tone seems to be akin to that of the Protestant-based "West Moon" ceremonies of the Kiowa, Comanche, Sac, and other western Oklahoma tribes. Kiowas and Comanches together furnish most of the ritualistic paraphernalia in use in Oklahoma, and certainly the fans shown in one of Aberle's plates are of Kiowa manufacture, probably a gift from a peyote "brother."

Aberle has not been content to present ritual divorced from philosophy, and his discussion of the underlying thought of peyotists is valuable to the student of religions in general. Among the Navaho, as elsewhere, peyote is basically a religion of healing. In this it is closely related to the old Navaho religion, with its chants and rituals intended to bring and maintain health.

Aberle's study of the economic aspects of peyotism is closely detailed, and, indeed, this book is one of the few publications which present such material in compact form for any North American Indian group. The information is at best hard to come by, and too few writers have had the ability and the patience to correlate economic factors with the religious beliefs and practices of the Indians.

Recently I attended a peyote ceremony in Oklahoma at which two Navaho boys were present. They had

attended a government boarding school in Anadarko, Oklahoma, and had "joined peyote" there. They arrived at the meeting in question simply by walking onto a powwow ground and asking where the meeting would be held that Saturday night. After the ceremony the entire group sat listening to tape-recorded peyote songs. The tapes had been brought to this meeting, which was sponsored jointly by Sac-Fox and Kickapoo roadmen, by a Pottawatomie from Kansas who had recorded the songs at a Ute meeting in Utah. Originally the songs had been Kiowa, and I, a non-Indian who had done research among the Kiowa, could understand some words. However, all the other listeners agreed that the words were nonsense syllables to them.

In view of the concrete evidence of the processes of diffusion which incidents such as this one provide, one must agree with Aberle's conclusion that peyotism is an increasing force in American Indian life. As he points out, it can be the most potent form of Pan-Indianism.

ALICE MARRIOTT

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New Books

Advances in Automobile Engineering. vol. 4, *Combustion Processes in the Spark Ignition Engine*. Proceedings of a symposium (Cranfield), July 1965. D. Hodggets, Ed. Pergamon, New York, 1966. 208 pp. Illus. \$9.50. Six papers.

Advances in Biology of Skin. vol. 7, *Carcinogenesis*. Proceedings of a symposium (Portland, Ore.), April 1965. William Montagna and Richard L. Dobson, Eds. Pergamon, New York, 1966. 372 pp. Illus. \$16.50. Nineteen papers.

Ages of Rocks, Planets, and Stars. Henry Faul. McGraw-Hill, New York, 1966. 119 pp. Illus. Paper, \$2.45. Earth and Planetary Science Series.

Annual Review of Entomology. vol. 12. Ray F. Smith and Thomas E. Mittler, Eds. Annual Reviews, Palo Alto, Calif., 1967. 573 pp. Illus. \$8.50. Twenty papers.

An Anthology of Philips Research. H. B. G. Casimir and S. Gradstein, Eds. Published for N. V. Philips' Gloeilampenfabrieken, Eindhoven, The Netherlands. Centrex Publishing Company, Eindhoven, 1966. 469 pp. Illus. \$5.

Anticancer Agents. Frances E. Knock. Thomas, Springfield, Ill., 1966. 292 pp. Illus. \$15.50.

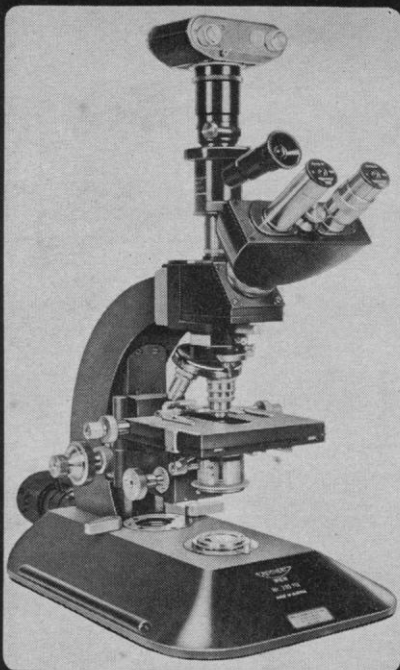
Aspects of Medical Physics. Review papers presented at the First International Conference on Medical Physics (Harrogate, England), September 1965. J. Rotblat, Ed. Taylor and Francis, London, 1966. 196 pp. Illus. \$6.50. Nine papers.

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Basic Electrotechnology. N. Jones. Elsevier, New York, 1966. 280 pp. Illus. \$8.50.

Biochemie und Physiologie der Alkaloide. An international symposium held at Halle (Saale), June 1965. Kurt Mothes, Dieter Gross, Hans-Werner Liebisch, and Horst-Robert Schütte, Eds. Akademie-Verlag, Berlin, 1966. 636 pp. Illus.

Biochemistry and Pharmacology of the Basal Ganglia. Proceedings of a symposium (New York), November 1965. Sponsored by National Institute of Neurological Diseases and Blindness and Parkinson's Disease Foundation. Erminio Costa, Lucien J. Cote, and Melvin D. Yahr, Eds. Raven Press, Hewlett, N.Y., 1966. 254 pp. Illus. \$10.95. There are 16 papers.

The Bird Faunas of Africa and Its Islands. R. E. Moreau. Academic Press, New York, 1966. 434 pp. Illus. \$18.

Boundary Value Problems of Mathematical Physics. vol. 1. Ivar Stakgold. Macmillan, New York, 1967. 350 pp. Illus. \$12.95. Macmillan Series in Advanced Mathematics and Theoretical Physics.

Brain Mechanisms and Human Learning. Chester A. Lawson. Houghton Mifflin, Boston, 1967. 142 pp. Illus. \$4.50.

The Bureau of American Ethnology: A Partial History. Neil M. Judd. Univ. of Oklahoma Press, Norman, 1967. 151 pp. Illus. \$4.95.

Chemical Carcinogenesis and Molecular Biology. Pascaline Daudel and Raymond Daudel. Interscience (Wiley), New York, 1966. 166 pp. Illus. \$7.

The Chemical Plant: From Process Selection to Commercial Operation. Ralph Landau, Ed. Reinhold, New York, 1966. 331 pp. Illus. \$14.50. Twelve papers.

The Chemistry of Carbonyl Compounds. C. David Gutsche. Prentice-Hall, Englewood Cliffs, N.J., 1967. 157 pp. Illus. Paper, \$2.50; cloth, \$5.50.

Congenital Idiopathic Talipes. James L. LeNoir. Thomas, Springfield, Ill., 1966. 368 pp. Illus. \$20.50.

Contemporary Social Problems. Robert K. Merton and Robert A. Nisbet, Eds. Harcourt, Brace, and World, New York, ed. 2, 1967. 861 pp. Illus. \$12.50. Fourteen papers.

Contemporary Teaching of Secondary School Mathematics. Stephen S. Willoughby. Wiley, New York, 1967. 440 pp. Illus. \$7.50.

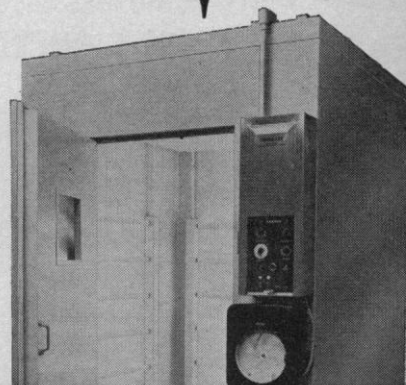
Defense Management. Stephen Enke, Ed. Prentice-Hall, Englewood Cliffs, N.J., 1967. 399 pp. Illus. \$10. Twenty papers.

Digest of Literature on Dielectrics. vol. 29. Prepared by the Committee on Digest of Literature, Division of Engineering, National Research Council. Natl. Acad. Sciences-Natl. Research Council, Washington, D.C., 1966. 467 pp. \$20.

Distribution and the Boundary Values of Analytic Functions. E. J. Beltrami and M. R. Wohlers. Academic Press, New York, 1966. 130 pp. \$6.50.

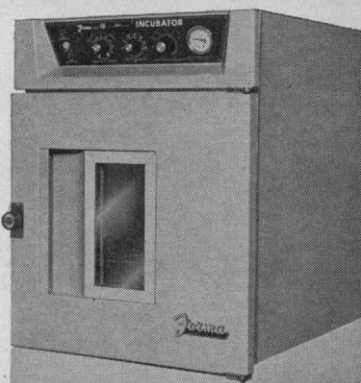
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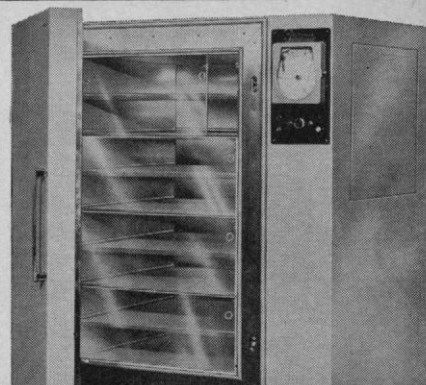
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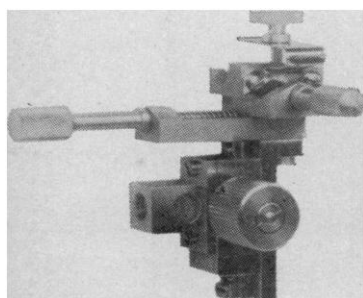
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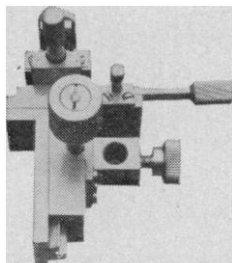
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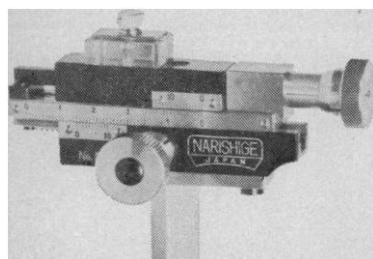
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Elemente der Tierzucht: Genetik, Mathematik, Populationsgenetik. Henry Louis Le Roy. Bayerischer Landwirtschaftsverlag, Munich, Germany, 1966. 374 pp. Illus. DM. 75.

The Elements of Continuum Mechanics. C. Truesdell. Springer-Verlag, New York, 1966. 285 pp. Paper, \$5.40.

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The Flight of the Unicorn. Anthony Shepherd. Abelard-Schuman, New York, 1967. 213 pp. Illus. \$5.

Flora Palaestina. vol. 1, *Equisetaceae to Moringaceae*, Michael Zohary. Israel Acad. of Sciences and Humanities, Jerusalem, 1966. Unpag. Plates. \$30. Two volumes.

Insect Hormones. V. J. A. Novák. Translated from the second German edition (1960). Methuen, London; Barnes and Noble, New York, 1967. 496 pp. Illus. \$16.

An Introduction to Energetics: With Applications to Biology. J. H. Linford. Butterworth, Washington, D.C., 1966. 231 pp. Illus. \$9.

An Introduction to the Study of the Moon. Zdeněk Kopal. Reidel, Dordrecht-Holland; Gordon and Breach, New York, 1966. 476 pp. Illus. \$27.50. Astrophysics and Space Science Library Series.

Introduction to the Unified Field Theory of Elementary Particles. W. Heisenberg. Interscience (Wiley), New York, 1966. 187 pp. Illus. \$7.

Izmenchibost' Mlekopitaiushchix. A. V. Yal'okov. Nauka, Moscow, 1966. 363 pp. Illus.

Laboratory Methods in Microbiology. W. F. Harrigan and Margaret E. McCance. Academic Press, New York, 1966. 374 pp. Illus. \$13.50.

Metabolic Derangements in Gastrointestinal Surgery. Bryan N. Brooke and Geoffrey Slaney. Thomas, Springfield, Ill., 1966. 181 pp. Illus. \$8.

Mixed Boundary Value Problems in Potential Theory. Ian N. Sneddon. North-Holland, Amsterdam; Interscience (Wiley), New York, 1966. 291 pp. Illus. \$12.75.

Modern Aspects of Electrochemistry. vol. 4. J. O'M. Bockris, Ed. Plenum, New York, 1966. 324 pp. Illus. \$12. Four papers.

Modern Elementary Statistics. John E. Freund. Prentice-Hall, Englewood Cliffs, N.J., ed. 3, 1967. 444 pp. Illus. \$9.25.

Moos- und Bücherskorpione. Peter Weygoldt. Ziemsen Verlag, Wittenberg, 1966. 84 pp. Illus. Paper, MDN. 6.

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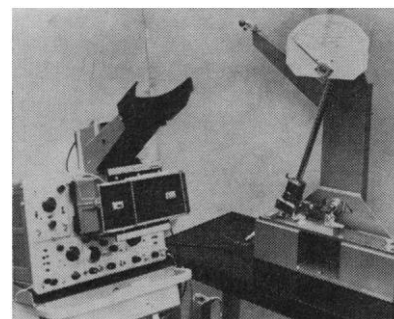
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Play, Exploration and Territory in Mammals. Proceedings of a symposium (London), November 1965. P. A. Jewell and Caroline Loizos, Eds. Published for the Zoological Soc. of London. Academic Press, New York, 1966. 294 pp. Illus. \$11.50. Fifteen papers.

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Radiation Trapped in the Earth's Magnetic Field. Proceedings of the Advanced Study Institute (Bergen, Norway), August-September 1965. Billy M. McCormac, Ed. Reidel, Dordrecht-Holland; Gordon and Breach, New York, 1966. 915 pp. Illus. \$45. Fifty-seven papers. Astrophysics and Space Science Library Series.

Rolling Bearing Analysis. Tedric A. Harris. Wiley, New York, 1967. 497 pp. Illus. \$27.50.

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Topics in the Biology of Aging. A symposium (San Diego, Calif.), November 1965. Sponsored by The Salk Institute. Peter L. Krohn, Ed. Interscience (Wiley), New York, 1966. 191 pp. Illus. \$9.75. Ten papers.

Turkish Village. Paul Stirling. Wiley, New York, 1966. 330 pp. Illus. Paper, \$1.95. Reprint, 1965 edition.

Vertebrate Paleontology. Alfred Sherwood Romer. Univ. of Chicago Press, Chicago, ed. 3, 1966. 478 pp. Illus. \$10.

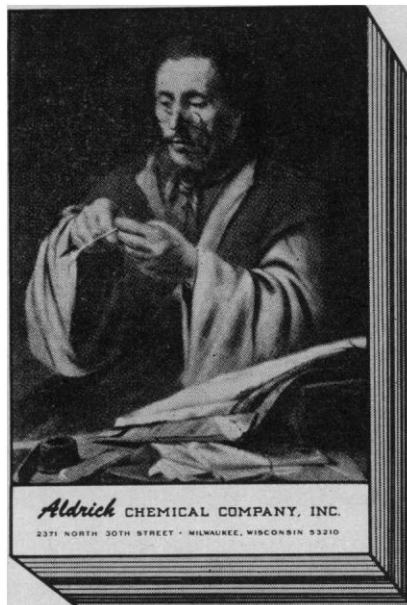
Visible Speech. Ralph K. Potter, George A. Kopp, and Harriet Green Kopp. Dover, New York, 1966. 453 pp. Illus. \$12.50. Reprint, 1947 edition.

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