News and Comment

Linda Hall Library: Kansas City Institution Builds a Reputation with Operations Outside Its Region

Kansas City. Nearly 25 years ago a Kansas City grain merchant named Herbert F. Hall died and left more than $6 million to establish a library in memory of his wife. Today, the Linda Hall Library, a research library in science and technology, has a collection of about 300,000 volumes, an endowment of well over $20 million, and a good and growing national and international reputation.

While Kansas City now, like nearly every other city, aspires to enhance its economic fortunes by developing its scientific and technical resources, the creation of a research library in what was then a grain and stockyards center and mercantile market had its fortuitous aspects.

First, the fact that Hall had no immediate family made the public his beneficiary. Hall's mansion and its 20-acre grounds happened to be in an area favored by other and earlier philanthropists, an accident which has given Kansas City a "cultural center" which enthusiasts see as developing into a square mile of museums and research and educational institutions. The founding fathers, so to speak, of this enclave were William Rockhill Nelson, the flamboyant builder of the Kansas City *Star*, who endowed a major collection of art housed in a gallery which bears his name, and businessman William Volker, who gave the land for the campus of the University of Kansas City, which 2 years ago exchanged its private-university status for a place in the Missouri state university system.

Since, in the early 1940's, Kansas City already had parks, an art museum, and a university, a library followed logically in the scheme of conventional philanthropy. But the choice of a research library in science was by no means clearly indicated.

Hall's will did not specify what kind of library should be built, but a lot of people in Kansas City claim to have gone fishing with Herbert Hall in his later days and to have dissuaded him from founding a Shakespeare library. The decision was left to the trustees, a five-man board drawn from Kansas City business and law. The process of deciding took nearly 5 years and was undoubtedly both slowed and influenced by World War II.

At the outset, it seems, the trustees agreed that the city had an adequate public library and that a special library was indicated. The advice of several well-known librarians was sought, and Dr. Malcolm Wyer of Denver was retained as consultant and played an influential role.

Kansas City's experience in the early stages of World War II, when little defense-production business fell to the city's lot, seems to have impressed business and civic leaders with the consequences of weakness in technical competence and manpower. This awareness seems clearly reflected in the proposal adopted by the trustees in 1945 "to establish the Linda Hall Library as a specialized library center which will make available to Kansas City and the surrounding geographic area, services and facilities not adequately provided by any library at the present time. The Linda Hall Library will be a free library open to the public, covering the field of basic science and technology, including their application to the natural resources, the products, the people and the problems of the Kansas City region. It will be a library planned especially to serve the library needs of Kansas City and its territory and to attract scholars and research men to this area."

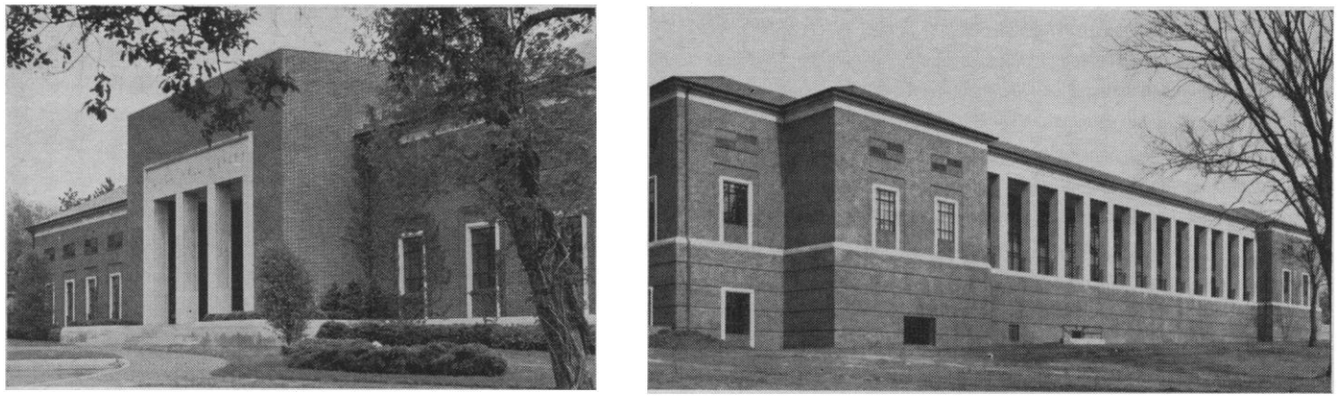
To direct the new library the trustees brought in Joseph C. Shipman, who was assistant director and had served as head of the science and technology division of the Enoch Pratt Library in Baltimore. Shipman was a chemistry and biology major as an undergraduate at Western Reserve, and he went to library school there. He worked in the technical departments of the Cleveland and Toledo libraries and did a stint as a science counselor at Union College, Schenectady, in between, during the middle 1930's. Shipman went to the Linda Hall Library as its first director in 1945, has been there ever since, and has played a key role in the library's development.

The model for Linda Hall was the John Crerar Library in Chicago, a technical library established in the 1880's with funds left by a highly successful ironmonger with a Carnegian belief in the value of libraries. The province of the Linda Hall Library was to be the 500's and 600's of the Dewey Decimal system, with the specific exclusion of clinical medicine and surgery, subjects which were already adequately covered in libraries in the Kansas City area. The subject of "business information," which falls in the 650's, was also deemed sufficiently covered in the Kansas City public library to be excluded.

What sets Linda Hall and other science research libraries apart from general libraries is the fact that journals rather than books dominate the collection. An end-of-the-war survey showed that only about 150 technical journals were available in Kansas City. The Linda Hall Library initially subscribed to 750 and now gets some 10,300. Of the total collection, 65 percent is in bound and unbound journals.

The cornerstone of the Linda Hall collection was formed by the books and journals obtained in 1947 with the purchase of the major part of the collection of the American Academy of Arts and Sciences, which had been founded in Boston in 1780 and had a library dating from its beginnings. The academy had come to the conclusion that its library was underutilized and that other library resources were amply available in the Boston area. Linda Hall had money and needed books, whereas the academy had books but needed money for various purposes, principally publishing.

The academy collection, some 40,000 volumes, arrived in Kansas City crated on two flatcars and was deposited in Hall's big neo-Georgian mansion, which had been converted to use as a library. The acquisition was significant in giving Linda Hall a rich store of books and classic serial titles in the sciences and mathematics, dating back to the 17th and 18th centuries, and in permitting the staff to concentrate on collecting later materials.



Front (left) and gallery (right) sides of Linda Hall Library main building opened in 1957.

The monographs in the academy collection, many of them in the "rare books" category, gave Linda Hall a substantial start toward what has become an important collection of historical materials. The library owns first or early editions of classic works of Galileo, John Ray, Kepler, Boyle, Newton, Priestly, Lavoisier, Bernoulli, and Huyghens, the first printed Archimedes, and scientific incunabula.

Shipman has stressed the library's role in support of history of science studies, and the rare books collection has, in fact, become an object of interest to nonscientists in the Kansas City area. Two sizable gifts have been made to the library to bolster the rare books collection.

Even before the academy collection was installed the library was making a major effort to buy the great science reference works—indexes and abstracts—which are the foundation of a science library. It wanted both American works, such as *Chemical Abstracts*, and foreign indexes and abstracts.

The growth of the Linda Hall Library has roughly coincided with the period of exponential growth of scientific and technical journals. Shipman estimates that the library is now getting about one-third of the relevant journals published. The major criteria in deciding whether a journal shall be ordered is whether it is indexed or abstracted.

Linda Hall's trust fund has virtually quadrupled since the war through the trustees' astute management of Hall's originally sound investment portfolio. The curve of expenditures, however, is catching up with income as demands on the library grow and as science information proliferates. In 1950 the library budget for acquisitions was about $30,000 a year. Now it is $100,000 annually, and by 1967 it will have risen to an estimated $130,000 to $150,000.

In 1950 the library filled about 250 requests for interlibrary loans. This year the library expects to fill more than 30,000 requests from universities, industry, and government agencies, from every state in the Union and 35 foreign countries.

Linda Hall is predominantly a mail-order operation today, but, except in the case of books, the old interlibrary loan system has been altered so that most requests are filled by lending material copied from journals. The major medium is 35-mm film, and the price, under the library's cost-covering system, is 50 cents for 25 pages. Full-size copies cost 35 cents a page, and the house policy, because of copyright and other considerations, is to copy no more than 1 page of a monograph volume. The average request works out to about 7 journal pages.

"Scatteration"

Shipman thinks the heavy demand on a Kansas City research library is in large part the result of the diaspora of the research community brought on by the war. He points out that, before World War II, research libraries clustered around a limited number of institutions renowned for basic research. With the establishment of government laboratories, many of them off the intellectual beaten track, and with the flow of federal funds into many universities which before the war had few pretensions to research capabilities and little need for access to research libraries, distance became less of a factor than the worth of a library's collection and its promptness in shipping needed material.

Linda Hall seems to have earned a reputation for speed. It won't promise delivery in less than a week, but usually the requested material gets to the user faster than that. Some other research libraries take considerably longer to fill requests from "outsiders."

It is significant that teletype machines have been installed at Linda Hall linking scientists at Cape Kennedy, at Huntsville, Alabama, and at the Sandia Corporation (which serves the Atomic Energy Commission) with the library.

One reason for Linda Hall's reputation seems to be that, from the beginning, it has taken an international view. Fifty percent of the journals in the library are in one or another of 35 foreign languages. In calls for materials from chemistry journals, for example, works in Japanese, Russian, and German rank in that order behind those in English. A third of all materials sent out, exclusive of books, is in Russian or Japanese.

Linda Hall does not operate a translation service, and Shipman thinks the demand for foreign-language publications denotes a sophistication among professional researchers not evident when the library was founded. He suspects that the professionals' proficiency has increased in languages formerly regarded as exotic and, in addition, that translation services are now more readily available. He also suggests that, particularly in the physical sciences, the essence of an article is often found in the equations, and that mathematics may in fact be the only language the reader need really know.

When Linda Hall doesn't have the material requested, it tries to tell the inquirer where to find it. To this end the library subscribes to all available union lists.

Shipman feels that increasing burdens and costs will force research libraries before too long to become "information centers," highly special-

ized libraries complementing each other and linked by advanced communications techniques; facsimile transmission is an example of a currently feasible procedure.

At present, Linda Hall is not "automated," and while space for a computer has been provided in a million-dollar annex opened earlier this month, it is clear that the library is biding its time until the state of the art has advanced and the cost has come down.

In its first two decades Linda Hall has served not only as the local and regional facility envisioned in the trustees' original plans but as a national and international facility as well. The quality of a library will to some extent be determined by the demands of its clientele, and Linda Hall from the outset seems to have set its sights on meeting big-league standards.

Linda Hall "business" is estimated as being about 60 percent national and international and 40 percent local. The growth of technically based industry in the area and the conversion of the University of Kansas City to a state university promises to place heavier local and regional demands on the library.

Under an original agreement with the U.K.C., Linda Hall acquired the university's science and technology collection, except for textbooks and basic reference works, and has served as the university's science research library. This arrangement will continue, but graduate education and research in the sciences at the university, which has been essentially an undergraduate college with a penumbra of professional schools, will increase sharply.

It would be misleading to say that the Linda Hall Library has grown up in a sort of technological vacuum, since the number of high-technology industries in Kansas City has shown a steady if not spectacular rise since the war, and a local patron and ally of Linda Hall has been the Midwest Research Institute, which is located literally down the hill from Linda Hall. (The institute, which was established at about the same time as Linda Hall and for many of the same reasons, will be discussed in a later article.)

The library has recently handsomely banished its space problem for at least the next several years. The first library building, which cost $1.25 million and was opened in 1957, was planned to handle growth for an estimated 20 years and to a half-million volumes. But with the collection at 300,000 volumes, a million-dollar wing, devoted mostly to storage, was deemed necessary and was dedicated early this month. The Hall mansion was razed to make room for it.

A staff of 50 operates the library, but many of these are college students who work part time. Only 25 are full-time employees. Eight of these are professionals, which leads some observers to wonder if the sound administrative principle of leanness may not be slightly overdone at Linda Hall.

Other criticism of Linda Hall seems to be rare in Kansas City. This visitor found nobody objecting to Linda Hall's national and international activities. So, by astute management, high-mindedness, hard-headedness, or a series of accidents, or more likely, a combination of these, Kansas City has one of the institutions needed to support its aspirations to scientific and technical growth.—JOHN WALSH

National Teach-In: Professors, Debating Viet Nam, Question Role of Scholarship in Policy-Making

Another block fell out of the ivory tower of the academic world last weekend with the national debut of a phenomenon that has recently affected dozens of university campuses—the "teach-in." Whether the National Teach-In that took place in Washington on 15 May was, as its program asserted, "perhaps the most significant political gathering of American intellectuals since the Constitutional Convention" is an arguable question. But there can be no doubt that the all-day, nearly all-night sessions on American policy in Viet Nam which involved over 3000 individuals in Washington and thousands of others in coordinated activities at campuses around the country reflect a new spirit of political concern among university faculties. And there is some evidence that the existence of university groups concerned with foreign policy, if not necessarily the proposals of such groups, have begun attracting attention in Washington.

The teach-in movement began at the University of Michigan in March, following the government's adoption of the policy of bombing in North Viet Nam. The original idea was to stage a 1-day faculty work stoppage or strike. But this proposal aroused so much opposition—even among those faculty members who favored making some kind of protest—that it was quickly dropped. And, out of what one of the organizers—a group of faculty members centered chiefly in the social sciences—described as "interminable tactical discussions," the idea of the teach-in came along to replace it. "We wanted to combine the idea of protest with some form of constructive action," Marshal Sahlins, Michigan anthropologist who is credited with inventing the idea, said in an interview with *Science*. "Basically we felt that it was too important to be shunted off to a convenient moment, such as the weekend; we wanted to show that we felt strongly enough to be willing to give something up." As it turned out, what they gave up was sleep: the teach-in became an occasion where, from dusk to dawn, faculty and students would meet in university buildings for lectures and seminars on topics ranging from the broad outlines of U.S. involvement in Southeast Asia to the validity of the "domino theory."

The movement spread with astonishing rapidity to other university campuses. How many teach-ins there have been is impossible to ascertain precisely because the movement has proceeded without central coordination. Those who are finicky about definitions run into the additional problem that not all the vents billed as teach-ins have included the all-night feature that some regard as its essential ingredient. But there are reported to have been between 30 and 50 authentically sleepless demonstrations. And there have also been dozens of sessions in which the participants trailed home around midnight. At some large universities, such as Michigan, the number of participants has exceeded 3000.

The transplantation of the teach-in from Michigan to other campuses appears to have been largely spontaneous, though to a certain extent it seems to have been facilitated by that network of personalities that links members of academia throughout the country. Members of the faculty at Michigan called their friends at other institutions and urged them to go and do likewise; they in turn called their friends; and the movement rolled on.

On 17 April, less than a month after the Michigan teach-in, a meeting of faculty members from the University of Chicago, M.I.T., Washington University, Wayne State, the University of Wisconsin, and the University of Michigan was held at Ann Arbor, and the Inter-University Committee for a Public Hearing on Viet Nam was formed.