The Building and Equipment Section of IFLA held its 2014 mid-year meeting in Chicago, Illinois, USA from February 25 to April 2. The picture above was taken during the reception for our group in the office of the president and librarian. We had just completed a wonderful tour of the Newberry Library, founded by Walter L. Newberry on July 1, 1887. As stated on their website: “A world-renowned independent research library in Chicago, the Newberry offers readers an extensive non-circulating collection of rare books, maps, music, manuscripts, and other printed material spanning six centuries. Its staff provides award-winning service...
and supports a rich array of programmatic opportunities.” Highlights of the tour included a detailed visit of the recently completed compact shelving project, the newly renovated conservator's office and an update on the master plan by Jay Verspyck, Senior Designer of Shepley Bulfinch Architects (2 Seaport Lane, Boston, MA 02210.) Plans are underway to improve the patron experience by renovating the ground floor to provide a better visitor experience through an improved cafe, displays and conference rooms. See this link for Mr Verspyck’s work with Virginia Commonwealth University Library. He states that this is a good reference project highlighting his talents.

Other highlights of the mid-year meeting included
Tour of the ALA Headquarters by Michael Dowling, Kerry Ward, Fred Reuland and Mary Ellen K. Davis.

Tour of the Paul V. Galvin Library at the Illinois Institute of Technology
Host: Sharon Bostick, Ph. D., Dean of Libraries

In 1962, Walter Netsch, Jr. (1920-2008) of Skidmore, Owings, and Merrill (SOM) designed the Paul V. Galvin Library at 35 West 33rd Street to house the John Crerar Library, which was under contract to provide library services to IIT. Netsch would go on to design two of the most famous academic libraries in the Chicago area, both of which opened in 1970: the five-story University Library building on Northwestern University’s Evanston campus, there, Netsch employed the same Brutalist style of architecture he used for the University of Illinois – Chicago Circle Campus (now known as UIC) and the University of Chicago's Joseph Regenstein Library. In Netsch’s work and retrospectives, his library at IIT is rarely acknowledged. The Kemper Room originally housed the IIT collection of books and was accessible to its students.

In 1983, the Crerar Library moved to the University of Chicago. Famous photos show that they removed panes of glass, installed a ramp and wheeled book stacks out of the upper level. That year the library was rechristened the Paul V. Galvin Library, after the founder of Motorola.

The library was originally built as a closed stacks library, meaning you made your request at the service desk, and the item was retrieved for you. The building was crossed with pneumatic tubes in which items were whooshed to their destination.

There are several works of art on display in and around the Galvin Library in addition to those exhibited in the Kemper Room, a dedicated art gallery. Near the main entrance of Galvin Library is the sculpture Concurrence by Terry Karpowicz. It is one of four sculptures selected by a group of IIT professors and students from an exhibition at Navy Pier in 1999. Concurrence is composed of various metals, including cast iron. Artist Karpowicz made both the sculpture Concurrence outside the Galvin Library and Earth’s Physic inside the Galvin Library, and stated the latter seemed to be a wooden version of the former. Students and tour guides love to give a spin to Earth’s Physic.

***Works by noted Chicago artist Tony Fitzpatrick were donated to Galvin Library in 2010. Works by Amy Segami, Cherry Room art, Card Catalog homage in lobby, large oils works on walls

Hanging in the foyer is a print of the Francis Apartments, designed by Frank Lloyd Wright (1867-1959), and built in Chicago in 1895 for the Terre Haute Trust Company of Indiana. Adjacent to the Francis Apartments
print is one that depicts the proposed Lexington Terraces Wright designed for Edward Waller, Jr. Between 1901 and 1909, they contemplated the erection of the two buildings at two different locations on the South side of Chicago, but never built them.

On the walls of the Group Study Suite, renovated in 2008, are photos depicting the history of Galvin Library from its construction through the early years of its use.

Original furniture to the building include Mies Van De Rohe's Barcelona chairs, 4 of which grace the Kemper Room, Breuer chairs recovered in 2009 with Knoll fabric which sit at the top of the stairs, and Aalto chairs, 9 of which reside in the NE corner, also recovered with Knoll fabric in 2009. Florence Knoll, a student of Mies and graduate of ID started Knoll Designs in the late 1930’s. The hardwood tables, made primarily of oak, with some maple and hickory thrown in, were made on campus in the machine shop and have been in use for a half century. Recently refinished, they should last another half century.

FatBoys, large bean bags were first introduced in 2008, and have been a continuing hit. Replaced occasionally over the years, it became apparent that any type of bean bag seating, was sufficient and lower cost models have been purchased in recent years.

Galvin Library is open 24x5 during fall and spring semesters. Starting in 2010, and open for 5 semesters 24x5 on just the lower level, demand was so great that for 2013-2014 the entire building has been open 24x5.

The Galvin Library is 92,000 square feet and seats 550.

**Graham Resource Center and Architecture (GRC)**

Kim Soss, Head of the GRC and Architecture Librarian, S.R. Crown Hall, College of Architecture at Illinois Institute of Technology gave the group a wonderful tour of the Mies Van Der Rohe Crown Hall which opened in 1956. This building, one of the seminal modern architecture buildings of the 20th century, recently underwent a complete renovation of the exterior. This work was funded by the Mies Foundation. For more information on the exterior renovation, and the Foundation click on this link. Restoration and adaptation work is continuing on the interior.

Contact Kim Soss, 3360 South State Street Chicago, IL 60616 T. 312.567.3601 F. 312.567.5820 soss@iit.edu

**Social evenings at Andy’s Jazz Club** and a dinner/show event at Adobo and Second City Comedy Club.

**Member Highlights**

**Karen Latimer**  
Medical & Healthcare Librarian  
Queen’s University Belfast  
Medical Library Mulhouse Building Royal Victoria Hospital

Karen has been very active in the publishing arena and is a corresponding member of the LBE committee.

Hauke, P, Latimer, K and Werner, K eds.  
The green library: designing and managing environmentally sustainable libraries.  

Bon, I, Cranfield, A and Latimer, K eds  
Designing library space for children  

Latimer, K and Niegaard, H eds.  
IFLA Library Building Guideline  
Sustainability in all phases of the building’s life cycle: a case study of the McClay Library, Queen’s University Belfast. Located in:

Library buildings. Located in:


Users and public space: what to consider when planning library space. IN IFLA Library Building Guidelines.

Munich, KG Saur, 2007, pp.68-82.

Journal articles

Connections and collections: changing spaces and new challenges in academic library buildings.

Library Trends, 60(1), Summer 2011 pp.112-133

Redefining the library; current trends in library design.

International Seminar on Public Libraries, Santiago de Chile
Session 2: Library Infrastructure Presentation by Santi Romero, architect and BES member

The Physical Space of the Library

Introduction

First of all, I am going to give some information about my country, the city where I live, the institution where I belong and the work I am doing. Spain has a population of 47 million people and it is organized in 17 autonomous regions. The Autonomous region of Catalonia has a population of 7.5 million people and it is organized in 4 provinces. One of them is Barcelona, which has 5.5 million inhabitants, spread over 311 municipalities.

The Diputació de Barcelona, the institution where I work, is a supramunicipal institution whose purpose is to help the province’s municipalities so they can provide to the citizens the public services established by law. For the public library service, this help is technical and economic, and it is offered through the Gerència de Serveis de Biblioteques, the organization which leads and manages the Municipal Library Network of the province of Barcelona. At present time it is made up of 214 libraries and 9 mobile libraries, so the library service gets to 98% of the population.

From the Gerència de Serveis de Biblioteques, a team of architects advises throughout the whole process of the project and the construction of the building, as well as, on the furniture and the interior equipment. Our main task is to get an architecturally interesting building as the final result but, at the same time, it must provide a good library service.

Our Network has a total of 232,000 m$^2$ of public library. This data shows that the average area per library is 1,100 m$^2$. In recent years there has been a big boost in order to improve and expand the Network. In 1995, there were 45,000 m$^2$, in the past 18 years the area has been multiplied by 5.

If we want to improve a library system, we must work on two key aspects:

- Definition of a “library model” suitable for reality and prospects for the future.
- Achievement of the territorial balance.
Public Library Model

It is essential to choose a “model”, more focused on the user, which offers an open and inclusive service. Our goal is that citizens make active use of the library. To achieve that, physical spaces must allow many activities simultaneously, and the collection must be attractive and very well located. We prefer the “exhibition model” rather than the “cumulative model”. Due to all of this, the library building must be:

- Recognizable.
- Emblematic. (see image 1)
- Transparent.
- With a spacious hall, from where it is easy to find the main library areas, as well as informal and casual exchanges.
- With a spatial organization that provides a spacious feeling. (see image 2)
There must coexist different ways of using the library without feeling smothered or suffering visual fatigue.

To make sure the equipment is successful, each user must find his own place to study, either alone or with someone else; have an easy access to information technologies; pick a spot to read quietly while enjoying a good view; in a friendly, comfortable and attractive environment, where all users feel they are where they want to be.

When we outline the arrangement of the furniture we have to get an organized and flexible distribution, leaving spaces between furniture that make it easy to walk around and respect the space occupied by users. (see image 4)
We also have to take advantage of natural light and focus on an artificial light varied and flexible that can be adapted to the different hypothesis of usage.

![Image 5: Can Llaurador Public Library (Teià, Barcelona – Spain) - Photo: ago2/Oscar Ferrer](image)

Finally, we must add acoustic elements that absorb the noise produced by conversations and numerous people.

**Library Standards**

The second vital aspect to improve a library system is to achieve territorial balance. To do so, the key is to have service standards.

Since 1984 in Catalonia, different parameters that helped with the definition and size of public libraries were established. In 2006 it was decided to unify criteria and develop new usage standards applicable in the whole autonomous region. The defining elements of these standards were the importance of the idea of a library as a place of relationships and learning; the importance of the concept of municipal urban network; the redefinition of collections; and the growth of human resources with new professional profiles. Their implementation would allow the significant improvement of the structure of the library system and the service provided to citizens.

Two objectives were proposed:
- Develop an ambitious, but realistic and achievable, medium-term proposal.
- Provide the different administrations with competences regarding libraries a common reference tool to unify criteria for the planning and management of the library service.

The commission responsible was established in April 2006, and their implementation began in 2008.

They are basically quantifier standards, as there were regional imbalances which showed the need to quantitatively specify the resources required to provide a quality library service.

The measured resources are:
- Document collection.
- Building and equipment (area of the spaces, number of user places, etc.).
- Human resources.
- Weekly hours of service.

The specification of these resources helps establish the economic parameters which can foresee the costs of initial investment and annual maintenance of the library. These scales are revised every year in order to adjust them to current prices at any given time.

From the forecast of the local reality and the needs and characteristics of each municipality, the standards provide guidelines for the planning of library facilities in each locality.
To learn about the development process, as well as the standards themselves, you can download the document Los nuevos estándares de biblioteca pública de Cataluña (2008) (Javier Nieto / Enric Vilagrosa):

Spatial Organization of the Library

Experience shows us that the physical space where any activity is carried out influences directly over the attitude of the people occupying it. For example, in a meeting with friends, depending on the form of the room or the light or where we sit, we will talk about different things and we will express them in a different way. That is why the physical space of the library is so important in order to achieve our objectives.

We also know that, in general, the price of a well solved and a badly solved building is quite similar, as it depends basically on the dimension of the building, the construction materials, etc. However, in a badly organized library more employees will be needed, work will be worse and users will not feel so comfortable.

It is essential to organize well the space so that the user understands how the library works from the moment s/he enters the building and it is easy for the user to move around in it. If this is not achieved, we can say that we are facing a failure of the architectural project.

Image 6: Viladecans Public Library (Viladecans, Barcelona – Spain). Ground Floor

On many occasions, neither librarians nor architects give this aspect the importance it deserves. Maybe librarians are not aware of the great impact that physical space has on the success of the service. Architects are well aware of this but maybe they prefer designing the building they please instead of the building that it is needed.

Therefore, in order to achieve a good library building, it is very important that two things are accomplished:

• An explanation to the architect about what building must be projected. We will call this the Functional Programme.
• A guidance from someone who knows the needs of a library.
The Functional Programme

The existence of standards makes it possible to have guidelines for planning the library equipment in each locality. With this information it is extremely useful to develop a document with the following information:

‣ Type of library wanted.

‣ Description of each activity space. We must specify the surface, the activities which will be done, the characteristics every space should have and the physical elements needed (furniture, document collection, number and typology of user places, etc.).

‣ Relationship between different areas. It is very useful to do a functional organigram. It is some kind of chart where the link between different areas is shown. On one hand, it is easy to make by someone who knows the needs of the library, and on the other hand, it helps very much the architect while organizing the building.

It is also recommended to indicate the expected duration of each stage of the process of the equipment creation, an approximate price per m² built and the expected price for the maintenance of the building and the library service. Thus, the group that owns the library knows in advance the economic impact of the transaction and, at the same time, it helps establish an annual budget to deal with the subsequent management.

Architectural Advice

Once the architect has the Functional Programme, it is ideal that someone who knows the libraries advises her/him during the whole process. Usually it is a librarian (the future director, someone who works at the central library services, etc.), but it is better when this person is an architect specialized in libraries, which makes the communication easier. As usually the advice is given by a librarian, it is important the s/he knows some concepts about architecture and is used to the interpretation of the plans. Thus, the evaluation by the librarian of the designs shown by the architect during the process will be fuller. (see Image 8 to the left).

Ideally, the advice is given from the beginning of the process. In architecture the most important decisions are those taken at the beginning. That is the moment when you can detect whether the project is on the right track or not, and it is very easy to make changes, outlining a completely different library. If the advice is given later, it is more difficult to suggest radical changes. Even so, there is always time to improve a project.

Fundamental Aspects

The good use of a public library is not measured by the number of user places or the time users sit in front of a computer or studying. The success of an equipment is measured by the cultural consumption done in the library (lending service, training activities, etc.).

Library buildings, whether intended as a public, national or specialist, school or university library, must be designed keeping in mind integrations and coexistence of spaces, services and users. They must have spaces for meeting, reading, research, resting, discussion, etc., and, of course, they must also be functional and sustainable.

The architect designing a library must base her/his work on a series of criteria present in the whole creation process. The most characteristic are:

‣ Flexibility:

   We all know that libraries must be able to adapt to the new demands. Nobody knows what is going to happen in the next 5 years but it is certain that libraries will need different things.

‣ Accessibility:

   Buildings used as libraries must be completely accessible, regardless of the access policy that the library
service managers define afterwards. When we talk about accessibility, we don’t refer only to people in wheelchairs. This is a much broader concept that the architect must remember at all times.

‣ Organization:
The great variety of elements offered in a library must be compensated by good organization of the spaces, the furniture and the collection. A good organization will make the stay of users more comfortable, will make the work of the library staff easier and will allow a good management with fewer staff. (See image 8).

‣ Sustainability and maintenance:
In the times we live, we must be able to build a profitable building with a balance between initial cost and maintenance cost during useful life, and with a management that requires minimal financial and human resources.

Image 8: Sant Ildefons Public Library (Cornellà de Llobregat, Barcelona – Spain) - Photo: ago2/Oscar Ferrer
Now I will mention some aspects, as a brainstorm in no particular order, that should be taken into consideration when designing a library. Experience teaches us that, when poorly resolved, they affect adversely the building operation.

- **Access to the library.**

  A single entrance hall which connects directly to the different functional areas is recommended. Access must occur in a single control to facilitate the free movement of users throughout the building. How the opening system of access doors is solved and where the electronic detection arches are located should be studied in detail. It is about finding a solution that works as acoustic and thermal barrier between exterior and interior, that facilitates the entry and exit of users and requires minimal possible electronic detection arches.

- **Functional organization of access area.**

  The hall should be directly related to all areas of activity under the Functional Programme. Especially, the relationship between hall and multi-use spaces used for various activities has to be resolved, since this union should be able to work independently of the rest of the library. If these spaces are visible from the hall, it is easier for users to know which activities are carried out (exhibitions, etc.). If they can be incorporated into the hall through sliding or folding doors, their use is optimized when not performing any particular activity. If the subdivided into soundproofed areas, more simultaneous activities can be performed.

- **Opening.**

  Balanced ratio of exterior openings and masonry walls to aid energy saving. Protection from sunlight. Avoiding dazzling and thermal radiation. In most cases fixed or movable mechanisms will be necessary to modulate the solar light (cornices, eaves, shutters, curtains, sun-breaks, etc.)

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Image 9: (left): Can Llaurador Public Library (Teià, Barcelona – Spain) - Photo: ago2/Oscar Ferrer
Image 10 (right): Can Llaurador Public Library (Teià, Barcelona – Spain) - Photo: ago2/Oscar Ferrer
Anticipating a cleaning system for the windows. “Hermetic” buildings or ones whose openings are inaccessible make maintenance difficult and more expensive. Natural ventilation. The climate of some countries allows thermal comfort for much of the year only through natural ventilation. Having some openable windows can be a significant energy saving method.

- Artificial light. Lighting independent from the furniture. It allows the change of distribution, the main advantage is the flexibility of use.

Image 11: L’Ateneu Public Library (Esparreguera, Barcelona – Spain) - Photo: ago2/Oscar Ferrer

Possibility of graduate the light intensity. For much of the time, it can function at half-power, with the resultant energy savings. Automatic start of lights depending on the location of spaces and the inputs of natural light. Accessible location of light sources which facilitate replacement.
Challenges for the Future

The economic crisis we are living in my country blurs our challenges for the future. On the other hand, both the change of the model of access to the information and the change of the model of information production are revolutionizing the present.

We are living in a situation and a living system in which it is still necessary to create spaces in where people meet and discuss, that create social synergies. We think that the library is a public space that works as an agora and helps building community.

Our challenges for the future are oriented towards three directions:

- **Document collection:**
  - The public library should make the digital collections available to users.

- **Human resources:**
  - We have to achieve a more sustainable service management.
  - Everything a machine run by the user can make (self-loan, self-management of telematic services, download of books, etc.) will help direct the work of professionals to its proper function, which is no other than advise users on any topic related to culture and information.
  - It does not mean adjusting and reducing the professional staff in function of improved mechanized management. We want to reorientate it to improve the service to the user.

- **Building:**
  - We still believe that physical space can not be reduced.
  - There should be spaces where unexpected activities can be held. Thus, flexibility is still so important.
  - Moreover, we have to take good care of the interior atmosphere, as users get to spend much time in it.
Learning – Connecting – Relaxing: TIB/UB – Relaunching the public spaces
By Anette Franzkowiak, TIB/UB

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 specialized information in both printed and electronic form.

Image 1: TIB/UB, the façade at the front © TIB/UB

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 façade 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 remodeled. Only of the furnishings in some spaces had been altered since the library was opened.

The public spaces were remodeled in response to the longstanding demands of the university and library leadership.
Following discussions about learning resource centers and information rooms, a programme entitled the “Learning space concept” was initiated:

**Learning space concept**

- Discussions about learning resource centers and information rooms!
- The library represents the major learning space on campus!
- The concept promotes renovation and remodeling!
- 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 remodeling 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.
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.

Figure 7. Ground floor design plan of the relaunch © A. Römeth Architekten
Figure 8: Ground floor interior elevations © A. Römeth Architekten

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

Image 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 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 aluminum 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 emphasized 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**
Tranquility, 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 spaces are separated by book shelves.
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.
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 realization stages, everyone involved did their utmost not to lose sight of the overall concept!

TIB/UB Hannover, Germany

Open 95 hours a week  
With 1,700 seats to learn and work, wireless networking at all 5 locations  
9.0 million media items

http://www.tib-hannover.de/ 
http://www.tib.uni-hannover.de/