

as a chief executive to whom recommendations go for approval or should serve largely as chairman of the faculty.

Additional discussion is concerned with the degree of communication that should be maintained between the faculty and the trustees and with how it should be maintained; with what organizational arrangements of faculties—such as senates, councils, and committees—can best assemble faculty opinion for the president and trustees; and with how faculties can be trained or persuaded to consider broad aspects of policy rather than the interests of individual disciplines.

Like other enterprises, the administration of a college involves the making of decisions, which are then implemented, communicated to those who must carry them out, and appraised in the light of results and of changing conditions. Unlike the administration of business and industry, good educational administration must focus on the development of the individual and must have the capacity for adaptability rather than the ability to maintain a smooth-running machine: a "tight ship." The goals of a university are not likely to be as clearly defined as those of an industry. They give greater opportunity for individual decisions by faculty members, but concomitantly place larger demands for leadership on presidents and trustees. Furthermore, the product or service provided by the university is less tangible than that of a business or industry. The commitments of the faculty are more likely to be to professions or disciplines than to the university or college itself. Moreover, faculty members expect the privileges of self-direction in their work and of participation in major decisions. As a result, the right to participate in decisions is far more diffused in universities than in almost any other enterprise.

One chapter gives special attention to the influence of outside agencies on the governance of universities: agencies such as contractual research organizations; federal, state, and local governments; accreditation agencies; and donors.

The final chapter is given over to a searching analysis of institutional character. This chapter will be of exceptional interest not only to those who govern universities but to all who are connected in any way with college and university communities.

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## Yesterday in Tanganyika

**The Lake Regions of Central Africa.** A picture of exploration. Sir Richard F. Burton. Introduction by Alan Moorehead. Horizon Press, New York, 1961. vol. 1, xxiv + 421 pp.; vol. 2, viii + 468 pp. Illus. \$15, the set.

*The Lake Regions of Central Africa* first appeared in 1861. In 1857, Burton had set out with his companion John Speke to reach and explore Lake Tanganyika. When they returned in 1859, they were the first European travelers to have followed the caravan route from the coast to the lake, and they had also made the first circumnavigation of Tanganyika. The route they traveled was already well known to Arab and Indian merchants. Indeed, the expedition would have ended in failure at a number of points had it not been for the hospitality and assistance offered by Arab traders who had established posts far inland. This in no way diminishes what Burton and Speke accomplished, for they were the first to seek to describe the country and to share their knowledge with the world. In the hundred years since Burton's account first appeared, it has become one of the classics of African exploration, notable not only for its description of an Africa of yesterday, set forth in magnificent prose, but also for the light it throws on one of the most remarkable men of the 19th century. Long out of print, it has become a rare book. Now Horizon Press has republished it in a beautiful two-volume edition carrying the original illustrations.

In a hundred years, Tanganyika has changed dramatically, yet Burton's book remains of enduring interest. There is no question of its importance as a historical document. In many instances it is the earliest report on various peoples of the interior. Burton had the seeing eye, the questioning mind, the interest in manners and customs that made him the ideal observer. He could also be opinionated and prejudiced, and sometimes he was just plain wrong, but at this distance, this seems to matter little. His eye for country was even better than his eye for custom. He gives the results of his geographical observations and then tops this with a word picture of the landscape. He describes African villages and Arab trading camps, discusses the

terms of trade, examines the organization of the various types of caravans, and passes free comment upon all whom he encounters. He leaves little to the imagination with regard to the physical hardships and great discomforts to be encountered over almost every leg of the journey.

The reappearance of *The Lake Regions of Central Africa* will be welcomed by anthropologists, historians, and geographers interested in Africa, and no less by all those who enjoy books of exploration.

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## Soviet Oceanography

**Okeanologiya.** L. A. Zenkevich, Ed. Oceanographic Commission, Soviet Academy of Sciences, Moscow, 1961. 190 pp. Illus. \$12.50 per year (six issues per year).

The first issue of a new journal, *Okeanologiya* (*Oceanology*), has just been released by the Oceanographic Commission of the Soviet Academy of Sciences. The journal, which will bring together papers from Russian oceanographic research, should be translated into English as an aid for Western readers who wish to keep abreast of the rapid advances in Soviet oceanography.

Volume 1, Number 1, the first of six issues to be released during 1961 under the general editorship of L. A. Zenkevich, contains 190 pages and includes 16 papers dealing with physical, chemical, biological, and geological oceanography; 2 articles on apparatus and methods; 3 book reviews; and 12 news items. An English table of contents is supplied, but unfortunately no abstracts, either in English or in Russian, are provided.

Twelve basic problems, which are to be reflected in papers published in the journal, are outlined in a nine-page editorial. These problems are: structure of waters of the world ocean and physical processes taking place in it; chemical structure of water masses of the ocean and chemical processes occurring therein; interaction of the ocean and atmosphere; biological structure of the ocean and its organic resources; geologic structure of the ocean floor; structure of the earth's crust under the ocean; interaction of the

ocean and lithosphere; history of the world ocean; mineral resources of the ocean; energy resources of the oceans; complex regional natural resources of seas and oceans; preservation of resources and change in the character of the world ocean.

Subscriptions may be placed with any of the official dealers in Soviet publications in the United States or abroad.

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## Criteria for Publication

**Apples of Immortality from the Cuna Tree of Life.** The study of a most ancient ceremonial and a belief that survived 10,000 years. Clyde E. Keeler. Exposition Press, New York, 1961. 72 pp. Illus. + plates. \$3.50.

The subtitle of this book, "The study of a most ancient ceremonial and a belief that survived 10,000 years," immediately arouses in any anthropologist the suspicion that here is another amateur, speculative endeavor addressed to large issues in cultural history. Reading the volume confirms the suspicion.

Clyde Keeler is a geneticist, with more than creditable recognition in his own field, who has adopted the San Blas Cuna Indians of eastern Panama as a hobby-like subject of study; over the years, he has developed a familiarity with some of the people and an undisciplined knowledge of the formal ethnographic literature concerning them. The present book purports to trace certain Cuna rites and usages concerned with the fruits of the *Genipa americana* tree (employed on certain occasions as a body "paint" or dye) to the Tree of Life motif in the mythologies of the Near East and elsewhere. In the course of the book, the reader is confronted with figures and text references pertaining to Egypt, India, Sumeria, the Upper Paleolithic of Western Europe, Mexico, Arizona, British Columbia, and points between.

An appeal is made to the long-since discredited Heliolithic theory of cultural history of Sir Grafton Elliot Smith, to the possibility that Phoenician trading colonies were the origin of both the Mandan and Hopi Indian tribes of North America, and to the "expert"

knowledge of a Potawatomi Indian to whom Keeler sent some of his findings for evaluation. His general conclusion is that present Cuna practices are a stage in the Tree of Life myths and ceremonies, and their depiction, held by diverse other peoples of between 6000 and 10,000 years ago.

The author states in his final paragraph "that to conjecture this is anthropological heresy today. . ."; with this I agree, stipulating, however, that the word "heresy" be replaced by "fantasy."

The merits of this book aside, it is one more reason for raising the question: "Why does an expert in one field think that his hobby, however satisfying to him, is sufficiently disciplined to merit publication and serious consideration by other scholars?" Surely, Keeler would not employ the low standards in the collection and assessment of evidence and in the selection of what fits the case and the rejection of what does not in his genetic research that he has applied in writing *Apples of Immortality*. . . .

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## New Books

### Mathematics, Physical Sciences, and Engineering

**Artificial Satellites.** Michael W. Oven-den. Penguin Books, Baltimore, Md., 1961. 128 pp. Illus. \$1.25.

**College Physics.** Ray W. Kenworthy. Davis, Philadelphia, Pa., 1961. 671 pp. Illus. \$8.50.

**Concepts from Tensor Analysis and Differential Geometry.** Tracy Y. Thomas. Academic Press, New York, 1961. 126 pp. Illus. \$5.

**Descriptive Palaeoclimatology.** A. E. M. Nairn, Ed. Interscience, New York, 1961. 391 pp. Illus. \$11.

**The Earth Today.** A collection of papers dedicated to Sir Harold Jeffreys. A. H. Cook and T. F. Gaskell, Eds. Royal Astronomical Soc., London, 1961 (order from Oliver and Boyd, London). 414 pp. Illus. 80s.

**Electrical Engineering.** S. B. Hammond. McGraw-Hill, New York, 1961. 576 pp. Illus. \$8.75.

**Electrical Estimating.** Ray Ashley. McGraw-Hill, New York, ed. 3, 1961. 446 pp. Illus. \$12.50.

**Engineering Data for Product Design.** Douglas C. Greenwood, Ed. McGraw-Hill, New York, 1961. 438 pp. Illus. \$10.

**Full-Scale Fatigue Testing of Aircraft Structures.** F. J. Plantema and J. Schijve, Eds. Pergamon, New York, 1961. 436 pp. Illus. \$15. Proceedings of a symposium held in Amsterdam, Netherlands, June 1959.

**Fundamental Mathematics.** Thomas L.

Wade and Howard E. Taylor. McGraw-Hill, New York, ed. 2, 1961. 442 pp. Illus.

**Gas Chromatography.** Ernst Bayer. Elsevier, Amsterdam, 1961 (order from Van Nostrand, Princeton, N. J.). 252 pp. Illus. \$5.

**Gas Sampling and Chemical Analysis in Combustion Processes.** G. Tine'. Pergamon, New York, 1961. 109 pp. Illus. \$6.

**An Introduction to Relativistic Quantum Field Theory.** Silvan S. Schweber. Row, Peterson, Evanston, Ill., 1961. 917 pp. Illus.

**Introductory Systems Analysis.** Signals and systems in electrical engineering. William A. Lynch and John G. Truxal. McGraw-Hill, New York, 1961. 473 pp. \$7.50.

**Iterative Arrays of Logical Circuits.** Frederick C. Hennie, III. Massachusetts Inst. of Technology Press and Wiley, New York, 1961. 252 pp. Illus. \$4.95.

**Lectures in Theoretical Physics.** Wesley E. Brittin, B. W. Downs, and Joanne Downs, Eds. Interscience, New York, 1961. 539 pp. Illus. \$11.

**Physical Chemistry.** E. A. Moelwyn-Hughes. Pergamon, New York, ed. 2, 1961. 1340 pp. Illus. \$17.50.

**Physical Chemistry of Process Metallurgy.** pts. 1 and 2. George R. St. Pierre, Ed. Interscience, New York, 1961. 658 pp.; 1402 pp. Illus. pt. 1, \$22.50; pt. 2, \$25. Proceedings of an international symposium sponsored by the Metallurgical Society.

**Quantum Mechanics.** Eugen Merzbacher. Wiley, New York, 1961. 556 pp. Illus.

**Radiation Chemistry of Gases.** Samuel C. Lind. Reinhold, New York; Chapman and Hall, London, 1961. 323 pp. Illus. \$12.50.

**Reference Electrodes.** Theory and practice. David J. G. Ives and George J. Janz, Eds. Academic Press, New York, 1961. 662 pp. Illus. \$20.

**Special Ceramics.** P. Popper, Ed. Academic Press, New York, 1960. 381 pp. Illus. \$10.50. Proceedings of a symposium held by the British Ceramic Research Association, July 1959.

**Soviet Research in Catalysis, 1956.** pt. 1. *Theoretical and Sundry Associated Effects*, 46 pp., \$15; pts. 2a and 2b, General, pp. 47-569, \$60; pt. 3. *Reduction, Oxidation, Fischer-Tropsch*, pp. 571-647, \$15; pt. 4, *Hydrogenation; Cracking*, pp. 649-805, \$15. Consultants Bureau, New York, 1959. Selected reports reprinted from 1956 issues of journals translated by the publisher.

**Tables of Airy Functions and Special Confluent Hypergeometric Functions.** For asymptotic solutions of differential equations of the second order. A. D. Smirnov. Translated from the Russian by D. G. Fry. Pergamon, New York, 1960. 267 pp. Illus. \$15.

**Tables of Elementary Functions.** Mieczyslaw Warmus. Pergamon, New York; Państwowe Wydawnictwo Naukowe, Warsaw, Poland, 1960. 574 pp. \$15.

**Theory of Hydrodynamic Lubrication.** Oscar Pinkus and Beno Sternlicht. McGraw-Hill, New York, 1961. 479 pp. Illus. \$15.