

are mentioned in the background chapters. But little stress is laid on the desirability of international cooperation in the study of the earth's mantle by drilling. The IGY is mentioned only once, incidentally, and only brief reference is made to the active interest in the project shown by the International Union of Geodesy and Geophysics (IUGG). It is related (page 50) that when IUGG considered the project at Toronto in 1957 ("prodded by AMSOC members and by Dr. Tom Gaskell, a British geophysicist"), a resolution supporting it was adopted, and that "a Soviet scientist" arose and said: "We already have the equipment to drill such a hole, we are now looking for the place." By the following September, Bascom states, the Soviet Academy of Sciences was rumored to have appointed its equivalent of a deep-drilling committee. Regrettably (doubtless because of the date on which the book went finally to press) it is not mentioned that at the Helsinki meeting of IUGG (July 1960) the deep hole was a main subject of the presidential address by V. V. Belousov. He was a member of the central IGY bureau and is now head of the geophysical committee appointed by the U.S.S.R. to organize their part of the effort to complete, continue, and extend the work of the IGY.

The IUGG appointed an international organizing committee, presided over by Belousov, to further the study of the mantle by deep drilling and in other ways. The mantle should be probed at more than one point, and international pooling of experience and results is obviously desirable.

Future International Cooperation

The wonderful response by so many nations to the scientist-originated proposal for the IGY is encouraging for the future. Governments and academies alike should keep it in mind as a stimulus to further action. Amidst much that is good in the individual and organized efforts of mankind, greed, pettiness, and duplicity show their ugly faces. Perhaps the best counteraction is positive cultivation of the impulse to cooperate and emphasis on the generous aspects of emulation. Scientific projects beneficial to our race as a whole give ample scope for this. Geophysics offers several: besides the deep hole studies there are world weather research and

the World Magnetic Survey. This last is a deferred item in the IGY program, and one that needs indefinitely continued, periodic repetition; it should be organized permanently and internationally. Most of all, academies and governments should make an urgent resolute push to exclude military efforts from space exploration, as has been done for Antarctica.

Aztec Culture Today

The Virgin's Children. Life in an Aztec village today. William Madsen. University of Texas Press, Austin, 1960. xv + 248 pp. Illus. \$4.50.

Most educated Americans know something about the prehistoric cultures of the Aztecs and Mayas, but they are surprised to discover that descendants of these Middle American civilizations are still vigorously carrying on many fundamental aspects of their ancient traditions. It is true that the descendants no longer build pyramids, sculpt images of their aboriginal gods, or paint murals. But they speak Nahuatl or Maya as their primary language, grow corn and make tortillas, and maintain many more aspects of their ancient social structures and belief systems than I think anyone would expect in the mid-20th century.

Throughout large areas of central Mexico there are still an enormous number of Nahuatl-speaking communities which have yet to be studied by anthropologists. The Nahuatl peoples living in and around the Valley of Mexico are clearly descendants of the Aztecs whose ancient capital of Tenochtitlan has become modern Mexico City, second largest city in the Western Hemisphere. In 1952 Madsen selected the small village of San Francisco Tecospa (population 800) in the Milpa Alta district just south of Xochimilco for a 16-month field study of contemporary Aztecs.

In this delightfully written book Madsen has two purposes: to provide an ethnographic description of the culture of this Aztec village and to elucidate the cultural processes, especially syncretism, by which this culture came to be a complex combination of the ancient Aztec heritage and the Spanish Catholic traditions of the conquerors. The San Francisco Tecospans now regard themselves as children of the Vir-

gin of Guadalupe, but this Catholic virgin is still called Tonantzin and is obviously closely related to the old Aztec earth goddess of that name.

On the whole the book comes off well, and it is an important contribution to our knowledge of contemporary Aztec ethnography and to our understanding of the processes of cultural change. It also has some weaknesses. If Nahuatl is the primary language in San Francisco Tecospa, one wonders why Madsen did not present Nahuatl terms for all the tools, customs, and concepts that he discusses instead of giving some in Nahuatl and some in Spanish. The reader has no way of determining whether the Spanish terms are actually used by the Tecospans themselves or whether perhaps Madsen presents the Spanish terms simply because he used Spanish rather than Nahuatl as his basic field language. At several points I had the impression that the analysis was not as penetrating as it might have been. Instead of a carefully worked analysis of certain aspects of the social structure and of the structure of the belief system, one finds pages of anecdotal material drawn from Madsen's field journal. While this style of presenting ethnography is vivid and will undoubtedly capture the imagination of the layman, it will not satisfy the professional anthropologist interested in problems of social structure and culture patterns.

The book is beautifully illustrated with photographs taken by Madsen and drawings by a Tecospa boy, both of which add much to the understanding and appreciation of the culture of the community.

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Young Intellectuals

Gifted Children. Their psychology and education. Maurice F. Freehill. Macmillan, New York, 1961. 412 pp. \$5.50.

Gifted Children is a comprehensive book that deals primarily with problems of educating gifted children and secondarily with the psychology of gifted children. How to identify gifted children is the first educational problem discussed. Two basic methods are given for solving the problem: obser-

vation and testing. Administrative devices—including grouping, acceleration, and enrichment—are described, and examples of each are given.

Educators will probably be most interested in the three chapters that describe curriculum and methods for teaching the gifted; programs in mathematics, in language, arts, and social studies, and in science are included. Discussion of vocational guidance and of the role of parents rounds off the educational topics.

Sprinkled throughout the book are chapters dealing with the psychological aspects of giftedness. Freehill differentiates among the terms *genius*, *talent*, and *giftedness*, although he makes little attempt to define gifted children, except by example. Intelligence is analyzed, and its growth and development are considered. Problems of learning and teaching such as motivation, transfer, evaluation, and structuring are discussed. In the final chapter the author discusses the development of emotions and character. In view of his interest in the psychology of gifted children, it is surprising that Freehill devotes only a few pages to the discussion of underachievement.

The book is a good one for in-service educational courses for teachers as well as for graduate teacher education courses in the education of the gifted.

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Polymer Chemistry

Preparative Methods of Polymer Chemistry. Wayne R. Sorenson and Tod W. Campbell. Interscience, New York, 1961. viii + 337 pp. Illus. \$10.50.

Preparative Methods of Polymer Chemistry deals with the details of polymerization of a very wide variety of important polymers and gives practical and detailed procedures for the synthesis and for the handling of these polymers. The preparations are the sort that could be accomplished in any well-equipped organic laboratory. In many cases the authors checked out the syntheses.

I feel that this will be a most useful book to a great number of chemists and that it fills a very definite need.

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Atomic Constants

The Fundamental Atomic Constants. J. H. Sanders. Oxford University Press, New York, 1961. 88 pp. Illus. \$1.60.

One of the types of information hardest to find in a concise and readable form is recent experiments on fundamental constants in physics. Although many of the handbooks which are published from time to time give the latest values of fundamental physical constants, the values are usually presented in lists or tables; thus, it is impossible to come to any valid conclusion regarding the relative merits of various experimental values. It is, therefore, very good to find a small book devoting its pages exclusively to the problem of measurements of e , h , m , N , and c .

A teacher lecturing in modern physics always likes to have on hand information about the various ways in which the fundamental constants are measured and about their interrelations. Sanders' book is written in a way that makes the job of the physics teacher very easy and gives him enough background information so that he can present a consistent picture of experimental methods in determining acceptable values for the fundamental constants. In this the author has done a real service: he has discussed the newest methods in considerable detail, compared them with the older methods, and still kept his whole contribution to less than 100 pages. I am sure it would have been much easier to write a much longer treatise, but Sanders has accomplished the difficult job of presenting this material in a clear and brief fashion. It is certainly a book I would recommend not only to the teachers of physics but also to graduate and undergraduate students who need a source of ready reference to the precision of the constants which they must use.

The book is divided essentially into three parts: The early measurements of these constants, considerable detail on measurements of the velocity of light, and finally recent precise measurements and derivations of the best values. This arrangement is well thought out for the useful role which this small book will enjoy.

For the research scientist, the author has produced a very carefully indexed bibliography, so that the details on any particular measurement can be followed through the literature without difficulty. This is an essential part, since

the book is a short review and since the detailed methods of treating the experimental data and of making the appropriate corrections have not been included. On the other hand, these details, which are of interest primarily to those trying to arrive at their own conclusions as to the best values can be located easily in the appropriate sources.

This small book is a welcome addition to the trend of producing monographs on specific subjects, designed to reduce the labor in finding one's way through the ever-increasing jungle of periodical literature.

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Bacterial Genes and Viruses

Papers on Bacterial Genetics. Edward A. Adelberg. Little, Brown, Boston, Mass., 1960. xlv + 400 pp. Illus. Paper, \$4.50.

Papers on Bacterial Viruses. Gunther S. Stent. Little, Brown, Boston, Mass., 1960. xxx + 365 pp. Illus. Paper, \$4.50.

Milestones in Microbiology. Translated and edited by Thomas D. Brock. Prentice-Hall, Englewood Cliffs, N.J., 1961. xii + 275 pp. Paper, \$3.95.

Joshua Lederberg's compilation entitled *Papers in Microbial Genetics, Bacteria and Bacterial Viruses* (1951) appeared on the eve of great discoveries which materially increased our understanding of the fields covered. Edward Adelberg and Gunther Stent, two University of California scientists, have now selected additional papers and present them in two volumes. Adelberg's collection includes 27 articles; Stent's 25. Each volume begins with an editorial review and a bibliography: bacterial genetics, 177 titles; bacterial viruses, 164. The introductions themselves are valuable orienting, critical, and comprehensive reviews. "No apologies need be offered for a selection which must be largely arbitrary." Originally designed to aid students, the collections will prove of value to investigators and professors. All articles selected are presented in English and all tables, graphs, illustrations, and article bibliographies are included.

Different is the selection of historically important papers included in *Milestones in Microbiology* by Thomas D. Brock (Indiana University). Here,