Sauer on Geography

Land and Life. A selection from the writings of Carl Ortwin Sauer. John Leighly, Ed. University of California Press, Berkeley, 1963. vi + 435 pp. Illus. $8.95.

Carl Ortwin Sauer, geographer and professor emeritus at the University of California, has placed an indelible mark on the geographic profession in America. Some of the best of contemporary geographers were his students, and their work reflects strongly the inspiration of the teacher. Sauer is unique in that he can offer a collection of scholarly writings extending over almost the entire length of his career and feel no embarassment. *Land and Life* is a testimonial of an active and creative life, and in perusing its pages one feels the abiding interest of the philosopher in the quality of human life and in man's use of the earth.

The volume is divided into five parts: The Midland Frontier, The Southwest and Mexico, Human Uses of the Organic World, The Farther Reaches of Human Time, and The Pursuit of Learning.

Sauer's approach to his studies is essentially historical, and because his interests have taken him into an "ill-defined and unspecialized field of scholarship," as John Leighly points out, Sauer has always seemed to be on the frontier, both figuratively and literally. Because Sauer grew up in the Midwest, his feeling for simple, unaffected people is one of kinship, and it was this feeling that he ultimately developed for the peoples of Mexico and Latin America. At the same time, in order to understand the associations of human life and plant and animal life on earth, his investigations took him into other fields (for example, anthropology and plant ecology), fields that in the past some of his more conservative colleagues have considered on the margin of geography if not, indeed, outside the latter. Therefore, Sauer has not lived without controversy, but he has always been listened to by his colleagues.

There is a romantic element in Sauer's writings which, however stimulating and satisfying, appears anachronistic in the 1960's when abstraction, mechanical equilibrium theories, and statistical analyses are the vogue and seem as removed from reality as the statement of the goal of a Soviet Five-Year Plan. Sauer thrilled at the seemingly limitless possibilities of life and human activity, and his research, whether in the field or at the library, continually fed his deep desire to recreate life and landscapes in various regions and throughout periods of history. Yet, as indicated in one of these essays, "The education of a geographer" (1956) (in part 5), he saw the need for focus on *the problem* and the pursuit of the theme, the need for analysis rather than for regional description for its own sake, and the mere accumulation of often irrelevant facts. Contemporary geography, in part, seems frightened by all that which stimulated Sauer and would exclude from consideration not only irrelevant facts but any facts which would tend to disturb the grand conceptual spatial arrangement of service stations, supermarkets, and garbage dumps.

Leighly's introduction contributes much to the understanding of Sauer, the scholar. *Land and Life* will serve a most useful purpose in keeping before the new generation as well as coming generations of American geographers the scholarship and the quality of the mind that is Carl Sauer's.

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Canadian Shield

The Tectonics of the Canadian Shield. John S. Stevenson, Ed. University of Toronto Press, Toronto, Canada, 1962. x + 180 pp. Illus. Maps. $6.50

The papers in this volume—14 essays written by 21 authors, among them some of Canada's most distinguished geologists—were presented as a symposium at the annual meeting of the Royal Society of Canada, held at McGill University in 1961. Each paper is a complete entity with individually distinctive illustrations and a separate bibliography. In all, there are 52 illustrations and 8 tables.

This well-organized collection begins with a short paper on the major structural provinces of the Canadian Shield, which are those to be used in the forthcoming tectonic map of Canada, and concludes with a stimulating paper of broad scope, "The effect of new orogenic theories upon ideas of the tectonics of the Canadian Shield." Between these are 12 papers that blanket the Canadian Shield and incorporate the most recent concepts of its tectonics.

Several of the articles illustrate how the use of isotopic age determinations in recent years has permitted subdivision of the shield rocks on the basis of folding, intrusion of granitic rocks, and the accompanying metamorphism. The data on isotopic ages, which are distributed throughout the book, are based, in large measure, on 215 potassium-argon age determinations on micas, and they show impressive grouping around 2500, 1700, and 950 million years, suggesting three orogenies. Some skeptics, who have experienced the vagaries of micas for argon retention during deformation and intrusion, may well suspect that this is only the beginning of the interpretations of the isotopic ages of the micas.

The only deficiency that I noted seems to stem from the volume's origin as a symposium. Many place names found in the text are not on the illustrations, and more than one article lacks illustrations needed for readers who are not familiar with the area under consideration. I advise those readers who are not at home on the Canadian Shield to arm themselves with a good atlas and geologic and tectonic maps of Canada.

At only $6.50 per copy, *The Tectonics of the Canadian Shield* is easily a "best buy."

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Geology

Elements of Structural Geology. E. Sherbon Hills. Wiley, New York, 1963. xii + 483 pp. Illus. $8.50.

Although this carefully prepared book, a considerably expanded version of the author's *Outlines of Structural Geology*, is aimed at the undergraduate, it gives complete but not too lengthy coverage to all topics reasonably considered a part of structural geology. The text is beautifully illustrated, thoroughly referenced, and presented in a consistent style. The 14 chapter titles serve as an adequate description of the material covered: "The domain and content of structural geology"; "Depositional textures and structures"; "Non-drastrophic structures"; "Physics of deformation"; "Environ-