

training in mathematical statistics can work his way through this treatise without outside assistance. For this reason it would have been helpful if the authors had indicated a selection of topics suitable for a first reading.

I heartily recommend this book to those with serious interest in the applications of statistics. However, there are several features open to criticism: (i) The authors' substitution of the symbol " $\text{ave}(x)$ " for the universally accepted symbol " $E(x)$ " is annoying to the mathematical statistician and is likely to be confused with the common use of the word *average*. (ii) Seventeen useful tables are distributed throughout Chapters 5, 6, 9, and 11 without being properly referenced, and consequently are lost to the occasional user of the book. (iii) The authors repeatedly use significance levels of the F and χ^2 distributions that are not included in their tables and fail to inform the reader of their sources. (iv) The list of references should be alphabetized. (v) The most serious criticism is the occurrence of numerous typographical errors in formulas and in numerical calculations, which tend to destroy the reader's confidence in the authors.

I feel that the afore-mentioned criticisms are sufficient justification for a revision of the book at the earliest possible date. With proper editing *Statistical Analysis* could be one of the most useful reference books on applied statistics.

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Physical Geology. L. Don Leet and Sheldon Judson. Prentice-Hall, New York, 1954. ix + 466 pp. Illus. \$6.75.

A generation ago geology, as presented in textbooks, was largely a descriptive science, comparatively independent of other subjects. As knowledge has increased, so has dependence on related disciplines, and precise quantitative measurements have supplemented descriptive analyses. Elementary textbooks, however, have been slow to incorporate the advances in research and industry, although recently some have shown increasing awareness of the interrelationships of geology and other sciences. *Physical Geology* reveals in an outstanding manner the contributions to geology of recent research and of disciplines such as mathematics, chemistry, physics, and astronomy, without assuming background knowledge in these fields.

This book begins with a brief description of the scope of physical geology; moves on to a short discussion of atomic chemistry and physics, explaining such topics as mass, energy, atomic particles, isotopes, ionic radii, and ionic bonds; covers carefully and thoroughly in succeeding chapters the usual topics of an elementary textbook; and ends with a chapter on the earth's age and another on mineral deposits and fossil fuels.

Written in a concise narrative style, with more than 350 pictures and drawings, this should serve

as a splendid beginning textbook. All chapters merit praise, but the one on earthquakes is perhaps most outstanding, reflecting the special interests of the senior author. Up-to-date geologic information abounds, and where conclusions are controversial, the different viewpoints are presented. *Physical Geology* is an introductory textbook that retains the best from older works and moves boldly to integrate into geology that which is useful and relevant from other sciences. May the trend continue!

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Beyond the Germ Theory. The roles of deprivation and stress in health and disease. Iago Galdston, Ed. Health Education Council, New York, 1954. viii + 182 pp. Illus. \$4.

This book contains 11 chapters by nine authors and a foreword by Howard Craig, director of the New York Academy of Medicine. Iago Galdston contributed the first chapter, which gives the book its name. All the papers discuss a general theme, the influence of factors other than germs in causing disease. These factors are deprivation, stress, nutrition, and the emotions.

Part I deals with "The dynamics of deprivation and stress"; part II with "Nutritional deprivation and stress"; part III with "Psychological deprivation and stress"; and part IV with "Social stress and deprivation."

In view of the increasing emphasis on psychosomatic medicine, this book is timely and may be read with benefit by most medical men, dietitians, and social workers. Unfortunately, the chapters vary considerably in interest and readability, and many contain a great deal of excess verbiage. A notable exception is the one by Lawrence Hinkle, Jr., on "Normal stress in normal experience." Its clarity and excellent organization make it delightful reading. Most of the other chapters could have been considerably improved by careful editing.

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The World of Learning 1954. Europa Publ., London, 1954. xii + 1030 pp. \$17.50.

This 1954 edition of a well-known reference book that lists the principal international scientific and cultural organizations and, in alphabetical order according to countries, detailed information about such institutions as research institutes, learned societies, colleges and technical institutes, museums and art galleries, academies, and libraries and archives. Included are the names of key personnel in each institution listed, the foundation year of the various institutions, and the titles of publications issued by them. For easy reference, there is an index of institutions.—D. R.