

the presses of the Western Country, including Samuel Vail and Matthew Lyon, also born in Ireland. Listed as well are bookbinders, engravers, papermakers, and booksellers. This is a valuable addition to the several directories of the early book trades of particular locales, most of which have been published by the New York Public Library. The biographical sketches, incidentally, make interesting reading.

Also given as appendices are a list of Vermont printers arranged by town, and a table correlating years and item numbers. As would be expected of a book of this kind, it is well indexed. As *should* be expected of a book of this kind, it is quite handsomely designed and manufactured by the Stinehour Press of Lunenburg, Vermont. We may hope that the publication of this important work will inspire similar studies of other geographical areas.—D. K.

Centralization and Documentation. Arthur D. Little, Inc. Cambridge, Mass.: The Author, 1963. 74p.

This is the final report of a study supported by the National Science Foundation. It considers the feasibility of centralizing facilities for the storage and retrieval of scientific documents and makes the following recommendations to the National Science Foundation:

1. Do not support large-scale centralization of document searching facilities at this time. A large centralized facility drawing upon the current state of the art of document retrieval techniques could probably not achieve the main objective for which it was designed—provision of an effective, exhaustive, literature-searching capability to supplement efforts to prevent duplicated research or development investments. Responsibility for showing that a proposed centralized facility would be feasible and would satisfy this objective must be borne by the proponents of centralization, employing quantitative evaluation techniques such as those we have developed.

2. Support the undertaking of a comprehensive program to yield additional information and insight as to what the real informational needs of scientists and engineers are. Such a survey is a necessary prerequisite to the possible support of centralized document searching facilities in the future, to insure that such facilities will serve real functions, and that they will in fact be used. To be meaningful, the

survey must be conducted with considerable imagination and insight.

3. Before undertaking extensive efforts to develop aids such as elaborate word thesauri for existing, partially centralized information retrieval systems, investigate further the use of statistical techniques both for the automatic generation of thesaurus lists and for the automation of some of the functions currently performed by human intermediaries.

4. To support such a program, test operate one of the medium-sized operating coordinate retrieval systems on a statistical associative basis. We feel that the state of the art of these associative techniques will permit such an undertaking, that a great deal could be learned from it, and that substantial benefits to the users of the system could quite possibly be realized.

5. For activities which are not concerned with exhaustive literature search operations, support centralization on an individual project basis, after cost effectiveness analyses have demonstrated—quantitatively—that adequate service levels and over-all benefits will accrue.

It is heartening to see a study by an organization that has been deeply involved in the past in installation of mechanized searching systems, as Arthur D. Little has been, that shows that they are willing to go where the facts lead. As they point out, the only "automatic" document searching system that has been applied on any substantial scale is the coordinate searching procedure and, "despite the use of high-speed digital computers, the searching logic employed in these most advanced systems is basically unchanged from that used in the earliest applications . . . the systems are based on a purely mechanical attempt to match terms." The data analyzed indicate that in such systems the indexing of all scientific literature by this approach would require using substantially all meaningful scientific words as indexing terms, and even a file of half a million or so documents would require at least ten thousand index terms.

A model is developed for study and evaluation of coordinate retrieval systems and applied to several collections. This shows that it will be difficult to obtain high precision together with high recall ratios, and that even with an IBM 7090 (a very large-scale computer) the data processing cost for a large collection could become very great.

These conclusions point up the need for (a) demonstration that cost and effectiveness

analyses should precede any further support in this field, and (b) that there is great need to develop the science upon which a sound technology may be based.—*Ralph R. Shaw, Rutgers University.*

Serials in Australian Libraries; Social Sciences and Humanities. A Union List. 2 vols. Canberra: National Library of Australia, 1963. Price to be determined.

The publication of these two volumes marks another step forward in the efforts of Australian libraries to compile information on their resources. This "interim edition" is designed to be a companion to *Scientific Serials in Australian Libraries*, as it might well be after it is used and continued as a list of holdings of several hundred libraries in the country. The list includes periodicals and other serials, as well as mono-

graphic and some publishers' series, but it does not contain newspapers, company reports, house organs, and certain ephemeral titles. Almost twenty thousand titles are included.

Australian librarians, through AACOBS (the Australian Advisory Council on Bibliographical Services), the National Library of Australia, and the work of personnel in individual libraries, have been pooling their efforts to gain an insight into present holdings. The objective is to develop, so far as is feasible, within programs of individual institutions a program of collecting that will be beneficial to the country as a whole. Australian libraries, because of their distance from one another, have an opportunity that is both unique and challenging, particularly in a country in which the social sciences and humanities, as well as science and technology, are regarded as important.—*Maurice F. Tauber, Columbia University.* ■■

Books Briefly Noted

Americans in Africa: A Preliminary Guide to American Missionary Archives and Library Manuscript Collections on Africa. By Robert Collins and Peter Duignan. (Hoover Institution Bibliographical Series, no. 12.) Stanford, Calif.: The Hoover Institution on War, Revolution, and Peace, 1963. 96p. \$2.

Catalogo Colective de Publicaciones Periodicas Existentes en Bibliotecas Cientificas y Tecnicas Argentinas. By Ernesto Gustavo Gietz. Buenos Aires: Scientific and Technical Libraries of Argentina, 1962. 1,726p.

The Catholic Church in America: An Historical Bibliography. By Edward R. Vollmar. New York: Scarecrow Press. 339p. \$8.50.

A Checklist of Serials for African Studies. By Peter Duignan and Kenneth M. Glazier. (Hoover Institution Bibliographical Series, no. 13.) Stanford, Calif.: The Hoover Institution on War, Revolution, and Peace, 1963. 104p. \$3.

The Chinese Communist Movement, 1937-1949: An Annotated Bibliography. By Chun-tu Hsueh. (Hoover Institute Bibliographical Series, no. 11.) Stanford, Calif.:

The Hoover Institution on War, Revolution, and Peace, 1962. 312p. \$5.

Correlation Index to Current Department of Defense Research Reports. Cambridge, Mass.: M. I. T. Libraries, 1963. \$10.

Educational Media in Libraries. Edited by Carl H. Melinat. Syracuse, N.Y.: Syracuse University School of Library Science, 1963. 39p. \$1.50.

General Encyclopedias in Print: A Comparative Analysis 1963, Second revised ed. Compiled by Padraig S. Walsh. Akron, Ohio: Reference Books Research Service, 1963. 66p. \$1.50.

Guide to Research Facilities in History in The Universities of Great Britain and Ireland. By G. Kitson Clark and G. R. Elton. New York: Cambridge University Press, 1963. 44p. \$1.

A History of Graphic Art. By James Cleaver. New York: Philosophical Library, 1963. 282p. illus. \$12.

Library Careers. By Richard H. and K. Irene Logsdon. New York: Henry Z. Walck, Inc., 1963. 111p. \$3.50.