proach—insofar as an indexing system alone is concerned. To this extent, both efforts follow the "growing trend in documentation toward considering units of thought as fundamental . . ." to quote from our paper.

Although the CBCC also calls for specialists to catalog units of thought, the real novelty of its methods lies in the medium of handling the units of thought in such a way that they can be searched from many different points of view, with wide choice as to degree of selectivity, and in simple or complex combinations not possible by any other existing scheme.

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Book Reviews

Geology. O. D. von Engeln and Kenneth E. Caster. New York–London: McGraw-Hill, 1952. 730 pp. Illus. $7.00.

Another in the series of new textbooks in the field of general geology, this book combines the talent of a well-known physical geologist of senior citizenry and the efforts of a paleontologist of established position. The new text, of pleasing appearance, attempts an integration of physical and historical geology into a single unit by interrelated chapters stressing principles of both subjects simultaneously, and avoiding either the artificial separation of physical from historical that is sometimes found, or the repetition necessary in two separate treatments. Throughout, as ideas are presented, relationships to paleontologic and stratigraphic principles are explained.

The text is organized in what is probably correctly termed "the conventional approach." Major headings are (1) "Introduction to Geology," 3 chapters; (2) "The Natural History of Igneous Rocks," 6 chapters; (3) and "Structure, Process, Forms," 13 chapters, which completes the section devoted primarily to physical geology (52% of the 706 pp.). "Geologic History" follows time-scale subdivisions beginning with "Cenozoic Era," 4 chapters; "Mesozoic Era," 3 chapters; "Paleozoic Era," 7 chapters; and "Cryptozoic Eon," 3 chapters. Transition from physical to historical geology is accomplished by closing physical with glaciation, and opening historical with the Pleistocene glacial epoch. It will be interesting to discover, as usage of this text progresses, if the technique of newest to oldest in chronology of historical geology takes any better today than it did in earlier texts similarly constructed.

Few geologists will disagree with the writers that "A basic text in geology should present the subject so as to afford the student . . . inspirational satisfaction," or with their position that the text should also provide a "comprehensive survey of the science to furnish an adequate sound foundation for the advanced courses that comprise the training of the professional geologists." That these two important objectives can be effectively met in the same textbook is an open question. The numerous texts that have appeared in the past 10 years, with only one exception so far as this reviewer is aware, have attempted by monotonously similar techniques to accomplish these objectives. The adding of new texts scarcely seems justified, no matter how sincerely conceived, unless unusual new approaches can be introduced to reach the varied objectives customarily attempted.

The illustrations are well placed and the diagrams attractive.[1] Many are new and original with this book. Some are not as effective as they might be were printing contrasts greater.

The vocabulary of geology is emphasized throughout. Questions for review found at regular intervals whose purpose is defined as permitting "the student to know just what is expected of him in . . . comprehension . . . (and serving) . . . the teacher . . . for tests" could, in this reviewer's opinion, be more imaginative and more commanding of the interrelationships of geological principles, rather than the fact mastery.

Emphasis is placed on reducing the special difficulty of mastering a multitude of technical terms, and it is asserted that "to facilitate attainment of . . . proficiency the explanation of each technical term appears where it is first used." This objective is reached in text, but it would appear that little thought was given when illustrations were inserted, since terms are introduced in subtitles without definition before the concept is introduced in the text, such as in Fig. 39, page 90, where cirque and alluvial fan are introduced, with explanations on pages 112 and 340, respectively, top-set beds, Figs. 50 and 52, pages 109 and 111, and bottom-set beds, Fig. 51, page 110, defined on page 132. Some words new to text treatments, such as "glacierization," are introduced as though they were stock. Some new limitations on common concepts such as restricting magma to plutonic environments, and legalizing "molten lava" for surface magma, appear. This usage may be desirable in modern petrology, but it will probably have limited adoption. A noble effort is found in carefully explaining basic language roots for all technical terms. A few careless statements are evident, such

[1] One important implementation is the recent announcement that a systematic set of 290 colored slides keyed to this text is available from Ward's Natural Science Establishment, Rochester, N. Y.

as (p. 7): "Every crystal is found to fit into one of six systems, each of which is determined by the relations of its *three* axes," but in general the text is remarkably free from such minor incongruities.

The paleogeographic maps are well drawn, although the reproduction might be improved. Use of an overlay transparency, to emphasize the importance of crustal shortening in orogeny since the period to which the paleogeographic condition applied, is commendable, because students rarely make an adequate translation from the geography of the geologic past to the present. It is questionable, however, whether the scale of the overlay and maps will accomplish the desired objective. The presentation of life sequences is unusually interesting, but some will think too much paleontologic and stratigraphic nomenclature is included.

The text gives a well-rounded and adequate presentation which is skillfully woven to make interesting reading. The user will find the text satisfactory, and, where the introductory course is a single unit of both physical and historical geology, the book should be superior to others on the current market.

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Scientific Book Register

Metabolic Interrelations: With Special Reference to Calcium. Transactions of the Fourth Conference, January 7–8, 1952, New York. Edward C. Reifenstein, Jr., Ed. New York: Josiah Macy Jr. Fdn., 1952. 262 pp. Illus. $4.50.

Introduction to Evolution. Paul Amos Moody. New York: Harper, 1953. 475 pp. Illus. $6.00.

Wood Chemistry, Vol. 2. American Chemical Society Monograph #97. 2nd ed. Louis E. Wise and Edwin C. Jahn, Eds. New York: Reinhold, 1952. 652 pp. Illus. $15.00.

Biochemistry of Disease (M. Bodansky and O. Bodansky). 2nd ed. Oscar Bodansky. New York: Macmillan, 1952. 1208 pp. Illus. $12.00.

Demand Analysis: A Study in Econometrics. Herman Wold, in association with Lars Juréen. New York: Wiley; Stockholm: Almqvist & Wiksell, 1953. 358 pp. Illus. $7.00.

Rayon Technology (Including Acetate): Handbook for Textile Mills. 2nd ed. Prepared by the Textile Research Department, American Viscose Corp. New York–London: McGraw-Hill, 1953. 344 pp. Illus. $7.00.

Chemical Analysis of Industrial Solvents. Morris B. Jacobs and Leopold Scheflan. New York–London: Interscience, 1953. 501 pp. Illus. $10.00.

Qualitative Analysis and Analytical Chemical Separations. Philip W. West, Maurice M. Vick, and Arthur L. LeRosen. New York: Macmillan, 1953. 223 pp. Illus. $3.75.

Association Affairs

Preliminary Announcement Seventh Boston Meeting

December 26–31, 1953

Raymond L. Taylor, Associate Administrative Secretary

FROM the programs and other events already arranged, it is apparent that the 120th Meeting of the AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE will be particularly well balanced, well attended, and significant—one of the best meetings in the long annals of the Association. At this time the Association, soon to enter its 106th year, with 238 affiliates and 50,000 individual members, is on the threshold of careful studies to see how its services to science, to scientific organizations, to scientists, and to society may be improved and increased.

One of the fundamental purposes for which the Association was founded, in September, 1848, still endures: ". . . by periodical and migratory meetings, to promote intercourse between those who are cultivating science in different parts of the United States . . ." At Boston this December the annual meeting for the year 1953 once more will bring together leaders and younger men and women in the principal fields of science, not only to read papers reporting current research and to discuss their specialties, but also to attend outstanding symposia and to consider some of the problems that affect science and the world today. This 120th Meeting has as its theme "Scientific Resources for Freedom," and a number of the 18 sections of the Association and participating societies will have programs devoted to physical resources, scientific manpower, and scientific techniques—men, materials, and methods—related to the national economy, security, and welfare.

Although this year's 120th Meeting is typical of AAAS meetings in the past—with national meetings of large societies, interdisciplinary sectional symposia, sessions for contributed papers arranged by many of the sections, distinguished evening addresses, a large-scale Exposition of Science and Industry, and a showing of the latest foreign and domestic scientific films—there is a growing trend toward recurrent conferences in which many scientists, irrespective of their specialties, will be interested. At Boston, in addition to the Academy Conference, representing the 40 academies of science now affiliated with the Association, the Conference on Scientific Editorial Problems II, and the Conference on Scientific Manpower III, there will be one or two sessions on "The Scientist in American Society" and two sessions on "Transmission of Ideas." For the first time in many years, a past president of the British Association for the Advancement of Sci-