

## Recent Developments in Cambridge College Libraries

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The slides of this paper can be found at: [http://www.zhbluzern.ch/LIBER-LAG/PP\\_LAG\\_06/Thursday/Wilson\\_Cambridge-oA.pdf](http://www.zhbluzern.ch/LIBER-LAG/PP_LAG_06/Thursday/Wilson_Cambridge-oA.pdf)

### ABSTRACT

Cambridge University has three tiers of libraries available to students: the University Library, departmental (subject) libraries and college libraries. Over the past thirty years there has been increasing pressure on the colleges to provide more books, reader places and technical resources in their libraries, with the result that a number of new library buildings, of very different styles, have been opened. Other colleges have opted for refurbishment and extension of existing libraries. These libraries are small (30-100,000 books) and intimate, often open 24 hours a day and with generous provision for lending books. Great importance is placed on keeping them at the heart of the college. Challenges for architects are the sensitive sites, restrictions on changes to listed buildings, and the limited space available. The constricted sites cause difficulties for the builders too.

I will consider some solutions to these problems with reference to projects in four colleges: Pembroke, Peterhouse, Corpus Christi and Newnham. At Pembroke architects Freeland Rees Roberts have built an extension to a listed building and at Peterhouse they have adapted an adjoining room. Corpus Christi is moving its library to a Victorian building which has been internally redesigned by Wright + Wright. Newnham demolished a 1960s extension in order to develop the plot more efficiently to a design by John Miller + Partners. All the architects have shown sensitivity to the needs of their clients and ingenuity in making intensive use of limited space.

### INTRODUCTION

This paper is about small libraries, serving between 300 and 600 readers, with a stock of not more than 100,000 books: the Cambridge college libraries. To set the scene I should explain that in Cambridge we have a tripartite system; the University Library, which is a legal deposit library of eight million volumes, Departmental (or subject) libraries and College libraries. Cambridge University, as you may know, is not a campus, but is spread throughout the city and is made up of 31 colleges, each of which has its own library. Some of the older colleges have two libraries, one for rare books and one for the needs of current undergraduates.

Cambridge is well known for its ancient buildings, and among them are the older college libraries, housing special collections. Some of the finest are the Wren Library at Trinity, the Old Library of St John's, the Parker Library at Corpus Christi and the Pepys Library, built to house a benefaction to Magdalene College; but we also have some stunning *new* buildings. In recent years the University Library has had several extensions to its 1930s premises and two new dependent libraries, the circular Moore Library (Maths and Engineering) by Edward Cullinan and the glass and steel Squire Law Library, part of the Faculty designed by Sir Norman Foster. The University has also commissioned a number of new departmental buildings incorporating libraries: Divinity by Edward Cullinan, English and Criminology, both by Allies and Morrison, and the recently completed Faculty of Education by the Building Design Partnership.

Over the past thirty years the college libraries have become much more important for several reasons. The number of students has grown, new courses of study have developed and booklists have proliferated. Professionally qualified staff has gradually taken over, improving stock and stimulating usage. For many students their college has become the library of first resort for books, as a place to study, and for accessing electronic resources. Faced with greater demand in the late 1980s and the 1990s there was a spate of college library building in a great diversity of styles. [1] At St John's Edward Cullinan built a transverse block sympathetically blending with an existing building. Quinlan Terry designed a neoclassical library in stone, based on the Temple of the Four Winds, to match the classically inspired architecture of Downing College. Freeland Rees Roberts Architects made the most of a restricted site by the river to create a new landmark for Trinity Hall and designed the library at Lucy Cavendish College to take advantage of a garden setting. Jesus College's Quincentenary library, by architects Evans and Shalev, was conceived as one side of a new courtyard. The interior staircase, leading to an Antony Gormley sculpture, has immediate impact, and in keeping with the college's ethos there are other modern artworks including stained glass by Graham Jones.

Bear in mind that the colleges are independent, raise their own funds, and can do as they like subject to planning permission.

Recently the emphasis has been more on renovation and extension than new building. I have picked out four such projects to discuss in more detail. Three of the colleges, Pembroke, Peterhouse and Corpus Christi are close together in the heart of the city and Newnham is about half a mile away.

Already you may have guessed the problems faced by architects in Cambridge colleges. First there is the sensitive context of the city itself with its fine vistas and intimate courtyards. New buildings must be of high quality design, construction and finish, and have a long lifetime. Many of the college libraries are listed buildings, that is, subject to special preservation orders which restrict internal and external changes, so renovation and extension is subject to scrutiny by experts. The college sites are limited in size, and the actual process of building and demolition in restricted areas, moving lorries, cranes and materials in and out, is a challenge; and because the land is so precious, ingenious ways of squeezing more facilities onto existing sites are always being invented. Plans have to be developed with library committees who will have strong views on every aspect of the project.

## **PEMBROKE COLLEGE**

I begin with Pembroke College, whose library dates from 1877 and was designed by Alfred Waterhouse, a well-known English architect. In this ornate building the library was on the upper floor with three lecture rooms below. When the library collections grew out of their space in the 1930s, a mezzanine was added across two of the lecture rooms to make a rare books store. By the 1990s Pembroke had 30,000 books. The old library was overcrowded, with extra desks for staff and computers, and bookshelves in the central aisle: even the windowsills were used for books. There were only 54 reader spaces for over 400 students. The College therefore decided that the library should take over the whole building, by this time listed Grade 2\* (almost the highest rank). The requirements were many - not just extra shelving and reader places, but a separate rare books and archives room and store, staff offices and teaching rooms. Fire regulations demanded a second staircase, and a lift was essential for disabled access.

The brief was developed with local architect, Tristan Rees Roberts, and associate architect Sarah Morrison. It became clear that, to fit everything in, an extension would be needed. There are not many freestanding Waterhouse buildings left, and their first thought was to build beneath the lawn, but eventually they made a strong case to the planners for adding to the library. The architect writes: "We developed the idea that the most appropriate material capable of abutting the old library would be glass, allowing the shape and materials of the original building to be easily visible. This 'touch' of old to new would thus be as delicate as possible. However we all agreed that a small glass extension, housing only the lift and stairs, would appear weak against the old building and that a more substantial building would strengthen the relationship of old and new. This also created the possibility of forming a separate law library and much needed seminar room..." (Rees Roberts, 2000). The extension is designed not to compete with the old building, being lower than the level of the pitched roof and with a plain façade. Nevertheless it makes a significant contribution to the accommodation.



*Freeland Rees Roberts Architects*

As with all the libraries I am discussing, value has been added by the creation of a basement floor. In this case it extends under the full length of the building and contains the rare books and archives reading room, an office, and a store with compact shelving. Underneath there is drainage to a sump pit with an automatic pump, to avoid any risk of flooding. On the ground floor a new main entrance serves the whole building, with a lift, stairs and toilets in the extension, and an enquiry office and foyer leading to a large reading room (formerly the lecture rooms). This has a simple layout of rather tall bookcases in the centre and individual desks designed by the architect next to the windows. The surfaces pick up the colours in the original stained glass. The architect insisted on distemper for the walls because the natural pigment gives a more luminous effect than modern paint. The far end of this floor can be closed off to make a teaching room.

The staircase is partially lit by a stained glass window. It commemorates Fellows of the college and their books while at the same time preventing the neighbours from being overlooked. On the first floor is a separate law reading room, and on the top floor the Yamada Room, a multi-purpose room for teaching and meetings which also has stained glass windows. It is on the same level as the upper floor of the Waterhouse building and has a fire door from the staircase through to the Old Library, now uncluttered, repainted, re-carpeted and with remodelled tables in each bay, fitted with lights, power and network points.

As a result of this project, completed in 2002, Pembroke has more than doubled the number of reader places to 120 and gained shelving for an extra 15,000 books, as well as a much improved environment for teaching and learning. Refurbishment by Freeland Rees Roberts has restored the Old Library to its original grandeur, and the extension has its own character, avoiding pastiche.

## **PETERHOUSE**

The next library I would like to consider is at Peterhouse, the oldest college in the University. Here we have an equally sensitive site, even more restricted than Pembroke's, close to the college's medieval courtyard and an ancient church. In 1984 Peterhouse took over the University's Museum of Classical Archaeology, originally created out of eighteenth century warehouses by the eminent architect Basil Champneys, and

converted it into a library for undergraduates. The Ward Library is a very grand building dignified by classical columns, with a long vista from the imposing entrance to an apse at the far end. It also has two small reading rooms and an extensive open access stack. The high ceiling and top lighting reveal its origin as a museum. When the need was felt to extend the facilities, Freeland Rees Roberts Architects were called in to suggest how the adjoining storeroom might provide more shelving, tables and computers. By putting in a mezzanine floor they were able to accommodate an extra 24,000 books, 19 reader places, and seven computer workstations in two separate air-conditioned rooms. A generous benefactor provided the funding, and it was named after him: The Gunn Gallery. The end walls of the extension, one of them with a recessed arch, became an appropriate place to display a collection of Chinese porcelain that he had already given to the college.

The doorway of the old storeroom was reopened, and a strong visual transverse axis between the Ward Library and the Gunn Gallery created by constructing a niche in the wall of the stack opposite. The original room was repainted in a deep red with black doors, but the Gunn Gallery and the stack are linked by the pale turquoise colour of their walls.



*The Gunn Gallery*

Since the only natural lighting in the reading area comes from the ceiling, it was important to provide comprehensive and adaptable electric lighting. An extra translucent layer has been put on top of the skylight, and above that is a glazed pitched roof supplied with down-lighters. Fittings above the bookshelves bounce light off the ceiling. It is quite a complex scheme, including dimmers on the desk lights. The bookshelves in the extension are modelled on those in the Ward Library but are cream, rather than dark wood, and the repainted doors are white with glass inserts, all helping to give a lighter effect. Beyond the gallery, the architect has incorporated a new gable window in the small computer room, bringing in some light and adding interest to the external wall.

Although it may look a straightforward project, there were considerable challenges for the architect. Again it is a listed building so its history had to be respected. One or two items had to be retained, like the heavy

chain on a pulley, which was a hoist used to lift heavy items into the old warehouse. Original doors were preserved and bookcase details copied from the Ward library furniture. There are various space-making devices, such as putting the lift and spiral staircase outside the rectangle of the storeroom. For the builders it was a difficult site, with the only access being onto a narrow street.

The furniture, designed by the architect, gives readers their own personal space by partitioning large tables into desks with individual lamps, sockets and network points. The ironwork along the mezzanine was copied from another gallery in the building designed by Champneys, and was made by a local blacksmith. Freeland Rees Roberts Architects have successfully met the client's requirements for this extension, opened in 2005, without making it feel overcrowded, and have integrated it with the library as a whole by attention to detail, use of colour and emphasis on the cruciform axes.

## **CORPUS CHRISTI COLLEGE**

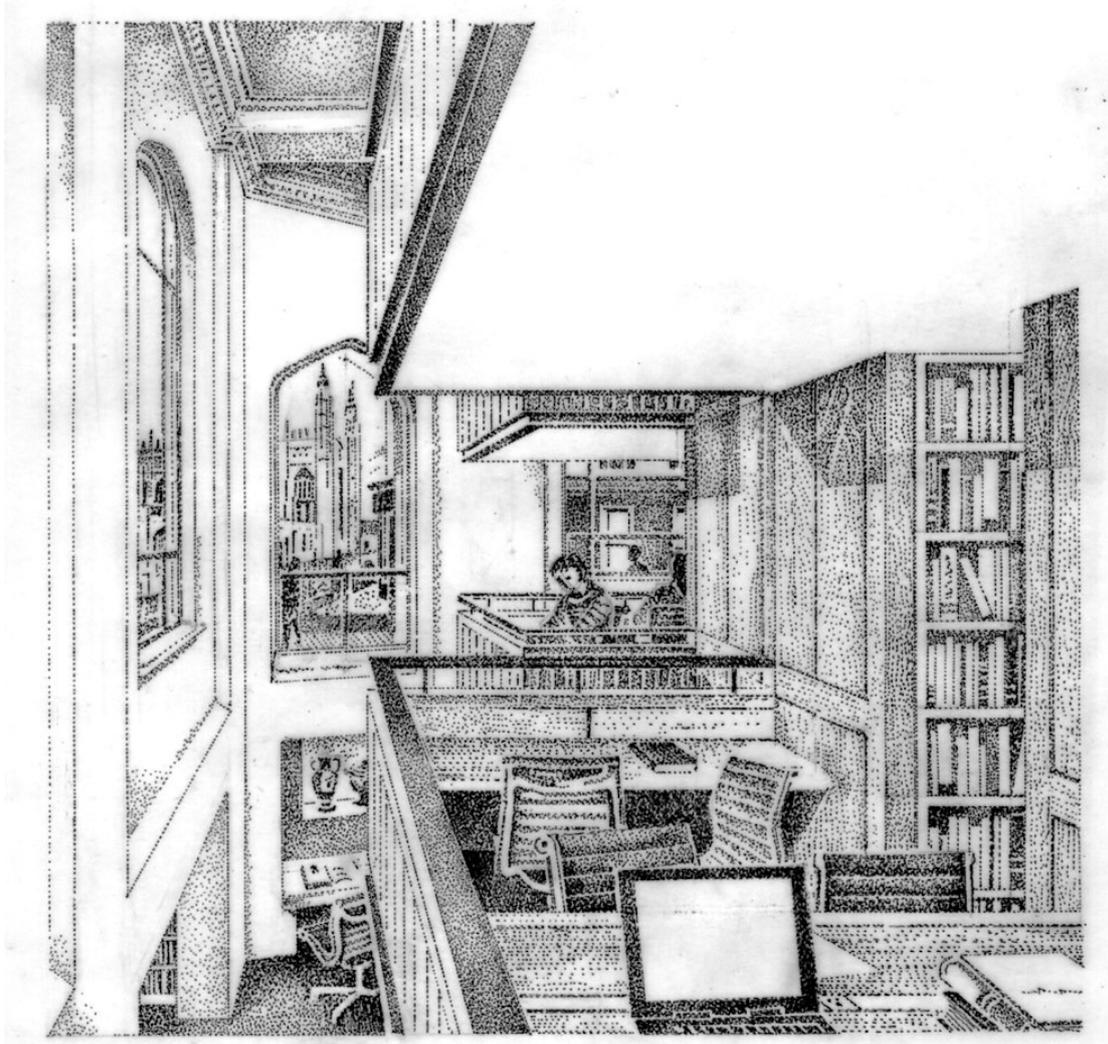
Corpus Christi College has two libraries, set one above the other, occupying one side of the gothic style New Court, designed by William Wilkins, the architect of the National Gallery. On the upper floor is the Parker Library of rare books and manuscripts, and at ground level the Butler library, set up in the 1920s for students. The latter originally occupied only the area to the left of the central doorway, but this library has periodically found itself running out of space and has added on one room after another along the courtyard. The Parker Library also needs to expand to accommodate its readers better, so the college has decided to let it take over some of the space below and to move the student library to another location where it can double in size.

The chosen destination is a fine Victorian building belonging to the College. The ground floor and basement had been rented to a bank, but were reclaimed in 2005 when the lease ran out and are currently being converted to the new student library. The upper floors will continue to house rooms for Fellows and students. One could hardly have a more sensitive site - adjacent to the oldest courtyard in Cambridge (dated 1352), next to an Anglo-Saxon church and within a few hundred metres of King's College chapel. It is of course a listed building, but the interior had already been gutted and the windows modernised in the mid-twentieth century, making it easier to get permission from the planning authorities for this change of use.

The bank faced outwards to the town, with a door on the corner, but as a library the building will be accessed from the other side, to make it more secure and integrate it into the college. This gives the chosen architects, Wright + Wright, the opportunity to improve a neglected area to the rear, which had been used for storage and bicycle racks. This yard will be turned into a small court leading to the library, visible through a six metre high window. Underground there will be a student bar and party room.

The complexity of the building logistics is a huge challenge for the site manager. The upper floors are still occupied and have to be held up with massive temporary joists while the basement is excavated and ground floor lowered so that a mezzanine can be fitted in. There are 10 structural pillars, which have to be lengthened so that they can eventually take the strain of the upper floors again. There is no builders' yard, so only small amounts of supplies can be delivered at a time. Bricks and concrete blocks have to be carried through the front door manually to the various levels where they are needed. This difficult and expensive operation shows the lengths to which colleges will go to maximise the use of their limited sites.

In the architects' impression of the finished library one can see how they have ingeniously fitted in three floors with a void on two sides to accommodate 60,000 books and 100 reader places, many located around the edges lit by daylight. A wireless network will be installed. The new library, named the Taylor Library after a generous alumnus, should open in 2007.



*Wright and Aright Architects*

## NEWNHAM

Lastly we turn to one of the larger college libraries in the University, Newnham, a women's college which has amassed a working collection of over 85,000 books. The original library, with its pale blue barrel-vaulted ceiling and decorative white plasterwork, dates from 1897 and was designed by Basil Champneys, chief architect of the Victorian college. It takes its name from a benefactor, Henry Yates Thompson. This beautiful library has served the college well, but an extension added in 1962 developed structural problems. In 2000, after a feasibility study, the college decided to demolish this extension and use the site more intensively.

The proposed *new* extension (which in fact has become the main hub) had to join on to the listed Yates Thompson library; to the award-winning Katharine Stephen Rare Books Room by van Heyningen & Haward built in 1982, and to a corridor running through another nineteenth century block. Both demolition and new build were difficult on this constricted site, and there was the added complication for the librarians of moving the books and archives and operating in temporary accommodation for more than two years.

The new architecture reflects the college's character in its scale and materials, with red brick matching surrounding buildings and a plinth of blue engineering bricks making reference to the adjacent rare books room. The architects, John Miller & Partners, have made the most of the space, building upwards, downwards to create a basement, and forwards, as if slotting a piece into a 3-dimensional jigsaw. Having demolished the 1960s building, it was vital to preserve the vault of the Yates-Thompson apse, which became the point where the new extension joined on.

It now marks the main thoroughfare between old and new on the ground floor with a glazed semi-circle on the first floor giving a view from one to the other. The line of the Champneys barrel vault is extended into the new building and repeated so that twin vaults run side by side. The main entrance is from the corridor, facing on to a small courtyard with a herb garden. A cross axis runs at right angles to the vaults from this glazed entrance to a projecting semi-circular bay, used on the ground floor for displaying current periodicals. The front part of the building houses the archives and the collection of the Skilliter Centre for Ottoman Studies and links to the rare books library in a way which preserves the individuality of that casket-shaped building.

The accommodation is on three floors, all having networked reader places. Half the basement is fitted with compact storage. The ground floor houses the library office, catalogue terminals, a computer suite and photocopier and print room. The staff office is positioned at the entrance and has glazed walls, which both encourage enquiries and provide a degree of invigilation. On the first floor are a variety of reader spaces, some by the windows on each side and in the bay, a separate group study room and a staff room. The group study room can be used with or without computers because a cleverly designed table allows them to be folded away.



*John Miller & Partners*

Despite its enclosed position, the building makes extensive use of natural light and has a very open feel, thanks to the use of translucent glass in floors and staircases and the part glazed pitched roofs above the vaults. Light wells give glimpses of the size and range of the library and encourage movement through it. There are six on the top floor, three of which extend to the basement. An internal picture window frames a view of the old library. Richard Brearley of John Miller & Partners writes: “The project is designed to perform to low energy criteria, with the aim of achieving well-modulated lighting for readers in a naturally ventilated, long-life building ... Shading systems are incorporated on the south-facing roof lights and windows to minimize solar gain. Fresh air, supplied via low-velocity displacement diffusers, is tempered as necessary by the fabric or by regenerative heat exchange when the library is in high occupation” (Hare, 2005).

The collections can now be arranged more effectively and there is space to add another 30,000 books. Sixty extra reader spaces have been provided, making a total of 110. John Miller & Partners have achieved a masterpiece of integration, modern in style and incorporating essential computing facilities while not detracting from the refurbished Victorian library, still much valued for its aesthetics and studious atmosphere. The building opened in 2005 and has received the David Urwin Design Award and a Civic Trust commendation.

This paper has focused on four different projects, all with similar aims and challenges; small in scale but demanding a great deal of ingenuity and attention to detail from the architects. It is good to know that academics still want their libraries to be at the heart of the colleges, and Cambridge is fortunate to have identified practitioners with a sensitive approach to design and respect for their architectural inheritance.

#### *Acknowledgements*

The image of the Corpus Christi College Library has to be credited to Pete Hull and the image of the Newnham Library to Denis Gilbert.

#### **NOTES**

1. For a brief history of college library building 1976-94, see Alison Wilson: "Cambridge college libraries: Darwin's study centre in context". *Darwin College Magazine* 9(1994), 69-74. See also: Elmar Mittler (ed.) *Cambridge college libraries*. (Göttinger Bibliotheksschriften) Forthcoming 2007.

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