Review

Library space and place: Nature, use and impact on academic library

Chijioke Ferdinand Ugwuanyi*, Roseline Ngozika Okwor and Emmanuel Chukwudi Ezeji

Nnamdi Azikiwe Library, University of Nigeria, Nsukka, Enugu state, Nigeria.

Library building and space management is an area of librarianship with low research interest by library and information professionals in the library literature in this part of the world. Irrespective of this neglect, it still remains the umbrella sheltering both human and material resources and the engine propelling the educational and research goals of any university. This paper explored the origin of academic library and the principles behind establishing the library as space and place in an academic environment. It also tried to point out different reasons for using the library by different people. Some implications of library as space and place were given and suggestion made for the appreciation of library building as an area of study in library and information science profession.

Key words: Academic library, university, research, learning environment, users.

INTRODUCTION

Libraries emerged in the ancient times as an institution to preserve the recorded knowledge. Then, knowledge was recorded in clay tablet called cuneiform by a form of writing known as pictographs. Earliest civilization started in Mesopotamia and there also was the first organised library open to scholars. Medieval period witnessed the emergence of the monastic libraries where learning and scholarly work existed. During this period also, some leading universities sprang up in Europe. Some of these universities according to Edoka (2000) were established in Bologna and Salerno in Italy, Paris in France and Oxford in England. Gradually libraries formed prominent parts of these universities where the classics and contemporary writings of the Western world were preserved.

The renaissance which led to the invention of printing and the broadening of literacy through distribution of knowledge and ideas signalled the emergence of different types of libraries. The broadening of educational opportunities brought about enormous increase in the number and size of universities, colleges of education, colleges of technology and polytechnics. These libraries were established to help the parent institution to achieve their goals of study, teaching, learning and research. To achieve this, the university library provides a variety of informational materials and services for students and staff (both academic and non-academic) to support academic programmes and research. It also provides serene environment for learning and research.

The academic library is the heart of any university both as a pivot of learning and research. Freeman (2005) emphasised that academic library as a place holds a unique position on campus as it symbolically and physically represents the academic heart of an institution. He maintained that its architectural expression and siting continue to reflect the unique legacy and traditions of institutions of which it is a part. A good academic library building as a place is expected to provide flexible learning space and traditional reading rooms that encourages learning and scholarship. In the present information age, there is a revolution in the information house. There is a migration from print to electronic resources, from the library as a place to the virtual library. 21st century is an era of information of information economy, and

---

*Corresponding author. E-mail: cfugwuanyi@yahoo.com.

information literacy skill is indispensable to enjoying the economy. As a result of this, Adeogun (2008) called for a knowledge based pedagogy in university education in which both students and faculty acquire information seeking and management skills, e-learning, open access to resources: distance education, interdisciplinary and cross-institutional collaboration enhanced by information and communication technologies. This new learning system is virtual, distributed, problem solving, student-centred is facilitated by global information networking. This reshaping of library services is equally affecting the library as a place.

These developments have generated some debate in literature by some interest groups in library and information profession. While some groups are regarding the library as a "deserted library" (Carlson, 2009) and arguing that it is no more relevant in this virtual era, others are maintaining the ground that library is still a place to use for study, learning and research. There are some taught provoking questions that every librarian and library and information stake holders are to answer. Such questions are: is the physical library still needed in the age where information is accessible and available electronically? What does this revolutionary change mean for the creation and design of the library space? Are students and other users of the library still interested in making use of the library? If yes, what do they expect in the present day academic library?

Smith et al. (2005) maintained that library is still indispensable as a place or base for teaching, learning and research in the digital age. This is made possible the adoption of the concept of information commons which insists on interactivity and collaboration by users in the library environment. The paradigm shift in information resources from print to electronic and services from manual to electronics, calls for critical examination of the concepts, principles and features of library as space and place. This will in no doubt position the present library and library of the future in the same line with the trend. Academic librarians, architects and library administrators have to collaborate to ensure library as space and place where convenient learning and research environment is provided.

PRINCIPLES OF SPACE DESIGN AND MANAGEMENT

Space is a very important concept in designing and planning academic library as a place. There are three basic elements to consider and harness together in provision and maintenance of space in the library. These elements are function, usability and attractiveness.

Cohen and Cohen (1979) noted that any building that works well must integrate these elements in varying degrees. To make any space really work, whether in the

library, the office or at home, it is necessary to understand how humans feel about space and how they act within it. With that behavioural (psychological) knowledge, it is possible to provide or rearrange space so that it works better for people and people works better within it.

As a result, it requires proper organisation for people to easily find what they want in the library. Cohen and Cohen (1979) noted that the interior design aspect such as furniture and equipment layouts, people and material traffic patterns, workflow, lighting, acoustics, and even colour affect how users and staff work in the library. Interior design and management of library building determine, to a large extent, the rate of accessibility of materials and concentration of the library users. A quiet space where lighting is adequate makes it easier for people to concentrate in the library than in a perpetually noisy and dimly lit place. The three elements that depict a good space/place include:

1. A space for variety of library materials and expansion or addition of collections.
2. It has to be comfortable or behaviourally usable for both users and staff. The users should find the library, inviting and staff having enough and inviting space too, rather than be relegated to subterranean spaces and treated as second-class citizens.
3. The library should also be attractive to the users in terms of the aesthetic (beauty) through art work decoration and other beautifying features. A library housed in a structure that is ugly and ill kept says something of the management and staff such as disorganisation and poor morale.

Differing space arrangements such as floor loading requirements, book stack spacing, furniture and equipment section, as well as power and energy requirements are taken into consideration in the allocation of study and research areas in academic libraries. This is to accommodate the functionality, aesthetic and behavioural principles of library building. Conservation and utilisation of space in the interior of the library is very important. It is the librarians' duty to arrange stacks in appropriate rows that facilitate easy access to library materials on the shelves. The interior designers and architects are concerned with the shape arrangements that encourage the workability of the spaces. This calls for collaboration among the librarians, interior designers and architects in library building design and space management.

The planning process of any structure depends upon three elements. The unity of these elements in planning a library determines the usability of the library. A library building that works is a product of its designers or clients that understands and applies the behavioural element of

planning process. For example, if standards require that the libraries offer so many seats per user, it matters very much how those seats are placed. They cannot be scattered helter-skelter throughout the facility, nor can they be set too close together. Psychologically or behavioural wise, chairs too near to each other are poorly utilised. In this respect, most librarians know that 6-seater tables are rarely occupied by more than 3 or perhaps 4 people at any given time. Users and staff comfort should be considered in the planning process of a library building. However, behavioural elements are ignored by space planners of the library.

Therefore, the humanistic angle (behavioural) of library building as a place has to be one of the foremost considerations by the parties involved in space design and management of academic library. This is very important in designing a new library, renovation or space management to accommodate changes. To apply this behavioural element, staff, users and other interested people are to be interviewed to discover if the facility (library) "works" in the first place and meets the original program requirements. Some libraries are most times looked up as "sterile" or simply "uncomfortable". Some problems that enunciated these unpalatable words include temperature extremes and water leakages. These may be the builders fault, culminating in lack of adequate ventilation and sometimes inadequate power supply.

Another important element of note is the functional design which takes the function of a library into consideration in the planning process. The functional design takes into account the space for books to expand. Cohen and Cohen (1979) in the course of their postgraduate study programme noted that there was a library they visited where the book shelves were hung as in private residence, leading to dead end corridors and the lighting is nothing to write about as the bulbs hanging in the ceiling are not lighting, causing problem to those involved in library service such as circulation and reference sections of the library.

FEATURES OF A GOOD LIBRARY BUILDING

A modern library is expected to operate in these principles as identified by Yunliang (2001) openness, multifunctional, flexibility and artistry. The principles of information common are also built upon these basic features. Sinclair (2007) enumerated five guiding principles to a successful information commons. These are open, free, comfortable, inspiring and practical.

Openness

A library should provide free, convenient and rapid services to the users. Therefore, the design of a library building should consider the efficiency of space and place. There is a shift from closed access to open access in this modern librarianship. Reading areas should be provided in positions that can easily be seen and reached with open stacks with large space. This abridges the gap between the reader and books, creating a convenient access to the books thereby encouraging serendipity and browsability.

Multifunctional

A good library building must provide many functions in relations to recent developments in formats of documents, the ways of reading, the methods of document delivery and the diverse library activities. It must provide variety of informational materials such as books in print form, audiovisual materials, electronic products and internet services. It must provide enough spaces to accommodate these materials and at the same time provide a good study, teaching, learning and research environment for various categories of library users will be accommodated and has to provide a good study, teaching, learning and research environment for various categories of library users.

Yuanliang (2001) pointed out that these developments have been motivating the building of new libraries in Shanghai-China. An example is the Shanghai library building with a floor space of 20,900 m^2 which moved to a new building of floor space 83,000 m^2 in 1997. It is four times larger than the old one. The new library building now has audiovisual rooms and electronic reading rooms installed with advanced equipment. The library often holds such activities as lectures, academic meetings, special seminars and information workshops. There are usually lecture halls auditoriums academic activity rooms.

In the same vein, the new Nnamdi Azikiwe Library, University of Nigeria, Nsukka was opened on 5th June 2009, with this multifunctional feature. There is a mobile telecommunication network (MTN) sponsored virtual library on the ground floor of the library building.

Flexibility

Library building must be designed and built in such a way as to accommodate any change in library structure and services. The introduction of modern information technology into the library profession has caused reorganization of library services and structure. To satisfy this current development in the library information systems and reader services, new library buildings now follow the principles of flexibility. It uses unified module size, unified floor height and unified building load (3U)

standards to apply this principle of flexibility.

In the 3U standard, the unified module size of library building considers the size and arrangement of regular reading desk and the book shelves in the reading area. It supports the need of flexible separation of library area and save space at the same time. Yuanliang (2001) stated that in Shanghai-China, in the mid-1980s the module size of library buildings constructed is about 6 to 7.5 m. For example, the size of the Shanghai library and the Bao Jiaotong library at the Shanghai University are both 7.5 x 7.5 m. The unified floor height is about 3.6 to 4.5 m. This height satisfies the natural light and ventilation needs of a library building. Combining with air conditioned and artificial light, readers can be assured of good light and ventilation in all the activity area of the library. Unified building load meets the demand of future development of libraries for openness and for the open stack layout of "combined storage and reading area".

Artistry

Aesthetic is an important factor in the library building. New library buildings should pay attention to the expression of beauty as representing knowledge and culture. This idea is shown in the combination of such aspect as exterior look, interior layout, artistic design and natural environment. This makes the library environment attractive and inviting to users. From observations, the new library building at the University of Nigeria, Nsukka exhibits this artistry features both in the interior and exterior layout. It is so inviting that the students are always taking photographs in both the interior and the exterior as a remembrance and pride of having passed through the largest library in tropical Africa.

The features are the indispensable measures that establish the library buildings of the 21st century as space and place that will stand the current shift in the library and information service delivery. For space management, these features should be applied to enhance maximum space creation and utilization.

ACADEMIC LIBRARY AS A LEARNING ENVIRONMENT

Academic library is established in the university to satisfy the teaching, learning and research needs of the academic community. The education resources in print, audiovisual and electronic formats and a good leaning environment of the university library makes it a place to achieve learning experience. A study of the reasons why students and researchers make use of the library will help users appreciate the contemporary academic library as a place. It is there to help the parent institution to achieve

its mission of education and research. Jucevicien and Tautkbiciene (2003) pointed out that modern ways of learning takes place not only in class room settings, but wherever learners have an access to information sources or means and use them for solving problems or constructing a new meaning. With this view, learning can occur outside the formal institution such as in a workplace, family, museum, libraries, clubs and via mass media. Adeogun (2008) in discussing the emerging university library services in an ever-changing and knowledge-intensive learning environment noted that new roles and services have emerged for academic librarians in regard to the teaching/learning programme of the university, who are seen as consultants in information and resource management, and coordinators of information technology applications, provides information on research methods and other areas that deal with incorporating information technologies into learning, and are more actively involved in providing information instructional programmes to both faculty and students. His views show that learning actually takes place in the library. The abundance of information resources makes the library a potential learning environment in the university. A good academic library should provide multifunctional environment within the library space. This will make an individual identify an environment that will help him achieve his set goals. ICT in libraries have also created a virtual learning environment.

People make use of the library to achieve their individual educational goals they set. Walton (2006) listed some of the reasons why library is used:

i. To access resources;
ii. To use learning space; and
iii. To benefit from the environment.

Cannell (2007) on his own part noted that library is used as a place to find books/electronic resources, get help to work, use e-learning resource, celebrate research and meet together. Library is a convenient place for students to revise for examinations, study course work and research. Students are able to use books and electronic information simultaneously. Learning space of varying purposes are provided like carrels which are sound proof, study rooms which may be noisy, rooms for serious work and group work/assignment. The learning environment in the library should be attractive enough to study better than the home environment. It should be quiet and with no distraction.

Library as a place of learning encourages browsability, use of special collections, offers help by the library staff, a convenient space and materials to do academic work, where to experience digital libraries, celebrate research and new discoveries and to meet other researchers and students for cross-disciplinary discussion and creativity to
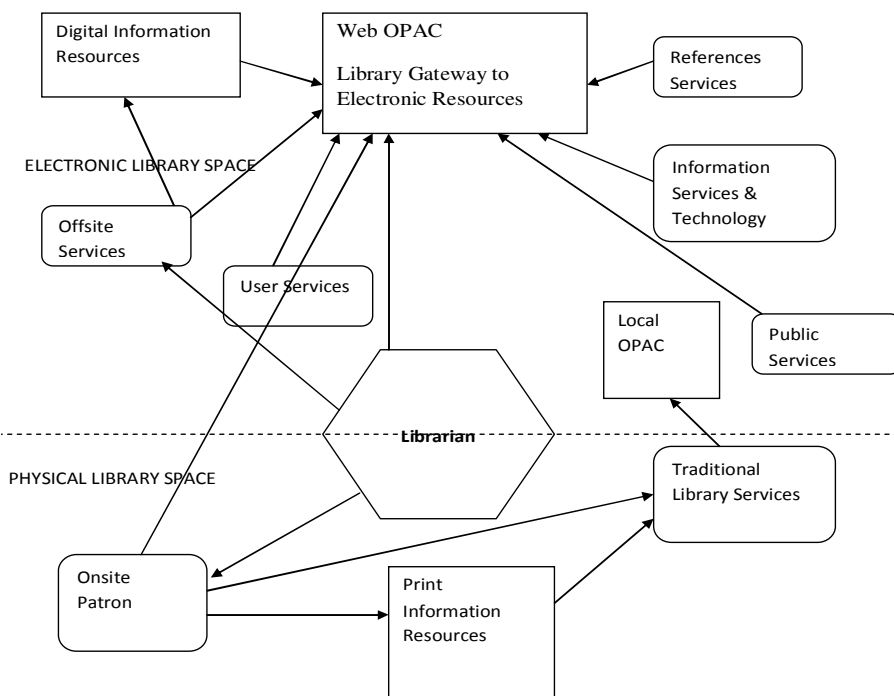
Figure 1. Model of hybrid library. Source: Adeogun (2008).

flourish. Sens (2009) stressed that academic library has evolved into a forum for students to collaborate, enjoy fellowship, engage in healthy debate, create and challenge ideas and experience learning and discovery in a multitude of meaningful ways. It is only good designed library building that support these activities.

THE IMPLICATIONS OF LIBRARY AS SPACE AND PLACE FOR ACADEMIC LIBRARIES

The knowledge of library as a space will help library administrators introduce librarians to the technicalities of planning and design of the library building. This involves funding, bureaucratic structures, and even government legalities. Librarians should acquire management skills and political will power against the university political terrain in order to sustain the library as space and place in their university.

Academic library should go back to the master plan of their evolution in the medieval age as centre of learning and scholarship. A shift in the pedagogy and approach to learning brought about by ICT is forcing the library to apply the principle of multifunctional, flexibility, openness and artistry in order to situate the library of today to the paradigm shift. Ershova and Hohlov (2000) acknow-ledged the changing environment due to information society enhanced by ICT when they emphasised that

access to, and the effective use of information and knowledge technology, and various services are essential tools for sustainable economic and social development. Different models have been developed with regards to this. One of these models is the "hybrid library".

Fabunmi (2009) painted the picture of the academic library building of Nigerian university libraries as deplorable due to inadequate funding resulting in few current books, journals and other reading resources, shortage of staff, deterioration of facilities, inadequate equipment and even library buildings and he was of the opinion that the virtual library project has the capacity to resolve the problem. As good as the suggestion, it still needs even more funds to operate. Thomas (2009) strongly believes that the modern libraries are relevant in this present age. He stated that librarians, architect and the users are collaborating to produce elegant and functional allocations and new purposes that incorporate flexibility and comfort to create an environment that is welcoming and supports a range of research and learning activities. The only option left for users is the "hybrid" library model that upholds both digital and traditional print resources and services as shown in Figure 1.

The model is a continuum between the traditional and the digital library where electronic and print resources and services coexist but with a greater leaning towards electronic resources and services. Hybrid library is recommended because of its advantages over the digital

or virtual library in its flexibility and its tendency to accommodate users' preferences either for print or electronic resources. Paper resources are still very much preferred because of their ease of use. Library is a social institution and students, faculty and researchers are tied together in a complex social activity of information seeking in which human experiences and behaviour play critical roles. Hybrid library is therefore highly recommended for library to remain a place of educational and research activities in the university.

CONCLUSION AND RECOMMENDATION

Academic library since its emergence in the medieval age has ever remained a central structural edifice imbued with the propensity to satisfy the educational and research goals of their academic institution. However, the digital evolution and revolution in the information world is affecting the university libraries. To properly adapt to these effects, librarians, architects and users should collaborate to produce elegant and functional design that supports space management and new purposes.

Considering the emerging university library services and the new roles of the academic librarians in an ever changing and knowledge-intensive environment, there is a call for renaissance in library buildings. A modern library building that is designed and operates with the features of openness, flexibility, multifunctional and artistry is recommended for every university. A hybrid library with print, audiovisual, digital resources and services is also suggested for the survival of the library as space and place in this millennium. Library building and space management should be actively taught in library schools, in order to prepare future library administrators. The academic community and staff should be sensitized on the operational features of a library building.

REFERENCES

Adeogun M (2008) Emerging University Library services in an ever-changing and knowledge-intensive learning environment. A paper presented at the ACU conference of executive heads, 28th Nov., Hyderabad, India, pp. 1-15.

Cannell S (2007) "The changing research environment: Implications for library space." SCONUL Focus, 40: 43-46.

Carlson Scott (2001). "The deserted library: As students work online, reading rooms empty out, leading some campuses to add starbucks". Chronicle of Higher education. http://chronicle.com/free/v48/112/12a03501.htm.

Ershova TV, Hohlov YE (2000). "Migrating from the library of today to the library of tomorrow: re-or e-volution? 66th IFLA Council and General Conference.Jeruselem, Israel, 13-18 August.

Cohen A, Cohen E (1979). Designing and space planning for libraries: A behavioural guide. New York: R.R Bowker.

Edoka BE (2000) Introduction to Library Science. Onitsha: Palma Publishing, J. Acad. Lib. 20: 517-532.

Fabunmi BA (2009) "Challenges and prospects of virtual Libraries in universities in Nigeria. "Euro. J. Sci. Res., 33: 1 http://www.eurojournaals.com/ejsr.htm.

Freeman GT (2005). "The library as place: Changes in learning patterns, collections, Technology and use In The library as place: Rethinking Roles, Rethinking space. Washington. Council inf. Resour., pp. 1-9.

Juceviciene P, Tautkeviciene G (2003). "Academic library in a learning environment: how do students perceive it?" Paper presented at the European conference on Educational research, University of Hamburg, 17-20 September, pp. 1-15.

Sens T (2009). "Twelve keys to library Design: Improving the academic experience" Lib. J., June, 5.

Walton G (2006). "Learners' Demands and Expectations for space in a University Library: Outcomes from a survey at Loughborough University." Rev. Acad. Librarianship, 12(2): 133-150.

Yunliang MA (2001). "The Development of Library Building in Shangai" in Library Buildings in a changing Environment. Bisbrouck M ed. Proceedings of the Eleventh seminar of the IFLA Section on Library buildings and Equipment, Shanghai, China, 14-18 August, 1999.