
Preservation of Cultural Heritage through the Application of Architectural Strategies in Museum Designs

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ABSTRACT

Despite the influence of technology in every aspect of human endeavour which has in some cases resulted to the homogeneity and mediocrity of a people's cultural identity and heritage, there are still regions that have resisted its full impact, enabling them to preserve and sustain their culture mostly through their architecture. Gidan Makama Museum happens to be a museum of traditional architectural excellence that is situated in the city of Kano and it housing in it and on it the various expressions of the diverse and enormous cultural heritage of the Hausa people. This paper identified these features and the architectural strategies that were employed to express and represent the cultural heritage of the Hausa traditional culture of the Kano people in the museum buildings. The study was based on visual survey and descriptive analysis. Findings from the visual survey shows that museum buildings can excellently expressed and preserve the cultural features and heritage of a people irrespective of their customs or location. The study however concluded that the application of architectural strategies in preserving cultural heritage is of great significance to a people and their region, because it makes their built environment have their sense of place, enabling them break away from homogeneity for the sake of posterity.

Keywords: Architectural strategies; Cultural heritage; Preservation; Gidan Makama Museum

INTRODUCTION

For a country, city, society or a people to distinguish their selves from other people in the region, they employ cultural heritage as a theme in iconic architectural projects intended to establish a sense of place and to locate their cities on the cultural map (Ho, 2000; Yeoh, 2005). The culture of each society is identified through its manifestations and expressions such as language, art, and architecture, and analysis in the field of culture is related to the study of cultural

manifestations. Architecture as a matter of human life reflects the culture in every society interacting closely with the structural, historical, political, economic and social features of the society (Ettehad, Karimiazari & Kari, 2014). The notion that architecture is a reflection of a culture is a strong idea and will continue to be discussed so long as people keep existing in their respective geographical location. This is a perspective that is a source of inspiration and also a preventive

source of architects returning to their roots. So, it can be said that every civilization or ethnic group offers specific architecture in accordance with their culture at different times (Shayan, 2011).

Just like any other architecture, Hausa traditional architecture has its own features, some of which vary with environment while others are uniformly common to all the Hausa cities and states. The Hausa traditional architecture is organic in nature and it is reflected by the structure of the Hausa society (Hadi, 2012). The architecture is developed from the use of materials locally available within the environment. The environment created by Hausa traditional architecture is extremely attractive due to the various ways it gives expression to the plastic nature of mud. At times, the facades may be decorated with various abstract relief designs, conveying information about the occupant, either the royal family, social elite or the common man, all within the region.

Their vernacular elements that create a sense of environment to their buildings includes the pinnacles, *zankwaye* at the top of their buildings, parapet, *rawani*, slanted walls, massive buttresses that serve as shoring elements, massive columns, curvaceous beams that run across interiors, semi-circular domes and long tubular or semi-tubular sprouts, *indararo* (Sa'ad, 1981). But, a typical

Hausa city, *birmi* is usually zoned into a number of districts known as *fuskoki* for administrative reasons. Each of these is represented by a district head, *wakilin fuska*. The district is grouped into wards, *unguwa* which is further subdivided neighbourhood and subsequently into compounds each of which is headed by the compound head known as *mai gida* (Yahaya, 1991).

The Gidan Makama Museum is a museum that represent the cultural heritage of the people of Kano and this is because, it vividly portrays the Hausa culture and their traditional architecture excellently for all to see. It has significant collections of arts, crafts and items of historic interest related to the Kano people with superb historical and ethnographic collections on *Kanawa* civilization and how they came to be. It is in this light that this paper aims at identifying the various architectural strategies that were employed in the Gidan Makama Museum in preserving the cultural heritage (Hausa culture) of the people of Kano City/State.

The objectives of the study are to;

1. Assess the vernacular, cultural and the building elements that were utilized on the Gidan Makama museum.
2. Identify the architectural strategies that were used in preserving the cultural heritage of the Hausa culture at the Gidan Makama Museum.

LITERATURE REVIEW

Cultural heritage is the legacy of physical artefacts and intangible attributes of a group or society that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations (Rebano-Edwards, 2010). According to the Lawyers' Committee for Cultural Heritage Preservation (LCCHP), cultural heritage generally refers to the objects, places, and traditions that define us as individuals, societies, nations, civilizations, and even human beings. Architecture is formed in order to develop the values in itself which implies that architecture is assigned to keep the ancient values of culture in itself and accordingly it is considered as the identity element in the cultural sector, so the homogeneity of culture and architecture can be seen in the world of architecture (Bemanian, Gholamiroostam & Rahmtapnah, 2010). Architecture is supposed to portray a nation's culture integrated with all aspects of human life, having a profound impact on it. In a nutshell, Architecture should be the results of the culture of the society in which they are situated as the case may be (Parvizi, 2009).

In the case of the Hausa culture, their traditional architecture plays a fundamental role in the preservation of their cultural heritage. In their compound structure, the need for privacy is stressed and according to

Sa'ad (1981), the compound, *haraba* dichotomized the family into *chikin gida* (the domain of the compound head, *maigida* and his extended family, *iyali*) and the alien world outside, *waje*. The hierarchy of space starts from *Zaure* which could be circular or square in shape and culminates in the inner court, *cikin gida*. After the *Zaure*, is the semi-public fore court that lodges or houses the guest and adolescent male members of the family. After that is the semi-inner entrance hut that links the fore court with *cikin gida* which is the most sacrosanct part of the compound open only to the compound head, females and elderly members of the family. Within the *chikin gida*, there may be several households grouped in such a way that none intrudes over much on the privacy of others.

The Hausa building features and forms of the Kano people comprise of their traditional buildings made with mud walls and thatched roofs including all mud structures, *soro* and they do employ a variety of simple geometrical shapes, basically square, circular and rectangular in some cases. Hausa compounds are always surrounded by vast, almost unbroken stretches of walls but the introduction of buttresses by traditional builders have managed to break the monotony of these vast horizontal stretches. The Hausa architecture also emphasizes exaggerated heights of walls which are as a result of indoor privacy and to

Preservation of Cultural Heritage through the Application of Architectural Strategies in Museum Designs

also show and express power or status, as in the case of the *Zaure*, compound and city walls. Their gates also towers up massively and brutally, expressing the power and dominion of the state over the surrounding lands (Yahaya, 1991).

Other salient features as seen on *Plate* include the parapet, *rawani*, tubular or semi-tubular water sprout, *indararo* made of asbestos cement or fired clay and the pinnacles, *zankwaye* which are an inevitable feature of Hausa architecture made in different shapes and sizes and conveying character and beauty to the buildings. They serve as mark of aesthetics without which the building is considered incomplete (Sa'ad, 1981). The use of windows in traditional Hausa buildings is greatly reduced in order to check the effect of intense insulation and harsh harmattan and couple with the need for privacy. The windows are reduced to mere slits, punctured in the wall which take on decorative shapes or are replicated to form screens (Yahaya, 1991). Hausa building decorative motifs symbolize the peak of celebration that reigns inherently in a traditional builder at work. Been expressive of man and nature, this motifs are done with as much relish and colour as the painter shows on his piece of canvas. They could be moulded on relief pattern, impales or scratched out ones, painted on or textural with alterations of smooth and rough finishes (Sa'ad, 1981).



Plate I: A typical Hausa building depicting the various salient features of the Hausa Traditional Architecture
Source: Google Image, February 2016

The motifs are mainly focused on the vaults, piers pinnacles, *Zaure*, doors and windows as well as the entire facades, but also sometimes even on the entire building surface. The roof is considered as the most challenging and rewarding part of the building considering the efforts, technology and decoration being put on it. The most basic type is the mud roof which is formed with *azara* (deleb palm) supported at both ends by mud walls. Mud arches are introduced when the space to be spanned is more than 3.0 square meter and a whole lot of varied compositions now exist. Piers are used along with walls to achieve structural stability. They break the distances over which *azara* beams have to span and are sometimes grooved for visual or structural reasons that is when they bear the double art. The modular nature of Hausa

buildings is that, there are no strict set of rules concerning heights and sizes, however, an almost modular discipline is conferred on the building based on the set of preferred dimensions largely determined by the construction process. For instance, maximum height of a single storey is sometimes determined by the height to which the conical brick, *tubali* could be thrown to the builder sitting at the top of the wall (Yahaya, 1991).

METHODOLOGY

The study is descriptive in nature and adopted visual survey method of data collection with respect to vernacular features, cultural features and the building features as the variables. Data collection procedures for the research involve case study of the Gidan Makama Museum, Kano. The case study was an exploratory one that did explore the stated variables mentioned above. The variables were identified and assessed based on their capability and their potential in the preservation of the cultural heritage of the Hausa culture of the Kano Hausa people. The architectural strategies that were used in preserving the cultural heritage of the Hausa culture at the Gidan Makama Museum were also identified and studied for the purposes of adoption for other cultures where necessary.

FINDINGS AND DISCUSSION Gidan Makama Museum, Kano

Gidan Makama Museum or Kano's museum of traditional architectural excellence is situated in the heart of Kano Old City, opposite the Emir's Palace that has significant collections of arts, crafts and items of historic interest related to the Kano area with superb historical and ethnographic collections on *Kanawa* civilization and Hausa land in general. Been located in a 15th-century historical building made it to be recognized as a National Monument by the government. It is now one of the thirty-two Museums under the National Commission for Museums and Monument (NCMM). *Gidan Makama* which literally means *Makama's* House is both a National Monument and a Museum and it is well known for its traditional architectural excellence.

Gidan Makama museum is an excellent piece of architecture that not only houses important items of cultural importance and historic significance, it's a monument on it's own. It has an historic evidence dating far back as 15 century ago, the buildings there are a true representation of the cultural dimensions to which the people of the past made use of. The historic value of this museum is excellent and very superb. The display of the cultural features there are very substantial. Various use of vernacular

materials is also excellent and great. The building features are equally great with diverse utilization of olden days building form that were also significant to the people. The museum features are very efficient, having daily visitation by visitors from all class of life as a result of the daily and consistent services that are been rendered there.

Assessment of Case Study Variables Vernacular Features

Vernacular features are elements that mark the difference between one regional architecture and another. They are elements directly derived from the culture and building traditions of a people, place or region, they are called place defining elements because they distinctively distinguish between regions or places (Hadi, 2012). Gidan Makama Museum made use of various indigenous materials such as lumps of laterite, *marmara* used in foundation trenches, mud and clay mixed with chopped straw moulded into a conical brick known as *tubali* used for the thick walls, cornstalk and grass mats, *zanaki* been laid on wooden beams and split pieces of the desert palm which is known as *azara*. Other vernacular materials used on the exterior of the museum include laterite known as *jan gargari*, grinded locust bean (*makuba*), hay with cow dung are mixed together.



Plate II: A section of the museum showing the various vernacular features described

Source: Fieldwork, February 2016

Another vernacular feature as can be seen in Plate II is the display of traditional decorative design patterns which were seen all over the exterior walls of the museum, they were designed and constructed excellently, having on them the *arewa* symbol that usually depict the northern region of Nigeria. There are also vernacular elements like the Hausa pinnacle on top of the roofs of the various galleries in the museum, the high level small windows and the roof drain that are positioned at both sides of the gallery buildings. These features were architecturally expressed in such a way that they were aesthetically pleasing and functionally efficient and were in good shape as at the time of study.

Cultural Features

The cultural features ranges from the use of motifs and depictions on the buildings, to the significance of colour used, to the display of both

artefacts and artworks alongside, the various monuments there present. Gidan Makama Museum has a wonderful display and expression of motifs as can be seen on the entire walls of the museum. The pattern used on the façade of the museum is quite different from the particular motif pattern that was used on the various gallery buildings, but all depicted their original motifs and depictions. All the buildings in the museum carried one colour which is dark red as seen in Plate III, the significance of the colour reflects the abundant and readily available laterite deposit found in the land. In the museum, so many artifacts and traditional materials were on display, they include city walls and maps of Kano showing history of statehood and Kano in the 19th century, materials used for civil war, economy, industry and musical instruments of old.



Plate III: Museum gallery buildings showing the dark red colour consistent on the buildings

Source: Fieldwork, February 2016

Other items include the exhibits of farm implements and

hunting instruments, the royal regalia comprising the royal shoes, staff, worn fan and turban and then the traditional Hausa bride's room exhibiting *tasa*, a kind of bronze dish; *taskira*, a bowl made of palm leaves; *tukurwa* bed, made from palm trunk; calabashes, grinding stones and water containers, among others items. The building in its self is a monumental building in that it served as temporary palace of Kano before the current palace *Gidan Rumfa* was constructed. Been located among the historical building of the 15th-century made it to be recognized as a National Monument by the government.

Building Features

The building features in the Museum are remarkable, they comprise both the traditional and the modern method of construction, make use of the olden days building forms of both circular and rectangular forms. The outlook of the entire building structures is great, having a simple form of building design that is not complex. The traditional method of construction consists of The Art of Building I and The Art of Building II. For The Art of Building I, the basic building material used by builders is mud. The mud or clay is mixed with chopped straw, left to mature and then moistened before been molded into conical bricks (*tubali*) which are left to dry. Lumps of laterite, marmara are then quarried at Dala Hill and placed

in the foundation trenches and the conical bricks are then laid and cemented by mud mortar after which plaster is applied to the surface.

The Art of Building II consists of thick walls that ensures the cooling of rooms. The thickness was necessary if a particularly large room, *soro* was to be built, as in the cases of the various galleries there. The roofing used for this art of building was the simplest and the earliest form of roofing system consisting of cornstalk and grass mats, *zanaki* been laid on wooden beams and on *azara* (the split pieces of the desert palm). A few courses of *tubali* provided a low wall called *ruwani* or turban pierced by water spouts of pottery or wood. All of these materials were used because of their availability and suitability to the climatic conditions there.

There was a blend of both the local content and the modern materials in that, the interiors walls of the traditional building were painted using the laterite known as *jan gargari* while for the modern material, diver emulsion paints were used to beautify the interior spaces. As to the traditional building materials for the exteriors of the Museum/Monuments, they comprise of laterite, grinded locust bean, *makuba*, and hay with dung mixed together. As for the modern construction of the Museum exteriors, cement, sand and paint were used, but with the original Hausa

motifs been designed on them (exterior walls).

The application of the principles of design such as simplicity, balance and the use of materials were in place as it can be seen on the museum buildings. The functional spaces are satisfactory but their adequacy is on an average level, needing more of spacious offices for other functioning. But as to the relationship and the link between these spaces, they have a very good link and connectivity. The building construction was done effectively and efficiently base on the Art of building of the people with a bit of the modern touch where necessary for strength and stability.

Architectural Strategies Used at the Gidan Makama Museum

The architectural strategies that were employed at the Gidan Makama Museum that brought about the preservation of the cultural heritage of the people of Kano are said to be the following;

- i. Use of vernacular forms: The traditional building forms of the people were made use of for the museum buildings, having the various gallery buildings in square, rectangular and circular forms with some having the combination of any of the two forms as can be seen on *Plate IV & V*. The utilization of vernacular forms brings to

mind the local architecture of the place and the peoples building form, thereby, preserving it for others coming behind to get touch with their roots.



Plate IV: Museum gallery buildings showing both square and rectangular vernacular forms

Source: Fieldwork, February 2016



Plate V: Museum gallery buildings showing the combination of both square and circular building forms

Source: Fieldwork, February 2016

- ii. Use of vernacular materials: Local materials of the people that were easily available and readily in abundance were made use of as the various building materials. These

materials were the same materials that were used in the past for their buildings and are been utilized at the present just not to lose track of the past building items that were friendly with the climatic conditions there. The local materials used are mud, claywith chopped straw, *tubali* (conical brick), *marmara* (lumps of laterite), *jan gargari* (laterite), *zanaki* (cornstalk and grass mat), *azara* (the split pieces of the desert palm), and *makuba*(grinded locust bean).

- iii. Use of motifs and depictions: The museum buildings have on them diverse vernacular expressions of various motifs and depictions that have their source from the older generations. They include the famous *arewa* symbol that depicts the northern part of Nigeria and the various Hausa motifs available. *Plate VI, VII & VIII* gives the glimpse of these motifs and depictions and they bring to one's mind the Hausa heritage and cultural display that originated from the people.

Preservation of Cultural Heritage through the Application of Architectural Strategies in Museum Designs



Plate VI: Vernacular expression of motifs and depictions on the museum entrance facade

Source: Fieldwork, February 2016



Plate VII: Vernacular expression of motifs and depictions on the museum buildings

Source: Fieldwork, February 2016



Plate VIII: Motifs on buttresses that breaks the monotony of the vast horizontal stretched walls

Source: Fieldwork, February 2016

- iv. Balance and simplicity of design: The Gidan Makama Museum buildings are very simple in design but yet, magnificent in their nature and appearance. The design comprising of just square, rectangular and circular designs, others having the combination of both circular and square form as the design. The design of the museum in general is not a complex one, but rather a simple and well balanced design in terms of the principles of design.
- v. Building elements and methods of construction: The building elements include the strong tapering of the walls as was done in the pass, earthen work walls that vary in thickness, the flat roof which is surrounded by a continuous parapet with thick sets of pinnacles at the corners and the ceiling of the buildings is an arched ceiling constructed using vaulting system as seen on *Plate IX & X*. The construction has on it the blend of both the traditional method of construction and the modern touch of construction with materials such as reinforce concrete, louvers as some of the windows, aluminium cladding and the emulsion paint utilization to guard against

weathering of the walls by rainfall. The parapet walls are pierced with water spouts made of pottery to drains the water from the roofs during the raining season.



Plate IX: Museum gallery buildings showing the pinnacles, parapet and water spouts

Source: Fieldwork, February 2016



Plate X: One among the various arch composition of Hausa architecture serving as ceiling to the interior

Source: Fieldwork, February 2016

CONCLUSION

Architecture plays a vital role in any given society or location when given much consideration, it goes a long way to represent and reflect the features and attributes of the people and what they represent. Architecture here is not only the art and science of

designing and constructing buildings, but also the tool, medium and the social phenomenon that is used to reflect and to preserve the culture of a given people, society and region through the design and construction of buildings, monuments and edifices as the case may be.

The application of the various architectural strategies that were employed in the Gidan Makama Museum, even though traditional and vernacular in nature and approach, carries a weighty cultural dimension of the people's heritage, displaying and expressing it for all to see, study and connect with as it relates to the pass generations. The preservation of cultural heritage through the application of architectural strategies as seen in the Gidan Makama Museum affirms that it is of great significance to the people and has undoubtedly proven to have the potency to preserve their cultural heritage for their future generation to come and see, have a fill of and to also have the knowledge that it encapsulate.

Based on these findings the study recommends the following:

1. The use of vernacular forms and materials in a design speaks audibly well and crystal clearly expresses a people's identity, uniqueness and cultural manifestations for all to use. This brings to lime light and to mind the attributes of

that same people and the community or society in which they live in, expressing the things that can be obtainable as far as heritage is concern. So, the employing of these has a great value to preserving any heritage.

- II. On cultural materials and features, both the tangible and the intangible culture can be architecturally conceptualized and studied respectively, then incorporating them in design in such a way that they will depict what the people are proud of, what they represent and their perspectives about live in general. By so doing, the prospects and significance of their said cultural heritage will be well preserved for the purpose and sake of posterity.
- III. On the design of the building or cultural edifice itself, it should be iconic in such a way that it will symbolize the people's pride, custom, value, uniqueness or nature just so that the building will speak for itself as a representation or reflection of something about the people. This when done will be a monument to the people to make reference to, either among themselves as a community or to other people outside of their society.

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