The Round Reading Room was without doubt the most significant development at the British Museum in the 19th century after the completion of Robert Smirke's original scheme. It has an honoured place not only as a building but also for what it represents as an icon for the very notion of a national library, and for the influence it has had, being used by countless readers who have themselves influenced the world we live in.

## Sir Robert Smirke's Great Courtyard

At the time of the completion of the Kings Library in 1827 Robert Smirke presented the Trustees with a master plan for the redevelopment of the Museum. He proposed a new south wing just north of Montagu House, and a west wing on the same line as the Townley Gallery. The position of the west wing completed the enclosure of a spacious inner courtyard. The building was constructed in stages around the quadrangle which was finally completed between 1845 and 1849 when the Townley Gallery was replaced by the southern arm of the west wing.

Smirke's original proposal was for an imposing courtyard with a north façade comprising an open colonnade approached by a grand flight of stairs. This had to be surrendered due to economy and lack of space. Instead, a south range of rooms was built behind a decorative portfolio with pilasters but no central entrance. The other facades remain substantially as Smirke had proposed in 1827, each with a central tetrastyle pedimented portico.

Smirke had intended the quadrangle to be for the use of the visitors to walk and to enjoy the surrounding architecture and its garden. Unfortunately the height of the surrounding facades and lack of air movement made it useless for botanical purposes and his detractors insisted that it had become a noisy, uncomfortable space. The quadrangle remained closed, visible only through a single glazed panel in the Entrance Hall, and was considered a waste of space, The Great Courtyard existed in this form for seven years (1847 and 1854) and in 1852 it was agreed that the area should be infilled to provide additional accommodation.

## The Round Reading Room

William Hosking, Professor of Architecture in the University of London, published a pamphlet in 1850 proposing a domed rotunda in the Courtyard for the display of sculpture and other antiquities. Whilst this was the first building proposed for this space, it had been suggested as early as 1836-37 in 'Mechanic's Magazine' that the vacant area could easily house the whole Library. Panizzi, who was the Keeper of Books, produced a rough sketch of a proposal in 1852 and a more finished version was presented to the Trustees and approved in principle. Sydney Smirke then refined this idea and in 1854 Parliament approved a grant for a single-domed circular reading room surrounded by book stacks.

The Reading Room and its dome are highly significant for the advanced use of iron technology as well as for the size and complexity of the structure, the perimeter walls are constructed of brick, though the structure was raised on iron piers to remove the need for the masonry walls within the library.

## BRIEF HISTORY OF THE ROUND READING ROOM

The entire dome is a single skin of iron carried on iron piers and surrounded by book stacks similarly constructed leaving the maximum internal area free from obstruction so that the piers only occupy 200 of 73,555 total square footage. The domed structure has a diameter of 140 ft, larger than that of St Paul's Cathedral.

The original arrangement of desks accommodated 302 readers and prior to the departure of the British Library there was space for 378. Down the centre of each long table is a longitudal partition with an adjustable book rest, folding shelf and ink well. The tables are padded with light blue leather replacing the original black. Warmed air was introduced via the pedestals of the tables and tubular foot rests under each table were warmed in the same way. The original chairs were mahogany, but after the Second World War, new chairs upholstered in blue leather were introduced. A few of the original chairs still remain. The original enquiry desk has been replaced by the current information area at the centre of the room, where a raised platform is surrounded by the original service desks. North of this is the 'keyhole' which gave access for the librarian to the North Library. Around the central platform were catalogue tables following the curved form, and then the radial reader's tables. The face and case of the clock is the original, but the movement was replaced in 1973-74 by an electrical movement.

Around the perimeter of the Reading Room the original book stacks remain in situ. These are back to back book presses between the twenty cruciform piers, the inner presses being accessed from within the Reading Room (on three levels) and the outer presses accessed from the outer circle (on four levels). The bookshelves continue around the circumference of the Reading Room except at the doorways. The russet hide linings still survive on some shelves.

At the basement level is 'The Spider', which functioned as the distribution system for heating and ventilation. The brick vaulted structure is divided by brick walls and roofed with shallow segmental vaults filled with concrete. The whole interior is limewashed and the floor is screeded. Fresh air was brought in through a shaft at the north wall of the North Wing to the boiler room, located under the south end of the Wellcome Gallery. Heated air from the boiler was carried through a long passage distributed along the radial chambers, through walls between chambers via honeycombed brickwork, through the tops of the vaults, and finally through cast iron ducts built into the crown of the vaults to supply warmed air to the reading desks. The room was heated via the table pedestals and foot rails and the book presses are heated via ducts connected within the staircase enclosures. Vitiated air was extracted through vents beneath the glazing of the upper corridor surrounding the Reading Room, through air shafts in the roof, grilles at the top of the clerestory windows and air ducts within the thickness of the dome.

The Round Reading Room remained fully in use as the primary reading room of the British Library until its departure for the new building at St Pancras. With the creation of the Great Court the Round Reading Room, which had been a very private space open only to those with readers' tickets, became a public space open to all visitors to the Museum.