

UNITED NATIONS LIBRARY MODEL/ Bonn, Germany, November 2004

Bonn has succeeded over the past decade to shape for itself a new profile as the German United Nations City and a centre of international dialogue on key issues of the future. A visible symbol of this development is the UN Campus. In order to establish a unified approach for all our libraries at the campus we worked on a model presenting our needs and views. The model has been developed following the existing library standards for spaces and equipment. The library planning should reflect the development of the library in the next 15-20 years. Since libraries are important not only as buildings but as a cultural investment it is crucial that they be planned to respond current and future needs. The library will continue to grow and the plans should provide this growth.

For projecting the library spaces there are formulas that are used for different types of collections. (For withdrawal, 5-10 % every year, average net additions, for books, periodicals, and non-print materials) The number of the volumes per meter may vary depending on different factors: type of materials, books, atlases, periodicals, reference books, non-print materials etc, height of shelving, width of aisles. Readers seating space, PC working space, staff working space, special places (according to the individual library program of service).

The distance between the stacks (the aisle allowance) also depends from the area, but it varies from 1.30-1.40 for the archive section where we usually have compound shelving, for the freehand area 1.40 to 1.60, for the reading area 1.70 to 2.00 and information area from 1.80 to 2.30. (Stack aisles are pedestrian paths located in the stack area. (We have cross, end and main aisles).

When we have to start a library planning we should always take into consideration the requirements which particular library standard states out.

In our case we have taken the German Library Standard **[DIN Fachbericht 13 Bau- und Nutzungsplanung von wissenschaftlichen Bibliotheken](#)** (see also **https://www.bibliothekverband.de/fileadmin/user_upload/Sektionen/sektion4/Tagungen/2016_11_5_Giebenhain.pdf**) and the American Planning guide .The library space planning is a large process that involves librarians and the architects together. Calculation of the needs and the actual spaces already allocated for the libraries (without being specially planned for that, do not always match). Energy efficiency and condition of heating, ventilation, air conditioners, humidity up to 45-50% (+/- 5), and temperature 18-23 C (depends on the particular areas), adaptability to meet telecommunications requirements with enough circuit and electrical outlets for present and future needs, accessibility for disabled people, compliance with state and local fire, safety and building codes and the library standard requirements.

There are general requirements for spaces that might apply for the library spaces as well. Any room or floor area, which is occupied by 50 or more persons, must have two means of egress to a fire exit and the two have to remote from each other. , The occupancy loads calculated at one person for the different areas, the staircases, the elevators, eventually wheelchairs access etc., important issues that the architects usually have knowledge on them Etc.

Imagine 360 books 1 kg.each it makes 360 kg per sq.m.(the floor static is planned for 500 kg.per sq.m)

Given this direct link between the size of the collection and the floor space required to house it, projection of collection size is one key to determining a library's space needs.

Projecting Collection Size (The application of a standard is a simple way to project collection size)

Projections of collection growth should consider at least two factors:

application of current standards for public library service (for example, DIN 13 and American Planning guide); and calculation of the library's rate of addition to the collection extended over the planning time frame.

Other factors may come into play as well. Each library will also need to assess the impact of the growing availability of information by way of electronic and digital sources. Some libraries anticipate that electronic resources will slow the rate of growth in traditional collections or even reduce the quantities that will be needed in those traditional collections. Other libraries anticipate little effect.

Required temperature and humidity for different spaces, lighting, light exposure (to the direct sunlight), ventilation, eventually need for windows lamella) and library signs (way finding and signature) Heating, ventilation and air conditioning:

Due to the specific conditions and environmental parameters that a library environment should maintain in order to sustain the physical condition of its collection, relying entirely on natural ventilation strategies might be viable in only a few selected environments with steady temperatures that would not threaten the collection.

Displacement ventilation makes best use of zones of use in a space, placing the fresh air where it is needed, near the occupants- using the natural stratification of air temperatures to its advantage.

(Lux – the amount of illumination provided when one lumen is evenly distributed over an area of one sq.m.)

The nature of way finding and library signature – this is a methodology of arranging indicators to guide people to their destinations, the function is to identify, direct, restrict or permit to the library areas and library collection

The factors that determine good functional lighting design in libraries include not only the amount of light energy available for specific visual tasks, but also the direction of the light relative to the eye, the brightness of objects surrounding the task object and within the field of view and the surface reflectance and light-diffusing characteristics of the task object.

For our case it's important to note that the ceiling will be 5 m. almost, from the highest shelf, which means that the light coming from the ceiling lamps will not be enough for the bottom shelves.

Of course we have to look for an option that affords enough lighting at moderate costs and with reasonable energy use.

Effective use of daylight may reduce the energy consumption and make the library feel more human and less institutional. We have to be careful for the libraries that have windows facing south to provide them with overhangs (lamellas)-exterior shading devices in order to protect the materials from the direct sunlight. It will be better if the lighting circuits can be turned on and off by a control system that allows flexible time programming for each circuit. (Lighting control!)

The projected units divided to number of units for sq.m divided to number of shelves in height = the linear meters of shelves needed. The horizontal running length of shelf is its linear length. The standard always takes into account 30 % of excess space per shelf. The optimum capacity required 70 to 75 %. Full

The height will determine the number of shelves per unit, which in turn will determine the capacity for each unit and the number of units required to house the planned collections. The height on which we are going to arrange the shelves depends on the specification of materials we are going to display vertically or facing :books, periodicals, atlases et

When we mention single shelves and double shelves (stacks) we mean single-faced shelf and double- faced shelf. The only advantage for the double-faces shelving is the more efficient use of space.

The components to the shelves include end panels, canopy tops (one-piece component that completely covers the top of the stack), slotted divider shelves,(adjustable shelves with dividers) display shelves, index tables, book supports(integrated in the shelves usually) etc.

*collection space (for books, periodicals, non-print materials) with service desk

- *library users space-reading area with PC working stations

- *staff work space

- *meeting room space

- *Special Use Space

Special use space must be allotted for elements of an individual library's program of service or for special types of furnishings that have not been accounted for in earlier sections of this outline. For example, none of the four types of library floor space described thus far includes an allocation for index tables, newspaper racks, photocopiers or

- *Archive area- is something very important for each library and has to be planned very economically regarding the space and according to the regulations for this kind of spaces.(there is a table in DIN with specifications for this area as well)

- *Nonassignable Space

Here we will not take into account the nonassignable spaces like storage rooms, corridors, elevator, rest rooms etc. that cannot be used in fact directly for library service but are part of the library planning. Fire and security protection as well, but we have to note them.

Main entrance area with service desk, borrowing/landing section, OPAC places, closets, safety cases and rest rooms.

To this space usually belong the library meeting room, cafeteria, study rooms etc.

The distance from the main entrance to the landing desk and between main areas in the library should be 2.50 m. (the main aisle)

Information reference section (here the central servicing area desk, small closet for visitors and safety cases, and on-line information service belong, OPAC and other catalogues often shared space with .

Visual control (and phone link) to the library entrance/s is required from the service desk.

Borrowing/landing section (usually the area where is the border between the freehand area (the library collection area) and controlled area. The librarian usually helps and advises the users to find the information and the same time can have a control and keep an eye on the library area and the users.

The freehand area offers the library collection at hand, multimedia section, lounge area with periodicals lower stacks and newspapers racks, the copy room, audio-

video room, library offices , small archive area, reading area and PC working stations. Display racks should be provided for distribution of brochures and other free consumer publications. Periodicals display shelving, reference shelves and J-shaped shelves for convenience and keeping the back issues.(displays the current titles and keeps the rest at the back).

The library can choose metal or metal combined with wood equipment, depends on the architects view. To minimize the static electricity in computer areas wood or other non-conductive materials should be used instead of metal or plastic coated furniture. I'm not going to enter in details now. It's a matter of later stage.

Planning for the furniture for a library project requires careful planning, scheduling and budgeting and the assistance of an architect and design specialist.

One of the keys for the success of each library planning projects is to provide enough shelving to meet the requirements for planned collections.

A pleasant atmosphere should be created by providing comfortable chairs and excellent lighting.

We can have 4 shelves for the reference or periodicals section, 5, 6 or 7 for the rest. It depends what kind of equipment we'll chose and the design concept approved. The usual number of shelves is 6, sometimes we can afford 7. If more is needed they have to be fixed to the floor very firmly and they will need a special library ladder. This can be seen in University libraries or public libraries. DIN P.19, 20,

The silence is very important for the normal working atmosphere, comfortable chairs and natural lightening. Changing technologies make it difficult to plan the electronic work spaces. The most important requirement is successful providing connection and information appliances, external and internal networks.

Most libraries usually afford additionally to the general reading area section a small lounge area close to the reference area and the windows in the library, designed for casual reading and relaxing.

This area offers a nice view, peace, comfort. It will create comfortable, warm, friendly atmosphere, welcoming library environment together with the nice view from all libraries to the Bonn area.

Digital and electronic information resources constitute the final component of a library's collection resource. As more and more varied information becomes available in digital form, it becomes increasingly important for libraries to provide access to that material. The degree and type of access will be conditioned by the number of terminals that the library provides for patron use. The number of

terminals the library provides will in turn determine how much space the library will need in support of this function. Also note that the immediate goal is to define the space needs for public computer stations now, and in the future. The library will not necessarily provide all of the stations immediately, but will grow into this space.

Since many resources are available on CD-ROMS, audio and video cassettes, the library should supply multimedia computers and equipment. Audio-video section– is very specialized in each library. It usually occupies a space with least light, where all necessary equipment for audio-video projection is displayed. All materials are kept in special metal cases with drawers or need special shelving and apply special conditions for preserving. I am pretty aware of the fact that our libraries cannot afford all the above-mentioned spaces to the extent they are figured out in the standard, but we have to take into account the general regulations for this type of spaces.

Library management area or staff working area – is the library office area with desks, PC and some shelves. It's usually a normal office space. The standard stated the requirements for it on p.39. Requires 9 to 30 sq.m depends how many people are going to work in that library. Librarian's office should accommodate desk, computer, file cabinet and phone.

Final space allocations will be based on further evaluation of the specific routines to be accomplished at each work station and the amount of furniture and equipment necessary to support those routines

- *circulation (check-in/registration, check-out, book sorting);

- *technical services (cataloguing, typing, processing and mending);

The smaller libraries should afford even small spaces for the main library areas.

As a general rule the simpler the shape of a building constructions, the lower will be its unit cost.

Regular shapes in contrast, become more expensive the longer and narrower they are planned. It is important that both architect and client are fully aware of the additional costs (or savings) that probably will arise from even small changes in the shape of the building.

Regarding the additional constructions inside the library areas.

We need them as I have already mentioned because in that way we can use maximum the space, this will give us the possibility to plan our collections for the next years, this will give a perfect design of the space. In that regard we'll be glad

if the architects' visions will cover even part of ours as well. To create additional rooms (office, registration room, audio-video room etc.).

Registration room (where materials wait to be processed or returned to their proper location), audio-video room, small archive) inside the library space with light walls constructions(timber and glass for the office and timber for those that do not need natural light) .The metal bridge constructions supported by metal columns(second level) on top of them, so to maximize the space and use it for readings areas .

Usually when the process of planning a library starts we have to identify the projected service population. In our case our libraries will serve the UN staff and outside visitors: students, government officers, all people who have particular interest in our specialized collections. We cannot count on the total Bonn population or the University students as a whole. This is not possible in that case since the libraries will be inside the building.

It's important to point out that we have existing libraries with library software registration system, libraries in the process of organizing their collections, libraries and documentation centers organized in one registration system. Actually our libraries need space to organize their collections in the best way.

UNEP planning focuses on:

- maximum use of space
- good ventilation, heating and lightning
- shelves attached to the wall (if possible to the ceiling extent provided with ladder)
- lounge area with coffee bar
- reading area (enough space to convert for small staff meeting)
- librarian office (3 X 3m) and audio-video room (3 X 3m)
 - half-glass window from the librarian office to have a complete view of the service desk in front and the whole library
 - connecting or sliding door between library and audio-video room

it is requested to have a one bridge construction area on top of the librarian office and

audio-video room for additional reading area and visitors PC work station.

We hope that if a second level area is created for a reading area the space will house the collection over the next years, taking into account that we are expecting some other UNESCO agencies to move to Bonn as well.

The space allocated for the UNCCD library will house its collection projected for the next 15 years. We would like to use maximum the space we have and taking into consideration the height of 7 m., we'll have actual height of 5 to 6 m, so we'll like to have second floor additional construction which will afford better housing of our collection and enough space for a reading area.

UNU Library will house their collection in two rooms next to each other on 27 floor. They envisage enough space for their collection if they have a well arranged wall shelving. The rooms have in- build closets with shelves that will afford housing of library materials as well. The library plans to have a small audio-video section in one of the rooms, small reading area next to the windows, a lounge area and PCWS. As they have estimated the space will be enough for the projected library collection in the next 15 years.

Since we do not have many options for the libraries allocated in the small spaces, we would like to achieve maximum wall shelving, arrange small reading areas.

Grey literature is the literature that is not widely published as theses, reports, dissertations etc.

Now is the right time to take the proper decision for our libraries. We hope and we do believe that the future for our libraries will be better as well.

- ***"Everyone must have the hope that the future will be better than the present. Our common humanity and security require such hope to exist"***

UN Secretary General Kofi Annan on United Nations Day

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