Book Reviews

Physical Geography. Arthur N. Strahler. New York: Wiley; London: Chapman & Hall, 1951. 442 pp. $6.00.

This text presents a thorough and refreshingly new approach to the study of physical geography. It has its faults, but they are far outweighed by the value of its concepts, excellent diagrams, maps and map exercises, and well-written textual material.

The first section, dealing with the earth in its space relations, is exceptionally well done. It goes far beyond the material covered in other texts to include such important matters as the tides and the phases of the moon.

Considering that it is the author's major field of interest, the second section—dealing with landforms—is a distinct disappointment. In contrast with the first part, it is superficial and suffers from both errors and omissions. In the glacial chapter, striae, ice polish, and *roches moutonnées* are not mentioned under alpine glaciation, making their appearance later in connection with the continental type. Unassorted deposits called "debris" in the paragraphs dealing with alpine ice, become "till" under continental glaciation. The actual term *roches moutonnées* is never used, although the form is discussed. The term "finger lake" is incorrectly applied to water bodies occupying troughs formed by alpine glaciers (p. 180), and the Finger Lakes of New York are attributed to blockage by glacial debris (p. 186), instead of being credited to glacial excavation. The statement that the porous nature of eskers prevents tree growth on them is incorrect—many eskers are wooded, including the one used as an illustration on the same page (p. 189). The definition of eskers should be expanded to include those formed in crevasses, or else the term "crevasse-filling" should be introduced. Similarly, few of the forms designated "kames" are "flat-topped landforms" built as deltas into lakes. The map exercises, associated with topographic maps reproduced in black and white, are well selected and excellently composed.

The third section, dealing with climate, includes a standard treatment of weather elements, illustrated with fine three-dimensional drawings. Here the author makes a real contribution to climatology in his proposal of a new type of climatic classification. In place of the present classifications based on vegetation (usually considered a good climatic indicator), Strahler proposes a grouping based on origin and controlling factors: air masses, their source regions, fronts, and movements. Characteristics of regions are described, but no attempt is made to draw boundaries for them. Three major groups are recognized: climates controlled by tropical air masses alone, by polar alone, and by both polar and tropical; 13 subtypes are recognized. The system is a real achievement, especially for the understanding of climates and the teaching of them to beginning students. It must not be expected, however, that it will replace Koeppen and Thornthwaite—for each has its own, distinct place.

This book will serve excellently as a text for a course in physical geography, conducted along rigorous scientific lines. It is the sort of book that adds prestige to geography in the eyes of our scientific colleagues. It goes straight and logically to the heart of the subject under consideration. There is no cluttering with unnecessary information—yet everything that is needed is there. It well serves the author's stated aim—to provide a sound scientific basis for future work, and to provoke in the student a greater interest and appreciation of his surroundings.

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Scientific Book Register

Araucanian Culture in Transition. Occasional contributions from the Museum of Anthropology of the University of Michigan, No. 15. Mischa Titiev. Ann Arbor: Univ. Michigan Press, 1951. 164 pp. and 17 plates. $2.50.

A Century of Technology, 1851–1951: A Symposium. Percy Dunsheath, Ed. New York: Roy Pub., 1951. 346 pp. $5.00.

Logic for Living: Lectures of 1921–22. Henry Horace Williams; Jane Ross Hammer, Ed. New York: Philosophical Library, 1951. 281 pp. $3.75.

Immuno-Catalysis and Related Fields of Bacteriology and Biochemistry. Rev. 2nd ed. M. G. Sevag. Springfield, Ill.: Thomas, 1951. 547 pp. $12.00.

A Century of Science, 1851–1951: A Symposium. Herbert Dingle, Ed. New York: Roy Pub., 1951. 338 pp. $4.75.

Fundamentals of Electronics. F. H. Mitchell. Cambridge, Mass.: Addison-Wesley, 1951. 243 pp. $4.50.

Essays on Archaeological Methods. Proceedings of a conference held under auspices of the Viking Fund. Anthropological Papers, Museum of Anthropology, University of Michigan, No. 8. James B. Griffin, Ed. Ann Arbor: Univ. Michigan Press, 1951. 151 pp. $1.50.

Einführung in die Theorie der Ausbreitung elektromagnetischer Wellen in Leitungen und Hohlkabeln. Hans Bomke and J. Gefahrt. Stuttgart: Wissenschaftliche Verlag, 1950. 163 pp.

Astronomy of Stellar Energy and Decay. Martin Johnson. New York: Dover, 1951. 216 pp. $3.50.

The Philosophy of the Enlightenment. Ernst Cassirer. Trans. from the German by Fritz C. A. Koellyn and James P. Pettegrove. Princeton, N. J.: Princeton Univ. Press, 1951. 366 pp. $6.00.

Biological Effects of External Beta Radiation. Raymond E. Zirkle, Ed. New York–London: McGraw-Hill, 1951. 242 pp. $3.25.

Renal Function. Transactions of the Second Conference, October 19–20, 1950, New York. Stanley E. Bradley, Ed. New York: Josiah Macy, Jr. Fdn., 1951. 178 pp. $3.00.