
Geological Data Processing: Using Fortran IV. *F. G. Smith.* Harper and Row, New York. 1966. xv+284 p. \$14.00.

Dr. Smith has undertaken the difficult task of providing a bridge between some of the mathematics that modern geologists ought to know and the widely used FORTRAN IV language. Some prior knowledge of FORTRAN is recommended.

The book treats logic, mathematics, and computer programming, in that order. Programming is developed gradually with the treatment of logic and mathematics. Chapter headings include Symbolic Logic; Boolean Algebra; Arithmetic; Algebra; Vectors and Matrices; Calculus of Discrete Functions; Calculus of Continuous Functions; Probability; Statistics; Error, Precision, and Accuracy; Flow Diagrams; Fortran IV Language; and Examples of Data Processing.

The chapter on Fortran IV language can be used to provide the necessary initial background in FORTRAN. The reader will also need some skill in elementary differential and integral calculus.

Many of the topics in logic and mathematics are presented too briefly to provide complete, rounded treatments. However, it is not the purpose of the book to package and present all of the mathematics needed in modern geology. The book does show the role that computer programming can play in a variety of problems that are becoming increasingly significant. The book also shows something of the variety of mathematical concepts available to the geologist, whether or not he relies heavily on computers.

The chances are small that Dr. Smith will convert anyone from the "anti-quantitative" school. However, those who believe in the value of the wise use of quantitative approaches will find that this book can open some doors to significant progress.

HOWARD J. PINCUS

The International Handbook of Group Psychotherapy. J. L. Moreno, Editor. Philosophical Library, New York. 1966. 747 p. \$17.50.

This volume is intended to present the current status of group psychotherapy on an international scale. A second goal is to disclose historical material relevant to the origins and development of the practice of group psychotherapy.

The major part of the book (566 p.) is given to the papers presented at the Third International Congress of Group Psychotherapy, held in Milan, Italy, in July, 1963. These papers are organized into the following areas: general trends in current group psychotherapy, interactional group psychotherapy, analytic group psychotherapy, psychodrama, programs in mental hospitals, milieu therapy, therapeutic community, family therapy and marriage, group processes, cultural constellations, teaching and training methods, selection methods and sociometric group formation, alcoholics and drug addicts, existentialism, education, prisons and reformatories, delinquents, sexual offenders, psychosomatic medicine, LSD, indications and contraindications. Over one-quarter of the articles are written in either French, Italian, German, or Spanish.

It is difficult to find anything in most of these articles to make the "handbook" worth purchasing. Most of the papers give a description of work already described in other publications. Many of them seem written with a surprising lack of sophistication concerning psychodynamic principles. A large number are not articles at all, but merely brief abstracts of papers.

Several papers offer a pleasant contrast to the above by their high quality, among which are the following. Milton Berger offers an outstanding condensation of a vast amount of material concerning the function of the leader in developing and maintaining a working psychotherapeutic group. Stanley Lesse describes in excellent fashion the influence of unintended phenomena (placebo effects) on the results of group psychotherapy. A worthwhile summary of the basic premises of family therapy is given by Virginia Satir.

There is a good review by John Mann of the results of research upon the effectiveness of group psychotherapy. He includes forty-one studies which he found to be: 1) methodologically adequate, employing a control group design; and 2) measuring changes of "a fairly fundamental character."

The first major portion of the book is devoted to an historical presentation, by Mrs. Moreno, of evidence to support the thesis that J. L. Moreno is the father of "the group psychotherapy movement," as well as its current leader. She also lays claim for Moreno for the following ideas, which have been taken over and elaborated upon by other men: the notion of the "encounter" and the "I and thou" by Martin Buber, "interpersonal relations" by H. S. Sullivan, and "the therapeutic community" by Maxwell Jones. As she says, "perhaps some day an outside historian, less involved than myself, will present a more objective survey."

This book may be desirable for those interested in the history of group psychotherapy or in possessing a complete library of works on group psychotherapy, but it cannot be otherwise recommended.

G. J. LEARMONTH, M.D.

The Land and Wildlife of Africa. Archie Carr and *The Editors of Life*. Time, Inc., New York. 1964. 200 p. \$3.95.

Nineteenth in the fine series of *Life's Nature Library* series, this book by Archie Carr, of the University of Florida (specialties: ecology of turtles; Central America, Africa), contains a survey of the life of Africa south of the Sahara. An authoritative and perceptive ecologist, Dr. Carr throughout the book emphasizes the interrelationships between the animals, the plants, and their environments, in a popular, easily understood style. Despite occasional insertions of major paragraph headings in the middle of topics, the material is generally well organized and is enjoyable reading.

Each of the eight chapters contains a section of solid text followed by several pages of *Life's* incomparable color photos, covering: an overall survey, aquatic life, herbivores of the grasslands, carnivores, the tropical rain forest, the high mountains, and Madagascar.

The final chapter summarizes the vital conservation message which pervades the whole book: that mammals, which reached their culmination during the Pleistocene Epoch and have since decreased in importance elsewhere, were still surviving in Africa in a multitude of fascinating forms until their terrible destruction during the last few decades by man, both black and white; "The world faces a staggering loss in the waste of wild Africa." Dr. Carr is well aware of the widespread concern about this conservation problem, but also realizes that the destruction is far ahead of the meager efforts to halt it.

The problem is not simple, as the book clearly points out. The book contains no answer to the problem, for there is no answer, but it represents a good place at which to begin to understand the problem, as well as a fascinating survey of Africa's famous animals.

JANE L. FORSYTH