Book Reviews


These books are good examples of the recent spurt of activity in reissuing works long out of print that are of value in the study of the history of science.  The first, Jackson's Guide, is an important bibliographic reference work covering printed botanical books up to the year 1880.  Unlike the standard reference work by Pritzel, Thesaurus Literaturae Botanicae, which ends its coverage in the year 1871, this work is selective as well as classified and does include many books omitted by Pritzel.  The bibliographic references are given in a very abbreviated form.  Jackson is ideal for information about classical works or as a starting point for literature searches.

The second book, Hall's Source Book, is quite a different history-of-science tool.  It is a collection of short selections, all given in English and some for the first time, from the zoological literature of the last four hundred years.  With each selection, there is brief biographical information about the author and notes relating it to other papers.  The selections are organized into groups dealing with various topics: organization of animal life, activities of organs, behavior, development, cellular biology, pathology, zoogeography, evolution and heredity.

Hafner publishing company has done a service for biologists by reprinting these important works.  Many libraries will be pleased to have a replacement copy of Jackson because the paper of the original edition is now so brittle.


This widely used book has been updated in the light of new knowledge.  Family trees have been constructed for the common families of the orders: Hemiptera, Coleoptera, Diptera, Lepidoptera, and Hymenoptera.  Users of the book will be surprised at the great changes that have been made in the organization of chapter 7, entitled, The Orders of Insects.  This chapter has been expanded by 14 pages, although the basic information in it is essentially the same as in the previous edition.  All other chapters have been revised slightly, some having a few more and some a few less pages than in the previous edition.  A few new illustrations were added and some less desirable ones eliminated.

The new edition should continue in wide usage for courses in general entomology.


This book presents a comprehensive and fundamental treatment of soil mechanics.  Approximately one-half the text is devoted to the mechanical behavior of soil during consolidation, loading, and deformation.  The remaining chapters are complementary topics on soil water, soil particles, and characteristics of natural soil materials.

The author has provided a rigorous treatment of the basic theories utilized in soil mechanics.  Frequent and consistent use is made of the effective stress principle.  The presentations are straightforward and well illustrated by numerous graphs.  Exemplary problems illustrate the applicability and limitation of various analytic expressions for calculating soil deformation, displacement, and failure.  The author has included a brief but excellent chapter on properties of clay-sized particles.

This book fills an important need in soil mechanics, primarily by its presentation of a rigorous, straightforward, and up-to-date treatment of the basic theories used in soil mechanics.  The book will be a valuable addition as both a textbook and a reference source.


The publisher is to be congratulated for producing a high quality facsimile of Johnson's classic on shore processes.  The photographs have been reproduced with little or no loss of sharpness.  The slight enlargement of page size makes for easier reading than in the original edition.

The current generation of geologists, geographers, and coastal engineers should welcome the availability once again of "Shore Processes," but students will be discouraged by the facsimile's price.

Although recent developments in the hydraulics of sediment transport, quantitative geomorphology, water-wave dynamics, and other concepts have far outrun some of Johnson's approaches, there is much in this book that is of more than historical interest.  The continuing relevance and validity of much of "Shore Processes" underscore Johnson's perceptiveness as much as they attest to the need for significant progress in the application of modern techniques.