THE BODLEIAN LIBRARY EXTENSION SCHEME.

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COMPLETION of a large new library building and suspension of work upon existing buildings during the war period give opportunity for a survey of Bodleian Library extension and for setting out the main features of a large and complex scheme of library development at Oxford.

The annals of the Bodleian Library date back to 1602, when Sir Thomas Bodley restored that fifteenth-century chamber which had housed an earlier University Library collection dispersed by the reforming zeal of Edward VI's commissioners. It has more enduring ties with the historic building in which it is enshrined than any other library save the Biblioteca Apostolica of the Vatican. Little wonder that attempts to supersede it by some entirely new construction on modern lines have met with successful resistance. "To abandon it," said a recent Library Commission, "would indeed be a 'pillage of man's ancient heart'." Yet how to meet the needs of an ever-growing library on a site which lent itself so unreadily to expansion? Therein has always lain the crux of the problem.

The whole history of the Library may be said to be a record of extension. Its founder was himself alive to the need for providing growth space. Even at the outset the books collected by him and by his friends filled the old library room which he had refurnished and which bears Duke Humphrey's name. Before he died he had added to it a new eastern wing, the famous Arts End. This fronts a quadrangle of which the remaining three sides are occupied by the Old Schools, a building already projected when Sir Thomas died. Because he foresaw, to quote his own words, "that in the process of time there must of necessity be very great want of conveyance and stowage for books
by reason of the endless multitude of those that are present there and like hereafter to be continually bought and brought in," he provided funds by his will for building an upper storey or second floor to the Schools, primarily as a Picture Gallery but with the secondary object of providing "a very large supplement for stowage of books". Yet even he could not have anticipated the vast output of the modern press, a large part of which he would in any event have rejected contemptuously as "baggage books".

Under the Commonwealth the addition of Selden End as a western wing to Duke Humphrey's Library completed what is now known as the Old Reading-Room and sufficed to meet library needs for close upon a hundred and fifty years. When other contrivances were exhausted, the Bodleian proceeded, as did the similarly placed libraries of the Vatican and of Cambridge University, to encroach upon adjoining chambers. In 1789 the School of Anatomy and Medicine, on the first floor of the south range of the Schools quadrangle, was taken over as "Auctarium Bibliothecæ Bodleianæ" and converted into a book-store for manuscripts, incunabula and editiones principes. To find room for the subsequently acquired libraries of Richard Gough, David Oppenheimer and Francis Douce and for other famous collections, one School after another was absorbed, subdivided by partition walls, and shelved from floor to ceiling. By the beginning of the Victorian era all the Schools on the first floor had been annexed; only those on the ground level continued to serve their original function.

Although book storage was increased, it was long before any addition was made to reading accommodation. Bodley continued to be the privileged sanctum of scholars; no junior member of the University stepped within its ancient walls. But academic education received a great impetus during the second quarter of the nineteenth century, and the results soon showed themselves in increased use of libraries. On the south side of the Old Schools quadrangle lies Radcliffe Square, and in its centre the noble rotunda, named the Radcliffe Camera, which James Gibbs completed in 1749 to hold a library devised by Dr. John Radcliffe. In 1860 the trustees of Dr. Radcliffe's
will transferred all works on natural sciences to premises in the newly erected University Museum and handed over the use of Camera to the Bodleian Curators. Its upper storey was made a general reading-room for undergraduates and was later furnished with a select library of text-books. The outer arches of its vaulted undercroft were now glazed, and what had been an open loggia became an additional book-store.

With the completion of new Examination Schools in 1882 the ground floor rooms of the Old Schools quadrangle were released for library purposes and rapidly filled. The contents of the Library were growing at an ever-increasing rate. Between the years 1822 and 1888 the number of its books mounted from 160,000 to 440,000. By 1915 it had topped the million mark. To store this influx the Library authorities took over the basements of two neighbouring University buildings—the Sheldonian Theatre and the Old Ashmolean Museum, as well as vaults beneath the Examination Schools. When existing cellage was exhausted, an underground book-store, consisting of two decks fitted for rolling book-stacks, was excavated in 1912 in the Radcliffe Square, between the Camera and the Bodleian building.

The new book-store was the first planned addition to the Library that had been made since the middle of the seventeenth century, all the buildings taken over in the intervening years having been designed to serve other purposes. It was the first assertion of the principle, since generally accepted, that library stacks might rely entirely upon artificial lighting and ventilation and be independent of sunlight and the air of heaven. It was the earliest extensive experiment to be made in the solid packing of books without intervening gangways, but the experience gained of rolling stacks on its upper deck was not such as to warrant their introduction on the lower. The period for which its makers hoped that the new stack would give shelf space for accessions was thereby shortened. In 1925 Bodley’s Librarian announced that all existing book space would be filled up in ten years’ time.

Meanwhile, the need for more reading-rooms had also become again apparent. In 1907 the northern half of the Picture
Gallery was fitted up as a general reading-room and shelved with a selection of learned periodicals. Special reading-rooms for Law and for English were created in 1923 and 1929 respectively, the former in the Examination Schools, the latter in the Picture Gallery. The absorption of various specialist libraries into the Bodleian system showed the same tendency in another form. In 1927 the Radcliffe trustees transferred to the Bodleian Curators the administration of the Radcliffe Science Library which, after having been lodged for a time in the University Museum, now occupied a library building of its own. In the same year the Library of the Indian Institute was brought under Bodleian management. Two years later, the trustees of the will of Cecil Rhodes completed the construction of Rhodes House and placed in it a library of American and Colonial history composed in part of works which they themselves had purchased, in part of books transferred from Bodley. Thus in three years the Bodleian extended its authority over three dependent libraries, each one of which came to be administered by Bodley’s Librarian under the aegis of an Advisory Committee.

At the beginning of 1930 the Library position was as follows. Book space was within five years of exhaustion, and there was as yet no agreement as to how further space should be provided, for there were some who wanted a new book-stack and others who demanded a new library. Opinion in the University was in the main averse to abandoning a historic building in which Bodley’s Library had found a home for more than three hundred years; but there was also a feeling, which was widely shared, that more storage space was not enough. Specialist reading-rooms had been tried and were winning favour. There was a growing demand for direct access to books on open shelves. There were many who thought that more might be made of the Library as a centre for academic study. A movement for library reform produced in March 1930 the appointment of a Commission “to visit modern University Libraries in Europe and America, to report to the University upon the organisation, planning, equipment, and methods of administration of such libraries, and generally to advise the University upon the basis of their investigations as to the best method of securing such
library provision at Oxford as shall be abreast of modern requirements”.

The Commission reported within twelve months of its appointment and, by a large majority, put forward a number of recommendations of which the chief were the retention of the Old Library buildings and the construction of a new stack. For some years past the urgent need for more storage space had been obvious, but plans put forward had been limited to addition to existing stacks. The Commission commented adversely upon the dispersion of store-rooms, and stated roundly that “the inconvenience and congestion of the Bodleian book-stores have no parallel in any of the libraries we have visited”. They advised that all except the underground book-store should be evacuated, and that storage should be concentrated in a new building. This should be of such a size as to be capable of holding about five million books, and provide for intake—if that should remain constant—for the next two hundred years. The first-floor rooms round the Schools quadrangle would be thereby freed from stack, and the Old Library—as the group of seventeenth-century buildings have now come to be termed—would be converted, in the main, into an enlarged range of reading-rooms, shelved with about 100,000 of the books most in demand.

Radical as was this programme, it did not satisfy those who wished to see a fuller and more varied use made of the new building. Compromise was effected. In May 1931, three months after their issue, the University adopted in toto the recommendations contained in the majority report of the Commission together with certain resolutions based upon the minority proposals. The chief of these was that, in the erection of the new library, the opportunity should be seized for “the making of experiments in library administration, including the use of carrels and research rooms adjoining appropriate sections of the stacks”.

Although a thorough-going scheme for library extension was thus agreed upon, means had still to be found for putting it into effect. Its total cost, including provision of a maintenance fund, was estimated at little short of a million pounds. The
University was far from being in a position to raise that sum. But a year later, in May 1932, the Rockefeller Foundation made the generous offer to contribute three-fifths of the estimated cost provided that the University found the remaining two-fifths within a stated period. The offer was accepted, a private appeal was issued, and, although the University had been given four and a half years in which to find the money, the sum required was raised within a single year and the condition set out in the Rockefeller offer was thereby fulfilled. Liability undertaken by the University Chest to find the sum needed for additional endowment was subsequently met as the result of a public appeal for funds.

Events had moved fast in 1930-1933, and there was need they should. The Library was full, almost to saturation point. A scheme calculated to meet the needs of two centuries had been approved and financed, but existing space was barely sufficient for another two years. A vast new stack could not be built in that short time. It had therefore already been decided to carry out one of the minor recommendations of the Commission, an extension of the Radcliffe Science Library by the addition of reading-rooms and stack space that would double existing accommodation. Plans for this enterprise were prepared by Mr. Hubert Worthington, and work had actually been begun before the Rockefeller gift became absolute. The extension was completed and formally opened in November 1934, and transference of the whole of the science sections in the Bodleian book-stacks came just in time to give the necessary relief.

At the same time the law section was moved to a floor of the new building unrequired as yet for scientific literature. The reason for this step is to be found in another of the Commission's recommendations—the preparation of a new library catalogue. The Bodleian catalogue has passed through various phases; first, interleaved printed catalogues; then a 'transcribed' catalogue consisting of written slips pasted on the blank leaves of large volumes; and finally a combination of written and of printed slips, namely a 'transcribed' catalogue limited to books published before 1920 and a 'printed' catalogue for books published after that date. The new project is for an amalgama-
tion of these two alphabets into a single printed-slip catalogue. It requires, as a preliminary, an extensive revision of the old written slips, or rather the completion of a revision begun in 1907 and dropped during the last war. Only preliminary and experimental work could be carried out before there was a room for a cataloguing staff to work in, for the Library, as the Commission had reported, had “practically no rooms for administrative work”. The removal of the law books to the Radcliffe Science Library and consequent clearance of one of the ground-floor rooms of the Schools quadrangle, made it possible for a cataloguing staff to be got together, and systematic revision to be begun in January 1935.

Various causes contributed to delay a start upon the main Extension project—the construction of a new book-store. Immediate need for more storage had dictated the enlargement of the Science Library as the first stage in the building programme. Time was also needed for working out the design of the new storehouse. Although the Commission had adumbrated in their report the general lines to be followed, they realised that considerable modifications might have to be made or alternative arrangements adopted. In any event the best distribution of the space available was a matter for the Librarian and Architect. Furthermore the Commission’s proposals had to be harmonised with the resolutions based on the minority report, and the respective functions of the Old Library and the new building accurately defined. A Building Committee had been set up, at the launching of the scheme, to advise the Library Curators regarding its execution. With a view to ascertaining the demands that might be made upon the Library, the Faculties were circulated and asked to state their needs. In the light of their replies a scheme for the future allocation of rooms in the Old Library was worked out and adopted as a preliminary to determining what was required in the new building.

When all this was done, choice was made of an architect, and Sir Giles Gilbert Scott was appointed in June 1934. During the next three months the present writer visited various great Continental libraries, accompanied by the architect, and made a more extensive tour of inspection of libraries in the United
States and Canada. Upon the completion of these tours, a Sub-Committee appointed for the purpose set out to prepare, in the light of the information obtained, a specification upon which the plans for the new building should be made. The result of their labours, a ten-page privately printed pamphlet entitled "Instructions to the Architect," received approval in June 1935.

The site upon which the new building should be placed had been settled, in effect, by the University as far back as 1929. It lay to the north of the Old Library but separated from it by an open court, the University offices and the width of Broad Street. Most of the houses in this area were already University property; the remainder had to be acquired and certain leases to expire or to be bought out before the buildings could be demolished. The site was bounded on two sides by main thoroughfares—Broad Street and Parks Road—and on the two other sides by the gardens and Library of Trinity College. It therefore gave no opportunity for expansion, but this defect was in part remedied by the reservation of ground outside Oxford on which a repository might subsequently be erected for the storage of little-wanted books.

The main problem, which had hardly been faced by the Commission, was how to get on this restricted site a building capable of holding about five million books. Building regulations and aesthetic considerations combined to rule out a lofty tower. One type of plan and one alone was found to satisfy all requirements. In the instructions to the architect the building to be erected is defined as "a solid block with a book-stack in the centre, and a basement devoted to book-stack and other suitable uses (e.g. machinery) over almost the whole area of the site beneath". The Commission had contemplated screening the stack on the Broad Street frontage by a building which should contain rooms for staff and other purposes. But more space was needed for Library experiments in order to implement the University's supplementary resolutions. Consequently the instructions given to the architect prescribed a range of rooms round all four sides of the stack. A compact central stack, surrounded by external rooms and so dependent on electric
power for its lighting and ventilation was a departure from previous ideas, but the conception was not entirely a novelty, for the new Library of Columbia University in New York, then just completed, and the annexe, at that time only commenced, to the Library of Congress at Washington, have the same general plan. Its adoption allowed Sir Giles Scott to achieve architectural unity and a harmonious design.

Eighteen months were required for the production of architect’s plans and working drawings and for the placing of a contract, with the result that work upon the new building was begun in December 1936. In the following summer Queen Mary laid the foundation-stone. When war broke out the building was nearing its completion, and although work was unavoidably slowed down, it was finished, apart from a few minor fittings, in the course of 1940.

The New Library, as it is justifiably termed, is a square block with frontages 41 feet in height and a central block which rises 78 feet above ground level. Each frontage has three stories. The western range contains staff quarters, including a bindery; rooms for reception, accessioning and cataloguing of books; a canteen and staff common room; and links up with a porter’s lodge on Broad Street. A large reading-room with seats for 80 readers occupies the whole of the first floor on the north side of the building and is designed to serve those modern studies which most depend on stack access. A top-lit gallery separates reading-room and stack and will house a copy of the catalogue. The gallery leads at its western end directly to the quarters of the cataloguing staff. Above the reading-room are rooms for photography and for the reading of micro-photographic films. Two exhibition rooms and a committee room fill the ground and first-floor levels of the southern range. On the east front a room in the centre of the first floor is fitted up for consultation of maps. The remaining rooms on all four fronts are allotted to research or are held in reserve.

The central stack consists of eleven decks of which three are below ground level and extend under the whole site. Its six middle decks correspond with the three floors of the outer range, each of which could be converted, if so required, into a
two-storied book-stack. The two topmost decks rise above the surrounding building and consequently possess natural lighting. Each deck is a little over 7 feet in height. With the exception of the two lowest, which will not be brought into permanent use for some years to come, the decks are fitted throughout with ranges of steel stack, broken by gangways and having alleys 2 feet 6 inches wide between each range. Lifts and internal staircases provide communications between the decks. Plenum and extract ventilation is provided throughout the stack, and the whole building is heated by water provided from a thermal storage plant in the basement.

Readers will be admitted to work in the reading-room, in research rooms, or in the stack itself. The privilege of using research rooms will be given to persons engaged in co-operative research, such as the carrying out of a specified piece of work by a Professor or senior member of the University in collaboration with colleagues or pupils with a view to publication; to individual scholars of any Faculty engaged in protracted research, and to advanced classes for the study of manuscripts and other material not easily accessible elsewhere. Stack access is to be granted to members of University Faculties, to persons recommended by the Boards of Faculties, and to other persons at the Librarian’s discretion. On the upper decks of the stack twenty-four carrels have been provided and there is room for a hundred more. These will be allotted to readers who require to work for a prolonged period in proximity to certain classes of books. Fifty-two movable desks and chairs have been distributed throughout the stack and are available for readers unprovided with carrels.

Arrangements had been made for the formal opening of the New Library on 14th June 1940. That ceremony has been unavoidably postponed until peace is restored. However, the building is already in full use, although the stack and cataloguing room alone have been taken over for library purposes. As fast as the outer rooms were completed, they were occupied by other University departments or by external institutions. Despite difficulties caused by reduction of staff, the Old Ashmolean and Sheldonian basements, the Camera ground floor, and the greater
part of the rooms round the Old Schools quadrangle have all been evacuated and their contents arranged on the shelves allotted to them in the new stack. The principle of arrangement has been to place on the ground floor and lower ground floor all manuscripts, early printed books, unclassified collections and newspapers, and to distribute classified sections over the upper decks in as convenient relation as possible to the reading-room and the research rooms. War-time uses have been found for the two unshelved decks at the bottom of the building. The bottom level is being converted into a public air-raid shelter; the deck immediately over it has been made a general storehouse. Here is a great mass of fiction hurriedly removed in the first few weeks of the war from the cellars of the Examination Schools, when they were taken over as a military hospital, and dumped here pending transfer to the underground book-store.

By way of providing a rapid book-service between the stack and the reading-rooms in the Old Library a tunnel has been driven under Broad Street and a mechanical conveyor installed. This runs on a continuous chain which passes over wheels at the top of both buildings. There is a receiving and dispatch station on every floor, so that books can be dispatched or returned by automatic action to or from any level of either building. A pneumatic tube system has been similarly introduced for messages and book orders and has been extended to the Camera.

At its southern end the tunnel links up with a subway uniting the Old Library with the underground book-store and thence giving access to the Camera. Prior to the extension scheme the Camera provided seats for 122 readers. The Library Commission recommended the provision of additional seating accommodation on the upper floor. In 1932 it became necessary to re-wire the Camera, and the opportunity was taken to remodel the lighting in such a way as to make it possible later to place readers' desks in the central space under the dome. Reseating, carried out under Mr. Worthington's directions during the summer of 1935, increased the number of readers' seats from 122 to 174. Finally, in 1940, when the new Library had been completed, the Camera ground floor, now emptied of all the books which had been stored in it, was stripped, cleaned, and
supplied with lighting, heating, and seats and tables for 48 readers. This fine vaulted chamber will not be brought into use until the war is over, but the ultimate result will be to provide seating at the Camera for 222 undergraduate readers, an increase of a hundred over that which existed previously.

One thing remained to complete the extension scheme and to give effect to the Commission’s proposal for “an enlarged range of reading-rooms”. With the concurrence of the Boards of Faculties a scheme was carefully worked out for transforming the whole of the first and second floors of the Old Schools into rooms appropriated to specific branches of study. Under this scheme the second floor, on which are the present Upper Reading-Room, English Reading-Room and Picture Gallery, will become reading-rooms for Languages and History. The vacated bookstores on the first floor will be rid of many of their partition walls and become reading-rooms for Law, Theology and Oriental Studies. Selden End will be reserved for the reading of manuscripts, and Duke Humphrey’s Library remain a general reading-room. Again, with the help of the Faculties, lists were compiled of periodicals, works of reference and books in common use to be shelved on the walls of these rooms, and the task of selection had almost been completed when war broke out.

It had been intended that the reconstruction of the Old Library—the last stage in Bodleian extension—should be carried through in 1940-1941. War has made this impossible, but some progress is being made. A new boiler-house has been constructed in order to allow the extension of heating to all parts of the building as yet unwarmed. Floors have been examined and the necessity established for replacing decayed timber flooring by steel beams and concrete. Work on the ground-floor level has been put in hand. The Commission prescribed “the use of the ground floor of the quadrangle for administrative offices, cloakrooms, and other purposes, including advanced teaching and research at the Librarian’s discretion”. Its northern sector will form offices for the secretarial and financial staff. These cannot be made at present, but a new room inserted on a mezzanine floor serves as a temporary office for typists and, incidentally, as a guard-room for fire-watchers. The south
range will give accommodation for co-operative research and, until it is ready, a room near the south-east angle of the quadrangle, destined for the use of blind readers, has been put at the disposal of staff engaged on the lexicographical enterprises of the Clarendon Press. Next to this a large room is in course of being fitted up as a Council Chamber for the Library Curators and headquarters for the Society of Friends of the Bodleian.

This then is the scheme of Bodleian Library Extension. Parallels to many of its features may be found in the libraries of the United States. Like the Johns Hopkins Library at Baltimore it aims at giving a large number of reading-rooms for special studies and, within limits, at providing opportunity for reading in proximity to related sections of the book-stack. The general design of the New Library, as has already been pointed out, presents resemblances to the Library of Columbia University and to the annexe to the Library of Congress. But in the main the scheme is individual. Founded on compromise, it is an experiment in working a new library building into an old historic framework. It consists not simply in grafting a new member on to an old organism, but in so transforming the Old Library that it may be vivified by the new.

The progress and details of the Bodleian Library Extension are set out more fully in the following publications:

Annual Reports of the Curators of the Bodleian Library, 1932-1940.


The following technical articles on the New Library have appeared in professional journals:

