

Newberry Library Architecture – Wetherald, Houghton. The Architectural History of the Newberry Library



The Inland Architect and News Record. The Newberry Library, Chicago. 1893. NL Archives 15/01/03 Bx. 1, Fl. #18.

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By Houghton Wetherald

The Disastrous Fire of 1871 brought about a vast building boom in Chicago. The replacement of burned out buildings, together with the added stimulus of the city's rapid growth, made the next two decades an era unprecedented in construction activity.

During the first ten years following the fire the buildings were largely the product of carpenter and brick mason, with a minimum of planning and embellishment by architect. The next ten years has been called the golden age of Chicago building arts. That decade saw the advent of the skyscraper, of structural steel, of skeleton frame construction, and of the elevator. The lead in architectural design passed from the East to Chicago. It was during this era that The Newberry Library was designed and built.

The Newberry Library resulted from the bequest of Walter Loomis Newberry, a pioneer Chicago businessman who prospered in banking and real estate. On his death in 1868, his will stipulated that, after the fulfillment of certain legal conditions, half his estate be used to found and endow a new library in Chicago. By 1885, the estate had been settled, and on July 18, 1887, the income from the Library's share was sufficient to warrant the establishment of the new institution, called The Newberry Library, after its benefactor.

Under the terms of the will, two trustees—Eliphalet W. Blatchford and William H. Bradley, both conservative men—were given the widest discretionary powers. Blatchford was the senior and clearly dominant trustee. A successful manufacturer of lead products, he combined, with civic and philanthropic interest, a tough-minded approach to the affairs of the Library. The other, William Henry Bradley, seventy-one years of age in 1887, was a quiet, gentle man, who frequently left the hard unpleasant duties to his colleague. [William Landram Williamson: William Frederick Poole and the Modern Library Movement. (PhD. Diss.), University of Chicago, 1959, page 519. All page citations refer to the version in the Newberry Library. Most of the biographical data in the article comes from Dr. Williamson's dissertation, or from the Poole and the Blatchford papers at the Newberry.]

A suitable site was selected in the North division of the city, as had been stipulated in the will: the former Newberry homestead, the block bounded by Erie, Pine, Ontario, and Rush Streets. For the time being, rooms were rented at 90 LaSalle St. The newly selected Librarian, Dr. William Frederick Poole, assumed his duties on August 1, 1887.

In Chicago, in this era of discovery and experiment in construction, the Newberry Library building was an experiment also, not in any structural or aesthetic aspect, but in its totally new concept in library planning. And it was Poole, brusque, unswerving, clever, endowed with tremendous energy and force of will, who was responsible for these ideas and their actual realization in the Newberry Library. [*In Memoriam, William P. Poole*. Chicago: Chicago Literary Club, 1894]

Shortly after graduating from Yale in 1849, Poole had embarked upon his life's career in Boston where he served first the Boston Athenaeum and then the Boston Mercantile Library as Librarian. In January 1869, he became a professional consultant on the organization of libraries. In October 1873, Poole came to Chicago to take charge of the Chicago Public Library during its first fifteen years. By this time he was one of the most eminent librarians in the United States, a noted scholar and historian, and an authority on library economy and administration. One of his colleagues wrote: "More and more I am convinced that there is no one who has fixed his stamp of individuality so strongly upon library methods in this country as you have done." [Letter from Charles Evans to Poole, Aug. 2, 1890, in the Newberry Library]

Throughout his career, Poole had given much thought to library architecture. And it was his ideas which were to override all objections and to shape the design of the new library. In the '80's, there was considerable uncertainty about the design of the large new library buildings which the growing American cities increasingly demanded. The yearly meetings of the recently-founded American Library Association were continually preoccupied with this matter; Poole voiced his opinion frequently at these gatherings.

There were three types of libraries prevalent at the time. The "cathedral" type, named for its resemblance to the Gothic cathedral with its nave and aisles, dominated early library design. It was basically a single tall reading room, the "nave", walled in by tiered stacks with balconies on the "aisles". As the type became larger it was more properly termed the "central court" type, in which the narrow "cathedral" nave with its wooden roof gave way to broader wells topped with metal and glass skylights.

This plan was functionally inefficient, however, and Poole's voice was among the strongest in condemning the arrangement. Relatively high costs resulted from the complicated balcony structure. The tall open nave was wasteful of space, as well as too "public and bustling a place for quiet study." [W. F. Poole, *Circulars of Information of the Bureau of Education*, No. 1 (1881), "The Construction of Library Buildings." Washington: Government Printing Office, 1881. Cf. W. F. Poole, *Library Journal*, Vol. 16, No. 12 (December, 1891), page 88f] It would moreover provide "a perfect flue for fire." Attendants traveled long and circuitous routes in search of books. Difficulties in temperature control, particularly in the upper tiers of stacks where the temperature might rise over one hundred degrees, to the detriment of both books and attendants, compounded the difficulties.

The second type was the "alcoved reading room", in which the main reading room was surrounded by a series of alcoves, each lit by its own windows, each containing its own classification of books, easily reached, effective at small scale, it was essentially a gentleman's library magnified in size and inappropriate for a major public library.

The third and most common type was based upon the storage of books in open or locked cases within a series of rooms, sometimes planned as separate compartments but more often resulting from the make do desperation of the librarian in charge. Such an informal arrangement might be combined with the more conscious architectural schemes of the "cathedral" or "alcove" types. [I am indebted to Professor William Jordy for reading and criticizing the present article, as well as for allowing me to read and use the chapter on the Boston Public Library in the manuscript of his forthcoming book on American Architecture]

It was the alcove type which Poole rationalized into a plan for large institutions. Poole had propagandized for his ideal large reference library since the mid-seventies, in the earliest meetings of the American Library Association. However it was not until 1881, at the Washington conference, that he expounded these ideas in complete form. After first clearing the way with a condemnation of the conventional types, he presented his own ideas, concepts realized almost completely in the Newberry a decade later. His plans called for a library divided into subject departments, each in a separate room with its own books, or, in the early stages of growth, each room containing several related departments. The wasted space, as well as the heating and ventilation difficulties, of the cathedral type might thus be avoided. The general reading room thus became only the largest compartment, housing general reference works. In each department the readers would be under close supervision by an informed attendant, well acquainted with his subject. There, one might work in peace and quiet, with all the required books nearby.

Solid walls between the rooms would preserve departmentalization and also serve as fire barriers. In each room, approximately two-thirds of the floor area were to be occupied by double bookcases, which, combined with wall cases beneath the windows, would provide adequate shelf space. The rooms were to be sixteen feet high and the bookcases only eight feet, so that all books could be easily reached and light and air would circulate freely.

The design took the form of two hundred-foot quadrangles forming a four-story square about a central court. All rooms, ten to a floor, were to be entered from a light iron corridor, seven feet wide, running around the court at each story. Each room would be lighted through large windows

on the outer facade, and through corridor windows on the inner side, transmitting light from windows in the inner wall of the building.

Poole claimed the plan permitted easy expansion: only the frontal wing need be built at first; the side and rear wings could be added as required. With a large enough plot of land, a duplicate quadrangle might be added to the rear of the first. [*Circulars of Information*, No. 1, (1881); *Library Journal*, Vol. 15, No. 12 (December 1890). Pages 107-111; *Library Journal*, Vol. 16, No. 14 (December 1891), page 88f]

Simultaneously with Poole's presentation of his plans, the stack principle was being introduced into the United States with an addition to Gore Hall at Harvard University. The stack plan utilizes a large concentrated storage area for books, issued from a main desk for use in a large central reading room. This block, added to the rear of Harvard's old Gothic revival library, which became the reading room, was a "true stack", i.e., a metal framework, independent of the outer masonry walls, which supported all the shelves and the narrow, slotted, metal walkways between. Designed by Justin Winsor, the librarian, and executed by Henry Van Brunt, it followed the example already established abroad, notably at the Bibliotheque Ste. Genevieve (1843-50), the Bibliotheque Nationale (1858-68), and the British Museum (1854-57).

The advantages of the stack system lie in its compact storage of a great number of books, ease of classification, security from theft and fire, and provision for easy enlargement. Moreover this system ensures "continued and prompt delivery of books...and the return of them to their proper shelves without confusion." [H. Van Brunt. *Library Journal*, Vol. 4. No. 1 (January 1879), page 294]

By the mid 80s, the stack question dominated all discussions of library architecture. Winsor and Poole represented polar positions on the best method of book storage.

Poole's opposition to the stack system was adamant. He strongly criticized Gore Hall, and even more strongly the new Library of Congress (1888-97) and McKim, Mead, and White's Boston Public Library (1888-34), which represented the first large-scale use of the stack plan in the United States. These latter were, in exterior dress and interior arrangement, and particularly in their great reading rooms, "architectural showpieces" with accompanying high costs. "The tendency is to put up an architectural monument or a memorial...when what is wanted is a library building." [*Library Journal* Vol. 16, No. 12 (December, 1891) page 90] Poole reiterated all his arguments against the old cathedral type, though many were no longer valid. He denied the existence of adequate ventilation systems, already in use; the electric light; and the feasibility of the open floor grid as a device through which light might pass.

Yet, despite early enthusiasm for his stand, by the mid-80's the balance of favor had swung toward the stack system. The architectural reports at the annual meetings of the A.L.A. clearly testify to this. In August 1887, J. P. Larned of the Indianapolis Public Library remarked "...the tendency of opinion I think is against his [Poole's] views." [*Library Journal* Vol. 12 Nos. 9-10. 910 (September-October 1887), page 579] Librarians felt that the decentralized plan resulted in more actual footwork for attendants and readers, as scholars often drew from several departments at the same time; that the light from the inner corridor was inadequate, and that the eight feet

provided above the bookcases for light was in reality wasted space; and that the sacrifice of compact storage resulted in higher actual costs.

Poole, however, on assuming his duties at the Newberry, strove to realize his plans in its new building. A pencilled plan, drawn by an unknown architect and dated October 8, 1887, only a month after Poole became librarian, provides the evidence; it is, in essence, Poole's Washington proposals, adjusted to fit the Newberry homestead site.

March 1888 saw the selection of an architect: Henry Ives Cobb, only twenty-nine years old, already the designer of the Chicago Historical Society building. Educated at M.I.T. and Harvard and a partner in the highly successful Chicago firm of Cobb and Frost, Cobb withdrew from his firm in order to devote himself exclusively to planning the new building. He was apparently chosen outright for the commission without competition. A set of early pencilled plans—seemingly Blatchford's notes during a conference—outlining a scheme for a quadrangular structure with a circular reading room set in a central court may well have been devised by Cobb. If these plans, close to the design of the British Museum Library and John L. Smithmeyer's derivative design for the Library of Congress, were by Cobb, then they probably set the tone of the stormy relationship between Poole and the architect; for Cobb favored the stack system, and continued to do so, over the Librarian's adamant objections.

Yet, in reality, the selection of Cobb may have been advantageous for Poole. The opinion among those in the library profession that “the architect is the natural enemy of the librarian” [S. A. Cutter, *Library Journal* Vol. 18, Nos. 9-10 (September-October 1888) page 318] was certainly shared by Poole, with his strong views. Thus the advice of F. B. Gay seems particularly appropriate. “If you are choosing an architect, choose a young man...you cannot tell an old architect what you can tell a young one.” [*Library Journal* Vol. 19, No. 12 (December 1894), page 140]

It appears that Cobb was at first relegated to a secondary role. In April 1888, Poole published a summary of his Washington remarks in the Chicago papers. One reporter did not hesitate to state that “these plans have not been passed on, but there is little likelihood that the trustees will depart materially from Mr. Poole's suggestions.” [*Chicago Mail*, April 21, 1888.]

Poole seems to have suffered a temporary setback however when, on August 12, 1888, Blatchford and Bradley gave orders to Cobb “to prepare plans and specifications for a building...the style and plans...being left to the architect.” Apparently no conference had been held concerning the practical part of the scheme and the trustees seem not to have been completely convinced of the validity of Poole's ideas. In May, they had asked J.P. Lamed for his comments on Poole's plans and had received numerous criticisms and suggestions in reply. [Letter from J. P. Lamed to E. W. Blatchford, May 25, 1888, in the Newberry Library] Cobb was to add later that the trustees “were not prepared to accept them [Poole's plans] unless upon careful investigation we found they were best.” [Letter from Henry Ives Cobb to Trustees, September 12 1889, in the Newberry Library] To this end, Cobb left for a tour of Eastern libraries to explore current library planning, a trip which Poole must have greeted with little enthusiasm.

Poole wrote letters introducing Cobb to officials of a number of libraries around the country. To those favoring his stack system, he wrote only routine introductions. But his letter to Herbert Baxter Adams of Johns Hopkins University urged that Adams “talk to Mr. Cobb...about your admirable seminarium plan,” [Letter from Poole to Herbert B. Adams, October 30, 1888, in Johns Hopkins University Library. Quoted in Williamson, page 540] where separate rooms played an integral part. Cobb felt the impact of these letters and later commented “In America I was much hampered in getting honest opinions from the different men I interviewed.” [Letter from Cobb to Trustees, September 12, 1889, in the Newberry Library] A rough sketch plan of a U-shaped building, entered from the interior court, resulted from the trip, but little about the interior arrangements can be deduced from it.

In April 1888, the Library moved from go La Salle Street to two three-story buildings erected by order of the trustees at 111-119 E. Ontario Street. These were planned as dwelling houses, to be sold after completion of the permanent building. In his report to the trustees at the end of that year, Poole stated, undoubtedly in an attempt to convince the trustees of the validity of his theories, that “the separate rooms provide for a classification of books by subjects, and the arrangement has been found to be very convenient...”

In spite of Poole’s attitude and convictions, in early February Cobb and Blatchford left on a four-month tour of European libraries. Near the end of the trip, in London, Cobb presented to Blatchford a set of detailed sketch plans. Some incomplete plans have been uncovered which reveal an H-shaped building with an auditorium in one wing, a central core of elevators and stairs, and a stack in the other wing. A grand staircase, apparently skylighted through an open well, serves as the main feature of the large entrance hall. These stairs lead directly to a two-story semicircular reading room on the second floor, where they terminate. This reading room, seventy by eighty feet, projecting out to the rear center of the main building, was the grand climax of a conscious architectural progression. Poole was soon to brand as architectural pretentiousness the similar spatial concept which was realized in the new Boston Public Library. He continually emphasized that “convenience and utility should never yield to architectural effects.” The rest of the central section of the second floor was to be occupied by the library administration, and the third floor was to be made up of separate subject departments.

These plans were apparently drawn by Blatchford and may have been his copy of Cobb’s London plan. Two sets of small preliminary sketches in Cobbs hand, one drawn up in Madrid, and the other after Vienna, reveal two stages of the evolution of this scheme and imply a third. The H-plan had developed through shortening the arms of a large U-shaped structure, the latter perhaps relating back to Cobb’s early ideas after his United States trip. An interesting footnote appears in the second set of sketches; Cobb had planned a narrow, temporary building, one story high and twenty-five feet wide to be erected along the rear of the lot behind the main building. If these were the London plans, and all evidence points to this fact, they were of most importance for the future. They represented in rough form the final principles of Cobbs entire study and formed the basis of detailed presentation plans drawn up upon his return to the United States.

In early May, Cobb and Blatchford were ready to discuss specific plans. With Cobb’s new plan, the smouldering controversy with Poole became open conflict. Cobb’s stack, together with his

grand staircase and two-story reading room, clearly must have antagonized Poole. Unfortunately the records of their discussions are scant.

In June 1889, the homestead site was abandoned in favor of the present site of the Library, the old Ogden place, some three thousand square feet larger in size and bounded by Oak, Dearborn and Clark Streets. The change was made because the Clark Street cable-car line would provide easy accessibility from the city, because of the site's greater relative distance from the busy loop, and because its frontage on Washington Park would insure quiet, light, and air, as well as "satisfactory architectural effects."

Meanwhile Cobb was preparing plans for a new two-story temporary brick building (later incorporated into the Irving Apartments) to be erected on the corner of State and Oak Streets, since the old Ontario Street quarters had become totally inadequate for the rapidly expanding library. This new task, together with the Poole-Cobb conflict and the change in site, resulted in considerable delay in the development: of plans for the permanent building.

Cobb finally presented detailed plans for the new library in mid-August 1889. These drawings have since been lost, but existing information indicates that they were very close to the London H-shaped scheme. Cobb was to state later, in a letter to the trustees, that the hal principles involved in the presentation plans were reached and matured in the London drawings and that "since then...I have been at work on the details...no radical modifications have occurred to either of us."

The building was to have been four stories high, designed to accommodate 600,000 volumes initially, with an ultimate capacity of three million volumes or more. Most of the books were to be contained in a four-story skylighted stack with floors of hammered glass and iron, reached by elevators and stairs. This stack was to serve a large two-story general reading room: there were, in addition, twelve separate subject reading rooms. This is most significant, for it is just this balanced combination of special reading rooms and centralized storage which experience has tended to prove the most efficient arrangement for a large public library. This conclusion is underscored by the fact that the Boston Public Library, originally centralized, is at present developing plans for the addition of more departmental libraries; while the Newberry may eventually add a central stack for economic and compact storage. Yet Poole was to state later that Cobb was attempting to combine "two incongruous plans which never ought to be united." [Letter from Poole to Trustees, Sept. 11, 1889, in the Newberry Library]

Although Cobb felt that he had reached the "proper solution," and that the trustees would be justified in contracting for the foundation the next month, the trustees were evidently not yet satisfied. Another set of plans, dated August 29th, show the stack now occupying the former position of the reading room to the rear of the building, with the reading room moved upstairs over the entrance hall. At the top of the plan these words appear, apparently Blatchford jotting down a Cobb comment, "Never found one to use Dr. Ps plan for a gen'l library, only for University and College libraries."

At this point, Poole attempted to counter Cobb's plans by hiring his own architect, W. A. Otis, to draw up a set of plans for the new building, based on his Washington scheme for presentation to

the trustees. Though this scheme represents virtually the final design of the library, Otis was apparently merely a pawn in a delaying action, for he is not referred to again.

Shortly thereafter three long and vehement letters relating to the first plan were sent to the trustees. The first and the last were written by Poole, the second by Cobb; Poole repeated all his criticisms of the stack plan; Cobb countered with a condemnation of Poole's ideas while attempting to justify his own plans. New delay and disagreement ensued.

Poole's second letter was dated October 11, 1889. Five days later, apparently searching for support, Poole wrote a letter to his friend Daniel Coit Gilman of Johns Hopkins University asking for his opinion on the best arrangement for a large reference library and specifically for his choice between his own ideas and the stack plan. Poole accompanied the formal query, cast as a questionnaire, with a personal note saying "we need your help in order to get for our permanent building what the modern generation of scholars requires." [Letter from Poole to Daniel C. Gilman. Oct. 16, 1889. Quoted in Williamson, page 554] But Gilman was away, and not until 1890 did he ask whether Poole still wanted his opinions.

Help came from an anonymous correspondent in the *Chicago Tribune* at the end of December. The writer called for an end to the veil of secrecy surrounding the project. Moreover, he stated that the trustees, having chosen Poole as their librarian, were virtually committed to adopt his views: he felt that the trustees could not rely solely on their own inexperienced judgment. Going on to examine Poole's Washington proposals, he criticized a number of details, yet gave a strong general approval of the overall plan, "it being beyond all praise." [*Chicago Tribune*, Dec. 29, 1889, quoted in *Library Journal* vol. 15, No. 1 (1890) pages 48-50]

On January 13, 1890, Poole wrote a note to Herbert Baxter Adams saying that, "Plans for the permanent building are now coming on well. Mr. Cobb, the architect, has surrendered, and I am likely to have my ideas carried out."

Some small sketches, dated December 30, 1889, reveal Cobb's last efforts to retain the stack principle. There are three versions of Poole's quadrangular inner court structure. One is Poole's plan as originally conceived; in another, the corridor, instead of running around the inner side of the court, now becomes a totally interior passageway, linking each room through the center. This is a modification outlined by an unknown *Chicago Times* correspondent only the day before. A third sketch reveals a stack extended across the center of the inner court from front to back, a plan perhaps related to Cobb's late August scheme. The sketches are in Blatchford's hand; it almost seems as if he were weighing the possibilities, preparatory to making a decision on the direction in which the design was to go.

In April 1890, the Library moved from Ontario Street to its new temporary quarters on the corner of State and Oak Streets. In the second week of September 1890 the final plans were approved. Cobb had indeed "surrendered." The structure clearly embodied all the basic concepts of that library building which Poole had presented in Washington in 1881, with only a few minor changes in plan; the original ideal building had simply expanded into a rectangular structure, five bays across the front, in order to fit the Ogden site.

At the instruction of the trustees, only the south wing of the quadrangle was built at first, a portion “of sufficient capacity to meet the probable demands of the library for the next twenty-five years.” It was designed to accommodate an absolute capacity of one million volumes and a working capacity of six hundred thousand volumes. Of Cobb’s early great reading room, grand hall, and staircase, there was no trace.

Poole presented his plans to the assembled librarians at the White Mountains Conference in late September 1890. Only Judge Chamberlain of the Boston Public Library challenged any feature of the building. He questioned whether adequate light would reach the reading rooms through the inner corridor. Poole conceded that the corridor might obstruct some light but nevertheless insisted that it would be adequate.

Following the conference, the librarians made an excursion through Boston and a tour of the new Boston Public Library. The building did not meet with Poole’s approval. He voiced his opinions that same night at a large dinner for the publishers and booksellers of Boston, freely criticizing the stack system and the lack of subject departments. The grand reading room, sixty feet high, and the Florentine Renaissance exterior were branded as pretentious architectural effects. Poole blamed the “mistake” on the failure of the trustees or architects to consult their own or any other librarians. His statements in Boston might well have been in retaliation for that of the former president of the trustees of the Boston Public Library, William W. Greenough: “We have consulted no librarians, not even our own. Librarians are not practical men and have bees in their bonnets.”

On October 18, 1890, the plans for the new library were published. [*Library Journal*, Vol. 15, No. 12 (December, 1890), page 108] Yet the exterior appearance was still not settled. To Poole, this was the natural order of things. Only after the interior had been planned in all its details “by the librarian and the specialists whom he consults...[is] the architect brought in to give the creature an artistic dress.” [Letter from Poole to Charles Evans, April 23, 1891 Quoted in Williamson, page 585]

Ground was broken October 6, 1890, and the foundations completed that fall. Further construction was to have begun as soon as the winter broke, but Cobb, much to the chagrin of the trustees, did not complete his plans until mid-March. When finally the bids were opened and contracts let, the granite company couldnot furnish the proper stone. The contract for granite had to be cancelled, and a new one made with a second firm. Work progressed satisfactorily during a mild winter, but the summer months brought another long delay because of strikes in the steel mills. The building was finally ready for occupancy on November 15th, 1893. In December Poole could say “the rooms are delightful and the arrangement... superb.” [Letter from Poole to U. B. Adams, December 16. 1898, in Johns Hopkins University Library. Quoted in Williamson, page 665]

As the walls rose, it became very clear that the exterior of the new library was to be as severe and as utilitarian in conception as the interior. It was in many ways typical of Chicago building of the period, for the architectural expression of this great commercial center was the business block, entirely utilitarian in purpose and aspect and monumental only in its magnitude, solidity, and simplicity. Thus the strict businesslike approach of the trustees to the design of the library

was not inappropriate. “That while the building [should] convey... to all an impression of...lofty use, yet [it should] be planned with simplicity and economy in its construction and finish...” [Chicago Herald, October 18, 1890]

As the model for his facade, Cobb adopted the Richardson Romanesque. In its massiveness, extraordinary power, and self-denying rejection of ornament, this style was most applicable to the Chicago building arts. Appropriately it was in Chicago that Richardson erected perhaps the most powerful commercial block of them all, the Marshall Field warehouse (1885-87) after which many Chicago buildings were designed.

Both the Newberry and the Field warehouse were conceived in large and simple terms. In both, a series of tall arches, set on the basement story, rise through several floor levels in a repetitive rhythm across the facade. Both, in their austerity, severe discipline, and sense of closure distinctly recall the Renaissance palazzo. This dual image, Romanesque and Renaissance, is not unusual for many structures designed in the Romanesque Revival style. At the Newberry, it is particularly emphasized by the symmetrical three-part classic block—a long rectangle with center and end pavilions—an arrangement conditioned by Poole’s tightly organized plan.

Yet in the Newberry facade, Cobb modified the Richardsonian aesthetic significantly. Only in the first story did Cobb allow himself Richardson’s rugged masonry and deep window reveals in order to create an adequately strong-looking base for the solid walls of the upper floors. Above the basement story, the wall surface, built of hard, precise blocks of Braintree granite, is tough and severe, the edges of the projecting pavilions sharp and clear. A Richardson building, wrapped in its warm rough protective shell, seems to dilate with its contained volume, but the Newberry, more rigorous, more abstract, bold not from ruggedness but from its flat severity and density, appears to breathe in rather than out.

It is in the recessed walls between the pavilions that Cobb made his most significant departure from the Richardsonian aesthetic. In the projecting pavilions, the cubic blocks are closed at the corners by the strong angle piers, and the arched openings are separated by the flat piers between them. The Richardsonian sense of weight and density is retained. But in the wall sections between the pavilions, the arches, now thinned down, are set close together, separated only by clusters of attenuated colonnettes. Grouped closely together, these arched openings appear as if cut into a thin plate which has been inserted, slightly recessed, between attic and ground stories: closure is retained but the density of the pavilions has disappeared. The pavilions and the wall areas between are thus clearly separated, a feeling quite opposed to the Richardsonian sense of unity through a rhythmic repetition of identical arches. In this manner, Cobb expressed on the exterior the rigidly compartmentalized interior plan. The vertical division of the facade is stressed through a change of texture from the basement to the upper levels, as well as by the clearly articulated string courses between stories. These divisions are lacking in the Field warehouse, which projects a totally unified single block, expressive of the great loft spaces within. At the Newberry, the Richardsonian arches, now clearly separated from basement and attic stories, define the reading rooms in monumental terms in opposition to the more mundane administrative and work spaces above and below.

The interior of the Library, like the exterior, was severely treated throughout. It too is dominated by the rigid compartmentalization of the plan, expressed spatially. The vestibule, the entrance hall, and the rooms opening off the hall become self-contained rectilinear volumes, clearly separated, one from the other. The stairway, underscaled and simple in conception, is carefully contained in its own rectangular tower opposite the vestibule. It does not lead to any architectural climax above; the significant spatial progression of Cobb's early plans was totally sacrificed to Poole's utilitarian program.

Harry Weese, the architect who planned the recently completed remodelling of the building, has successfully preserved the original plan as well as the original style of the building. The mechanical and structural difficulties inherent in the installation of air conditioning, automatic elevators, and new lighting in a building designed at the end of the gas-light era were vast; they were compounded because the operation had to be carried on in the midst of almost a million volumes which had to be protected during the process. Despite these handicaps, Mr. Weese and Gerhart Meyne, the general contractor, succeeded in increasing the functional efficiency of the building, while at the same time avoiding the suggestion of a dowager after her third facelift.

The most difficult challenge, and the one met with least aesthetic success, was the installation of air conditioning, with its maze of duct work and the necessity for sealing most of the windows in the building to keep out light and heat. The ducts for the most part are hung in the corridors, masked in tapered troughs which allow as much light as possible through the corridor windows into the halls and reading-rooms. The windows, except for those in offices and public rooms, have been sealed off with opaque fiber-glass panels, painted black. Far more successful are the new lights installed in the first- and second-floor reading rooms. These are luminous drop ceilings with delicately patterned screens attached to the under surface. They lower the ceilings, which have always seemed too high, without destroying the proportions of the rooms; provide excellent, well diffused light; and are pleasing to look at.

At one side of the original stairtower two new elevators have been added and on the other side, preserving symmetry, a vertical bank containing air-conditioning equipment and small offices. The old elevator shaft was bridged at each floor to serve as an entrance lobby to the new elevators. These two new structures, built of a compatible brick, actually serve to enhance the exterior of the building, which had always looked raw and unfinished at the rear (as indeed it was, since less than half the originally planned building was erected). The only other exterior change of any note is the addition of new bronze and glass doors and vestibule, a simple and beautifully proportioned structure which is so tactfully handled that one is scarcely aware that it has not always been there.

In addition to relighting and air conditioning, most of the public rooms of the Library have been refurnished, in many cases for the first time. New chairs and tables, display cases, and carpeting make the building both more comfortable and more usable. Much of the old furniture, still in good condition, was refinished or rebuilt; these include a number of late nineteenth-century pieces which possess good lines and are in harmony with the style of the building. The Fellows' Lounge, used for meetings and entertainment and as a smoking room for Newberry Fellows and research scholars, has been considerably enlarged, and connected with a small adjoining room. A number of new offices have been provided for staff and research readers. The most noteworthy

new rooms are the Graff Room, which will house Mr. Everett D. Graff's collection of Western Americana, and the new vault for the Rare Book Room, built into the new basement stack area. The Graff Room, with its bronze-grilled oak cases, tapered ceiling designed to show paintings without reflection, and versatile lighting system is a dignified and handsome room worthy of the fine library it will house. The Rare Book Room vault, with a capacity for about 15,000 volumes, provides four-hour fire protection; it too possesses considerable elegance, with its marble-and-steel table, teak chairs, and carpeting. Most of the added storage capacity in the building resulted from the rehabilitation and weatherproofing of the basement, so that both the Ayer Collection and the Rare Book Room were able to gain much needed additional stack space.

Other less noticeable changes are equally important, perhaps more so from a utilitarian point of view. They include fire and smoke separation doors throughout the building, so that if a fire were to start it could be contained within a small area; efficient air filtration equipment, to keep the books clean and protect them from atmospheric pollution; replacement of the old radiators by new perimeter heating; and repair of the tile and mosaic floors, so skillfully done that one scarcely notices the patches.

Cobb's building, after some sixty-five years of hard use, has held up remarkably well. The present renovations should make it even safer and more convenient, while preserving its original solidity and noble proportions. At the present acquisition rate, the building will be completely filled with books in about twenty years, when a new building or an annex of some sort will be required. One hopes that the architect who is given responsibility for that building will produce one which will wear as well as the present structure.