**Refurbishment of the Underground Bookstore & Old Bodleian Access Project**

**Background**

The Bodleian Libraries of the University of Oxford form the largest university library system in the United Kingdom. They include the Bodleian Library, which has been a library of legal deposit for 400 years, major research libraries, and libraries attached to faculties, departments and other institutions of the University. The combined library collections number more than 11 million printed items, in addition to 30,000 e-journals and vast quantities of materials in other formats. For additional information see www.bodleian.ox.ac.uk.

The iconic buildings that make up the Bodleian Library complement the renown of its collections and contribute to the standing of the University as a major centre for research, learning and culture. The many thousands of scholars and members of the public who visit the Bodleian Library each year make a significant contribution to the economic health of the city of Oxford and the surrounding region.

As part of the Academic and Estates strategies of the Bodleian Libraries, the proposed restructuring of the libraries in the centre of Oxford and the building of the new Book Storage Facility near Swindon have made possible a number of strategic alterations to the libraries within the historic core, i.e. the Old Bodleian Library and the Radcliffe Camera.

These historic buildings provide the library with some of its most popular reading rooms; however, they also impose operational limitations on the library which are overcome in modern facilities elsewhere. In order to maintain the usefulness and popularity of these buildings throughout the 21st Century, the Bodleian Libraries have put together a brief to respond to readers’ requests for direct access to material and for improved library facilities whilst responding to the library’s administrative needs for reducing deliveries to and from the Book Storage Facility.

The Bodleian Libraries propose to convert the existing Underground Bookstore (UBS) beneath Radcliffe Square into an open-access library containing the highest-use reading material. Readers will be permitted to take books from the open-access bookshelves of the UBS and read them in the reading rooms of the Old Bodleian Library and the Radcliffe Camera. A new lift will be installed in the Old Bodleian Library to cater for book deliveries and this lift will also serve to make the main reading rooms more accessible in compliance with the Disability Discrimination Act (DDA).

The latest proposals have been made following feasibility studies prepared by Purcell Miller Tritton LLP in October 2008 and June 2009, have been updated following the advice of library planning consultants Shayne Bulfinch in September 2009, and reflect further consultation with the Bodleian Libraries, Oxford University Safety Office and the University’s Disability Team.

**The Underground Bookstore**

The UBS was constructed between 1969 and 1972, underneath Radcliffe Square to relieve the library of a shortage of space for its expanding collection. The library currently holds 800,000 volumes which are retrieved and subsequently reshelved by library staff. The library is over two levels, upper UBS and lower UBS. At upper level the volumes are stored on a mixture of modern mobile compact shelving and static shelving; at upper UBS level the volumes are stored using mobile “Gladstone shelving” of a beeper design.

**The Radcliffe Camera**

The Radcliffe Camera was taken over by the Bodleian in 1860 at which time the upper floor was a reading room and the basement (or ground floor) was converted into a book stack. In 1941 the ground floor was converted into a reading room following the opening of the UBS.

**The Old Bodleian Library**

The Upper Reading Room and Lower Reading Room of the Old Bodleian Library each contain about 50,000 items on open access. The majority of material consulted has to be ordered from closed-access stacks. Books are distributed directly from the New Bodleian bookstack or, via the New Bodleian, from external storage facilities via a coveyor which runs through a tunnel underneath Broad Street. The conveyor stops its horizontal route where it meets the Old Bodleian north west Tower and does not continue in the tunnel towards the UBS. Todays are, therefore, used to take books from the New Bodleian Library to the UBS and on to the Radcliffe Camera.

The buildings forming the historic core with their underground link shown.
INCREASING OPEN ACCESS

The Underground Bookstore becomes the 'Gladstone Link'

Adapting the Shelving

The change of use of the UBS from a closed stack into an open-access library will involve alterations to the shelving at both levels. At lower UBS level the dividing partitions are to be removed and the existing static shelving will be replaced with new mobile shelving to increase storage. Some new partitions will form fire compartments around the escape stairs and lifts. Alcove spaces around the perimeter are to be used as consultation benches where readers can browse prior to moving on to reading rooms. At upper UBS level the plan is to retain as much of the existing Gladstone shelving as is compatible with modern standards of access and safety. Retaining the existing shelving is possible by selective removal to provide good access and circulation for readers and by fixing it in position. Existing partitions will be removed and replaced to suit the new layout.

The proposed layout achieves a total of 1,465 case metres, enough shelving for at least 250,000 items (1,234 case metres or 210,000 volumes at lower level and 231 case metres or 40,000 volumes at upper UBS level).

Improving Access

The UBS is currently accessed mainly by library staff from the Lower Reading Room of the Radcliffe Camera and by bookstack staff via the tunnel. After an initial assessment by the Fire Engineers the maximum capacity of the proposed open access library has increased to that of 150 people. The assessment included a reconsideration of the fire strategy and level of risk with higher occupation.

Access to the UBS will be for readers and staff from both the Radcliffe Camera, via a new stair and platform lift, and from the Old Bodleian Library, through the tunnel: this provides (ODA-compliant) access to the upper UBS level where a diagonal open corridor will link the two access points. Along the diagonal link will be provided some informal reader spaces to enrich the area.

At both upper and lower UBS levels the main circulation routes, for ease of escape and access to shelving, are around the perimeter and on main corridors through the bookshelves. Clearance in excess of 1.20m has been provided between shelves to allow librarians to reshape books. The space has also been considered so that wheelchair users have adequate turning circles at aisle ends and in other key spaces.

Close to the tunnel entrance on the north side of the upper UBS is an existing access stair. This is to be retained and a new heavy duty platform lift will be provided alongside it. This will be for staff use only to assist with the reshaping of books and is not intended to give wheelchair access to the lower UBS level. On the south side of the UBS (adjacent to the stair that leads to the Radcliffe Camera) is another set of stairs and platform lift down to the lower UBS level.

The option to give full wheelchair access to the lower level of the UBS was investigated but was thought not to be consistent with the concentration of mobile shelving on this level. Therefore it has been agreed to provide for full accessibility to the upper level only. As with other inaccessible areas there will be facilities to call the staff if material from the lower level needs to be consulted by readers with disabilities.

There are two escape routes from the UBS, the escape through the tunnel towards the Old Bodleian Library and the escape route up the stairs into the Radcliffe Camera. Advice from Fire Consultants suggested that based upon the existing arrangement the travel distances are well within acceptable limits.

Refurbishment of the Underground Bookstore & Old Bodleian Access Project

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GLADSTONE LINK

Collections
The intention is that readers will pick their own books and take them to their preferred working spot. For the first time it will be possible for readers to choose any reading location in the Old Bodleian Library and Radcliffe Camera. In conjunction, the UBS and the tunnel become the “Gladstone Link”.

The bulk movement of books within the UBS will be by library staff returning books to the shelving at specific periods of the day and delivering books to the Camera from the Book Storage Facility. Currently books delivered from book storage areas are manually handled up and down the steep stairwell. This stairwell is to be removed and replaced with a new staircase and a platform lift for transporting book trolleys as well as disabled readers. For more information on the stair and lift refer to Board 4.

A dedicated goods lift is to be provided adjacent to the south stair in the UBS and next to the tunnel/entrance on the north wall to move books to and from the lower UBS. It is not intended to deliver reading material from the Book Storage Facility to the UBS itself as dedicated reserve areas will continue to be provided close by in the Radcliffe Camera and the Old Bodleian Library.

Facilities
The lower UBS will remain a functional area where most of the book storage is concentrated. The shelving is in 3 bays with a perimeter circulation route and a north-south corridor which divides the space approximately in half. A small reading area is provided along the corridor and group study areas are provided in the two eastern corners.

The upper UBS is to become a more varied space (though still principally a book storage area) with perimeter circulation and a diagonal open corridor extending the tunnel from the Old Bodleian to the stairwell of the Radcliffe Camera. This open corridor will provide an important visual link between the two entrances to the UBS and occasional widening will provide some informal reading areas which will also enliven the space. An informal meeting space, defined by low screens and bookshelves, is proposed to the south of the linking corridor. Open carrels are provided around the perimeter of the upper UBS. A group study area is proposed in the north east corner and a bank of reader computers with access to the library catalogue in the south east corner adjacent to the entrance from the Radcliffe Camera.

A dedicated accessible WC and a unisex toilet are also to be provided in the upper UBS. Some ancillary facilities, e.g. time, can be located on the south wall next to the stair and toilet block. Wireless internet access will be provided throughout with wired points to some desks as well as to the reader computers.

Fixtures and Fittings
The existing decorative scheme is understandably utilitarian but has a surprising potential with some handsome features such as the two staircases. A new decorative scheme is to be provided throughout to incorporate the existing exposed steel structure and utilities to create a more modern, industrial aesthetic that is both functional and attractive. The ceiling, steel frame, walls and buttores are to be prepared accordingly and decorated. The cast iron panels making up the existing upper level are undecorated and are to be left so, but given a thorough clean.

The walls and the sections of ceiling in between the steel structure are to be painted white to improve the light levels and the atmosphere in general.

There are signs of an existing terrazzo decorative floor scheme within the lower level of the basement. The existing floor is to be exposed where painted and repaired where cracked.

The circulation routes, meeting areas and breakout spaces on the upper level are to be covered with a new class 0 fire retardant floor covering. Loose furniture items must also be class 0 fire retardant.

The Underground Bookstore Plan

1. 3D view of the Gladstone Link interiors towards the tunnel entrance
2. 3D view of the computer access area
3. 3D view of the study area and the service lift to the Gladstone Link lower level
4. 3D view of reading desks along North wall of upper Gladstone Link level

Artist’s Impressions of Proposed Interiors

Refurbishment of the Underground Bookstore & Old Bodleian Access Project
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Proposed Works
The existing collection in the Radcliffe Camera is to remain and the alterations to the Camera are limited to improving the current access into the UBS and moving the librarian workstation to an alternative bay. The Radcliffe Camera is divided into 8 segments, the northern most segment providing access to the Lower Camera Reading Room and the Upper Camera Reading Room and its gallery. The existing access to the UBS is from a single stair within Bay 1 which currently also accommodates the existing librarian workstation.

New Lift and Stair
With the refurbishment of the UBS as an open-access library, the regime for the movement of books within the library will be altered. The intention is that readers will select their own books and take them to whichever location they are working in. The steep stairway down to the UBS from the Lower Camera is to be removed and replaced with a new staircase and a platform lift which can be used for transporting book trolleys as well as facilitating access for disabled readers.

The proposed parapet to the lift and stair is partly solid concrete to match the height of the plinth of the surrounding stonework with a glazed panel up to 1100mm high. This design will minimise the impact on the interiors of the Radcliffe Camera and, in particular, avoid obstructing the view of the window.

Impact on the Radcliffe Camera
The fabric directly affected by the proposals outlined later in this report, including the floor construction in bay 1, the stairs down to UBS and the built-in furniture is of low architectural significance as it mainly consists of 20th C alterations using ordinary construction methods and of a relatively plain design.

The adaptations to the ground floor of the Camera in the late 19th and 20th centuries give evidence of the changes to convert the open arcade into a bookstore and later a reading room. They therefore have moderate historical value as they reflect the continual growth of the Bodleian Library. The original fabric of the alterations is, however, of little architectural or technological significance. The window replacement in 1956 was carried out by Godfrey Allen, an architect and surveyor of the fabric to St. Paul’s Cathedral (1931-35) who supervised the restoration of many historic buildings after WWII including the Sheldonian Theatre, 1948-53. This adds some significance but should not be given too much weight as the windows are only a secondary modern addition to the fabric of the whole Camera.

New staff workstation
The improved stair and new lift will leave little room for the existing staff workstation and it is proposed that the workstation is relocated to Bay 2. The new library workstation will require an area for new photocopiers and space for a reserve area for books arriving by request from the Book Storage Facility.

Discussion is taking place with English Heritage and Oxford City Council about the possibility of opening the window in correspondence with the new librarian workstation. This will allow a temporary delivery access during the refurbishment of the underground link between the Old Bodleian and the Radcliffe Camera and provide a permanent fire exit to the Camera.

Lower Reading Room Level Plan as Proposed

Lower Reading Room Level Plan as Existing

Proposed Temporary Ramp for Book Deliveries

Proposed Section through New Lift and Staircase

Proposed new lift and staircase

Refurbishment of the Underground Bookstore & Old Bodleian Access Project
The New Bodleian Library currently contains the Bodleian Libraries’ largest bookstack and is also the main delivery point for books coming to the historic core from external storage facilities. Books are distributed to the Old Bodleian Library by a conveyor which runs through a tunnel underneath Broad Street. The conveyor stops its horizontal route where it meets the Old Bodleian north west Tower and does not continue in the tunnel towards the UBS. Trolleys are used to take books from the New Bodleian Library to the UBS and on to the Radcliffe Camera.

During the three- to five-year refurbishment of the New Bodleian Library, the conveyor will not be available for use and alternative delivery methods to the Old Bodleian and Radcliffe Camera must be found. Additionally, when the New Bodleian Library is converted to a dedicated special collections facility and low use material will be delivered from the Book Storage Facility at Saint John’s, the new delivery point will be required to serve the Old Bodleian Library and Radcliffe Camera.

The book conveyor has moderate technological value. It is a clever system which transports books in several different directions and was also made by the local firm Lucy’s Eagle Ironworks. However, it was a standard piece of industrial machinery installed in many buildings by the company Sives. The New Bodleian Conservation Plan cites the British Museum and Glasgow Public Library as having similar systems installed. It has come to the end of its useful lifespan and is difficult to maintain and repair as parts have to be made specially.

An appraisal was made in June 2009 of the options for the location of a new delivery point. This concluded that the Old Schools Quadrangle was the most suitable location, with deliveries facilitated by a new lift installed in the redundant conveyor shaft. The lift will also provide disabled access to the Upper and Lower Reading Rooms in the Old Bodleian Library as well as access to the UBS.

The relocation of the delivery point will involve:
- Alterations to the existing levels of the Quadrangle to improve access into the Old Bodleian for deliveries
- The removal of the Sives conveyor from the existing conveyor shaft and replacement with a new access and goods lift
- Level access at Ground Floor Level to the new ODA compliant lift to serve the reading rooms in the Old Bodleian Library and the tunnel to the UBS
- Provision of an accessible toilet at Ground Floor level
- Alterations to the existing Ladies facilities at mezzanine level and the conveyor rooms at lower and upper reading room levels with storage provision for book trolleys
- The loss of one of the Gentleman’s Lavatories at ground floor level

With facilities for readers concentrated around the north staircase in the Old Bodleian Library it is also proposed to move the Library’s Main Enquiry Desk from the south end of the Lower Reading Room to the north, so that it can be more readily accessed, particularly by wheelchair users. The opportunity will also be taken to move the Lower Reserve to the north and of the reading room so that it will be closer to the delivery point for material. Consolidation of these service points is proposed to streamline services and make for greater efficiencies.

The Proposal

The new lift is to be installed between the two existing beams at ceiling level within the basement area and using part of the existing conveyor shaft. A section of floor will need to be removed; however, these floors are not of historic significance as they are concrete and altered at the time when the conveyor was installed. The new lift restricts access at basement level through the tunnel from the New Bodleian. Limited access will be available for library staff.

Within this area the existing lift within the stairwell will be removed, including the timber panelling and metal grills. The book conveyor and conveyor stations are also planned for removal. The existing conveyor shaft will be extended to provide space for a new passenger and goods lift. On the ground, first and second floors new lift shafts will be provided, with the rest of the room partitioned for storage. The construction of the ground floor lobby and store room will require the removal of the existing cleaners cupboard and the extension of the raised floor to the east, in order that level access to the lift can be provided.

The staff rest area will be refurbished and an accessible toilet will be provided at the east end. The entrance here will give level access from the Schools Quadrangle to the new lift, and then either to the reading rooms above or the UBS below.

The lift will give staff and readers access to all other floors, including the basement. At this level readers will be able to access the UBS via the tunnel. Staff will be able to access the tunnel to the New Bodleian using a key system. A general reorganization of the area, including the boxing in of the electrical switch board and reorganisation of the various pipes and ducts will take place.

At the 1930s alterations associated with the toilets and conveyor rooms, such as joinery, are of reasonable quality but have little significance.

The New Lift for the Old Bodleian Library

Significance of the Conveyor

Accessibility

Access for anyone with poor mobility is poor into the Radcliffe Camera at present. O.U.L.S. have overcome the problems of access to these reading rooms by providing a identical service in other areas of the library that are accessible. This will be changed when the two levels of book stack are turned into accessible shelving.

The new lift within the Old Bodleian Library is to serve as a passenger lift to the lower and upper reading rooms of the Old Bodleian Library and also to the UBS and Radcliffe Camera via the Basement Tunnel. Access is not possible to Duke Humphrey’s Library which is on the half landing of the stair tower.

Fire escape is difficult at the Old Bodleian and where stairs must be climbed in the event of escape. Similar issues arise at the Radcliffe Camera. The lift will be installed with an alternative power source so that it can be used in a fire alarm situation, allowing disabled users to evacuate the building by lift.

Visual impact of the new passenger lift on the North Elevation of the Old Bodleian

Old Bodleian Library

Consolidation of service points within the Old Bodleian Library

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The New WC Arrangement

At ground floor level the existing male readers’ toilets are to be removed to allow space for access into new goods lift and to new storage for the trolleys. Readers will be allowed the use of the staff facilities in the future. A new accessible WC is to be provided in the corridor area within the east range. The ladies readers’ WC facilities at mezzanine level are to be relocated and reconfigured to fit around the new lift shaft. The existing conveyor room at lower and upper reading room levels are to be modified to allow access to the new lift from the reading rooms and to provide additional book storage.

Tea room for staff and readers

The opportunity will be taken as part of this project to provide basic tea room facilities in ground floor rooms in the north east corner of the Old Schools Quadrangle where there is a small existing kitchen. It is envisaged that this will provide for staff and readers a place to enjoy hot and cold drinks and to eat snacks. During changes to the New Bodleian Library and Old Bodleian Library over the next few years there will be no other staff or reader common room on site.

Existing Book Conveyor

Proposed Ground Floor

Proposed Mezzanine Floor

Proposed First Floor

Proposed Second Floor

Proposed Basement Level

Included in the project is the additional provision of a new WC on the north east corner of the Old Schools Quadrangle.
The courtyard of the Old Schools Quadrangle has a wide cross plan. The stone slab paving is arranged as a wide path around the edge of the area and as two intersecting paths in the centre. Each quarter formed by these paths is then filled in with the same stone slabs set on a diagonal axis. A few slabs have been replaced in recent years with thinner slabs of the same stone.

To the west side of the area is a bronze statue of the Earl of Pembroke on a plinth and surrounded by iron railings. Two circular light wells formed of glass bricks set in a concrete surrounds are located towards the north-west and south-west corners of the Quadrangle. These serve the tunnel connecting the UBS and Old Bodleian.

**The Old Schools Quadrangle**

**360° Panorama of the Old Schools Quadrangle**

**The Repaving as Proposed**

It is proposed to repave the Quadrangle in order that level access can be provided to four of the doors around the space. The current arrangement of paving stones in the Schools Quadrangle has a relatively high historical value as it almost completely matches the original layout from the 17th C. This current plan with perimeter path and crossing paths in the centre seems to have been maintained since the Quadrangle was originally constructed, though the infill sections were gravel for many years rather than stone. The individual paving stones themselves are unlikely to date to the 17th C as repaving exercises have been carried out over the years, most recently in the 1970s. Therefore the plan form of the Quadrangle paving is more significant than the paving slabs themselves.

Within the Quadrangle the key architectural elements are the dramatic Tower of the Five Orders which is set opposite the striking repetitive blind arcading of the Arts End. The whole composition has aesthetic appeal and architectural significance.

The Old Schools Quadrangle has high townscape value. It is one of the most significant of Oxford’s historic buildings and furthermore the statue of the Earl of Pembroke is questionably said to be the most photographed art works in Oxford.

Sir Thomas Bodley has an important association with the Old Schools Quadrangle as he part-funded its construction and it now houses his library. The building was historically used by the University, as can still be seen by the names denoting the different schools above the doors, and therefore this building more than many others in the Bodleian complex has a stronger association with the University.

**Introduction**

The current arrangement of paving stones in the Schools Quadrangle has a relatively high historical value as it almost completely matches the original layout from the 17th C. This current plan with perimeter path and crossing paths in the centre seems to have been maintained since the Quadrangle was originally constructed, though the infill sections were gravel for many years rather than stone. The individual paving stones themselves are unlikely to date to the 17th C as repaving exercises have been carried out over the years, most recently in the 1970s. Therefore the plan form of the Quadrangle paving is more significant than the paving slabs themselves.

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**Current Use**

The Old Schools Quadrangle is accessible to the public and is a popular tourist destination in Oxford. Three arches give access to the square from the north, east and south sides. There are ten doors into the surrounding buildings from the Quadrangle. The central door on the west side is the main entrance into the Old Bodleian Library for readers and guided tourists.

**Significance**

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**Outlook of the Proposal**

It is proposed to repave the Quadrangle in order that level access can be provided to four of the doors around the space and to reintroduce the grouting which has been swept away by pressure washer cleaning. Reclaimed slabs will be used to recreate the existing pattern of paving with perimeter pathway and two crossing paths in the centre. The paving at the entrances to the Proscholium, Exhibition Room, Shop and delivery bay into the North-West Tower will be built up into slopes so that level access is available into these areas, rather than having to use temporary timber ramps. The four infill sections of paving will be new stone set on a diagonal angle radiating from the centre of the square to match the pattern in the 1675 etching. At this time the substrate for the paving will also be improved to help prevent the cracking of paving stones due to vehicle access.

**Next Steps...**

We welcome your views on the plans that have been presented. Please feel free to complete a feedback form. Once this exhibition has ended we will review all the comments we have received and finalise the planning applications which will be submitted to Oxford City Council in the coming weeks. In addition to this consultation exercise, Oxford City Council will undertake a statutory consultation once both applications have been lodged with a view to determining the application later this year.

The planning and listed building consent applications for the proposals will comprise the following productions:

- Full technical and Architectural Drawings
- Design and Access Statement
- Heritage Impact Assessment
- Construction Methodology
- Geotechnical Statement
- Transport Statement
- Sustainability Statement
- Planning Statement
- Statement of Community Consultation

Thank you for attending our exhibition

For more information please visit our website: www.bodleian.ox.ac.uk