

lates by means of women." The image denotes marriage and alliance, which depend on circulation of women, but it also connotes deeper meanings which unite biology, politics, and the social order. Fox states in his introduction:

This "flow of life" is synonymous with the transmission of a woman's blood, the vital fluid that, united with semen, produces the human person. Implicit in this conception . . . is the idea of a return or reunion of life: the "life" that a brother and a sister share can be restored only by marriage of their children or the descendants of their children; in other words, the life, or blood, that a sister takes with her when she marries may be returned to her brother's group through her daughters.

At an organizational level, then, the alliance system is based on the principle that when a woman marries out of her natal group her child marries back into it; at a symbolic level, such a pattern is embodied in such notions as circulating blood and reunion of life. In native conception such "levels" constitute a unity.

The second section focuses on the symbols themselves. Here is rich material concerning the symbolism of livestock, art, the house, ritual. The kind of images treated is illustrated by the title of the essay by Friedberg: "Boiled woman and broiled man." The section concludes with Traube's poetical and rather moving analysis of the meaning of black and white as symbols of the life cycle among the Mambai of Timor.

Fox's introduction and concluding essay ("Models and metaphors . . ."), supplemented by a useful piece by de Josselin de Jong on the methodology of comparison and generalization, ably draws out themes at once distinctive of Eastern Indonesia and carrying wider implication: for instance, the significance of parallelism in ritual language. Fox's conclusion, which is not without theoretical importance, is that the commonalities and order of Eastern Indonesian societies are to be found not in organizational patterns abstracted sociologically but in the system of symbols expressed by the natives: "metaphors for living which are encoded primarily in a pervasive dyadic form."

Well written, carefully constructed, adducing rich ethnographic data to develop an important theoretical theme, the volume is recommended to the reader who wishes to become acquainted in a concrete way with a certain type of comparative and structuralist analysis distinctive of contemporary social anthropology.

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## The Formation of Sediments

**Early Diagenesis. A Theoretical Approach.** ROBERT A. BERNER. Princeton University Press, Princeton, N.J., 1980. xii, 244 pp., illus. Cloth, \$25; paper, \$9.50. Princeton Series in Geochemistry.

"Diagenesis" refers to the sum total of processes that produce changes—mineralogical, chemical, and physical—in sediments from the time of their deposition on. A final product of diagenesis is a sedimentary rock formed over some period of time from unconsolidated sediment deposited on land or in water. The book under review addresses itself only to sediments in water, including those of detrital (land-derived), chemical, and biological origins. It deals with an upper zone of sediments, generally several tens of centimeters thick, and the pore waters contained within it. The focus is primarily on the chemical changes taking place in pore waters, as caused by a variety of inorganic chemical and biological processes operating within the solids-plus-solution system of the young sediment. As the title suggests, the book does not deal with the broader and more advanced stages of diagenesis, the products of which are observable as the older sedimentary rocks on the continents and ocean floor.

The author's involvement in early diagenesis goes back nearly 20 years, to his days as a graduate student. His treatment of the subject is generally clear, and the material is well organized, up to date, and sufficiently illustrated by means of graphs and occasional sketches. Within the constraints of the available data on the chemical composition of pore waters, the coverage of pore-water diagenesis is exhaustive. Parallel evidence of early diagenesis in solid phases of sediments is limited owing to the difficulties of obtaining such data. Among the more prominent topics dealt with in the general and theoretical chapters of the book are diffusional and advective transport in pore waters of sediments, the chemical thermodynamics and kinetics of dissolution and precipitation of minerals, and redistribution and mixing of sediments by burrowing organisms (bioturbation). Applications of the theory are given in illustrative discussions of pore waters of lake, marine coastal, and oceanic pelagic sediments. The chemistry and mineralogy of early diagenesis are well covered by cases representing the behavior of carbonates, iron sulfides, organic materials, nitrogen species, sulfate, silica, phosphate, and methane in modern sediments.

The book contains some jargon: "diagenetic equation," a term introduced by the author some years ago, stands for a well-known mass-balance equation with diffusional, advective, and chemical reaction terms; "biodiffusion coefficient" and "irrigation coefficient," even if descriptive of the processes to which they refer, make me wonder if they are needed. From a user's point of view, somewhat weaker points of the book are a paucity of tabulated numerical data and of examples of how numerical solutions to many of the equations are arrived at.

The subject matter, style, and method of presentation should make *Early Diagenesis* highly useful to persons concerned with various aspects of the environment at the sediment-water interface in lakes, coastal waters, and oceans.

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## Regulatory Proteins

**Regulatory Functions of Interferons.** Papers from a conference, New York, Oct. 1979. JAN VILČEK, ION GRESSER, and THOMAS C. MERIGAN, Eds. New York Academy of Sciences, New York, 1980. xiv, 642 pp., illus. Cloth or paper, \$124. *Annals of the New York Academy of Sciences*, vol. 350.

Although interferons have been the subject of far too much publicity recently, there can now be no doubt about their scientific importance. More and more workers in different disciplines are studying this family of biologically active proteins, and it is clear that their physiological role extends far beyond that of an antiviral defense mechanism. Much recent work has been concerned with the interactions between interferons and immune mechanisms and with their effects on cell growth, the cell membrane, surface antigen expression, and so forth—in other words, with the regulatory functions of interferons. This book contains the 58 papers (and abstracts of the 38 posters) presented at a symposium on the subject. The subject is broadly interpreted, and the field covered is enormous. I admire the stamina of those who participated in what must have been four long and hard but rewarding days. The reader browsing at leisure has an easier time.

The book has appeared with commendable speed. One can view it in two ways. From one point of view, it is an exceedingly useful reference source. It contains within its covers papers by