The Library of Congress

Its science collection is one of the finest in the world, with broad reference services for readers.

John Sherrod

During the recent Parliament of Science organized by the American Association for the Advancement of Science, the group concerned with communication among scientists and communication of scientific ideas discussed, among other topics, that of libraries and library services. It was somewhat frustrating for me to listen to the participants discuss the science collections of a number of institutions, abstracting services, union catalogs, and other cooperative library projects and not to hear mentioned a truly great science collection which belongs, and is accessible, to all of the citizens of this country. In fact, I was dismayed to find in conversations with several of the participants that, almost unanimously, they were either totally unaware of or misinformed about one of the largest collections of science materials in the world and what we at the Library of Congress modestly hope is one of the finest of such collections.

It is my hope that this brief report on the science collections and services of the Library of Congress will be of interest or even possible benefit to readers of this journal. I cannot describe these national resources in a completely detached manner; neither can I assume credit for them, since they originated somewhat before my time. When, in 1815, the Congress purchased from Thomas Jefferson his great book collection, the Library acquired the finest private library in the New World and one assembled with a special eye to "natural philosophy." In the nearly one hundred and fifty years that have followed, the Library's interest in works of science and technology has never been lost.

Collections

The Library of Congress is a research library which exists primarily to serve the Congress and, by that token, to serve the whole Federal Government and thereafter, by means direct and indirect, the whole nation. These claims upon the Library and their relative priorities are considerations of vital importance to an understanding of its policies and practices as they relate to its collection and servicing of its science holdings.

The first great external stimulus to the collection of science literature by the Library came in 1866 when, by act of Congress, the Smithsonian Institution's "complete collection of the memoirs and transactions of learned societies throughout the world and an entire series of the most important scientific and literary periodicals" were transferred to the Library of Congress in order that they might be housed and serviced more adequately. The Library of Congress continued and greatly expanded the foreign exchange program begun by the Smithsonian. Today it has a worldwide network of more than 16,000 exchange agreements with foreign governments and private research centers, laboratories, universities, observatories, and other scientific and technical institutions, which brings in nearly half a million books, pamphlets, journals, and other materials annually.

The facilities of U.S. agencies, both here and abroad, are also utilized in adding to the collections. Through the operation of the copyright law, the Library receives all American publications and many foreign ones in the scientific field that are registered for copyright. Other materials are received through the operation of domestic exchange agreements, by transfer, by gift, and by purchase. Some 240 dealers outside this country have standing orders to acquire, for the Library, publications of importance, regardless of language or country of origin.

The size and scope of the Library's present scientific and technological holdings attest to the vigor with which acquisitions in these fields have been pursued. As of 30 June 1957, there were 1,447,000 volumes classified (in the Library sense) in science and technology, or about 25 percent of the Library's total classified collection. It is estimated that the number of journal titles in science and technology received currently in the Library of Congress is approximately 15,000. Its collections in the Russian and Eastern European languages are the most extensive in the world outside the Soviet Union and the Iron Curtain countries, and this superiority applies to science materials as well as to the literature in other fields. A check of the Library's science receipts against the Soviet national bibliography indicates that 60 percent of the Soviet materials currently published in the natural sciences and 41 percent of those published in technology are being obtained by the Library.

The Library's strength in these area-language categories does not argue any weakness in others. Diversified specialization has resulted in great strengths in many fields and facets of science. Preeminence in the literature of aeronautics and of the aeronautical sciences has been enjoyed by the Library for many years. It is also undoubtedly the best equipped library in the United States for geographic and cartographic research and possesses collections totaling 2,500,000 maps and 20,000 atlases. It is well endowed with works of bibliography and has concentrated on collecting and maintaining book and card indexes, abstracting journals, and other finding and analytical aids relating to the literature of science and technology.

As the periodical article was the chosen vehicle for disseminating information in the 19th century, so the technical report has become the medium of today, and the Library has in recent years accumulated many tens of thousands of technical reports from a wide variety of sources and in nearly as great a variety of forms. These reports emanate chiefly from Government or Government-sponsored research, with a high proportion related to military programs. Wherever practicable, reports are acquired in their original printed or near-print form, but many are received on microfilm and microcards and are serviced through the use of viewers or through photoenlargement. Some of the principal segments of this large aggregation of reports include the publications issued by the Atomic Energy Commission and the National Advisory Committee for Aeronautics and the publications distributed by such organizations as the Office of Technical Services of the Department of Commerce.

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Through analysis, description, and the dissemination of information about its holdings in science and technology, as well as in other fields, the Library makes its national collections meaningful and available to the Government and the nation. Its system of subject classification, which is constantly being revised and kept up-to-date, is used by the major research libraries of the country. The Library prints and distributes catalog cards describing not only its own holdings but those of many other libraries. The essential nature of this service is evidenced by the fact that there are nearly 10,000 subscribers to it. The Library also maintains the National Union Catalog, containing cards locating research materials in 700 North American libraries, and it publishes the *National Union Catalog* and other catalogs in book form. To make information about acquisitions in certain fields, including science and technology, quickly available, the Library publishes the following monthly accessions lists: *New Serial Titles,* listing the periodicals received by the Library of Congress and some 200 other cooperating libraries, the *Monthly Index of Russian Accessions* (MIRA), the *East European Accessions Index* (EEAI), and the *Southern Asia Accessions List*. Out of a one-year accumulation of 11,709 monographs included in the *Monthly Index of Russian Accessions,* 6006 were classed as science and technology; of 8918 periodical issues listed (not including newspapers), 4800 were in the same fields. In one year (1956), the *East European Accessions List* described 1522 monographs and 9946 periodical issues in science and technology.

Science and Technology Division

These bibliographic endeavors make a formidable contribution to the nation's scientific effort, but they do not begin to exhaust the Library's investment in this area. The Library has also facilitated the widest possible exploitation of its resources, within the limits of budget, space, and its primary commitment of service to Congress. In addition to its own special divisions to provide reference and bibliographic services, the Library has since World War II administered several large-scale projects on funds transferred from the Department of Defense to provide analytical, abstracting, and bibliographic services on scientific and technical literature, including report literature, as well as other materials in the Library that need to be intensively utilized in undertakings important to the security of the United States and the Free World.

The focal point of subject competence within the Library in all fields of science and technology is the Science and Technology Division, which has primary responsibility for reference and bibliographical services and for advising on the acquisition of all pertinent scientific and technological materials. Established in 1949 with a small staff to plan and develop a science program, the division has assumed an increasingly active role in meeting the Library's growing obligations to provide its users with scientific information.

The primary function of the division is to provide general and advanced science reference service. The recent upsurge in interest in science is reflected in the growth of the reference service provided by the division: this growth has been approximately 400 percent in the last year.

Science reference service to readers is provided in the Science Reading Room, which is operated on a 7-day-a-week basis by staff members who are particularly familiar with the collections. Inquiries of a general nature received by telephone or mail are also handled here. Inquiries of a more advanced nature are handled by staff members who have had specialized training in the various fields of science.

An open catalog to the extensive report collection referred to above is maintained in the division. Supplemental support is provided by the National Science Foundation to expand the report collections and the personal reference services offered with respect to them. The Foundation also supports an exploratory program in the Oriental science literature, particularly Japanese literature. It can be hoped that such a study will result in the publication of critical bibliographies of this literature. An expanded program of a similar nature is also contemplated in Slavic science literature.

The primary responsibility of the division in the field of bibliography is to assure the effective use of the scientific and technical literature in the Library. Current activities include the preparation of a bibliography on the International Geophysical Year, a world list of aeronautical serial publications, and a list of scientific and technical serials currently received by the Library. Several continuing bibliographies are also being prepared for agencies within the Department of Defense. An example of such a bibliography is one being prepared for the Snow Ice and Permafrost Research Establishment of the U.S. Army Corps of Engineers. This bibliography, in progress since 1951, has brought under bibliographical control essentially all of the world's technical literature on the subjects of snow, ice, frozen ground, and related military and engineering topics. To date, more than 16,000 abstracts have been published in 12 volumes. These abstracts cover material published since the 18th century in 24 different languages.

The basic purpose of the Division's acquisitions activities is to maintain and further develop the collections of the Library in science and technology. The major effort in this area is expended in keeping current in serial publications and selecting for the collections from the 200 or so that appear each month for the first time. Although recommendations are made on a selective basis, pointed effort is made to develop a sample file of those serials of minimal importance which, for one reason or another, are not recommended for continued acquisition.

The division, as an information center, is constantly studying the application of improved and advanced documentation techniques in order better to cope with the increasing volume of published literature. The division desires to maintain active contact with research groups and other organizations in order to be informed concerning their interests and activities and the substantive output of research as it affects the literature. The division, in turn, publicizes its own activities, programs, and services, and, as far as possible, makes these available to the public.

The Library of Congress serves in many ways as the national library of the United States. This brief examination of its resources, its services, and its plans in the field of science and technology should serve to demonstrate that, by the broadness of its base, the preeminence of its collections in many disciplines, its long record as an authority in bibliographic know-how, and the rich competence and variety of its staff, the Library of Congress is also the national library of science.

It can be seen that the Library of Congress has a vast investment in the literature of science. It must follow that science, which in great measure relies for its own stimulation and growth on that literature, has an equally large investment in the Library of Congress.