

requires analytical tools different from those used in studying small societies. And another perceives that "lip service" has been given to the so-called "integration" of anthropology which has in fact been absent—but hardly a single voice speaks up for the obvious solution: explorations toward an analytical conceptual scheme along multidimensional or "interdisciplinary" lines. Thus, although this volume and its companion book show that much empirical progress has been made, they also show that anthropology remains pretty much where Dr. Straus places it on page 153: "I do not think that anthropology exists as a distinct entity. . . . It exists merely as a meeting ground of people interested in man." Dr. Linton acknowledges this on the following page, but also wants anthropology to be a "real focal point of research." This goal can be realized only in part, as long as anthropology ignores its needs for conceptual precision, and fails to capitalize on its dependence on the often more sophisticated outlook of neighboring disciplines.

In the midst of applause for the Wenner-Gren conference, the reviewer offers a few dissenting observations. Science is made by men—particularly the social sciences where the operational character of the problem is often not as influential as the sheer productivity and persuasiveness of the scientists. Consequently one cannot hope to produce a genuine *summa anthropologica* on the basis of a selection of individuals. These individuals represent points of view, not slices of knowledge; the selection must inevitably be biased, and important voices must be left out. There is a slightly false note about a conference which proposes to examine the total condition of a field as diffuse and conceptually unintegrated as anthropology, and one must have certain reservations about its possible authoritarian influence and use. I do not believe that this is "anthropology today" and that the volume under review is a complete "appraisal."

JOHN W. BENNETT

Department of Sociology and Anthropology
The Ohio State University

International Tables for X-ray Crystallography: Symmetry Groups, Vol. I. Norman F. M. Henry and Kathleen Lonsdale, Eds. Birmingham, Eng.: Kynoch Press, 1952. (For the International Union of Crystallography.) 558 pp. Illus. 105s.

This volume, together with two more that are to follow, will constitute a thoroughly revised and expanded edition of the *Internationale Tabellen zur Bestimmung von Kristallstrukturen* of 1935 (Borntraeger, Berlin), which were reprinted with corrections and notes in 1944 (Edwards Bros., Ann Arbor, Mich.). Many changes have been made, mostly for the better, so that the new tables indeed deserve a new name. The one chosen is unfortunately somewhat misleading, as most of the results compiled in this volume antedate x-ray diffraction. The new title is also unduly restrictive, for this work should prove of inter-

est to *all* crystallographers, be they engaged in "electron crystallography," in "neutron crystallography," or even in "visible light crystallography." Many mathematicians, physicists, chemists, ceramicists, mineralogists, and metallurgists will find it useful.

After an unexpected historical introduction by M. von Laue—a pleasant surprise—this volume presents symmetry data for various kinds of groups (in 1, 2, and 3 dimensions); translation groups (1 row, 5 nets, 14 lattices); point groups (2, 10, 32); space groups (2, 17, 230). Subgroups and supergroups are tabulated for all point groups, for the 17 plane groups, and, as an example, for the space groups of one point group (422- D_4). The point-group symmetries of various physical properties of crystals are listed. Aspects symbols are tabulated and directions given for transforming them into diffraction symbols. The geometrical structure factors are listed not only for the general case but also for indices that obey certain criteria; they are collected in a separate section, in which the expression of the electron density is also given for each space group. Some, but not all, $|F(hkl)|$ and $\alpha(hkl)$ relationships are stated. The Delaunay reduction of any primitive cell to the conventional Bravais cell is included. Patterson-Harker functions, some statistical methods, and inequalities are also mentioned. In tables of concordance for space group symbols in alternate settings, interleaving symmetry planes are explicitly labeled; e.g., *I b a m*.

c c n

The editors have succeeded in limiting their selection to data of proved value. Half the book is devoted to space groups: symmetry diagrams, lists of positions of various multiplicities, coordinates of all sites in each position, reflection criteria. Each group begins a new page. Although the Hermann Mauguin notation is now given priority, the groups are still listed in the disorder of the Schoenflies superscripts. Some welcome simplifications: the tetragonal C and F settings have been dropped, and so has the hexagonal H setting. The primitive hexagonal lattice is no longer designated C but P. Rhombohedral diagrams are considerably improved. A defeatist decision to do away with all cubic diagrams undisputably results in compactness and economy. Alternative monoclinic descriptions, of dubious usefulness, require the consecration of the symbols that C. Hermann had relegated to a footnote in the 1935 *Tabellen*; e.g., *Pm* becomes *P11m* in the so-called "1st setting" and *P1m1* in the standard (or "2nd") setting. The 1's used as fill-in do not refer to symmetry directions of the lattice, as they do in such symbols as *P3m1* and *P31m*, so that this extension of the symbolism is rather infelicitous. Friedel's nomenclature of crystal classes is misquoted, as the alternate names provided for the trigonal classes when the lattice is hexagonal are left out. In places the text reads like a textbook, a mildly annoying feature in a book whose purpose is less to educate crystallographers than to make mathematical results accessible to them. The 1935 *Tabellen* were

trilingual; the new *Tables* speak only English. A 4-page "dictionary" translates technical terms into French, German, Russian, and Spanish. It is good as far as it goes, despite one or two fanciful translations. The material presentation of text, tables, and figures is lavish—no pain has been spared (no paper either).

The editors and their friends have worked hard at a labor of love. "You cannot please everybody and his uncle"—this is a job well done.

J. D. H. DONNAY
GABRIELLE DONNAY

Department of Geology
The Johns Hopkins University

Proceedings of the International Congress on Analytical Chemistry, Oxford, England, September 4-9, 1952. Under the patronage of The International Union of Pure and Applied Chemistry. Cambridge, Eng.: W. Heffer, 1953. 493 pp. Illus. + plates. 42s.

At the meeting of the International Union of Pure and Applied Chemistry in New York in 1951, the Section of Analytical Chemistry officially came into being. Several years of preliminary planning then culminated in the meeting of the first International Congress on Analytical Chemistry held at Oxford University. A

general report of the meeting, including the scientific papers presented, make up this book.

There are certain items of general interest such as the following: a foreword by Sir Robert Robinson; a list of the Union analytical commissions and sub-commissions, including the members; a list of the 87 analytical exhibits staged in the Dyson Perrins Laboratory during the meeting; and a list of the names of those attending the meeting.

The all-invited program of papers consisted of four general "congress lectures" by R. H. Müller, L. H. Lampitt, C. J. van Nieuwenburg, and I. M. Kolthoff, and 48 others on specific subjects. The latter are grouped under microchemical methods, biological methods, electrical methods, optical methods, radiochemical methods, organic complexes, presentation of data, adsorption and partition methods, and general. Each specific paper has an abstract in English, German, and French, together with a record of the subsequent discussion. All the papers appeared in the November and December 1952 issues of the *Analyst*.

The committee in charge of the program and the editor of the *Analyst* are to be congratulated on a very successful undertaking. The meeting will long be remembered by those in attendance.

M. G. MELLON

Department of Chemistry, Purdue University

Scientific Book Register

Natural History of Infectious Disease. 2nd ed. of *Biological Aspects of Infectious Disease*. F. M. Burnet. New York: Cambridge Univ. Press, 1953. 356 pp. Illus. \$4.50.

Aluminum in Iron and Steel. Samuel L. Case and Kent R. Van Horn. New York: Wiley; London: Chapman & Hall, 1953. (For the Engineering Foundation.) 478 pp. Illus. \$8.50.

Statistical Methods in Experimentation: An Introduction. Oliver L. Lacey. New York: Macmillan, 1953. 249 pp. Illus. \$4.50.

Fundamentals of Biology. M. J. Harbaugh and A. L. Goodrich, Eds. New York: Blakiston, 1953. 611 pp. Illus. \$6.00.

Tensor Calculus. Barry Spain. Edinburgh-London: Oliver and Boyd; New York: Interscience, 1953. 125 pp. \$1.55.

Chemical Physiology of Contraction in Body and Heart Muscle. A. Szent-Györgyi. New York: Academic Press, 1953. 135 pp. Illus. \$4.80.

Electron Optics. 2nd ed. O. Klemperer. New York: Cambridge Univ. Press, 1953. 471 pp. Illus. \$9.50.

Microbiology and Human Progress. Madeleine Parker Grant. New York: Rinehart, 1953. 718 pp. Illus. \$6.75.

Introduction to Solid State Physics. Charles Kittel. New York: Wiley; London: Chapman & Hall, 1953. 396 pp. Illus. \$7.00.

The End of the World: A Scientific Inquiry. Kenneth Heuer. New York-Toronto: Rinehart, 1953. 220 pp. + plates. \$3.00.

The Philosophy of Human Nature. George P. Klubertanz. New York: Appleton-Century-Crofts, 1953. 444 pp. \$3.50.

Radiations and Living Cells. An introduction to radiation biology, in which the action of penetrating radiations on the living cell is described, with special reference to the effect on cell division in human tissues. F. G. Spear. New York: Wiley, 1953. 222 pp. Illus. \$3.50.

Adventures in Artificial Respiration. Peter V. Karpovich. New York: Association Press, 1953. 303 pp. Illus. \$7.50.

The Good Doctor. And other selections from the essays and addresses of William de Berniere MacNider. William W. McLendon and Shirley Graves Cochrane, Eds. Chapel Hill: Univ. North Carolina Press, 1953. 179 pp. \$5.00.

The Yields of a Crop. Based on an analysis of cotton-growing by irrigation in Egypt. W. Lawrence Balls. London: E. & F. N. Spon, 1953. 144 pp. Illus. + plates + charts. 21s.

Scientific Explanation. A study of the function of theory, probability and law in science; based upon the *Turner Lectures*, 1946. Richard Bevan Braithwaite. New York: Cambridge Univ. Press, 1953. 376 pp. Illus. \$8.00.

Chemical Constitution. An Introduction to the theory of the chemical bond. 1st Eng. ed. J. A. A. Ketelaar; trans. by L. C. Jackson. Amsterdam-Houston: Elsevier Press, 1953. 398 pp. Illus. \$6.50.

Contact Dermatitis. George L. Waldbott. Springfield, Ill.: Thomas, 1953. 218 pp. Illus. \$8.75.