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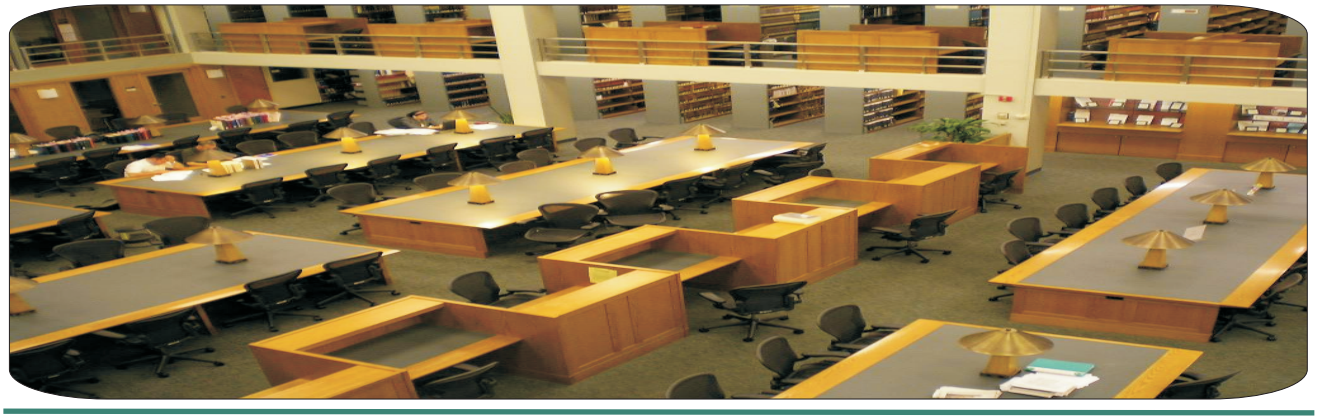

# PROSPECTUS FOR EFFICIENT SPACE MANAGEMENT IN UNIVERSITY LIBRARIES: SPECIAL REFERENCE TO INDIAN CONTEXT

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## ABSTRACT

For the maintenance of flexible and functional libraries, an efficient space management system is of utmost importance. Any ideal system would take into consideration the necessity to proportionately allocate space and be open to the expanding changes, as libraries are object-intensive growing organism. Lack of criteria or standards for effective space management in libraries might lead to an unhealthy situation where they can become vulnerable to lose their sole purpose of supporting quality researches. The intention of this paper is to bring to light the important criteria or standards for efficient space management in modern libraries in Indian context. It takes into account all the possible points for discussion about space management in libraries and adds to them all the potential tips to ensure their idealistic excellence. It identifies that a careful planning for allocation of space for traditional materials and functions, modern materials and functions, non-library facilities would give rise to a well-qualified library. Furthermore, this paper discovers that a well-planned system integration, library service space appropriation, appropriate use of weather for library and other related strategies for providing a well-organized library ambiance. This paper also speculates that the space management in libraries in the Indian universities has hitherto not reached these standards set. It carefully analyses the Indian tradition to keep track of the cultural changes which eventually can affect library planning and use in India. Hence these criteria postulated as ideal standards would help invite attention about the ways of revitalizing space management systems in libraries in Indian universities. These standards can also be considered as those that can change the course of the ideal

philosophy of libraries in Indian Universities .

**KEYWORDS** :Library Space, Non Library Facilities in Library, System Integration in Library, Space Appropriation in Library, Strategies for Library Space, Space Utility Design.

## INTRODUCTION

Space in the context of a library refers to an effective and dynamic environment for doing serious research. Considering the importance of space, we need a scientific and systematic planning for the library construction and space designing. Disproportionate allocation of space and un-matching combination of space utilities will create problems and affect the conducive nature of research. In the planning and space designing work, the librarian has a great role to play to ensure the maximum qualitative research. So, we need a study on space management of library to promote good university libraries.

The complexity of library space concepts are growing day-by-day. Some of the thinkers are predicting that in future of the library need only the virtual space. And they are giving paramount importance to the digital library. Actually this opinion of digital library is inviting another type of space concept i.e. 'virtual space'. When thinking of library space we have to think of a different type of space, its use, its designing, its relation to the function, its nature etc. Here I would like to bring attention to some of the important issues on library space and its importance.

## DEFINITION (DESCRIPTIVE)

'Space' in the context of research in library and information science refers to the creation of a dynamic and effective physical environment that would inspire the researchers (Hennah) to optimally explore and integrate the wisdom from library materials, service and facilities that are offered with a special emphasis on research in and development of a particular area of study. Space is to be conceived, designed and maintained with a view to help the users to find with ease and accuracy what they want for the purpose of a special research and to create opportunities for fulfilling the five laws of Library Science (Ranganathan S. R., 1931).

## OBJECTIVES AND NARRATIVE STYLE OF THE PAPER

This paper is an investigation through the Indian universities regarding all possible aspects of library space management. Before starting the investigation I would like to keep-in-mind the potential possibilities in library space management, based on the modern library space concepts, introduced by modern library space scientists and implemented in the international level academic libraries without ignoring the traditional concepts and academic legacies of India.

## METHOD OF DISCUSSION

Here I would like to highlight some points for discussion and raise some important questions to our Indian university libraries / library makers. In this small article I am not able to discuss modern trends and traditional concepts of academic library space management. To enjoy this article I presuppose the good awareness of both modern trends of library space and the relevant traditional space concepts of our nation.

In this study we gather information from specific university libraries in India. Based on actual situation and ideal / possible situation we assess and analyse the library space management for appropriate space concept to improve our academic quality in universities. For this purpose we go

through the main points first then we will see the questions and the other related points.

I.Basic information about institution, users and library
II.Space for traditional materials and functions in library
III.Space for modern materials and functions available in library
IV.Space for non library facilities in library
V.Space and system integration in library
VI.Library service and space appropriation in library
VII.Strategies for library Space: planning, designing, construction etc.
VIII.Energy variation according to library space utility / design
IX.Managing personnel and library space
X.Green Library: use weather for power saving and control of weather for long life of library materials and comfort of the personnel etc.
XI.Space designing with visibility: to manage the library malpractices and to improve the efficiency
XII.Possibility for Adoption and Expansion

## I. Basic Information about Institution, Users and Library

When we look at the first law of library science, we have to start with the user: library is for use. The following are some of the model questions based on the users.

• What is the total number of registered students and staff in the university i.e. Potential users of the library?

• What is the number of actual users or regular users of library?

After the user we can check the essential details of library building and its creation with a set of queries.

• Regarding the features like size, cost, starting year of construction and year of completion etc. in the time of following stages:

- At the time of Commissioning of Library Building
- At the time of further space expansion of Library Building
- At the time of further modification related to library space

• How is the library building constructed?

- Separate and newly constructed - only for library
- Separate and newly constructed for library, classrooms and other functions (like University/College auditorium, examination hall, administrative office, etc.)
- Separately existing structure (used for some other purpose) converted - only for library
- Separately existing structure (used for some other purpose) converted for library, classrooms and other functions (like University/College auditorium, examination hall, administrative office, etc.)
- Separate portion in newly constructed University / College building - only for library
- Separate portion for library - in existing structure (it was used for some other purpose) converted for University/ College building
- Expanded portion of University / College building - only for library

• Regarding Library Modification and Expansion

- Modified and expanded due to space saturation because of natural growth
- Modified and expanded due to space saturation because of institutional growth

- Modified and expanded to accommodate the new ICT and other modern applications
- Modified to change the interior furnishing and some arrangements and not expanded

## II.Space for Traditional Materials and Functions in Library

Millions of individual journal articles and most monographs are not available on-line, either in full text, or through indexing services. Though more texts become accessible on the Internet each year, advanced research in many disciplines requires that investigators evaluate extensive print collections besides the full range of electronic information.

Because book will continue to be produced and computers will become even more effective tools for research, future library design must provide seamless access to the information provided in both print and electronic formats. Librarians have written much about the shift from emphasis on ownership particularly in academic libraries to the idea of access. Providing access to information in all formats at any location from any location is the challenge for the 21st century library. To meet that challenge, library design must provide a better integration of space for collections and computers than has happened in much of the retrofitting done to date. It is possible that academic libraries of the future will achieve a coexistence of the paper product and their digital counterparts that change the look of libraries. It may not (Thomas, 2000).

• What are the traditional materials and functions in the library? List of possible materials are given below:

- Books
- Periodicals
- Thesis
- Archival materials
- Maps
- Drawings
- Newspaper
- Other Records
- Card catalogue
- Token based circulation system

• We count approximate number / quantity of traditional library materials
• Then we check the response by measuring the density and frequency of users to the traditional library material collection

**Another set of questions are:**

• How much space is used for the traditional library material collection?
• What is the annual growth of the collection of traditional library materials?
• Are there any space saturation / threat to the collection of traditional library materials?
• If there is space saturation / threat, how will the problem be solved? Some of the possible solutions are listed below:

- Weed out
- Building expansion
- Bifurcating the library

- Building new library
- Using rolling compact racks
- Widening the shelves
- Other plans
- Not yet decided

The need to integrate digital and traditional collections, physically and, more important, philosophically is pressing. For the present, academic libraries will err on the side of collections, but incorporate technology based on the campus learning process. Printed works and electronic versions both occupy the library for now. How readers use one or the other shifts depending on societal values, societal needs, and the changes in technology. The effective library manager is one who develops a rationale for the particular arrangement of spaces at a given time through defining what really happens in the library to support readers. Library managers must gaze into a cloudy crystal ball for the most transient glimpse of the possibilities. By designing for maximum flexibility in any space, perhaps the wise librarian may shape the co-existence of the virtual and traditional in the future (Thomas, 2000).

### III. Space for Modern materials and Functions Available in Library

Despite calls for electronic, virtual, and digital libraries without walls, the walled variety is still being built, some of them massive. This book (Webb, 2004) explores the reasons for this contradiction by examining several notable new library facilities around the world to see how modern expectations for libraries are being translated into concrete and steel. More and more libraries are looking at change not as a dreaded hazard but as an opportunity that can itself be seized to strengthen the library in the areas of mission, technologies, facilities, funding, and organizational structure. Thirteen libraries are discussed, either by a librarian or an administrator who worked on the project. Each author highlights the design and building concerns that were particularly relevant to one specific library: it deals with the philosophy, political issues, or any other concern that affected the planning, building, and services in the new facility. Introductory and concluding chapters identify underlying values and themes, stringing everything together. The unique combinations of issues, constraints, and opportunities show how libraries are planning to fit into the approaching era of virtual information delivery (Webb, 2004).

• What are the modern materials and functions available in the library?

- Digital library
- E-Books
- E-journals
- Electronic Database
- E-Thesis
- E-Maps and Navigators
- E-Collection - Art, Technique, Culture, etc.
- Institutional Repository
- Electronic Archival materials
- E-News paper
- Other E-recourses
- Audio library
- Multimedia centre
- Computerized catalogue (OPAC)

- Computerized circulation system

• What is the quantity of the digital library materials?
• What are the density and frequency of users for the digital materials and other modern materials and functions in the library?
• How much actual space is used for the digital library and other modern materials and functions in the library?
• How much virtual (electronic storage) space is taken for the digital library and other digitized systems and the facilities related to the library?

We are enquiring about approximate storing space for digital materials in GB and the location/devise of the storage

- Library Server
- Outside library server
- Hired virtual space
- Cloud Computer
- Other digital storages

### IV. Space for Non Library Facilities in Library

•What are the non library facilities available in the library?

**Short description:** Non library facilities mean the facilities which were not part of the library in the past decades; now these facilities become part of the library. Some of the non-library facilities are given below:

- "General computer lab(s)
- Snack bar or café
- Classrooms for general use
- Conference/meeting rooms
- Auditorium
- Tutoring centre
- Archives
- Bookstore
- Photocopy/Xerox
- Academic department(s)
- Art gallery or museum space" (Stewart, 2010)
- Exhibition area
- Video watching room
- Audio room
- CD/DVD library
- Multimedia centre
- News watching facility
- Writer's cabin
- Incubator (Thinking Cell)
- Meditation/assimilation room

- None of the above

• How much space is used for non library facilities in the library?
• What are the responses and percentage of users to the non library facilities in the library?

### V. Space and System Integration in Library

The modern Libraries have simple and complex systems. The structure of a library should support various systems and their functions within the library ambience. The space designing work, the system installation and function of systems are interconnected. There must be integration among the library space designing work, the system installation job, and function of system to produce more qualitative results in research.

• What are the other functional systems in the library?
- Catalogue (OPAC)
- Circulation (automated)
- LAN (Local Area Network)
- Wi Fi
- Copy Making
- Scanning system
- Internal and External Communication
- Automated book retrieval / re-shelf (conveying with – Robot/belt/channel)
- Auto return/Drop-box
- Auto renewal
- RF-ID application
- Magnetic Strip application
- Bar code application
- Biometric devices
- Own-Digital Library
- Online database
- Institutional repository
- Quick information through SMS/E-mail
- New arrival books display
- New arrival electronic display
- Fire and safety
- Book acquisition
- Technical process
- Access control
- Library automation system

• How much library space is required for each system?
• What are the density and frequency of users for each system?
• Whether these systems are working efficiently? If the answer is negative specify the reasons.

(There is a tendency that these types of modern systems and facilities we inaugurate with wider publicity. After inauguration or first few days it will not work satisfactorily). Some of the reasons for

malfunctioning are mentioned below.

**They are problems of:**

- Installation
- Power
- Connection
- Operator
- Maintenance
- Demand/Use
- Attention
- Abandoned
- Other

• Whether these system planning and the space planning are integrated? Or visualized at the time of library planning?
• Are these systems stopped or shifted due to the space problem in the library?
If it so happened, reasons and nature of the space problems are to be enquired.

**VI. Library Service and Space Appropriation in Library**

• What are the subsidiary library services available in the library?

- Current awareness service
- News Channel
- News Discussion Room
- News Photo's Display
- News Headlines Writing Space
- Newspaper
- Information Centre
- Internet/ E-Mail
- OPAC + Search Counters
- Pamphlet and Catalogue Lib.
- Library Accountant
- Data Feeding Section
- Library Training Programmes
- Property Counter
- Service of Assistant Librarian
- Service of Librarian
- Software Service
- Superintendent
- Technical Section
- Binding
- Book stall
- Utility Services
- D.T.P

- Data analyzing service
- Researchers Gathering
- Technical writing service
- Translation service
- Meet the Author Programme
- Pre-Book Debate
- Readers Gathering
- Audio Lab and Visual Lab
- Digital Documentation
- Digital Studio / Image processing service
- General Knowledge House
- Language House
- Speech House
- Online Exam House
- Micro-Film House
- Art Exhibition Area
- Stamp Exhibition Area
- Subject Exhibition Area
- General Exhibition Area
- Observatory
- Audio Books

There is a tendency that these types of systems and facilities shortly can become an ornament. To investigate this tendency we include the following question.

• Whether these library services are functioning efficiently now?
• Whether these library services and its specific space peculiarities are envisaged at the time of library planning?
• How much space is required for each library service?
• What are the density, frequency and quantity of users for each library service?

### VII. Strategies for Library Space: Planning, Designing, Construction etc.

Dr. S. Seetharama in his book Guidelines for Planning of Libraries and Information Centers states that the "strategic planning is systematic grappling with future opportunities, problems, and alternative course of action" (Seetharama, 1990).

• What was the strategic procedure for library space: planning, designing and construction?

- There was a strategic procedure for library space: before planning, designing and construction
- The strategic procedure for library space visualized only after structural construction
- There was no strategic procedure for library space: but calculated, planned and designed with scientific methods
- There was no strategic procedure for library space: so calculated, planned and designed with unscientific methods
- There was no strategic procedure for library space: so planning, designing and construction was

dominated by engineer and not consulted the librarian or library expertise

- Again we have to assess the answers given for the above questions with following remarks:
- Total library Functions and Services
- 50% of Functions and Services
- Few of the Functions and Services

• How you formulated strategy for library construction? (Leighton & Weber, 2010). Some of the methods for formulating strategy before planning, designing, and construction of the library space are given below

- Brain-storming on library functions and services
- User needs
- User's opinion poll
- Assessing modern library concepts to adopt
- Digital needs
- Traditional facilities
- Due visit/observation of other model libraries
- Due consultation with library expertise
- Due discussion with concerned bodies

• Are there any philosophical concerns over the library space planning and designing?
If answer is yes: explain the philosophy of your library (especially on space related)

### VIII. Energy Variation According to Library Space Utility / Design

"Space Management for Libraries: ... creating a dynamic environment which inspires people to explore the entire space and this involves change" (Hennah). Andrew McDonald expressing his idea about library space in the article "The Ten Commandments Revisited: the Qualities of Good Library Space" under the sub-heading 'Oomph' – "Bold space that captures the minds of users and the spirit of the university. The eleventh and almost indefinable quality is best described as the 'oomph' or 'wow' factor. Skilful architects and planners will strike a balance between all these qualities to create inspiring buildings with exciting architectural features and satisfying internal spaces which capture the minds of users and the spirit of the university."

• Are there any hierarchical variations in library space, according to its conducive nature/ energy?
Some of the possible arrangements for energies / conducive nature are given below:

- Semi silent area
- Area for discussion and deliberation
- Area for casual reading
- Roof Top Garden Library/Space for sip and read
- Free reading area
- Space for group discussion
- Research area with solemn silence

• Are there any space / environment in library to enjoy the privacy, solitude and contemplative reading and to do serious research?

Some of the possible arrangements for privacy, solitude, contemplative reading and to do serious research are given below:

- Common seats and tables with semi privacy (with 3 side separation)
- Research cabins with extra reading facilities (with 3 side separation/partition)
- Research cubicles with extra reading facilities (with 4 side separation/partition with door)
- Nature friendly library space / environment for contemplative reading: Garden Library, Forest Library, etc.
- Library environment for complete solitude: Cave Library
- Wisdom vibrating (ancient) structure provided by library: Pyramid Library

**IX. Managing Personnel and Library Space**

"In the case of open plan libraries, real economies in staff numbers can be made, without substantial reduction in library service. If the layout is planned so that staff are beneficially located to supervise and service more than one department, then the distressing conclusion to perhaps close, or in the case of a new library, not to open a particular department can be avoided" (Faulkner).

• Is there any relation between library space, library personnel and library work / service?

- We agree that library space, library personnel and library work / service nature are interrelated.
- We don't think that library space, library personnel and library work / service nature are interrelated.

• Number of staff, space and structure are interdependent. Minimum number of staff required, managing the library with minimum functions /off-time?

**X. Green Library:** Use Weather for Power Saving and Control of Weather for Long Life of Library Materials, Comfort of the Personnel, etc.

"A fresh, constant temperature and humidity not only promote efficiency of use, it encourages use. In some climates discomfort is caused if windows in a large library are opened – heat, cold, dirt and noise are offered 'open-access' from the external environment. In other climates, to achieve the desirable comfort conditions it is important and economic to use the free facility nature offers from the external environment and induce it into the building with controls to regulate it according to need" (Faulkner).

•Are natural light and other components of weather utilized fruitfully in library? Some of the possible components of weather that can be utilized for library are named below:

- Wind / Air
- Light
- Plants / Green-shade
- Panoramic View

• How many areas are air-conditioned?

- Reference
- Periodicals

- Stack
- Digital Library
- Librarian's Office
- Other areas
- Is there any weather control – system / design / space plan – to preserve the library materials and personnel from weathering problems? Damaging books by direct exposure to sunlight/cool wind
- Problems by ultraviolet and infrared rays to books and to the persons
- Moisture problems

**XI.Space Designing with Visibility:** To Manage the Library Malpractices and to Improve the Efficiency "the openness of planning to assist automatic overseeing of most areas goes some way to reduce the loss of books and to control the behaviour of users in many instances" (Faulkner).

• Are the librarian/responsible staff able to view from their office all areas of the library?

- Visible directly
- Visible indirectly / with technology

Some of the libraries may be found with other highlighted values useful for the better functioning of library also can mentioned.

**XII.Possibility for Adoption and Expansion**

When we look in to the future developments in the library we must give provision for further adoption and expansion. "Paradoxically, one of the few certainties in planning new libraries is the almost guaranteed uncertainty about future use, particularly in relation to information technology, organisational structures and user behaviour. It is, therefore, important to achieve a high degree of flexibility in the building so that the use of space can easily be changed with the minimum of disruption, merely by rearranging the furniture, shelving and equipment" (McDonald, 2006).

Until recently all librarians and some architects have maintained that library buildings, especially academic libraries, are not finite. They should be capable of extension and land should be reserved for future expansion (Faulkner).

• Whether building constructed with beams and columns suitable for further adaptation and expansion?

• Whether building has required foundation for further more stories?

- If yes, how many more stories / Sq. Feet can elevate to expand the library?

• Whether surrounding land to the library building is reserved for further expansion of the library?

✦ If yes, how many more Sq. Feet expand to the either sides of the library?

**CONCLUSION**

To adapt to the growing changes and challenges to the space management in university libraries, any practical and effective library planning and maintenance must pay attention to appropriate allocation of physical space. A well-developed space management system along with a serene and user-friendly library ambiance would encourage the researchers to pull out the wisdom needed from the library resources, services and facilities. Thus far, it has been seen that the efficient space management system is a touchstone of a practical and a perfect library. It was because of the lack of tips and criteria that many Indian University Libraries face a lot of challenges in regenerating the

virtual and physical space management. Also, since the library management system in Indian tradition is quite different and because cultural context can directly affect the planning and use of library, standards for an ideal space management must regard such changes in Indian tradition. The above-mentioned, carefully designed criteria for measuring the space management in libraries would definitely play a vital role in solving all the problems related to space management in libraries. Allotment of enough space for traditional materials, modern materials, library services and non-library facilities, in addition to space and system integration, appropriate use of weather and other strategies for good planning, designing and construction would amount to a proficient library. These criteria can serve as a measure to evaluate the philosophy of libraries in Indian Universities. The tips and criteria prescribed in this paper, if given heed and put to use, would solve almost all the challenges that are faced by the Indian University Libraries currently. Such a move, would definitely lead to many productive libraries in India which would eventually lead to production of many quality researches in the future.

## BIBLIOGRAPHY

1.Faulkner, Brown H. The Open Plan and Flexibility. From http://www.unesco.org/webworld/ramp/html/r8722e/r8722e18.htm
2.Hennah, Kevin. Merchandising and Space Management for Libraries. from http://www.kevinhnnah.com.au
3.Leighton, Philip D., & Weber, David C. (2010). Planning Academic and Research Library Buildings. Chicago: American Library Association (Indian Edition New Delhi: Ess Ess Publications).
4.McDonald, Andrew. (2006). The Ten Commandments Revisited: The Qualities of Good Library Space. The Journal of the Association of European Research Libraries, 16(2).
5.Ranganathan, S. R.( 1931). The Five Laws of Library Science. London: Edward Goldston.
6.Seetharama, S. (1990). Guidelines for Planning of Libraries and Information Centres. Calcutta: Indian Association of Special Libraries and Information Centres.
7.Stewart, Christopher. (2010). The Academic Library Building. Chicago: Illinois, Association of College and Research Libraries.
8.Thomas, Mary Augusta. (2000).Redefining Library Space: Managing the Co-existence of Books, Computers and Readers. The Journal of Academic Librarianship, 26 (Nov.6).
9.Webb, T.D, (Ed) (2004). Building Libraries for the 21st Century. London: McFarland & Company Inc.

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