

HISTORICAL NOTES

The library as laboratory

In her fascinating study of the genesis of the Medical Library Association (MLA), Jennifer Connor viewed cultural and scientific trends through the lens of the first half century of MLA [1]. She argued that medical libraries operated firmly in the separate culture of medicine, yet they were influenced by developments in the library world as well. In particular, the image of the library as a laboratory impacted medical libraries. The redefinition of American libraries in the last quarter of the nineteenth century from "storehouse to workshop" [2] emphasized the use of collections rather than their accumulation. Books were tools, and libraries were laboratories where scholars engaged in active intellectual investigation.

The altered perception of libraries was part of a general restructuring of American higher education and the rapid expansion and specialization of knowledge. With the establishment of Johns Hopkins University in 1876, the model of the modern American research university emerged. Faculty published research in their disciplines and introduced the lecture and seminar methods and elective courses in place of a common classical curriculum. The professionalization of scholarship led to the graduate school as the agency for training scholars. Medical schools became based in universities, with scientific laboratory research as a focal point for increasing knowledge and training physicians. As scholarship was reorganized around the university, institutional libraries became increasingly central to university life, and academic libraries began to concentrate on the use of the knowledge being acquired and preserved in their collections [3-5].

Justin Winsor, a library leader of the late nineteenth century, advo-

cated the "doctrine of use," the belief that the purpose of books was to be read and that libraries should help in the daily work of readers. As head of the Boston Public Library and later librarian of Harvard College, he served as the first president of the American Library Association (ALA). He adopted library practices that made books more accessible to readers, a philosophy that eventually led to expanded hours of service, open shelves, creation of bibliographical aids, departmental libraries, inter-library cooperation, and development of reference service and library instruction [6]. In his framework, the library was a laboratory, "a workshop in which professors and students alike could carry on their labors with the tools necessary for their purposes conveniently at hand" [7]. In a report to the Harvard president, Winsor declared "a great library should be a workshop as well as a repository. It should teach the methods of thorough research, and cultivate in readers the habit of seeking the original sources of learning" [8].

Connor traces medical library participation in the library-as-laboratory movement. Stirred by change in science and education from the 1870s to the turn of the century, the medical profession reconceived the medical library. Medical practitioners were expected to keep up with scientific advances, disseminated through published articles. Medical students were increasingly required to learn to acquire and interpret medical information for themselves. The view of libraries changed from a depository of standard, dated books to a metaphorical laboratory where the latest medical thought could be examined [9].

The original intent of the Medical Library Association was to facilitate

the growth of accessible institutional libraries and to augment collections of current books and journals among member libraries. George M. Gould expressed the viewpoint of the importance of scientific communication in his address to the inaugural meeting.

[T]here is measureless beneficence and medical utility in the increase of the number of medical libraries, and in the organized co-operation of these, one with another, by means of such an association as we purpose to found. . . . [A]t last every small city of America shall have a public medical library to which the worker within a hundred miles can come and learn in a brief visit what all the workers of the world have done or discovered concerning any one of a thousand great questions involving matters of life and death for the patient. [10]

John Shaw Billings, as librarian of the Surgeon General's Office, spoke of journals as the "living literature" of the medical profession [11]. His influence was widely felt throughout medicine and libraries in his roles in the development of the collection and services of what became the National Library of Medicine and as advisor in the establishment of Johns Hopkins Hospital and Medical School, head of the New York Public Library, and president of ALA. His philosophy of the practical importance of current medical literature guided his contributions to medical librarianship. The greatest value to practitioners was in publications of the most recent ten to twenty years, and journals reflected the discoveries of medicine and furnished the original data that were the foundation of monographs and textbooks [12].

Along with growth in collections came the need for improved organization and a subject approach to materials. The development of bib-

liographic aids was rooted in the movement to make libraries more useful. The most important basis for the creation of ALA in 1876 was the desire to establish cooperative cataloging and classification methods [13]. The replacement of the printed book catalog with a catalog of cards and the debate over a dictionary or classified subject arrangement of the catalog were important concerns of the period. In medical literature, Billings revolutionized cataloging and indexing with the publication of *Index Medicus* and the *Index-Catalogue of the Library of the Surgeon General's Office*. To him, "books are properly compared to tools of which the index is the handle" [14].

Public librarians in the late nineteenth century, conscious of the library's role as an educational institution, provided personal assistance to readers. Such a program was first proposed in a paper presented by the librarian of the Worcester Free Public Library at the 1876 ALA meeting. The concept of the library as the laboratory of the college focused the attention of academic librarians on new means for meeting the needs of their clientele. Although academic librarians hesitated about the value of individual assistance as a useful technique, Melvil Dewey pioneered the concept of reference service at Columbia College, appointing special-

ized reference workers [15]. He described "aids to readers" in 1884.

With the limited time at the command of students and investigators, and the immense amount of material with which the individual must often deal, the aid of some one fully acquainted with the resources of the library, able to discriminate between the sources of information, and adjust them to the manifold needs of readers, and at hand to impart the desired help, becomes imperatively necessary. [16]

Today's libraries were invented in the late nineteenth century. The concept of the library as useful to the daily work of its clientele, making information accessible and aiding in its optimal use, continues to guide the profession. The metaphor of the library as laboratory is interesting, because it reflects actual changes in library collections and services at that time, but it also is powerful, because it highlights the role of the library in facilitating the use of information to develop new knowledge.

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