



Quarters For Special Collections in University Libraries

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THE RATE AT WHICH RARE BOOKS, special collections and manuscripts have migrated from the shelves of the private collector and the bookseller into university libraries during the past three decades has not only dismayed certain segments of the private book world, but has created difficult (but not unsolvable) housing and service problems for library planners. The movement of these special materials from private to institutional ownership seems likely to continue at an accelerated pace. The planning of building facilities for special collections and rare books requires an unusual degree of specialization and knowledge. If university libraries acquire rare, expensive, and special materials, an implied responsibility for proper housing and service is assumed.

A few universities have responded admirably to their rare book obligations during the past thirty years by providing special space facilities for these rare and related materials. Collectively the building quarters have been varied although not always indicative of intelligent, foresighted planning. The most evident and certainly the most revolutionary development has been the construction of separate rare book, special collections and manuscript library buildings. (The semi-autonomous libraries such as John Carter Brown, Clements, and Clark are not considered within the scope of this article.) It is also obvious that careful and detailed consideration has been given to initial and future book storage capacity, reader and teaching facilities and over-all space arrangement for many special collection facilities. Exhibit accessories and space programmed for this function has received much attention and is now considered essential for a viable special collections program. There is also widespread use of mechanical equipment for the preservation and security of special materials.

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The discussion that follows is not based on a nation-wide survey of rare book and special collection quarters in university libraries. The libraries mentioned were selected to illustrate the contention that there has been improvement in the disposition of space, that careful planning has gone into exhibit facilities, and that complex mechanical equipment is widely used. Any trends or innovations in providing quarters for special collections stem, for the most part, from the practical planning process that has developed for university library buildings in general.

Four universities have constructed separate, specially designed buildings to house and service the bulk of their institution's rare and special materials. In order of construction these buildings are Houghton (Harvard), Lilly (Indiana), Beinecke (Yale) and Spencer (Kansas). At least two universities (Brown and Northwestern) will use renovated portions of the old, general library building for special collections. The majority of universities possessing rare books and special collections have provided quarters within the general library building with results that are frequently aesthetically pleasing though not always completely functional.

The question of a separate building versus quarters in a central building for rare books and special collections has not been a topic of lengthy investigation by the library profession. More universities with respectable collections and an active program might opt for a separate building if donor funds were available for construction, and more especially so if funds for continuing activities were pledged.

There is no insurmountable obstacle preventing inclusion of appropriate rare book quarters in a general university library building. The top floor quarters for special collections at Hofstra University are not only functional but meet most of the requirements considered essential for servicing and protecting special materials. The new general library building at the University of Chicago, not yet occupied, includes main floor quarters for special collections. This building should demonstrate, in theory until operational, that with careful and knowledgeable planning special collections can, adequately and ideally, be accommodated in a central building.

A separate rare book building inevitably leads to certain operational problems, even when it is connected or near the central building (underground passage at Yale, above ground as well as underground at Harvard, about one block away at Indiana and Kansas). Separation increases the duplication of reference and bibliographic

Quarters for Special Collections in University Libraries

material, frustrates the user who must inevitably range between two buildings and increases general operating costs. On the plus side a separate building seems to attract more attention and, it is contended, lures gifts to the university. But appropriate quarters in a central building can also attract and be alluring.

Duplication of materials is not entirely eliminated when the division of special collections is located in the central building remote from the reference and bibliography collections. In a giant central library, time and motion is lost if the scholar must shuttle between divisions located on different floors and at opposite ends of the building.

The renovated old buildings to be used for special collections at Brown and Northwestern will in effect constitute separate buildings. Comment on this type of facility must await completion of the projects.

There would appear to be no acceptable norms for establishing storage requirements for rare books and special collections. Keyes D. Metcalf observed that the growth factor of rare book collections is greater than that of general collections in research libraries.¹ There is a discernible growth pattern in rare and special materials and a realistic approach to this problem is visibly evident in recently constructed facilities.

In the Lilly Library initial shelving was provided for 300,000 volumes. The building was also planned for a further addition to the rear which can double the present storage space. Stacks in the Beinecke at Yale were provided for 800,000 volumes, allowing triuplicate growth of collections.² A west underground extension exists for possible future expansion. The Spencer Library at Kansas has shelving capacity for 670,000 volumes. A planned stack addition can accommodate an additional 110,000 volumes. Current holdings in Spencer amount to 150,000 volumes and approximately 860 linear feet of manuscripts. When Houghton was opened in 1942, it contained storage space for 225,000 volumes. Seven years later shelving for an additional 250,000 volumes was provided on an upper stack level beneath Lamont Library. Two stack levels in the planned underground addition at Harvard will connect with Houghton and be used for rare book shelving. The department of special collections in the new Regenstein Library now under construction at the University of Chicago has a capacity for 250,000 volumes, with possible expansion planned for a below ground level area. Initial growth

space for twenty-five years was planned. The department will move collections totalling over 100,000 volumes and 3,000,000 manuscript pieces into the new building. Shelving will consist of 1,758 standard double-faced sections with some special shelving.

The department of special collections in the new building at Hofstra University contains stack storage for 60,000 volumes, enough for at least ten years' expansion. Contiguous space above the department is available for another decade of growth.

Further examples of space provided for shelving by selected institutions cannot establish a generally applicable formula. Past and anticipated growth rate, the importance of special collections and rare books in the educational program of the university, finances, and possibly wholly extraneous factors, have determined the space allocation for shelving.

Metcalf stated that the optimum size of the rare book reading room should be limited to the visual range of a desk attendant. Furthermore a small room was justified by limited patron use. He did not recommend, for purposes of security, separate typing and microfilm reading rooms. He thought thirty-five or preferably forty square feet per reader should be provided in the reading room. The reading room in the Houghton, constructed while Metcalf was librarian at Harvard, is thirty by fifty-five feet and contains seats for thirty-five patrons. It conforms in all respects with his specifications for a rare book reading room.¹

Annual registered users in the Houghton for a five-year period beginning 1963-64 was 1,024, 1,047, 1,325, 1,370 and 1,329.³ These figures do not reveal daily room use. For the corresponding period in the Lilly, annual room use by daily count was 3,168, 2,998, 4,392, 4,619 and 3,908. Metcalf's observation on limited patronage is confirmed by these select statistics.

A few examples of reader provisions from selected institutions reveal slight or wide variations from the Metcalf dicta. The Lilly Library at Indiana contains a reading room measuring twenty-eight by forty-eight feet with twenty-eight reader stations. An attendant observes all patrons from a desk at the south end of the room. A small enclosed room for reading microforms or for typing is located at the south end of the reading room. The room connects directly to the closed stacks and permits rapid paging. The north and east walls of the room are lined with open bookshelves containing bibliographies, encyclopedias and standard reference works.

Quarters for Special Collections in University Libraries

The Beinecke Library contains a reading room thirty-six by seventy-eight feet which accommodates sixty readers. Enclosed rooms for typing and microform reading are located at the north end of the room. Patrons using the reading room are observed through a glass wall from the circulation desk outside the reading room. In a far corner of the reading room a patron is about seventy feet removed from the circulation librarian. This feature and the enclosed microform and typing rooms have been criticized as a compromise of security by Ellsworth Mason.⁴

Provisions for patrons in the Spencer Library may represent the ultimate in accommodations. The building contains separate reading rooms for rare books, manuscripts, maps, regional collections and university archives. One hundred and nine seats are provided in the five rooms which contain approximately 7,333 square feet of floor space. There are also sixty-seven individual studies of about 100 square feet each. Eight of these are assigned to rare book readers, nine to regional collection patrons and four to university archives users. There is no staff supervision of these studies other than visual inspection upon entering and exiting the building. The remaining studies are assigned by the main library to patrons who cannot be accommodated in that building. Four seminar rooms, each seating twelve people, are available in Spencer for teaching purposes. Patrons in all reading rooms are observed by staff through glass partitions.

The reading area in the central library at the University of Illinois consists of a reading room and an exhibit room. The latter doubles as a reading room. The combined rooms seat eighty-three readers. A microform reading room is located at the west end of the exhibit room. Glass panels in all partitions permit supervision of readers from a desk in the exhibit room. Open bookshelves line the walls of the reading room and scattered shelves are found in the exhibit room. Stacks, occupying two floors, sealed off from general library stacks, adjoin the reading room.

The reading room in the new building in Chicago will seat twenty-four readers. Attached to the reading room is a small room for typing and microform reading. Both the reading room and the typing room will be controlled from a staff office, partitioned with glass, attached to the reading area. Three small seminar rooms are located just outside the reading room. Basic reference works are shelved in an area outside the reading room. Three small studies will also be available,

attached to staff work space, on the level below. These rooms will be supervised from the staff room.

It would appear from the foregoing examples that there is a trend to provide teaching seminars, typing, microform and individual study rooms for users of rare books and special collections separate from reading room facilities. It should also be apparent that there is an attendant loss of security in some of the libraries selected for purposes of illustration. Security for rare materials is not a bugaboo trotted out to influence administrators. Security can be defended on the basis of a long and tragic history of damaged, cut and altered rare books by apparently reliable people left to themselves in isolated surroundings.

Metcalf offered little guidance in the most complicated problems of spatial arrangement for special collections. He recommended that exhibit and reading areas be separated, that stacks be as close as possible to the reading room and warned that separate rooms for donated collections complicated supervision and control.¹

A functional spatial arrangement, one in which all the dynamics of operations are effectively fused, is simple to verbalize but difficult to obtain, particularly so in a central building where there is strong competition from other library functions. It should be comparatively easy to obtain the ideal in space arrangement in a separate building if planners are thoroughly familiar with the operations and functions of rare books and special collections.

The ideal spatial solution may be defined as an arrangement for exhibits, shelving, staff and readers in such a pattern that the various functions occur with economy, minimum effort, and without mutual interference. The serious user should not be disturbed by exhibits, viewers, or staff. Staff should be so positioned as to perform their duties with minimum physical movement. Traffic patterns should be planned to avoid serious congestion.

The Beinecke and the Lilly approach nearer to this ideal in spatial arrangement than any libraries observed. Mason, however, has pointed out that incoming traffic in the Beinecke is not under rigid control.⁵ Moreover paging in Beinecke from the multi-tier stacks underground at the south of the building is slightly tortuous. The location of staff space for the manuscript division in the Lilly, in the basement, two floors from the reading room, is a handicap to staff who must consult with patrons in the reading room. These are minor flaws; both buildings are excellent examples of harmonious spatial arrangement.

Quarters for Special Collections in University Libraries

The Spencer Library is an example of a prodigality of space arranged in a manner that is most expensive to operate. It is difficult to defend the multiple reading rooms and triple service points on the grounds of frequency and diversity of use.

Space arrangements for the department of special collections in the new central library at the University of Chicago also approach the ideal. Although the building is a few months from occupancy, space has been assigned for some time. From information supplied by Robert Rosenthal, curator of special collections, it would seem that a harmonious and functional solution has been developed for all departmental operations.

There is no agreement on the location of rare book and special collections quarters in a general university library building; quarters currently exist on all levels from the basement to the top floors. In buildings which have undergone additions, some rare book quarters are so cunningly located that a guide for both entering and existing would be useful. The inaccessible quarters for rare books in some universities can lead to the conclusion that location was an afterthought, hurriedly determined in desperation. Library building planners, in general, have given priority locations to such competing library functions as card catalogs, circulation, reference, reserve, reading rooms and technical services. The rationale is to minimize vertical traffic and conserve staff and patron time by locating services with high frequency use as close as possible to the ground floor. This philosophy of planning has frequently dictated a remote location for special collections.

The department of special collections in the new building at the University of Chicago is located on the first floor directly off the main entrance to the building. This location was selected because it affords expansion possibility in the future, it is most accessible for users and the public in viewing exhibits, and is near to the bibliography stacks and the preparations divisions. At Illinois the department is located on the third floor of the general library. The department blocks access to future expansion of the north wing of the building and must be replanned when the wing is expanded. Quarters at Rutgers and Princeton are on the first floor; upper floor locations are noted at Columbia, Kentucky, Pennsylvania, and Wisconsin. New quarters at Michigan will be provided on the top floor of the addition to the general library. At Hofstra University the department of special collections was placed on the ninth floor, because of higher priority functions on the main, lower and second floors. The

ninth floor was finally selected because of low frequency use of special collections and the exciting view from this elevation.

Exhibit space is an indispensable and integral part of rare books and special collections programs. Special exhibits related to curricular offerings or those mounted to memorialize a significant event or person are intellectually stimulating adjuncts to the classroom and laboratory. There would appear to be a direct correlation between the depth and variety of institutional collections and the extent of space devoted to exhibit areas. Since exhibits attract many people who are not necessarily book users, the area should be planned so that the viewer and the user do not collide in their respective missions. The following descriptions of institutional exhibit space may be considered ideal in that adequate space is separated from all other rare book functions.

The most dazzling, expensive and elaborate exhibit case yet designed is the central book stack in the Beinecke. This and other less breathtaking features of Beinecke have been described in detail by Ellsworth Mason.⁶ Mason noted that exhibit cases should conform to the following specifications: be dust free, properly ventilated, at a height for easy viewing, easy to load, and have a background that will contrast with a variety of colors and textures.

The Lilly Library was designed so that a major portion of the first floor may be devoted to exhibits. Patrons enter a foyer containing flat exhibit cases on either side, then move to an exhibit room measuring twenty-eight by forty-eight containing flat floor cases and two wall cases. Viewers are free to look at exhibits in the room, which is supervised by a staff member from a desk at the entrance. Book users enter the reading room from the west side of the exhibit hall by pushing a buzzer for admittance. The staff lounge, entered from the east of the exhibit room, contains wall cases and is used for changing exhibits. When a large exhibit is mounted, special rooms containing built-in lighted exhibit cases, entered from the south of the exhibit room, are also used. Viewers must be supervised by staff members in these instances. The wall cases contain fluorescent lights mounted inside and are ventilated. Flat cases have air ports in the side panels for ventilation and are lighted by room ceiling lights.

Hofstra has an exhibit gallery measuring approximately thirty-eight by thirty feet just outside the special collections reading room. The gallery contains an unusual walk-in exhibit case, especially de-

Quarters for Special Collections in University Libraries

signed for the area, as well as a number of flat cases. The walk-in case is eight feet high, twenty-four feet long and three feet deep. It is air-conditioned and contains internal lighting fixtures baffled by plexiglas filters above the louvres. There is no problem of heat or light reflection reported. Visitors, however, have complained of reflection caused by natural sources through exterior windows. The exhibit room is unattended when the department is open. When the department is closed a switch prevents the elevator from stopping on this floor.

The Spencer Library is entered through an exhibit hall containing 1,245 square feet of floor space. The hall contains four ventilated, reasonably dust free, wall exhibit cases lighted with fluorescent lights mounted inside. Excessive heat has not been a problem in these cases. The center of the hall contains three especially designed unventilated flat cases. These are illuminated by downlights, one for each case, suspended from the ceiling. The downlights create annoying reflections on the viewing surface of the cases. Security in the exhibit room is maintained by a desk attendant just inside the entrance.

Two of the Spencer stack levels are enclosed in glass walls surrounded by a commodious hallway. Viewers may, by entering through a check point, view three sides of single-faced stacks, backed by a wooden partition, shelved with rare and special books. This permanent exhibit feature is less glamorous than the central book stack in the Beinecke library, from whence the concept was borrowed, but offers a stimulating sample of rare books and special collections.

Access to the department of special collections in the new building of the University of Chicago will be through an exhibit gallery containing wall exhibit cases. The entrance was so designed that part of the gallery cases are outside of the department's entrance door and may be viewed when the department is closed. Inside the main entrance, four alcoves will also be devoted to exhibit cases. All cases will have individual air circulation and are wired to a central security control. Exhibit space can be reduced by inserting panels matching the wood finish of the area over cases not needed for a particular exhibit. The department proper is entered from a secondary entrance via the alcoved exhibit gallery.

The knowledge that rare books and special collections need special protection from harmful gases in the atmosphere, dampness, dryness,

fire, insects and thieves is widespread. The mechanical features provided for the preservation and security of rare materials have been a most significant development during the last three decades.

More favorable control of the atmospheric environment in recent years has been possible through improved technology. Interior condensation, however, is still a minor problem in some libraries. Hofstra University has solved the problem by constructing an inner cement block wall three feet inside the outer wall and lining the walk space between the two walls with fancoil units. This has not only eliminated condensation but has protected the collections from the rays of the sun.

Filtration systems that remove gases harmful to books are necessary to guarantee extended existence for rare materials. The Lilly system employs electrostatic self-cleaning filters. The Beinecke system contains a rotating screen prefilter, electrostatic filters and activated charcoal filters. Hofstra has an efficient system consisting of pad pre-filter bag strainers in front of an activated charcoal filter.

Constant temperature and humidity control, in spite of manufacturer's stated performance standards, is difficult to maintain. Some deviation from seventy degree temperature and 50 percent humidity is allowable. (Humidity may be intentionally lowered in winter to prevent dripping.) Hofstra employs a continuous-reading recorder connected to an alarm bell in the engineering department which warns when either temperature or humidity passes the permissible deviation. Temperature variation noted in Spencer was not higher than seventy-four degrees or lower than sixty-seven. Humidity deviation was a low of 48 percent and a high of 52 percent.

Considerable thought has been given to fire control in rare book quarters. The Beinecke and Spencer contain heat and smoke detection systems for early warning. In the Beinecke the area can then be flooded with carbon dioxide preventing combustion. Rice University also employs a carbon dioxide system for automatic protection. The department of special collections in the new building at Chicago will contain smoke indicators throughout the department, connected to one indicator station in the department proper and another in the building. Hofstra has sought to solve the problem by fire-proofing the walls and doors of the stacks with materials that resist fire for two and one-half hours.

Water, from inside and outside sources, is an enemy of books. The Lilly Library contains no horizontal water lines. All vertical lines are

Quarters for Special Collections in University Libraries

copper, enclosed in vertical concrete viaducts which, in the event of leaks, empty into a basement drain. Water seepage in below grade quarters may cause serious damage to materials. Seepage from roofs and patios above stack areas is also a problem. To combat this problem in the Beinecke, one floor not used for stacks was interposed between possible source of water seepage and the stacks. At Hofstra there are exposed patios above part of the stacks and reading room. Leaks have occurred in the reading room. This unfortunate experience has led Ellsworth Mason to recommend that rare book quarters in a general library should be located at least one floor level below any roof surface.

All the plumbing, electrical, and air-duct systems in the Houghton Library are situated between pairs of floors with sufficient crawl space so that they can be serviced if necessary. These can be reached through manholes in the ceilings underneath these double floors. All horizontal water pipes in the building have underneath them a series of copper troughs to catch any possible leakage. These troughs in turn lead to a system of pipes that go to a sink on the upper basement level of the stacks where they emerge as a series of petcocks and two drains. If leakage is observed coming out of either of these drains into the sink, the petcocks can be tested in turn to determine which part of the system is producing the leakage. There is a chart nearby explaining the location of each part of the system; a leak can then be tracked down with very little trouble.

Alarm systems that warn of unauthorized entry into the building or into special collections quarters are fairly commonplace. Most systems, highly sensitive to sound or motion, are connected to campus security headquarters. Spencer has a system sensitive to sound that alerts the campus switchboard when building security is violated. The Lilly has an ultrasonic alarm system which establishes a pattern of sound waves within the protected area. An alarm is sounded when these sound waves are reflected by a moving body. An alarm system that is tripped by sound can lead to frequent false warnings. Percussive noises, bells, steam pipes or machinery have been known to set off the alarms. Most alarm systems can be adjusted to tolerate unusual noise up to a certain sound level.

References

1. Metcalf, Keyes. *Planning Academic and Research Library Buildings*. McGraw-Hill, New York, 1965, p. 109.

CECIL K. BYRD

2. "The Beinecke Rare Book and Manuscript Library." A statement by the Architects, Skidmore, Owings & Merrill. *The Yale University Library Gazette*, 38:129, April 1964.
3. Fainsod, Merle and Bryant, Douglas W. *Harvard University Library Annual Report for the Year 1967-68*. Cambridge, 1968, p. 36.
4. Mason, Ellsworth. "The Beinecke Siamese Twins: An Objective Review of Yale's New Rare Book Library Building," *College & Research Libraries*, 26:205-206, May 1965.
5. *Ibid.*, p. 204.
6. *Ibid.*, pp. 202-203, 210-212.