Book Reviews

British Bridge

Science Survey. vols. 1 and 2. A. W. Haslett and John St. John, Eds. vol. 1, 1960, 360 pp., $5.75; vol. 2, 1961, 372 pp., $7.50. Macmillan, New York. Illus. + plates.

It has been said of Baron von Humboldt that he was the last man who encompassed, within his ken, all of science as it then existed. In the century since his death the frontiers of knowledge have expanded like the gas cloud of a supernova. Today even the well-educated layman no longer comprehends problems that, despite their complexity, affect his life deeply. This has led to the concept of "two cultures" set forth by C. P. Snow.

Among the more valiant attempts to bridge the gap was the publication, last year, of Isaac Asimov's *Intelligent Man's Guide to Science* [reviewed in *Science* **132**, 1830 (1960)]. This two-volume work covered so broad an area that no one man could be fully informed of developments in all of the fields concerned. Hence there were some inaccuracies, but they detracted little from the total impact of that highly readable book.

Now we have another approach to the problem in the series of annuals, inaugurated last year, entitled *Science Survey*, prepared with the cooperation of the British Association for the Advancement of Science. In contrast to Asimov's work, each subject is dealt with by a specialist in the field. The two volumes that have appeared to date were edited by A. W. Haslett and John St. John.

A number of the chapters are based on papers or lectures presented to meetings of the British Association. In some cases they are reminiscent of the lead articles that appear in *Science* or in *Scientific American*. However the definition of "science" is extended to include such technological subjects as synthetic textile fibers and the degrees of annoyance caused in residential areas by jet planes taking off from New York International Airport. At the other extreme are chapters on relativity, stellar evolution, and the fundamental particles.

The subject matter, in some cases, has clearly not been chosen for its scientific importance, but rather for its appeal. In his foreward to the 1960 volume Sir George Thomson, then president of the British Association, notes that one of the association's paramount goals is "popularisation at all levels." Likewise, in the preface to the 1961 volume, Sir Wilfrid Le Gros Clark, who succeeded Sir George as president, cites the scientific education of young people as a special objective.

Because fallout and radiation dangers confront laymen with decisions that are particularly troublesome, three chapters of the first volume are devoted to this subject, calling to mind efforts by the American Association for the Advancement of Science to educate the public in this area.

Among the most interesting chapters are those on subjects that might be described as off-beat. These include one on animal courtships and another on the reasoning used to deduce the migration habits of eels and salmon. Progress in many fields is so rapid that some of the material already is dated. The second volume contains a postscript to the first, attempting to rectify this, but this can be done only to a limited degree. While contemporaneity is an asset, this series is chiefly valuable as an authoritative and at times highly entertaining exposition of the manner in which the scientific method is being applied to problems of our time.

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New York Times

SMSG

New Mathematical Library. vol. 1, *Numbers: Rational and Irrational*. Ivan Niven. viii + 136 pp. vol. 2, *What Is Calculus About?* W. W. Sawyer. viii + 118 pp. vol. 3, *An Introduction to Inequalities*. Edwin Beckenbach and Richard Bellman. x + 133 pp. vol. 4, *Geometric Inequalities*. Nicholas D. Kazarinoff. x + 132 pp. vol. 5, *The Contest Problem Book*. Charles T. Salkind. vi + 154 pp. vol. 6, *The Lore of Large Numbers*. Philip J. Davis. x + 165 pp. School Mathematics Study Group, New Haven, Conn.; Random House, New York, 1961. Paper, $1.95. (Clothbound volumes available from Library Publishers, Chicago, Ill. $2.95)

These are the first six titles of a new series, the New Mathematical Library, produced under the direction of the School Mathematics Study Group (SMSG). In the spring of 1958, after consulting with the presidents of the National Council of Teachers of Mathematics and the Mathematical Association of America, the president of the American Mathematical Society appointed a small committee of educators and university mathematicians to organize a study group whose objective would be to improve the teaching of mathematics in the schools. Edward G. Begle was appointed director of the group, which was called the School Mathematics Study Group, with headquarters at Yale University.

It is expected that eventually the New Mathematical Library will consist of more than 30 single-topic books that will be useful as supplementary reading material for high school students, teachers, and the interested lay public. These books are to be written by outstanding mathematicians. The SMSG *Newsletter* (No. 8, May 1961) states the three primary objectives of the monographs: (i) to disseminate good mathematics at the secondary school level which will supplement the usual high school curriculum, (ii) to awaken interest among gifted students, and (iii) to present mathematics as a satisfying, meaningful human activity. These first six books taken as a set certainly achieve these objectives for many students in grades 7 through 12. In general, the monographs are written so that the beginning sections can be understood by most stu-