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Chapter 13: The creation of the Weston Library

1 Construction of the New Bodleian Library

The New Bodleian building was officially opened by King George VI on 24 October 1946. This event was the culmination of over 30 years' efforts to deal with the perennial issue facing the Bodleian: that new books would arrive in the library faster than the buildings had the capacity to cope with storing them.

After much soul-searching during the late 1920s and early 1930s, the University decided against the building of a large integrated library building on a green-field site on the University Parks, and instead decided to acquire a plot of land much closer to the old Bodleian buildings in the heart of Oxford.¹ A group of old buildings on the corner of Broad Street and Parks Road was purchased and demolished to make way for a new building which would primarily serve as a book depository serving the reading rooms in the Old Bodleian building and the Radcliffe Camera. A fundraising exercise was organized and a pledge was provided by the Rockefeller Foundation to provide three-fifths of the cost of the building, and some associated projects, and a more public campaign was launched to provide the remaining sum.

The architect chosen at this time was Sir Giles Gilbert Scott, the latest scion of a dynasty of architects, who had already been commissioned to furnish the University of Cambridge with a new library building modelled on the scheme which Oxford rejected: that is to say a single, large integrated building, outside of the historic centre, with large space for growth. Bodley's Librarian Sir Edmund Craster spent considerable time visiting new library buildings in the USA and in Europe together with Scott, and they jointly developed a scheme that created space for storage of collections in a combination of large underground floors, with a single 'ziggurat'-style above-ground tower in the middle of the building providing a total of eleven floors of storage. Wrapped around the tower on three floors would be a mixture of reading rooms, staff offices, and other spaces for backroom activities. Crucially, the book storage spaces would focus on efficiency, integrating the building's structure with the bookshelving system.

¹ *Library provision in Oxford: report and recommendations of the commission appointed by the Congregation of the University.* (Oxford: Clarendon Press, 1931).



Figure 13.1: The New Bodleian under construction

As the planning and design work evolved, Tudor houses and shops were purchased by the University and demolished to make way for the new building. A large empty space soon emerged at the end of Broad Street, and the opened ground was dug out, to enable the formation of the underground storage. (Figure 13.1) The superstructure was put in place by May 1939, and as Britain descended into the early years of the war, the New Bodleian building was completed and fitted out, although it was not occupied as intended by the Bodleian. Admiralty Intelligence occupied parts of the New Bodleian, working on the Bodleian's map collection and analysing postcards and tourist photographs to prepare for the invasion of Europe; other war purposes also trumped the Bodleian's own desire to move its own collections from the overcrowded old Bodleian buildings into the New Bodleian. Following the end of the war, however, the building was fully handed over to the Library and the King officially opened the building on 24 October 1946.

The building was soon full of staff and collections, however, and a process of change began where areas such as the exhibition room had to make way for

increased spaces for consultation of collections. Fortunately the flexibility of Giles Gilbert Scott's design for the outer areas of the building permitted this evolution of function.

As the library world began to become more aware of the science of book and paper conservation and related issues, the understanding of the limitations of the New Bodleian also became better understood. The lack of climate control became a major issue, and a retrospective installation of a system was made in the 1970s; but because this had not been planned in the building's original design, the infrastructure for this system – both the mechanical plant and the pipework delivering water to and from the plant – was placed among the collections themselves, creating an additional risk to the safety of the books and manuscripts stored in the building. In addition to the need to maintain a stable environment for the long-term preservation of the collections stored in the New Bodleian, the Libraries also became aware of the inherent difficulties built into the structure of the building in terms of fire safety. The unprotected steel columns that formed the main structure of the building, combined with the lack of any fire suppression system and the introduction of the air-handling plant into parts of the New Bodleian created a potential tinder-box, giving serious concerns to the Oxford fire department and to the University's fire safety office.

2 Overcrowding

The New Bodleian was designed, in the main, to serve as a storage facility, albeit one very close to the historic reading rooms of the other Bodleian central buildings. By the 1970s, the New Bodleian's capacity had been outstripped by the rapid increase in the volume of publishing, and the growth in particular of the legal deposit collections. In 1975 the Bodleian built its first off-site storage in the gardens of the old house at Nuneham Courtenay, just under 9 kilometres (5.5 miles) south-east of the Bodleian. Storage modules were added over the subsequent decades, the last being completed in 2002, with the capacity there being in excess of 1.2 million volumes at its peak. The failure to receive planning permission for further storage modules at Nuneham Courtenay created something of a space crisis for the Bodleian, with growth space in the Bodleian soon filled to overflowing. Moreover, with increased focus from the University on health and safety, the fact that collections were being stored on the floors of the storage levels in the New Bodleian became a serious issue, which influenced the broader estates strategy that was to emerge in the period 2004–05. The immediate solution to the space crisis was, however, to rent commercial storage, first from the

company Iron Mountain in a warehouse in Gloucestershire, then in salt mines in Cheshire run by a company called DeepStore. At the peak of the Bodleian's use of the DeepStore facility, there were over 2 million volumes stored there.

3 Environmental conditions

The Historical Manuscripts Commission made routine and regular inspections of archival repositories which held public records under the 1958 Public Records Act,² and following the transfer of the HMC to The National Archives, to become the National Archives Advisory Service, the routine inspections were assessed against a new *Standard for Record Repositories*, based on the British Standard 5454, but including additional elements.³ The inspections in 1999 and 2004 were especially sobering for the Bodleian as it became very clear that the Bodleian's status as an approved repository was seriously in jeopardy, with the New Bodleian Library falling short of meeting the minimum standards in a number of key areas. The view of the TNA could be summed up as follows: the Bodleian had skipped a generation in the upgrading of its facilities for storing and preserving its outstanding collections. Something must be done to improve the conditions or a major disaster might place them at jeopardy.

With the New Bodleian effectively full, and the collections stored there being subject to a variety of issues such as overcrowding, risk from fire, and lack of proper environmental controls, the University began to suggest to the Bodleian that a broader rethink of the estates strategy should be pursued.

4 NEWBOLD

The idea began to emerge, following the decisive intervention of the incoming Vice-Chancellor, that the Estates strategy of the Libraries should change. Instead of incremental growth of off-site storage, they should build a large single store on a new site with space for the existing off-site collections, space for substantial growth, and space to accommodate the collections of the New Bodleian during

² Public Records Act 1958: 1958 Chapter 51 6 and 7 Eliz 2, accessed 29 June 2012, <http://www.legislation.gov.uk/ukpga/Eliz2/6-7/51>.

³ *Standard for Record Repositories*, 1st edition (Kew: The National Archives, 2004).

the refurbishment of that building. This was a critical new element in thinking through the Bodleian's problems, as it had become apparent that to undertake any major work in the New Bodleian stacks would require the emptying of those stacks. The cost of building temporary storage to do this would be wasted. A more efficient use of these resources would be to invest them in a more permanent solution which could be used for growth after the New Bodleian collections returned after its refurbishment. The subsequent development of this approach and especially the creation of the Bodleian Book Storage Facility is told elsewhere in this volume (chapter 6).

With the space problems alleviated by the temporary measure of DeepStore, and the long-term issues resolved with the emergence of the new large store (to become known as the Book Storage Facility, or BSF), the focus of attention turned to the nature of the New Bodleian refurbishment itself.

The earliest scheme, known internally as NEWBOLD, had focused on the refurbishment of the stacks, and became the major component of the Bodleian's Capital Campaign, launched publicly in 2002 as the 400th Anniversary Campaign. The Campaign had failed to raise the significant sums needed to progress the refurbishment by the start of 2005, as many donors who were approached felt that the University itself should be investing in the core physical infrastructure of fire prevention and suppression, and climate control. The Bodleian Libraries were therefore given the task by the Vice-Chancellor of rethinking that scheme.

5 The new New Bodleian

The concept that emerged was to combine the core element of renovation of the book stack with two new elements that were missing from the NEWBOLD scheme or not initially given prominence within it. The first element was to provide radically improved facilities for scholarship using the special collections. These would include seminar rooms for using the special collections in teaching or discussion sessions in a safe and secure environment; spaces for high-end digital scholarship, and integrated access to a major new suite of conservation laboratories and workshops. The second element was to increase dramatically in size and improve in quality the facilities for sharing the special collections with a wider public, through such elements as exhibition spaces and an auditorium.

The Bodleian's staff began the process of building up a briefing document, in combination with colleagues from the Oxford University Estates Directorate and with a consultant from the international consultancy and construction company Mace. Colleagues within the Bodleian, guided by the Bodleian's own Estates

Projects Officer, began to gather information to draft a design brief. This initial design brief was based on the information gathered for the NEWBOLD project, together with new information based on the radically revised scope of the project. A local firm of architects with experience of working in the constrained environment of central Oxford, Beuman Geudes Stretton, was employed to work up some initial designs in order to inform the internal planning process. At the same time a number of workshops were held with academic members of affected faculties such as History and English, and a number of key planning decisions were taken in conjunction with relevant Faculty Boards. One such was the decision to integrate the Bodleian Library of Commonwealth and African Studies at Rhodes House into the New Bodleian, enabling the sub-Saharan collections to join those of the Indian Institute, forming a 'Commonwealth and Empire' collection of considerable size and depth.

Another key step related to obtaining a detailed understanding of the heritage nature of the building and its contents, especially important considering the architectural significance of the setting, the fact that the building had been designed by Giles Gilbert Scott (one of the most important architects of the twentieth century), and the crucial fact that the building had been given Grade II Listed status in 2002. During the second half of 2005, therefore, the University employed conservation architects Purcell Miller Tritton to undertake a detailed conservation survey of the New Bodleian building, in order to understand fully the key heritage elements, and to produce a gazetteer of the building which would inform any future design work.

These initial designs and the draft Design Brief were considered by internal University planning committees and approval was given, in the autumn of 2005, to proceed toward an architectural competition and the commencement of the formal Royal Institute British Architects (RIBA) planning process. The Design Brief was taken to a new level of detail and comprehensiveness by a large team of staff working during the latter part of 2005, and the brief was signed off by internal Bodleian and University committees. The Estates Directorate formally issued the invitation to tender in the *European Journal* in January 2006. Almost 100 entries were received and an internal Project Sponsor Group was formed, chaired by the Pro-Vice-Chancellor for Academic Services and University Collections. In spring 2006 four architectural practices were invited to work up proposals and to come to Oxford to present their schemes, which they did in May 2006. The project was awarded, following a unanimous decision by the Project Sponsor Group, to Wilkinson Eyre Architects. Their approach was considered the most innovative use of the constraints of the building, combined with the most sensitive understanding of the issues. Key to the scheme which they presented was to shift the entrance from the small existing door on Parks Road to the main



Figure 13.2: Illustrative view of planned Broad Street frontage of the refurbished New Bodleian Library, courtesy of Wilkinson Eyre Architects



Figure 13.3: Illustrative view of the Blackwell Hall, courtesy of Wilkinson Eyre Architects

Broad Street frontage, where the elevation at street level would be opened up and made accessible by a series of steps and inclines. (Figure 13.2) Inside the building would be a large central atrium as entrance hall, which would allow for circulation by readers accessing research facilities and by the public coming to view exhibitions. This large and welcoming space would be lit by a series of shafts of natural light made possible by creating a sense of the central stack space ‘floating’, although in reality it would be cantilevered off two large vertical ‘cores’ which would also carry common services as well as lifts and stairs (Figure 13.3).



Figure 13.4: Illustrative view of zoning in the redesigned New Bodleian, courtesy of Wilkinson Eyre Architects

The Wilkinson Eyre scheme also had a number of compelling attributes. The three-part zoning of the building was an excellent response to the brief: collections storage largely confined to the three large floors below ground; public access on the ground floor, and spaces dedicated to researchers on the upper floors. (Figure 13.4)

The design was also favoured for a number of other reasons. Firstly, it referenced the classic Oxford topography of the quadrangle in the way that the central hall was separated from the exterior rooms. The design also brought into the New Bodleian the idea of the book galleries which are found in the 17th-century extensions to Duke Humfrey's Library known as Arts End and Selden End, to make it abundantly clear to all entering the building that they were coming into a library, and a great library. The key fact of opening up the Broad Street frontage, to send a clear signal that the library was a welcoming place, was also of critical importance in flagging a change in philosophy within the University.

Although Wilkinson Eyre were the clear winners of the competition, the Project Sponsor Group were very impressed by the submission from Shepley Bulfinch Richardson and Abbott (SBRA), a long-established architectural practice based in Boston, Massachusetts, mostly because of their excellent reputation for undertaking major library refurbishment projects in major research libraries in the US, such as those at Yale, Columbia, Duke, and Cornell. With their knowledge of trends in major US research institutions, it was agreed to include SBRA as a consultant to WEA on the project's design phases.

6 Planning the new library

Following the appointment of Wilkinson Eyre Architects, the project moved into a new feasibility stage with their ideas being worked up into more formal preliminary drawings. A professional design team was formed, with Hurley Palmer Flatt providing expertise on mechanical and electrical engineering; structural engineers Pell Frischmann, and cost consultants E.C. Harris joining Wilkinson Eyre Architects, the Oxford University Estates Directorate, and colleagues from the Bodleian.

In spring 2007 the Design Team undertook a study visit to a number of libraries in the USA that had been identified as having elements which would be useful points of reference for the New Bodleian project. The visit began in Austin, Texas, with a day-long visit to the Harry Ransom Humanities Research Center at the University of Texas at Austin. Here the Team noted the mixture of public and research spaces, especially the new auditorium and large and flexible exhibition spaces, as well as the comprehensive suite of carefully integrated seminar rooms for group study and teaching using the collections.

The team then moved to New York to visit the newly completed redevelopment of the Morgan Library and Museum, designed by Renzo Piano, where close attention was paid during the visit to the suite of exhibition galleries, and the beautifully appointed conservation workshops with their flexible design and installation. The team also visited in Manhattan the New York Public Library, where they saw the impressive facility for Visiting Scholars. The team then went by minibus to New Haven where they were joined by colleagues from Shepley Bulfinch Richardson and Abbott to view Bunshaft's inspirational and influential Beinecke Library, as well as the refurbished Sterling Memorial Library which had been recently completed by SBRA. Particular attention was paid during the visit there to the Music Library, as this was an important element to consider as part of the New Bodleian project. Also visited in New Haven were the two great Louis Kahn buildings: the Mellon Centre for British Art and the Yale University Art Gallery. Finally, the team moved on to Boston where the Boston Public Library was visited before a workshop was held at the offices of Shepley Bulfinch Richardson and Abbott. Bodley's new Librarian Dr Sarah Thomas, who had worked previously with SBRA, joined the workshop.

Other study visits were made in the UK during the design phase, including a number of visits to the British Library building, but also to The National Archives, the Royal Institute of British Architects, the Victoria and Albert Museum and the Museum of London. In Oxford a number of college libraries were visited, as were the new auditoria at Corpus Christi College and Merton College, and Giles Gilbert Scott's chapel at Lady Margaret Hall.

As the design moved through the stages of the RIBA scheme, updates were made regularly to the Project Sponsor Group and to the University's Buildings and Estates Subcommittee, Capital Steering Group, and Planning and Resource Allocation Committee, especially as funding was only being released to allow each phase of the design to proceed to the next, and no guarantees were being made about future progress, until University support and philanthropic funding was secured.

7 The scheme and the strategy

During 2008, as the detailed design for the New Bodleian was being worked up in detail through numerous iterations and planning workshops, the Bodleian's broader estates strategy went through major change, as the putative scheme to build a new off-site book storage facility at Osney Mead was rejected by local planners and by the appeal process, forcing the University to seek land further afield, in Swindon (as is recounted in chapter 6). The new version of the estates

plan involved alterations to the evolving scheme for the New Bodleian, principally the removal of the book conveyor from the scheme, allowing the budget which had been allocated to that element to be given over to other parts of the project; and space on the ground floor, which had been earmarked for sorting deliveries of books from the Book Storage Facility prior to being placed on the conveyor, to be utilized for other purposes. In order to retain some element of the conveyor in the New Bodleian, one of the conveyor stations (used for receiving and delivering books) was selected for retention in the scheme on the basement level.

8 Detailed planning

The evolution of the detailed design proceeded in stages throughout the period 2008-10, with a number of key steps forward. One of these was the design by Hurley Palmer Flatt of the air-handling system. The control of temperature and relative humidity, and the need to adhere to BS 5454 and the TNA Standard, was of critical concern, and a system was worked up through a 3D computer model based on a series of plenum walls in the storage areas that would pull air through the shelving system at the required rate, avoiding pockets of stagnant air, and keeping the number of air changes to within the accepted rate. This computer model was worked up into a full-scale mock-up, which was tested through the close involvement of the Bodleian's Conservation and Collection Care department. The mock-up had a section of shelving loaded with books and with sensors located in among the shelved area. The system was run for a period of months, with the data revealing the accuracy of the computer model, and allowing this element of the design to move forward with the confidence of all parties having been gained.

The 'floating' stack in the middle of the interior hall was also the subject to much modelling and detailed attention to structures by Pell Frischmann. The design evolved to increase the size of the hall, and reduce the size of this floating stack, with consequent evolution of thought about the activities that would take place within it. As the Bodleian's own plans evolved, we agreed to give more space to open-shelf collections and to study spaces for graduate students, and less to closed-stack storage. At the same time, Wilkinson Eyre began to devote considerable energies to the detailed planning for the main storage areas in the three underground floors of the building. The scheme which eventually emerged as the favoured one included the creation of a single large storage vault in the middle of the building, which would be separated by mezzanine floors, thus cre-

ating a single four-hour fire rated compartment. Much attention was given to the method of protecting the remaining steel structure in the perimeter areas of the stack, with a combination of fire-cladding and intumescent paint finding favour with the fire consultants and the University's fire officer and insurers. This built-in fire protection would be combined with a fire-suppressant system for the first time in this building, using a system that would generate a local 'fog' or fine mist of water only in the areas which were directly affected by fire.

Other parts of the scheme which evolved in this period were the exhibition areas, which increased in size during the planning, at the expense of the 'Bibliography Room', a group of historic printing presses used as a teaching tool, which we agreed to relocate in other library buildings. The designs at this stage also included the addition of a combined staff and reader café in addition to a public café as part of the interior hall. During the Autumn of 2009 a study visit to New York City was made by the Conservation and Collection Care staff, together with staff from SBRA, to pay close attention to conservation facilities so as to inform the planning of the conservation workshops in the New Bodleian. The facilities at the Morgan Library, the Thaw Center for Paper Conservation at the Metropolitan Museum of Art and the Museum of Modern Art's Paper Conservation Studio were all visited to the great benefit of the planning process.

As 2009 progressed it became clear that major planning work was required on other elements of the Bodleian's integrated estates strategy, so the Estates Projects Officer had his duties reallocated to concentrate solely on the planning for the Book Storage Facility and for supporting the bookmoving activities. He was replaced on the New Bodleian project for an 18-month period by a highly experienced and much admired estates administrator in the University. In the Spring of 2010 the Bod Squad and BSF Teams were also formed to provide integrated planning, monitoring, and implementation for the major projects being undertaken by the Libraries.

9 Funding

The focus of attention during 2006-10 was not solely on the evolution of the detailed designs for the building. The project was only permitted to proceed through the RIBA scheme by virtue of success in fundraising. During the early phase of the project, the University, under the leadership of the Vice-Chancellor, agreed to provide £25 million of funds from the transfers made to the University by Oxford University Press, as the basis for 'matched funding'. This was to prove a decisive element in the fundraising. The Bodleian was able to count this contribu-

tion alongside the gifts that had been forthcoming under the NEWBOLD umbrella (from George Mallinckrodt, Barrie and Deedee Wigmore, Joseph Sassoon and others), indicating confidence that the scheme would be able to continue. Toby Blackwell, the owner of the much-beloved bookselling and publishing business based next door to the New Bodleian on Broad Street, also confirmed his intention to support the project in 2007, with his gift of £5 million being announced to much positive publicity at the Bodleian's annual celebration of benefactors known as Founder's Luncheon in 2008. This was followed shortly afterward by the announcement of an even greater benefaction, from the Garfield Weston Foundation, whose outstandingly generous gift of £25 million – the largest single gift in the Foundation's history – was forthcoming not only because of the scheme's inherent merits, but also because of the leverage it gained by the £25 million matched funding from Oxford University Press. The Garfield Weston donation was announced as one of the lead gifts at the public launch of the University's 'Oxford Thinking' Campaign at the British Academy in May 2009. In recognition of the donation the refurbished library will be named the Weston Library. Other gifts would follow in the wake of the Blackwell and Garfield Weston lead gifts: George David named the new rooftop reading room after his father, the scholar-librarian Charles Wendell David, and the Dunard Fund generously named the music reading room in honour of Sir Charles Mackerras. The Polonsky Foundation, Sir Robert Horton (through the Emerson Company), the Scheide Fund, the Lee Foundation, the Headley Trust, and the Zvi and Ofra Meiter Family Fund all joined the ranks of the earlier donors in supporting the project. By the summer of 2012, over £70 million had been raised for the scheme, with only a further £10 million still outstanding.

10 The decant

Throughout 2008, 2009 and the first half of 2010, attention began to be paid to the emptying of the building of both staff and collections, with the risk of not meeting the deadline of providing vacant possession of the building to the main contractor being the top risk on the Client Risk Register throughout this period. In the autumn of 2009 the special collections began to be moved out of the building, relocating temporarily to the basement of the Radcliffe Science Library (RSL), which had been emptied of science materials and refurbished during the first 9 months of 2009 (see chapter 4). Reader facilities for maps, music and Oriental subjects were relocated in the summer of 2010 (maps and music to Duke Humfrey's Library and Oriental to the Oriental Institute Library).

Simultaneous with this activity was a major project in itself to relocate the staff that had been occupying the New Bodleian for many years (see chapter 13).

With staff safely relocated from the building, the focus of attention turned to the removal of collections. With the open shelf collections already gone, and the major special collections already relocated to the Radcliffe Science Library, the focus for the book moving project was to transport the bulk of the remaining collections to the Book Storage Facility in Swindon. This project is described in greater depth elsewhere in this volume (chapter 8), but it required a great deal of detailed co-ordination, with major planning meetings taking place weekly at the BSF Team Meeting, and at Bod Squad, and by smaller groups of staff on an even more frequent basis. The complications involved the co-ordination of barcoding with book moving, the necessity to have data move in time to update the library catalogue and to be uploaded to the Book Storage Facility Information System. If this process were not followed, the danger would be that books could be moved before their locations had been changed on SOLO, causing problems for readers, and also that books could arrive at Swindon to be ingested without any records for them in the BSFIS, interrupting the rapid throughput. In addition, the local coordination of staff in the building was important both for health and safety purposes, but also to ensure that the movement of large numbers of books via the lifts in the New Bodleian was well coordinated. Although there were inevitably some problems in the initial periods of working, and from time to time throughout the project, this activity was well organized and staff worked very effectively to deal with the many problems swiftly, as they emerged, showing great flexibility, creativity, and ingenuity.

The building was duly handed over to the main contractor, Mace, on 1 August 2011, exactly on schedule. The last elements to be removed from the building were heritage furniture, and historic paintings (which were mostly re-hung in the Clarendon Building and the Old Bodleian Library). Also discovered during this process was a significant amount of material stored in the stacks of the New Bodleian over the years that had been overlooked. These included overstocks of past publications, a large number of artificial Christmas trees and other Christmas party decorations, and pieces of historic wood panelling. All of the non-collections items were appraised carefully, and suitable homes found for each piece, or they were sent for recycling.

The handover of the New Bodleian and the provision of vacant possession of it to the main contractor, on time, and under budget, was a major achievement for the Bodleian and for the team of staff devoted to delivering it. It was the culmination of six years work from the re-envisioning of the concept to the commencement of the main project building works.



Figure 13.5: 'Bodzilla'
(Simon Bentley)

11 Demolition

The demolition phase began with further surveying work, and especially the completion of the final phase of surveying the building for asbestos. The presence of unknown sites containing asbestos had featured as a major risk on the project's risk register for some time, and it was therefore a relief to begin the removal of asbestos. An unexpected area containing asbestos was found during the demolition phase, but this eventuality had been allowed for through the allocation of resources for contingency. At the close of the demolition phase in June 2012, over 100 tons of asbestos had been removed. The demolition phase commenced with the insertion of a temporary electrical transformer into the former staff canteen, and the insertion of a tower crane into the building, which was subsequently nicknamed 'Bodzilla' by staff. (Figure 13.5) The soft strip of listed fixtures and fittings, the removal of asbestos, and the major task of

removing the metal shelving meant that the demolition of the structure itself did not commence in any visible way until January 2012. But this demolition proceeded at a rapid pace, so much so that the central stack was removed at the rate of a floor per week.

The demolition phase was concluded on 25 June 2012 and the construction of the new structure commenced the following day. By this point the project was still on schedule and on budget. Planning was well under way with a team of Bodleian, wider University, and Estates staff working together to ensure that the structure, policies, procedures, and systems were ready for the safe, efficient, and effective occupation of the building following practical completion in July 2014.