It is no easy task to remodel public spaces within a main library building during normal business operations – it requires a great deal of patience and sensitivity on the part of patrons, librarians and architects alike. This article provides an overview of the renovation work performed over the last four years which, I am sure you will agree, has been worth the effort.

**Background**

TIB/UB, the German National Library of Science and Technology and University Library Hannover, provides students, researchers and teaching staff from all faculties of Leibniz Universität Hannover and the world as well as interested local citizens with literature and specialised information in both printed and electronic form.
Information about the library building: The building was originally built between 1961 and 1964 as a library for science and technology subjects. The steel and glass curtain wall facade are comparable to the façade constructions of Mies v.d. Rohe. The style of the building is typical of 1960s architecture, featuring the traditional tripartite division of usage, administration and repository.

The heterogeneous, often small-scale spatial structures in the office and administration areas are juxtaposed with the open flowing spaces available in the public areas. The geometry of the building is stringent, grouped around an internal central hall. Other defining features include the quality of the reduction of materials and the details involved. Much of the public space was designed in the 1960s and used as planned in the original layout up until the library was remodelled. Only of the furnishings in some spaces had been altered since the library was opened.
The public spaces were remodelled in response to the longstanding demands of the university and library leadership. Following discussions about learning resource centres and information rooms, a programme entitled the “Learning space concept” was initiated:

**Learning space concept**

- Discussions about learning resource centres and information rooms!
- The library represents the major learning space on campus!
- The concept promotes renovation and remodelling!
- A strategic aim of Leibniz Universität Hannover

The aim of the concept was to provide a framework for all kinds of University institutions, including standards and structures and to develop information tools about. One of the declared goal was to continually improve students’ learning situations and options.

Much of the learning space on campus is provided by the library. Offering comprehensive services for students, the library’s sites are located centrally on campus.
The learning space concept promoted the relaunch of the library’s public spaces. Allowing for other refurbishment measures such as the reconstruction of the glass curtain wall façade and the renewal of fire protection elements, the public spaces were relaunched in three construction stages.

**First construction stage – the foyer and central services**

The first step involved remodelling the entrance, featuring a foyer and the central library services. The foyer space had a worn and dark look. The materials used included wall cladding made of real timber panels and yellow bricks, typical 1960s design elements. The furniture, including desks and chairs, originated from a minor refurbishment carried out in the 1980s and 90s. A cloakroom was available to patrons in a niche flanking the foyer. Shortly after it opened in 1964, this service was discontinued because the cloakroom was too small and required manpower. All central services, such as the information and circulation desks, had to be restructured.

4. TIB/UB, ground floor before the relaunch © A. Römeth Architekten, http://www.roemeth.de/
5 – 6. Two figures with the foyer before the relaunch © TIB/UB
The aim was to create a clear, light space, and to gain more light and transparency in the central hall behind the central service desks. The original separation between the foyer, the circulation desk and the hall on the ground floor was done away with.

The whole desk construction, optimally combining the central service functions, resembles a building within a building, with a clear puristic design. The surface material is caoutchouc (rubber), which features positive haptic aspects in addition to being hard-wearing. The first construction stage comprised the foyer with the circulation desk, the cloakroom and a new function – “the first information point”. Several workstations with internet access are available, in addition to several area for coffee breaks.

The light appearance is influenced by the lighting used and the red carpet that welcomes patrons. The ceiling material throughout the building resembles that of the 1960s, the original design was rebuilt using white aluminium panels. The existing marble slab flooring was
renovated and added to the cloakroom area. Some elements or pieces of furniture, such as the cloakroom shelving, feature splashes of red, alongside the main colours of white, black, grey and the natural colours of the wall cladding.

8. Ground floor interior elevations © A. Römeth Architekten

9. The foyer after the relaunch © blok, http://www.blokstudio.de/
10. The foyer after the relaunch with the central hall in the background © blok

11. The new cloakroom area © blok
Second construction stage – the central hall

The second step of the relaunch involved renewing the fire protection in the whole building. The glass roof of the central hall was one element of these construction activities, which offered the great opportunity to combine them with a renovation of the interior space. The hall with a gallery in the centre of the building used to be the catalogue hall; half of the space was taken up by card trays that became obsolete a few years ago. In the meantime, the hall had been used to house workstations.

The new floor plan of the central hall © A. Römeth Architekten

The new floor plan shows the workstations as well as the seating installed for chatting, waiting and relaxing.

Some issues of the zoning concept: there are always difficulties with loudness and noise, the space in the hall is to be used for workstations, photocopiers, scanners and small groups of people searching for information in databases. Quiet conversations are permitted in this area. Space for individual workstations, available for concentrated, effective work, was installed in the third construction stage in what used to be reading rooms. The noisiest areas – group work space – were
established in smaller, separate units in an area that used to house reading rooms formerly.
The red seating in front of the counter, the service and reference desk: offset seating is provided here. The desks are equipped with additional sockets. All public spaces offer wireless networking. Once again, the brick wall made of a yellow stone material is the dominant design element. All wall surfaces were cleaned. The subtle colour concept with black and white for most of the furniture, splashed of red, the carpet with thin black and grey stripes with a number of yellow stripes reflecting the colour of the walls – corresponds with 1960s architecture.

Initially, the intention was to install more relaxation areas such as seating and lounge zones on the gallery. However, noise concerns gave way to shelving for the textbook collection, which was also expanding at the time of this planning stage. The hung ceiling was originally made of a structure of glass tumblers such as small lampshades to hide the steel construction. The old glass roof was coated, preventing daylight from flooding in. The ceiling is now transparent, and the integrated lighting supports daylight. The new ceiling follows the old structure, but the material is now a light metal consisting of small perforated aluminium lamellar. The general atmosphere created in this area is now a very positive one. The intermediate ceiling is equipped with acoustic panels to absorb sound. The old timber wall cladding removed from the foyer in the first
construction stage was reused to make the combined service desks (central information and circulation desks) in the hall.
**Third construction stage – workstations**

The third construction stage was divided into three phases so as not to upset normal business operations. The number of work spaces available was reduced, and services were sometimes limited, albeit to the least extent.

This design planning stage kicked off with an evaluation by focus groups to assess what was required due to the limited space available. There was a great need for suitable work spaces for both individual and group work. During discussions, it was repeatedly emphasised that people go to the library to concentrate and work effectively. Good acoustics is considered to be one of the essential prerequisites for an optimal work and learning environment. Zoning is an important theme for all spaces.

Based on the results of the evaluation with focus groups, a design plan was developed with differentiated work spaces:

**Individual work spaces**
Arranged behind each other, not facing each other, differentiated offer (niche, atmosphere), fitted with a socket and desk lamp.

**Group work spaces**
A larger number is required, offering seating for four to six students, or a maximum of eight Quality over quantity, which leads to the group areas being partitioned off, Sockets should be fitted, the connection to an interactive whiteboard is required; however, users are aware of the issues associated with caring for and maintaining such equipment.

**Spaces – leisure activity**
Tranquillity, time to be alone – not intended for groups.

The aim to increase the number of work spaces meant having to gain space by reducing and restructuring the collection.

The designs and materials involved were similar to those used in the first and second stages.

The individual work spaces feature an LED desk lamp with a socket and, as in all of the library’s public spaces, wireless networking. All desks for two people are arranged behind one another, not facing each other! The individual work spaced are separated by book shelves.
17. Individual workstations © blok

18. Carrels © TIB/UB
Carrels are available to students in the process of writing their Master’s or PhD thesis. They are equipped with a desk, chair, small rack, desk lamp and pin board walls.

As mentioned at the beginning, the flowing spaces for the public areas were a key issue of the original design plan. Due to this structure, the solution for group work spaces was not able to be a separate room for each group. Instead, three smaller spaces that used to be readings rooms are now available for group work. Learning spaces with fixed desks seating four to six students are provided with sound-absorbing partitioning walls. Each desk has ample sockets as well as wireless networking.

Some of these spaces are equipped with desks and chairs that can be arranged as required. Equipped with an interactive whiteboard, these areas can also easily be used to host workshops or small students learning seminars. Sessions can easily be partitioned off from other work groups by closing the red curtains.

19. Group workstations with the red curtain in front © TIB/UB
20. Group workstations, example with a fixed table © TIB/UB

21. Group workstations © Blok
Loungers offer space for relaxation or time to be alone. Some are located behind the glass façade, looking out onto the park landscape of the university campus, or close to a special collection, such as architecture journals. The felt material, which is identical to that in the acoustic panels or curtains, are part of the absorption requirements.

To sum up: The provision of functional, effective learning spaces is the result of the well-planned restructuring of space. The puristic and modern design of the relaunch, with its installations, subtly corresponds to the original 1960s design, offering spaces for motivated, inspired learning. During the planning and realisation stages, everyone involved did their utmost not to lose sight of the overall concept!

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