

a broad range of fields in which aerosols play a role. The present edition is an entirely new and superior translation done by R. E. Daisley and Marina Fuchs under supervision of C. N. Davies. In preparing this revision, the author has added much new material throughout the book, bringing it up to date as of 1960 and increasing by over 50 percent the total number of useful bibliographical references.

For those who are not familiar with the 1958 translation, it may be briefly noted that Fuchs has assembled and critically evaluated almost all that is known about aerosol "mechanics." He gives a very detailed treatment of the dynamics of motion of aerosol particles and discusses in definitive manner such topics as Brownian motion, diffusion, coagulation, and dispersion of aerosols. The great value of the book is that it not only brings non-Russian readers into touch with the extensive Russian work in the field of aerosol physics, but also gives them the considerable benefit of Fuchs' expert discussions of all important work done in this field throughout the world. Both basic principles and scientific and industrial applications are treated. The author and his translators deserve high praise for their work.

JAMES E. McDONALD

*Institute of Atmospheric Physics,
University of Arizona, Tucson*

Geography

Africa and the Islands. R. J. Harrison Church, John I. Clarke, P. J. H. Clarke, and H. J. R. Henderson. Longmans, Green, London; Wiley, New York, 1964. xvi + 496 pp. Illus. \$9.75.

Africa: A Study in Tropical Development. L. Dudley Stamp. Wiley, New York, ed. 2, 1964. x + 534 pp. Illus. \$10.95.

Until this past year there was a paucity of college textbooks dealing with the geography of Africa. Recently, however, the importunings of the publishers' representatives appear to have been answered and, from a market view, possibly answered too well. Three new books have been published, and one of the two standard texts has been revised.

All of the authors of *Africa and the Islands* have had teaching and research

experience in Africa. Harrison Church, the senior author, contributed the chapters that deal with former French West and Equatorial Africa and with Portuguese Africa. John I. Clarke wrote the chapters on north and northeast Africa. P. J. H. Clarke covered East Africa and H. J. R. Henderson southern Africa.

There is an introductory section, about a quarter of the book, which deals with the history, physical background, peoples, and modes of life of the continent. These and other topics are explored in greater detail in the chapters on specific countries.

Throughout the book human settlement and economic activities in Africa are emphasized. Settlement by Africans, Asians, and Europeans is treated, with appropriate emphasis on each. The often startling juxtaposition, which one can see in Africa, of subsistence activities with sophisticated cash-crop agriculture, or with manufacturing, is reflected. Much of the material mined from professional journals and from the first-hand research of the authors has not previously appeared in textbooks. Its inclusion is helpful. In this respect, the chapters by John I. Clarke have special merit.

The authors demonstrate a familiarity with the areas about which they have written, and with the professional literature concerning these areas. The result is a work with depth, a basic requisite of a sound textbook.

Dudley Stamp's *Africa: A Study in Tropical Development* was first published in 1953 and has been a useful textbook for a decade. One of its merits has been the emphasis placed on problems of human settlement in tropical Africa. There is discussion of subtleties of tropical climate and soils, of diseases of man and livestock, and of transport. This occupies a third of the book; the remainder is the customary country by country description and discussion.

The format of the second edition is slightly larger than that of the first, the printing of the photographic illustrations is better, and the text is remarkably little changed. Bibliographies have been updated, and the changes made necessary by the altered political status of nations has been added to existing chapters. There is a short additional chapter entitled "Africa and the world," which actually is concerned with Africa and world trade.

Some materials archaic at the time of the first edition and some errors of fact have been carried over unchanged

into the new edition. The stations used to illustrate the different climatic regions were very carelessly chosen—Alexandria, Egypt, is in no sense in a tropical savanna area and Nairobi, Kenya, is not properly a tropical rain forest station (as Stamp will well remember if he has ever spent a chilling August or September in Nairobi). This new edition is useful, even though the opportunities offered by revision were not utilized.

WALTER DESHLER

*Department of Geography,
University of Maryland*

New Books

Mathematics, Physical Sciences, and Engineering

Advances in Inorganic Chemistry and Radiochemistry. vol. 6. H. J. Emeléus and A. G. Sharpe, Eds. Academic Press, New York, 1964. 542 pp. Illus. \$16. Eight papers: "Complexes of the transition metals with phosphines, arsines, and stibines" by G. Booth; "Anhydrous metal nitrates" by C. C. Addison and N. Logan; "Chemical reactions in electric discharges" by Adli S. Kana'an and John L. Margrave; "The chemistry of astatine" by A. H. W. Aten, Jr.; "The chemistry of silicon-nitrogen compounds" by U. Wannagat; "Peroxy compounds of transition metals" by J. A. Connor and E. A. V. Ebsworth; "The direct synthesis of organosilicon compounds" by J. J. Zuckerman, and "The Mössbauer effect and its application in chemistry" by E. Fluck.

Advances in Petroleum Chemistry and Refining. vol. 9. John J. McKetta, Jr., Ed. Interscience (Wiley), New York, 1964. 455 pp. Illus. \$20. Eight papers: "Advances in large-scale oxygen production" by R. L. Shaner and L. C. Matsch; "Hydrodealkylation" by G. F. Asselin; "Formulation and structure of lubricating greases" by B. W. Hotten; "Thermal cracking of pure saturated hydrocarbons" by B. M. Fabuss, J. O. Smith, and C. N. Satterfield; "The new elastomers" by W. W. Crouch and R. S. Hammer; "Mechanisms of carbonium ion, carbene, and carbanion reactions" by George M. Kramer and Thomas J. Wallace; "Synthetic ammonia" by S. Strelzoff and L. C. Pan; and "Chemistry of fuel instability" by Thomas J. Wallace.

Chemistry and Physics of Polycarbonates. Hermann Schnell. Interscience (Wiley), New York, 1964. 237 pp. Illus. \$12.75.

The Chemistry of Complex Cyanides. A literature survey. M. H. Ford-Smith. Her Majesty's Stationery Office, London, 1964 (order from British Information Services, New York). 99 pp. Illus. \$5.50.

Chromatographic Reviews. Progress in chromatography, electrophoresis, and related methods. vol. 6. Michael Lederer. Elsevier, New York, 1964. 227 pp. Illus. \$12.75. Eight papers: "Commercial equip-

(Continued on page 1095)