writing. A compiler is a program which equips the particular computer to accept programs in a problem-oriented language and to transform these into machine language instructions. Again, the panel and the lecturer represent no unified opinion on this matter, and no synthesis is presented. With the widespread international use of the computer for language processing, such programs should be made available widely. The book under review here represents an advance in that it is based on international cooperation; it is disappointing in that it yields so little evidence of a realization of this fact on the part of the participants. The nonprofessional user of the computer will find little comfort in the professional's attitude towards him as revealed in the pages of the symposium report.—*James W. Marchand, Vanderbilt University.*

General Bibliography on Information Storage and Retrieval. By Marshal Spangler. ₍Phoenix, Ariz.₎: General Electric Computer Department, 1962. 390p. Apply.

Literature on Information Retrieval and Machine Translation. By Charles F. Balz and Richard H. Stanwood. White Plains, N.Y.: IBM Processing Division, 1962. 117p. Apply.

Permuted indexes are falling upon us in profusion, but the two under review here are the first extensive ones to appear in the field of librarianship. Although IBM calls its process "Key Word in Context" (which shortens into the happy designation KWIC) whereas General Electric says "significant word in context," the two efforts use essentially the same devices for controlling the same body of literature. Large libraries will want both of these bibliographies even though they are very similar in subject and scope.

The General Electric bibliography lists alphabetically by main entry 1550 books and journal articles in the broad area of information storage and retrieval, including such tangential but related subjects as mechanical translation, character and pattern recognition, speech analysis and synthesis, self-organizing systems, and artificial intelligence. Almost all references are to writings since 1949, although a few significant earlier works are included.

The General Electric bibliography has an index to secondary authors and an index to source journals. (This latter index, for example, shows that nine items are listed that had been published in *College and Research Libraries.* As would be expected, *American Documentation* furnished more items than any other journal with 329). This is followed by a chronological index, and the book closes with the permuted word index. Approximately 7,250 entries in this index indicate a ratio of not quite five per item.

The IBM bibliography contains about twice as many main entries, again with each entry indexed under an average of five terms permuted from its title. There is an author index but no source nor chronological indexes. An interesting sophistication is a list of words not used in developing the permuted index. Among this homogeneous but useless lot of discarded terms are Don, Force, Poughkeepsie, September, and Versus. Although more comprehensive than the General Electric list, the IBM compilation is printed at a reduction in size giving it a somewhat handier format.

These are good practical examples of what the permuted index can do. It will be interesting and indicative to observe how much we use them.—*D.K.*

Statistics

Library Statistics of Colleges and Universities, 1959-60, Part 2: Analytic Report. Washington: U.S. Office of Education, Library Services Branch, Bureau of Educational Research and Development, 1962. 45p. 40c.

One of the problems which was never adequately solved by the hardworking, deadline-pushed ACRL Statistics Committee (now LAD LOMS Statistics Committee for College and University Libraries) was that of providing for academic librarians a useful or significant analysis of the raw data supplied in the tables formerly published in this journal each January. When the collection and publication of statistics was turned over to the USOE Library Services Branch in 1959, it was with the understanding that the data processing machinery of that agency would provide a more detailed statistical analysis as Part 2 of its yearly publication of

the basic data. An advance analytic report which was published in July 1961 limited its coverage to data on library volumes, personnel and expenditures. After many unavoidable delays, the full report has now been issued, and plans are under way to issue the analytic part for succeeding years during 1963 in order to catch up with the current compilations.

The first section explains the usable coverage of libraries represented in the data—1854 institutions or 95 per cent of the total population. Institutions are divided into seven categories, one of which, "Other professional schools," might be broken down in future compilations into medical, law, business, etc. to be more useful. Further distinctions, such as four-year and two-year colleges, public or private control, and enrollment ranges are maintained throughout the tables. The introductory section also contains tables showing a summary of management data, and median figures for all data according to enrollment, as well as totals for professional staff vacancies. While a first publication lacks naturally a basis for comparison, it is hoped that future reports will expand the description of trends.

The appendix contains eighty-seven tables which analyze more fully each of the items on the statistics questionnaire. The table of contents divides the tables into the two corresponding parts of the questionnaire: management data and salaries. It is a formidable listing chiefly because the table titles are lengthy, repetitious, and tend to hide the key words which would allow users to proceed directly to the desired type of data. A subdivision of the topics covered under each of these sections would improve this listing, as would a shortening of table titles.

Each librarian can locate the standing of his library in relation to the high and low figures for each item, the median and the first and third quartiles.

The first analysis marks an important milestone in the development of a statistical picture of academic libraries. It will be useful to librarians and administrators in planning improvement of local libraries, and to all who seek to buttress legislation with convincing data. While there is room for improvement in the selection and presentation of data, it must be remembered that the original statistics questionnaire was changed, refined, and amplified over a period of years

in response to the suggestions of users. This is the approach which guides the planning of the present Statistics Committee and the U.S. Office of Education.—*Robert R. Hertel, Illinois State Normal University.*

Biography of a Library

The Library of Bucknell University. By J. Orin Oliphant. Lewisburg, Pa.: Bucknell University Press, 1962. 154p. $3.00.

Lacking a satisfactory general history of American collegiate libraries, students and scholars must rely chiefly on individual accounts. Fortunately, however, this approach can serve better than the casual reader may appreciate, particularly when, as in the present book, the author brings to his task a substantial knowledge of developments in the larger social scene. A professional historian specializing in American social and intellectual history, the author of several previous publications dealing with the history of Bucknell, and sometime chairman of the Bucknell faculty library committee, one may hope for, and here receive from Professor Oliphant, an account which relates the library to contemporary Bucknell and to other institutions and forces in American life. Indeed, persons knowing the history of other academic libraries are bound to encounter in the Bucknell library story much that is familiar: ambitious beginnings (1848-59) followed by decline and neglect (1859-79) ; the rise, fall, and eventual merging of student society libraries with the college collection; the notable and salutary effort on collegiate library services of student demands nourished (circa 1880's and '90's) by reading student papers of other schools; increasing the hours the library was open from one or a few a week to something like present practice; opening of a reading room; regular employment as librarian of someone other than a full-time professor-custodian (1894) ; the employment of an experienced female assistant librarian to help create a card catalog (1896) ; separate study facilities for women students resulting from the unchivalrous objections of their male counterparts (1896/97) ; a Carnegie building (1905) to accommodate growing collections and services; regular annual appropriations for books growing out of acceptance of appropriations for binding (1906-16) , etc.