

that this book will obviously be used in regions far from the sea, another way of looking at it is to remember that the students will not be able to realize this, inasmuch as the author has stated in at least two places that such a book as this is supposed to provide a background in ecology for oceanography as well as for many other fields. Even closer to home, as far as the book itself is concerned, is the paucity of material concerning fresh-water environments. A lake is simply a wide place in a stream, and streams are mentioned much less frequently than Great Salt Lake. (The diagram of "important habitat types in North America" on page 48 omits streams entirely). On the other hand, the terrestrial aspects are well covered; the chapters on soil and climate are outstanding; and those on populations, geographic distribution, and the like are good workman-like jobs. There are many interesting illustrations, especially photographs of scenes in Utah, but the reiterated tree of life, modified to suit the discussion (in one place there are six versions of it in a row), becomes tiresome.

It might be best if those who decide to use this book think of it as "Principles of Terrestrial Ecology," and refer to a limnology textbook to fill out the details that they may need to understand that aspect of the transmontane environment, which is otherwise treated in such detail. Conversely, aquatic ecologists will find this a useful summary of matters unfamiliar to them.

JOEL W. HEDGPETH

*Scripps Institution of Oceanography,  
University of California, La Jolla*

***The Origins of Psycho-Analysis.*** Letters to Wilhelm Fliess, drafts and notes: 1887-1902. Sigmund Freud. Marie Bonaparte, Anna Freud, and Ernst Kris, Eds. Trans. by Eric Mosbacher and James Strachey. Basic Books, New York, 1954. xi + 486 pp. \$6.75.

The student and practitioner of psychoanalysis is provided with an opportunity to look behind the scenes and to get a fascinating intimate glimpse into the background of personalities and circumstances that led to its development. Skillful footnotes and introduction by Kris tie the content of the letters together and permit the reader to link thoughts and formulations with the corresponding well-known literature.

The less biased reader will also be impressed by the brilliant creativity of Freud's mind, but he cannot fail to notice the precarious scientific ground on which the whole edifice of psychoanalysis seems to be built.

When Breuer, who had introduced him to a new method of therapy, could not follow Freud's emphasis on sexuality in the etiology of the neuroses, Freud turned to the only contemporary who, like him, had accepted a pan-sexual theory of neurosis. Fliess became his "only audience," the two men uniting and fortifying each other against the rest of the scientific world. Kris does not see the attraction of the two men for each other as being based on their preoccupation with sex and on the similarity of their personalities.

Both are visionaries (in Freud's own words, p. 130). Both are fond of far-reaching speculations. Fliess is criticized by Kris for working on his theories "with an obstinacy and a lack of objectivity which ignored all inconsistencies and inconveniences" (p. 8), while Freud is praised for the "consistency which holds his objective in mind in spite of all difficulties and contradictions" (p. 26).

The critical reviewer of Freud's writings has always wondered how Freud could use "free association" as a method of investigation, not recognizing it merely as a method of therapy. This volume explains why the fallacious findings of his approach, leading twice to a near personal and scientific collapse in 1897 and 1900 (letters 69 and 130), did not stop Freud from continuing with the same clinical procedure. He developed his ideas first and then sought the clinical evidence, thus imposing his ideas upon his patients, as Fliess discovered after 15 years of closest friendship and collaboration (pp. 40, 344). The technique is little mentioned in the published letters, except in one "Draft J." Here the method of putting pressure upon the patient until his mind yields what Freud expects to find is clearly described.

Freud waited for his inner voice to reveal to him the deepest secrets of the human mind, a process that Kris calls a "surge forward from the preconscious" (p. 307), which "worked over scientific connections before they became conscious" (p. 230). This tendency to gain scientific insight from within himself was accentuated when Freud decided to get at the roots of his scientific errors by analyzing himself and his dreams—a curious way of scientific investigation, indeed.

The intimate revelations provided by this volume about the origins of psychoanalysis may facilitate the recognition of the pattern behind the unrealistic constructs of psychoanalysis.

RUDOLF DREIKURS

*Department of Psychiatry, Chicago Medical School*

***Economic Geography.*** Clarence Fielden Jones and Gordon Gerald Darkenwald. Macmillan, New York, rev. ed., 1954. xxv + 612 pp. Illus. \$6.75.

Would you like to know about iron ore production by states and its movement to smelters? Or are you interested in rubber output in Malaya and Liberia? Clarence Jones and Gordon Darkenwald have provided 612 pages of encyclopedic yet meaningful data on man's utilization of the earth, illustrated by 442 maps and photographs.

Geographers divide their subject into three broad categories: systematic, regional, and techniques such as cartography. Within the field of systematic geography the main divisions are economic, social, and political. Each considers the distributional aspects of human affairs. *Economic Geography* is organized along occupational lines, and is thus an evaluation of hunting and fishing, forest industries, grazing industries, agriculture in its many aspects, mining, manufacturing, transportation, and trade.

This is the second edition of this standard textbook, which originally appeared in 1941. The revision is extensive, and the book will be welcomed by teachers, students, and the general reader. The book opens with a reminder that "some regions offer a choice of only a few occupations, whereas others offer a choice of many," and closes with the following paragraph.

The United States is intricately associated in a complex of trade relations that ties us commercially to nearly every region of the world. Prosperous farmers require a market for their surplus products; successful industries rely, not only on foreign markets for surplus manufactured articles, but also on foreign sources for certain industrial raw materials. Our high standard of living depends on the variety and quantity of goods we consume. To maintain this standard we must utilize such articles as rubber, tin, hemp, vanadium, bauxite, asbestos, sugar, coffee, and spices; none of these is produced in sufficient quantities in the United States. If our foreign commerce were stopped, we would be without such things as automobiles, electricity, telephones, daily newspapers, coffee, airplanes, and streamlined trains—things that are a vital part of our high standard of living. Thus we must arrange to exchange goods with peoples who produce the things we need; we must also arrange to dispose of our own surplus products to those who can use them. The successful adjustment of the problems involved in making these arrangements depends on an adequate understanding of our own occupations and those of other peoples. This is the chief purpose of the study of economic geography. It is basic to the understanding and solution of international problems, whether they be economic, political, or social.

GEORGE B. CRESSEY

Department of Geography, Syracuse University

## New Books

- The Elementary Chemical Composition of Marine Organisms.* Memoir No. 2. A. P. Vinogradov. Trans. by Julia Efron and Jane K. Setlow. Sears Foundation, Yale Univ., New Haven, 1953. xiv + 647 pp. \$17.
- A Monograph of the Fungus Genus Cercospora.* Charles Chupp. Charles Chupp, Ithaca, N.Y., 1954. 667 pp. Illus. \$10.
- Infinite Abelian Groups.* Irving Kaplansky. Univ. of Michigan Press, Ann Arbor, 1954. v + 91 pp. Paper, \$2.
- Advances in Genetics.* vol. VI. M. Demerec, Ed. Academic Press, New York, 1954. ix + 488 pp. Illus. \$9.80.
- Petroleum Microbiology.* An introduction to microbiological petroleum engineering. Ernest Beerstecher, Jr. Elsevier Press, Houston, 1954. xv + 375 pp. Illus. \$8.
- Psychomotor Aspects of Mental Disease.* An experimental study. H. E. King. Harvard Univ. Press, Cambridge, Mass., 1954 (For the Commonwealth Fund). xiv + 185 pp. Illus. \$3.50.
- Biological Effects of External Radiation.* Henry A. Blair, Ed. McGraw-Hill, New York-London, 1954. xvii + 508 pp. Illus. \$7.
- Millimicrosecond Pulse Techniques.* I. A. D. Lewis and F. H. Wells. McGraw-Hill, New York; Pergamon Press, London, 1954. xiv + 310 pp. Illus. + plate. \$7.50.

## Miscellaneous Publications

- A Look Ahead in Secondary Education.* Bull. 1954, No. 4. Howard H. Cummings *et al.* Office of Education, U.S. Dept. of Health, Education, and Welfare, Washington 25, 1954 (Order from Supt. of Documents, GPO, Washington 25). 105 pp. 35¢.
- Atomic Energy Act of 1954.* Conference Rpt. No. 2639 (to accompany H.R. 9757). Atomic Energy Commission, Washington 25, 1954. 49 pp.
- Der Symmetriecharakter des Turbulenz-(Austausch-) Tensors.* Sitzungsberichte der Deutschen Akademie der Wissenschaften zu Berlin, Klasse für Mathematik und allgemeine Naturwissenschaften, Jahrgang 1953, No. 2. Hans Ertel. Akademie-Verlag, Berlin, 1953. 8 pp. DM. 1.
- Technical Problems Affecting National Defense.* Natl. Inventors Council, U.S. Dept. of Commerce, Washington 25, 1954. 24 pp. Gratis.
- Fauna of the Vale and Choza: (8) Pelycosauria: Dime-trodon.* Fieldiana: Geology, vol. 10, No. 18. Everett Claire Olson. Chicago Natural History Museum, Chicago, 1954. 6 pp. 10¢.
- Study of Atmospheric Ions in a Nonequilibrium System.* Geophysical Research Paper, No. 26. C. G. Stergis. Air Force Cambridge Research Center, Cambridge, Mass., 1954 (Order from Office of Tech. Services, U.S. Dept. of Commerce, Washington 25). 28 pp. Illus.
- Sixteenth Semiannual Report of the Atomic Energy Commission.* Atomic Energy Commission, Washington 25, 1954. 137 pp. Illus.
- Experiments with Safflower in Southern Queensland.* Div. of Plant Industry Tech. Paper No. 2. S. G. Gray. Commonwealth Scientific and Industrial Research Organization, Melbourne, 1954. 14 pp.
- Contributions to Science, No. 2.* Florida State Univ. Studies, No. 13. Weymouth T. Jordan, Ed. Florida State Univ., Tallahassee, 1954. 100 pp. Illus. + plate.
- Proceedings of the Eighth Annual Session of the Ceylon Association for the Advancement of Science* (27-29 Nov. 1952). pt. 1, Sectional programs, abstracts. The Association, Univ. of Ceylon, Colombo, 1952. 39 pp.
- Observations with the Anoptral Microscope.* Alvar Wil-ska. George Fromme, Vienna, 1954. 80 pp. Illus.
- Age and Growth Studies on Two Species of Whitefishes from Point Barrow, Alaska.* Daniel M. Cohen. *Growth Peculiarities of the Cisco, Coregonus sardinella (Valen-ciennes), in the Vicinity of Point Barrow, Alaska.* Donald E. Wohlschlag. Stanford Ichthyological Bull., vol. 4., No. 3. Natural History Museum of Stanford Univ., Stanford, Calif., 1954. 43 pp. Illus.
- Anuario Bibliográfico Peruano de 1949-1950.* Alberto Tauro. Biblioteca Nacional del Perú, Lima, 1954. 427 pp.
- The Earth Participates in the Evolution of the Solar System.* Occasional Papers, No. 3. Howard B. Baker. Detroit Acad. of Natural Sciences, Detroit, 1954. 36 pp. Illus.
- Tables for Predicting the Performance of Fixed Bed Ion Exchange and Similar Mass Transfer Processes.* Ascher Opler and Nevin K. Hiester. Stanford Research Inst., Stanford, Calif., 1954. 111 pp. Gratis.
- Guía de Instituciones y Sociedades en el Campo de las Ciencias Sociales.* pt. 2, *América Latina.* Office of Social Sciences, Pan American Union, Washington 6, ed. 2, 1954. 184 pp. Ctvo. 20.

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