

Designing and Building a 21st Century Library; Spaces for Effective Learning and Research: A Case Study of Karl Kumm University (KKU) Library, Vom, Plateau State, Nigeria.

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Abstract

Purpose: *The paper examined the design and building of the 21st Century; spaces for effective learning and research at Karl Kumm University Library, Vom, Plateau State.*

Design/Methodology/Approach: *Case study research design was adopted, also library design review and observation of renovated burnt libraries were critically analysed.*

Findings: *The paper deduced that Karl Kumm University library is designed as a 21st century library with spaces for effective learning and research.*

Originality/Value: *Recommendations drawn from this study challenges the library Management to provide 21st Century varieties of furniture for different spaces for effective learning and research spaces should be provided for children and exhibition.*

Keywords:; *Digital Services; Effective library services; Karl Kumm University; Library building; Library design; Modern library; Space Utilization; 21st Century.*

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I. Introduction

The library is the heart of any Academic institution, it is also the nerve of all educational institutions. Karl Kumm University Library was designed by Architect Inuwa Joseph in 2016 with a challenge to come up with a building plan that would take care to 21st century modern Library and the future. In the views of Wilson and Ovenden (2017), all scholars use different spaces at different times, depending on their needs and moods. That in general, the needs are the same for all but the characteristics of the space which addresses these needs depends on the individual. All scholars want an ambience that promotes focus, no distractions, and tucked away spaces. Above all, spaces must be comfortable students like to work alongside their peers but individually in companionable silence rather than as a group.

A concept that came through strongly from the research was the need for mental demarcation when working. Scholars choose to go to a library to enter a ‘bubble’ without distractions, and wish to be able to take a break without leaving the ‘bubble’. Therefore, leisure and relaxation space outside Reading Rooms but within the confines of the library is highly desired (Wilson and Ovenden, 2017).

It is expected that a modern library building of a 21st century, should be designed to take care of the resources needs of humanities scholars, Science and Medicine Scholars, and Social Science Scholars. Such a building should be flexible to adapt to changing patterns of use, and be easily adaptable. The best buildings provide a variety of spaces of study – ranging from seminar rooms to quiet study reading rooms – and have both small and larger spaces incorporated into the design. The best libraries provide good quality catering so that researchers are able to remain within the envelop of the library while obtaining sustenance. The best modern libraries blend the provision of print and digital collections in reading rooms and other areas mirroring the blending of spaces for different kinds of library use and interaction with collections.

Wilson and Ovenden (2017) further observed that, modern library should be seen as an intellectual hub, with collections at the core but which provides an environment for a range of services, and study environments, which are shaped by the library in a deliberately considered fashion. Many new library facilities include these components but there is an opportunity in Karl Kumm University library to bring the best of them together to create an entirely innovative new library for the 21st century.

Statement of the Problem

The establishment of the Karl Kumm University by its proprietor Church of Christ in Nations (COCIN) came into existence at the decision of the General Church Council at its meeting of May 7th, 2003 under the chairmanship of Rev. (Dr) Alexander Lar, then COCIN President. The General Church Council resolved to site the University at Vom Plateau State of Nigeria. Karl Kumm University was approved by the National Universities Commission (NUC) on February 6th, 2021 and issued certificate of operation in April, 2021.

Objectives of Karl Kumm University are anchored on six basic points:

- i. To propagate the gospel through God centered education in all disciplines.
- ii. To provide quality education for prospective students, especially from Christian Secondary Schools.
- iii. To provide conducive environment for character development and the training of God fearing leaders.
- iv. To compliment Government efforts in the provision of tertiary education.
- v. To provide practical education that will meet individual and societal needs.
- vi. To enhance the academic stand of COCIN members worldwide.

However, Karl Kumm University Library Mission statement upholds the university mission by providing faculty, students, non-teaching staff and community members with the best possible access to knowledge. The church is committed to achieving this by building strong collection and patron services that will promote teaching, excellent classroom for lifelong learning and outstanding scholarship. To achieve the library mission statement, it is important that the library is modeled into a 21st century library, with spaces for effective learning and research.

In a 21st century library, a comfortable environment is very important-temperatures lighting, ventilation, furniture, availability of drinking water and decent toilets all contribute to an environment that is pleasant to spend time in the design and construction of Karl Kumm University Library aimed at satisfying such a comfortable environment for its users.

Purpose of the study

1. To design a modern library of 21st century for Karl Kumm University.
2. To plan the services and space utilization of Karl Kumm University Library.
3. To build a library that would take care of scholarly and teaching needs, and how these can be met or supported through library services.

Research questions

1. Is the design of Karl Kumm University Library a modern library of 21st Century?
2. Is there any plan for effective services and space utilization at Karl Kumm University Library?
3. Is the library building having provision for scholarly and teaching needs, and how these needs can be met or supported through library services?

II. Methodology

1. The research work adopted case study research design, this research concentrates on detail information on a subject or population. A case study focuses on a single unit to produce an in-depth description that is rich and holistic (Ary, D, Jacorbs, L.C, Soreneen, C.K. and walker, D.A (2014). It is also regarded as a qualitative research design.
2. Library Design Review: Coverage was international in scope and included buildings and spaces designed by highly profile as well as lesser known architects. Also, visit was made to recently designed or renovated buildings in order to examine them more closely.
3. Observation: I observed how the burnt libraries of University of Jos spaces were assigned and to understand what did and did not work in terms of layout, lighting and aesthetics.

III. Review Of Related Literature

The concepts of libraries in the 21st century

The concepts of libraries in the 21st century could be operationally defined in any of the following:

- a. Libraries defined by types of study spaces not collections: This is fundamental change in the way libraries are viewed, which have historically been on the basis of physical ollections
- b. Variety of spaces to suit different people: different readers want different types of study space at different times
- c. Variety of study spaces to suit the same person at different times: This means readers want a variety of study environments to be available where they are to work.
- d. Readers want a library to be comfortable – with ergonomic furniture, good temperature control, excellent light, good ventilation, pleasant toilets, and easy access to drinking water.
- e. Companionable silence in Reading Rooms: As a reflection of the changing nature of research.

- f. Social meeting space in library: readers need to work across and between disciplines where users can freely discuss work with others
- g. Equality of provision: Here, aspects of library provision (resources staff, technology) that it is only economically viable to provide centrally.
- h. Flexibility to change in year: Readers wants and needs from a physical library change throughout the academic year. \therefore the 21st C library needs to have the flexibility to change in year.

Lessons learned from observing renovated burnt libraries in University of Jos.

The physical organization of all the libraries and their furnishing – the renovated central library, the medical library and the Bauchi road Campus Library are all a response to the need of library patrons today. The technological support of electronic resources, the design of a library website, digitization of resources and continuous teaching of information literacy are aimed at making the most of the library (Akintunde, 2020).

The library observations and design literature review have been enormously valuable for Karl Kumm University Library in determining ideas, planning inspiration and informing on trends and directions of thought in the industry (library). Two major library redevelopments of University of Jos – Bauchi Road Campus library and renovated Central Library at Naraguta campus provided some lessons (positive and negative). From these observed burnt libraries and their renovations and furnishing, one can deductive the following facts.

1. Now library buildings remain essential infrastructure for academic institutions.

The views of Wilson and Ovenden (2017) that investment by universities and other institutes of higher learning across the globe in recent years can be seen in the resurgence of innovative and excellent new library buildings; is relevant and important for this work. Although a crude analysis might suggest that the rise of digital information has rendered the physical library as an anachronism the popularity of libraries among core user groups (students and faculty members) and the recognition of investment which numerous institutions have made in libraries is evidence of their continued centrality in the missions of Universities, especially new universities.

2. Libraries are iconic spaces on campus

Given the continued vitality of the library as a working concept, the physical manifestation of their work continues to be a “statement” of the nature of the institutions of which they form part. It is clear that any new library building like that of Karl Kumm University should be designed in such a way that it reflects the values and intentions of the academic community in which it is situated.

3. Libraries are changing and their building need to be flexible and adaptable

Although the physical library remains a core element of any university, its nature is adapting at a fast rate. As modes of information distribution and management are continuing to evolve and change, and so as pedagogic styles and fashions are also changing the physical libraries is also changing (Wilson and Ovenden, 2017). Karl Kumm University Library is designed to take care of changes and adapt to 21st century creative learning space.

4. There is no single study environment that suits every reader

It is worthy to note that the best new libraries accommodate a wide variety of study environments, and recognize that the needs of readers cannot be met by a single type of study environment. However, the variety of spaces demarked by library design, furniture, ambience and lighting is a critical element in a successful new library. The mix of quiet and more relaxed spaces, together with the right balance of group as opposed to individual study spaces, highlights the need in Karl Kumm University Library to carefully consider the zoning of spaces, and to ensure that the right mix and variety of study environments is provided.

5. Ease of maintenance

Given the popularity of new library buildings the quality and nature of library furniture and finishes is of critical importance. The abundance of pure white plaster may look attractive when new but is easily marked and made dirty through use. Floor finishes if not considered carefully, can become rapidly worn (Wilson and Ovenden, 2017).

6. Physical and Digital Services

Print collections will consume to feature in all new library buildings, but the flexibility to transfer print provision to other functions must be built into any new design. The growth in digital services will also require some new approaches in terms of training facilities, power supplies and cooling of server rooms etc. as opined by Wilson and Ovenden (2017).

7. Library as a hub

The trend in most libraries globally, is the institution (library) had ceased to be a straightforward facility for strong collections and enabling quiet study. These functions remain highly important (and highly valued by users) but they are no longer the sole element of library provision. Wilson and Ovenden expressed that the co-location of other services such as digital services (maker-spaces), or event and discussion spaces, as well as the co-location with other campus activities like cafes, bookshops, careers services, crèches as practiced in Berlin,

Singapore and Lausanne, all make for the growing sense of library as a ‘hub’ around which other services and facilities are best situated. The physical arrangement of the elements, within and/or alongside the more traditional aspects of libraries is the key to a successful new library building and critical factor in the brief to the Architect that designed Karl Kumm University Library.

Designing a 21st century Modern Library Complex Spaces for effective learning and Research at Karl Kumm University Library, Vom.

In the project of Wilson and Ovenden (2017) they discovered that libraries as physical entities, focusing on the needs of students and researchers, remain a vital component of any institution of higher learning. They (libraries) are no longer simply places where books are housed: they are vibrant hubs for research, learning and creativity.

The Architect that designed Karl kumm Library was briefed by two professors in library studies to design a 21st century library that will make provision for the past, presents and the future. The design is meant for a two staircases building and it tried to make provision for spaces for effective learning and Research. Interpreting the buiding plan helps to answer the research questions.

Research question 1: Is the design of Karl Kumm University Library a modern library of 21st century?

Table 1. Spaces provision in Karl Kumm University modern design library

S/No	Space Provision	Traditional design	Library	Modern Design Library
01	University Librarians Office	✓		✓
02	Deputy University Librarians Office	✓		✓
03	Waiting room for visitors			✓
04	Circulation desk	✓		✓
05	Acquisition section	✓		✓
06	Work Room (Cataloguing & Classification)	✓		✓
07	Hard books display section (open reading space)	✓		✓
08	e-Library sections (Computer Laboratories)			✓
09	Snacks shop or tea room			✓
10	Kitchenette			✓
11	Academic Board room			✓
12	Conference Hall			✓
13	Serials sections	✓		✓
14	Seminar Hall			✓
15	Video conference room			✓
16	TV Relaxation room			✓
17	Printing/Photocopying rooms	✓		✓
18	Double offices			✓
19	Single offices	✓		✓
20	Group study rooms			✓
21	Carrels (single study rooms)	✓		✓
22	Stores	✓		✓
23	Toilet for staff and students	✓		✓
24	Open courtyard			✓
	Total	12		24

From table 1 above, the brief provided to the Architect by librarians to design a 21st century library with spaces for effective learning and research, out of 24 (100%) spaces all were captured. This implies that Karl Kumm University Library is designed as a Modern Library of 21st Century.

Research question 2: Is there any plan for effective services and/space utilization at Karl Kumm University Library?

S/No	Spaces and services Provision	Groundfloor design	First floor	Second floor
01	University Librarians Office			✓
02	Deputy University Librarians Office		✓	
03	Waiting room for visitors			✓
04	Circulation desk	✓		
05	Acquisition section	✓		
06	Work Room (Cataloguing & Classification)	✓		
07	Bindery unit/store	✓		
08	Kitchenette	✓		
09	Photocopy/ Printing room	✓		
10	Snacks shops	✓		
11	Main Store	✓		
12	Reading Hall	✓	✓	✓
13	Computer Laboratory	✓	✓	✓
14	Academic Boardroom			

15	Group study rooms	✓	✓	✓
16	Carrels	✓	✓	✓
17	Staff offices	✓	✓	✓
18	Relaxation/ viewing room		✓	
19	Serials section		✓	
20	Video conference room			✓
21	Seminar Hall			✓
22	Exhibition Hall	✓		
23	Open courtyard	✓	✓	✓
24	Toilets (staff and students)	✓	✓	✓
25	Emergency exits			
	Total	16	10	11

From Table 2 above, it is observed that there is adequate plan for effective services and space provision in Karl KummUniversity. The table shows that each of the floors has provision for reading hall, computer laboratory, group study rooms, carrels, staff offices, toilets (staff and students) open courtyard and emergency exits. These services and space provisions have put into consideration a 21st century library.

Research question 3: Is the library building having provision for scholarly and teaching needs and how these needs can be met or supported through library services?

The library building has provisions for scholarly and teaching needs like computer Laboratories in the Ground floor and the other two floors. Scholars can utilize the Computer Laboratories for research and other scholarly activities. Carrels are found in the Ground floor and the other two floors, which permits quiet environment for research and writing of scholarly works. Also video conference Room is available to link scholars with other scholarsworld wide. Seminar Hall is available for seminars and teaching in the library. The Serial section will provide current information needs of scholars. The general library collections in the reading spaces will assist scholars in their search activities. These special spaces provided in the library is to support scholarly and teaching needs.

Findings from the study

1. The design and the on-going construction of the KKU library is a modern library for a 21st Century.
2. Spaces for different services are provided in the library building.
3. The library building if completed has provision for scholarly and teaching needs of the University.
4. The library if completed and furnished, will be a model centre for newly established institutions of higher learning in Nigeria.
5. The KKU library design provides effective spaces for digital services in each of the floor of the building.

Implications of the study

This article will avail policy makers in the library and other management of higher institutions to know the concept of libraries are changing. It will also serve as a guide to newly established higher institutions in Nigeria (Universities and Polytechnics). It will be vital document for architects and designers of library buildings in a 21st century era.

IV. Conclusion

This research work enabled a thorough investigation of the future of physical libraries, through the lens of architects, librarians and 21st century scholars. Although how libraries are viewed by scholars and students is changing, there will continue to be need for comfortable, appropriate centrally provided study space in University set ups

V. Suggestions and Recommendations

1. Furniture of different varieties of 21st century Library should be designated to different spaces.
2. Creative learning spaces if provided in each of the floors would enhance an effective 21st century library.
3. Provide Maker Spaces for the future development of the University in the library.
4. There should be separate Children's library in the Ground floor of the building to assist young parents who do pick their children from schools and not yet closing hours.
5. Space for exhibition should be provided in the Ground floor.
6. A separate bags stand should be provided outside the library for security and safety reasons.

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