

**INTEGRATION OF TRADITIONAL BUILDING ELEMENTS IN A MUSEUM,  
MINNA, NIGER STATE**

**BY**

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## **ABSTRACT**

Museums are seen by some as places where only researches are being carried out, some people do not know about their culture, historic times, artefacts or relics. It is important to get, gather, restore and update our cultural heritage, artefacts and other collection of artistic, cultural, historical or scientific importance. In doing that, a befitting structural and safe environment is required to house and care for the age long artefacts, which is a museum. This study is aimed at integrating traditional building elements in museums, in Minna, Niger State, in order to preserve the cultural heritage of the people. One of the objectives of the study is propose a museum that will reflect traditional building elements of Niger state as well as creating a stimulating atmosphere for the patronage, through Architecture. This study employs a qualitative research method which provides a subjective reason for the various operations of the research. The research, which imbibes a descriptive and historical survey approach, tends to explore the various traditional building techniques, elements and materials used by an ethnic group. The study was carried out using the case study approach, this allows the researcher to understand the basic building materials and elements of the various tribes of Niger State and how they were integrated. There is a gradual extinction of traditional Architecture in civic buildings such as museums. 83% of ethnic groups in Niger state uses round and rectangular shape clay huts. Entrance huts, thatch roofs, courtyards, the use of woods or zinc for doors and windows are common building elements in all the ethnic groups. The study thus, incorporated those materials and design concepts as means of preserving the traditional Architecture in a museum.

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## CHAPTER ONE

### 1.0 INTRODUCTION

#### 1.1 Background of the Study

In this modern day, where everyone is busy in one way or the other going about their activities, most people are carried away with their daily activities, some are lost in the westernized world, they go about without much knowledge of their history, culture or tradition (Imaah, 2008). Heritage houses and museums are seen by some as places where only researches are being carried out, some people do not know about their culture, historic times, artefacts or relics. It is not only proper but necessary and important to get, gather, restore and update our cultural heritage, work of arts and other collection of creative, civilizing, chronological or scientific significance (Lancer, 2016). In doing that, a befitting structural and safe environment is required to house and care for the age long artefacts and relics.

A museum is a civic institution devoted to conserving and understanding the main tangible facts and their setting therefore the main aim of a museum is to acquire, conserve, research, exhibit and communicate its vast collection for the advantage of learning and uplifting of civilization (Stephen, 2011). For museums to preserve their significance and turn into positive partners in the progress of our societies, they should use their exceptional resources and potentials to become more alert to the dynamics of contemporary society and urban transformation (Adeyemi, 2013).

Different types of museums exist in numerous cities, towns and villages around the world with their sizes varying according to the purpose or financial resources available for the project. In modern terms two tendencies may be observed in the development of museums; the first is the development of great cultural complexes which may be

described as multifunctional because they house a wide range of ancillary facilities such as libraries, kitchens, large multipurpose spaces, very flexible display system, that support the conventional museum and exhibition areas, while the other is the development of museums that are specialized, having concentrated efforts on the projection of a central theme (Lancer, 2016). Whatever the type, the museum is a repertoire of man's effort in his journey through time. In the Nigerian context, in the face of the impending loss of a cultural identity and social disorientation, the need for efforts towards the conservation of our cultural inheritance and the chronicles of our development cannot be overemphasized.

Cultural inheritance is broadly acknowledged as the most significant effort that defines the tribal cultures in Nigeria. Nigeria took over huge traditions, but also a notable body of plastic and literary arts (Rosman, 1966). Cultural inheritance can also be said to be a look of the ways of the living developed by a society and passed on from age group to age group including landscapes, buildings, traditions, customs, places, objects, creative expressions and ethics. Cultural heritage should be preserved, protected and secured in its original form as much as possible so that they can be experienced and used by as many people as possible, to avoid the disappearance of irreplaceable cultural heritage values.

The new Lexicon Webster's encyclopedic dictionary describes a museum as a building used for the conservation and display of objects give you an idea about human or accepted history, especially the art and skill (Lancer, 2016). A museum encourages the unification and understanding and study of different arts, traditions and culture for the use of future generations.



Elvertin (2001) suggested that the 21<sup>st</sup> century museum sits within a museum landscape that has been changed in recent decades in the course of mass reconstruction and renewal. It is no news that the architecture of the museums has been confronted and rewritten in the course of numerous high-profile projects (Zaha Hadid's up to date design for the overhanging Guggenheim project in Taichung shows very nicely the need amongst many architects to generate new expressions of museum design).

Brain (1998) in a study reported that museums and galleries are now fashioned by architects, designers, engineers, financial support bodies, provincial development plans and other concerned parties, all of which raises attention-grabbing questions about the public relations and plays of power determining the 21<sup>st</sup> century museum. Of course the new changes mark only the most recent phase in the development of museum architecture. In actuality, the space of museums are been reshaped constantly through reorganization, renovation and, at regular intervals, increase, in reply to social and professional alteration.

## **1.2 Statement of the Research Problem**

Museum in Nigeria when it is compared to other countries of the world was not borne out of inventive design making them not to be completely acknowledged by the community where it is located, therefore it's supposed constructive force is deserted (Adeyemi, 2013). Museums in Nigeria today served as simple investment services for old artefacts and remains of our rich significant as well as civilizing history. Museum traditions in Nigeria are not active because the ingredients for it to prosper are not in place. Most museum are built with little or no application of traditional building elements.

The relationship between museums and traditional materials cannot be overemphasized in Nigeria (Adeyemi, 2013). Museums created in this present day are westernized, built with no touch of the past there by not connecting the past with the future. Many of our traditional buildings are far more charming and possess more character than their modern counterparts. Most of the museums, historical buildings and sites that still exist in Nigeria are of immense significance, albeit many of them are not well preserved, (Oladumiye, 2012).

### **1.3 Aim of Study**

The aim of this research is to integrate traditional building elements in museums, in Minna, Niger State.

### **1.4 Objectives of the Study**

The objectives of the study are to:

- a. Identify a variety of traditional building elements and materials in the state.
- b. Determine the possible ways to preserve the cultural heritage of the people
- c. Propose a museum that will reflect the traditional building elements of Niger State as well as creating a stimulating atmosphere for the patronage through architecture.

### **1.5 Justification of the Study**

Studies has shown that there is no standard building or centre solely for the collection, care and preservation, display of monument, display of traditional building elements and attracting of visitors both insiders and tourist from outside the country for learning or for enjoyment (Cano *et al.*, 2013). Architectural monuments are not just old and historical buildings, but great and important structures that commemorate significant historic

events and civilization. In the Nigeria today, culture is playing a very important role. As a matter of fact, because of the quest to know the past records of the ancestors and the past antiquities, we are silently going back to our roots and there is the urge to search for more identity. Integrating traditional building elements in museum will definitely have impact on social, economic, cultural, political benefits to the north particularly the nation at large.

### **1.6 Contribution to Knowledge**

Museums in Nigeria are not given the right recognition; therefore, this study is intended to highlight the importance of museums to the development of the national economy. The study will further enlighten the people of Niger State about their culture, tradition, and heritage through the use of their various traditional building elements

### **1.7 Scope of the Study**

This work focuses on integrating traditional building elements of the different tribes in Niger State. Preserving the cultural heritage of the people (tribe), emphasizing the role of museum in the society and establishing a link between a museum and the future. In addition, it portrays the culture; and traditional building elements of the people. This research also recognizes design imperative towards improving the knowledge of paying a visit to a museum. The hope is that in the concluding study, an architectural resolution fitting to the requirement of the users as well as its surroundings will be offered and the various customary building elements will be examined.

### **1.8 Study Area**

Niger State popularly called Power State was created in 3<sup>rd</sup>, February, 1976, by the then government of General Murtala Mohammad. Figure 1 shows map of Niger state. The

location of the State is in the northern central part of Nigeria and it has the largest land area, covering 76,363 square kilometres with the State capital being Minna. Other main cities are Bida, Kontagora, Suleja. It is a mixed state with diverse tribes and culture. we have the Nupe tribe which are in the southern part of the state, Gwari's which are in the east, Bussa which is in the west, the Kambaris which are, the Hausa, Fulani, Kamuku and Dakarki (Dakarawa) in the north (Nyame, 2015). A person from Niger State is called a *Nigerlite*. Niger State has various tourism sites like the Gurara water falls in Bonu village, Zuma rock in Abuja, Bina footprint in Bina village, Bida Brass work, Bida, First Railway locomotive engine in Minna and others.



**Figure 1.1: Niger State**  
(Source: Google Maps, 2016)

According to the data from the National Bureau of Statistics (NBS, 2017) Minna is a municipality with an approximate population of 291,900 in 2016.

It is the capital of Niger State, with two major ethnic groups: The Nupe and the Gbagyi. The focus of the study will be on the various tribes of Niger State, designing a museum to display their various cultural heritage and the use of modern building materials in the

design with contemporary form. The museum building will be located in Minna, the capital of Niger State. It is also the meeting point or neutral ground for all tribes.

## **CHAPTER TWO**

### **2.0 LITERATURE REVIEW**

#### **2.1 Origin of Museum**

Museums shoot from the age-old individual's needs to conserve artistic uniqueness, gain social, supporting, financial status and pursue facts. The term museum was initially made use of in English in the 17<sup>th</sup> century; it was originated from Latin, which was stimulated by mouse ion, the Greek term for —a chair for the muses. In customary Greek tradition, the nine muses are the Goddesses of the arts and sciences which make them perfect patrons for these knowledge based establishment. It applies to place of safety devoted to the muses, institutes of higher education or methodical research, where the muses logically controlled. .|| Museums in ancient Greece were defined as —adobes of the muses|| (Parul, 2009).

Global assembly of museums ICOM 24<sup>th</sup> 2007 describes museum as a free, lasting institute in order to serve civilization and its growth which is accessible by the community, which obtains, conserves, researches, corresponds as well as shows the substantial and insubstantial custom of civilization and its surroundings or the functions of learning, work and pleasure. The museum teaches its guests not only on the visual approval and touching delight of the works of the antique masters and in the logical comprehension of the condition and times from which the art piece came and their implications (Tikkanen 2010). Hence museums turned out to be custodians of very important historical accounts.

In Egypt, the term 'museum' was initially practicalised to a level of research that was supported by the State institution in Alexandria, Egypt, originated by King Ptolemy I in the 3rd century BC to promote systematic studies.

Alexandria museum, as it is presently acknowledged, was devoted above all to knowledge and to attract the best researchers in science, values, and art. The society includes apartments, a dining, teaching room, botanical gardens, cloister, zoological open space, as well as exorbitant observatory (Cossons, 2000). Substances like surgical and exorbitant tools, animal hiding places and picture busts were as well housed and employed for education. The museum along with its library was damaged about AD 270 in the civil turbulences.

The holy idea contained in the unique museum of the Greeks was an attribute that is common to many antique societies. The roman community had right of entry to such compilations in the place of worships, for it is on documentation that Julius Caesar damned notice by private persons and he set a good example by offering his own compilations to the place of worships.

According to Susans (1992), the family of social institute created by man, the place of the museum is not permanent. It is planted and can grow in many directions or sometimes more concurrently in several directions. This only means that the museum propagated because of human's need to maintain anything beautiful, useful or inquisitive. Therefore, it can be said that the history of museums started when man began to form rocks as well as sticks for his benefit (Allyn *et al.*, 1987).

Proper Museum came into life in the 18<sup>th</sup> century. Throughout the 19<sup>th</sup> century and majority of the 20<sup>th</sup> century, the use for the term museum was indicated to a building

housing traditional material where the public had access of Collection of objects resembling this seemingly contemporary fact dating back thousands of years (John, 2011). The oldest museum was situated in the ruins of Nabonidus palace, the enquiring collection was discovered by an inquisitive archaeologist Leonard Woolley in 1925. The archaeologist found objects ranging from decorated clay pots to Plateaurative sculpture fragment which were prearranged and branded with notes in their origin.

### **2.1.1 Origin of the first museums**

The earliest museums resembled today's libraries and scholarly institutes and were established as sources of inspiration and enlightenment. The records of Alexandria of Egypt as shown in Plate I, served as a house for the museum that held over 400,000 papyrus rolls of text. Illegal use of amenities allowed scrolls to be adopted and dispersed, which conserved thousands of texts that would have vanished in the fires set by arsonists. The interest in the Greek society produced a desire for its art. As a result, the insolvent, deserted, or neglected towns and place of worships of the classical age that were widely looted (Bernerd, 2014).

The Romans usually exhibited some of these collections, which are paintings and little work of arts in civic places, the rich and powerful people also collect them for display and exhibition in their private houses, later on, they began collecting funds to allow people come into their houses and see their collections Before ad 1000 imperial compilations of art objects were conserved in palaces in China and Japan. A typical example is the still operating Shōsōin House at Tōdai Temple in the town of Nara, Japan, housing series of works of art and religious artefacts formed in the 18th century that may be the oldest museum in the world.



**Plate I: Library of Alexandria, Egypt**  
(Source: Pinterest, 2017)

### **2.1.2 Evolving of museums in the 17th century**

Little art object gatherings were mostly arranged in a cupboard, planned to amaze the viewer with each object telling its own story. Initially the term cupboard of curiosities referred to a piece of furniture where treasures were stored for storage.

The most well-known collections —Trandescantsl of the 17th century owned by the British conservationist John Trade. Both of the Trade scants travelled far and wide and assembled a large compilation of rarities, ranging such as conserved animals to gems and minerals.

### **2.1.3 Evolving of museums in the 18th century**

The 18th century witness the beginning of the community museum in Europe and, at the close of the century, the organization of the first museums in the modern World. In Spain, the thought of a community museum started to take shape under kings Charles III and Charles IV and added force during French rule of the country.



### 2.1.4 Evolving of museums in the 19th century

The Smithsonian palace, in the Washington, D.C, as shown in Plate II was built in 1855 and initially performed the role of a museum. Presently, the palace houses the admin offices of the Smithsonian institute, Washington.



**Plate II: Smithsonian castle Washington D.C**  
(Source: Pinterest, 2017)

The conception of the general public museum began to flourish in the 19th century. In Western Europe, beginning in the mid-1800s, nearly every state formed an encyclopaedic national museum of art, science, or expected history on a magnificent scale. In Canada, the geographical Survey of Canada, started in 1842, began collecting natural history examples that would form the foundation of National Museum of Canada (later renamed the National Museum of Natural Sciences and now referred to the Canadian Museum of Nature); and in 1880 the government initiated the National Gallery of Canada.

### 2.1.5 Origin of the 20th Century Museums

Getty Centre American architect Richard Meier planned the Getty Centre, which opened in Los Angeles, California, in 1997. The complex has six buildings on a 45-hectare (110-acre) site and houses the art set of the J. Paul Getty Museum as well as research and learning institutes. After World War I (1914-1918), museums in the United States, Great Britain, France, and northern Europe began to shape more and more of their programs to please the increasing demand for community education.



**Plate III: High Museum of Art, Atlanta  
(Source: Google Images, 2018)**

At the start of the 21st century, museums throughout the world enjoy unquestioned fame and community respect. Millions of people visit museums each year to see, benefit from, partake in, and learn from their compilations, displays, and programs. Millions more visit museums' web sites on the internet, which has allowed museums to increase beyond their physical walls and reach out to enormous audiences.

## **2.2 Development of Museums in Africa**

Museums in Africa, is a centre for defending, conserving, and sponsoring the continent's artistic tradition. African arts has often been written about as if it were static and always the same, but it has in fact been continuously evolving, although the rate of change has varied from time to time, and also from place to place. Presenting the views, worries, and challenges of those who run West Africa museums and history in West Africa gives confidence, more inventive, significant and African approaches to the presentation of a rich and multi- faceted inheritance (Claude and Emmanuel, 2000).

In West Africa, Nigeria's National Museum in Lagos has masks, ancient terracotta Plateures, and a top collection of the famous bronze sculptures and ivory carvings produced by the Kingdom of Benin that flourished from the 15th to the 17th century.

## **2.3 History and Development of Museums in Nigeria**

Before Nigeria was brought under British regal control, compilations of cultural objects existed in dissimilar places. In nearly every Nigerian houses, the family head could boast of a compilation of cultural objects relating to the history or holy beliefs of that house.

The Sokoto and Argungu museums are examples, which demonstrate the contribution of conventional rulers to museum growth in Nigeria. In the Sokoto museum the Sultan of Sokoto, the Waziri of Sokoto and a number of district heads loaned nearly all the objects to the museum at its beginning. Ife and Benin museums proffer very good examples of the contributions by traditional rulers to the growth of Nigeria museums. The Oni of Ife made genuine gifts of objects to the museum.

## 2.4 Function of Museums to a Nation

Museums make available immense service for people and its growth by:

1. Providing learning and satisfaction of the public.
2. Plays an important role in the cultural and learning process of individual members of the public.
3. Riches houses of human race that store memories of the world's people, the cultures, the dreams and Enables both the old and young to grasp the interrelatedness of their old social institutes.
4. Make available a place for learning and pleasure
5. Conserving objects of great historic and cultural value

## 2.5 Types of Museum

The main types of museums are art, history, natural history, and science. In certain museums, these disciplines may be merged.

### 2.5.1 Art museums

Art museums reflect artistic achievement, both historic and modern. Through exhibitions and learning programs, art museums enhance visitors' considerate, approval, and satisfaction of art.



**Plate IV: State heritage museum**  
(Source: Forsyth, 2007)

Heritage Museum in Saint Petersburg, Russia (plate IV), San Francisco museum of Art (plate V), the National Gallery in London, England; and the Vatican Museum in Rome, Italy. Many art museums, however, focus on works of certain periods or types.



**Plate V: San Francisco museum of art**  
(Source: Forsyth, 2007)

### 2.5.2 History museums

History museums are devoted to promoting a greater appreciation and data of history and its significance to understanding the present and anticipating the future. They range from notable sites and small historic house museums to large, encyclopaedic institutes such as the Smithsonian's National Museum of American History in Washington, D.C. The public Park Service of the U.S. Department of the Interior has responsibility for some historic sites and house museums. The American fabric History Museum in Lowell, Massachusetts, journals the nation's fabric industry from colonial times to the present.

### 2.5.3 Natural history museums

Natural record museums are dedicated to sharing knowledge about the natural world in all its aspects. Many natural history museums were initially established as centres of methodical research.



**Plate VI: Canadian museum of civilization  
(Source: Pinterest 2018)**

Ecological education is a major emphasis of many natural history museums and nature centres. The Pratt Museum in Homer, Alaska and the Canadian museum of civilization (Plate VI) teaches the public about the natural surroundings of its region in the course of programs and exhibitions. The Chula Vista Nature Centre near San Diego, California, hubs on the biodiversity of the coastal wetlands area in which it is located.



**Plate VII: Diorama at Pequot Museum**  
(Source: Pinterest, 2018)

#### 2.5.4 Science museums

Science museums and science-technology centres are devoted to furthering the community perceptiveness of science and technical achievements.



**Plate VIII: National Air and Space Museum**  
(Source: Joey, 2011)

The National Air and Space Museum as shown in Plate VIII are the Smithsonian institution's most trendy museum. The museum's Milestones of Flight Gallery, shown

here, shows many —firststl in the history of aviation—the 1903 Flyer in which Wilbur and Orville Wright made the first manned flight at Kitty Hawk, North Carolina; the first jet aircraft to crack the sound barrier, the Bell X–1, which was guided by U.S. Air Force Captain Charles E. —Chuckl Yeager; and Columbia, the Apollo 11 command unit that carried the first astronauts to set foot on the moon.

Often science museums consist of aquariums, little zoos, and botanical grounds. Laserlight illustrates and outsized-format IMAX movies are accepted attractions at many science museums (Cano *et al.*, 2013).

### **2.5.5 Other museums**

Lots of museums challenge customary categories. These include sports museums and halls of fame as shown in Plate IX music museums, and offspring’s museums. The oldest children’s museum in the United States is the Brooklyn Children’s Museum in New York City. It offers inventive programs to serve the needs of the urban neighbourhood in which it is located.



**Plate IX: Rock and roll hall of fame  
(Source: Google Images, 2016)**



## **2.6 Museum Architecture**

Architecture is essentially part of something greater: a cultural objective, a corporate ideal, a climactic state, a chronological setting, a topology and natural features. By virtue of being within the civic realm, museum architecture is loaded with social, political, and moral issues (Forsyth, 2007). Therefore, the perfect museum building promotes both anticipation and memory while relating to its locality and community.

One of the most striking new design proposals was that of Gunnar Birkerts for a new state archives center for Riga, the capital of the Detroit-based architect's native Latvia. The form of the reflecting configuration on the banks of the Daugava River echoes that of Crystal Mountain, a symbol of freedom in Latvian folklore; Birkerts's design proved prophetic when Latvia gained its independence from the Soviet Union. Museum architecture cannot just be a container; it must have comfort of its own.

### **2.6.1 Contemporary dimensions of museum architecture**

The ultimate goal of museum designs in contemporary architecture hinges on achieving a compelling design that will in essence be awe to all, a work of art and also clear and elegant in its absolute simplicity probably more than (they want to see) the art (Picasso, 1991). The structure is the art, a backdrop to the collection, an attraction as well as a distinctive piece not competing with the arts.

Griffin (2008), asserted that Museum architecture continues to soar high with form givers boldly expressing their intuitive design thoughts through seeming impossible brands of composition with the trendiest within the era becoming orthodox in no time. In a fast-mediated world, architecture of museums continues to gradually relegate to the background the issue of cultural historicism (Merils, 1997). Thus, continuity will bring

constant increasing progress in the architectural possibilities, resulting in the demonstration of new visual design characteristics which will further shape the architecture of museums.

The fourth dimension as it pertains to museum architecture continues to generate much fuss as ground breaking design thoughts are evolved almost on a daily basis. The concept of the museum has drastically change as these buildings have been transformed from being merely holding facilities for collection, storage and exhibition of artefacts and relics but as centres for social recreation and upliftment. Gehry (2001), stated that museums in the 21<sup>st</sup> century no doubt represent a shift in paradigm as many other museum designers are led by this conscious attempt at completely reshaping the threefold mission that was hither to inherent in museum environments. With the benefit of hind sight, 21<sup>st</sup> century museums could be said to be social environment intended to create a niche in tradition as regards the notion it use to portray. The global culture of Museums today suggests that such buildings are less of temples of cultures but palaces of entertainment. Recent a number of innovative and exciting museum projects have focused on fascinating young people-usually a hard-to-reach group - to museums.

### **2.6.2 Origin and evolution of museum architecture in Nigeria**

Though museums are mainly Western in origin, the idea behind museums has long been obvious in other traditions. History also traced the existence of museums to the Kingdom of Benin which flourished from the 15<sup>th</sup> to the 17<sup>th</sup> century.

### **2.6.3 Museum as art**

The ultimate goal hinges on achieving a compelling design that will in essence be awe to all, a work of art and also clear and elegant in its absolute simplicity probably more

than they want to see the art. The structure is the art, a backdrop to the collection, an attraction as well as a distinctive piece not competing with the arts. As a building in and of itself, the architecture of museums need not contend with the art or artefacts on exhibit; in fact, it can improve the exhibition experience. These two needs container and architectural existence are not jointly exclusive. It is similar to a reversible jacket; the inside is equal to the outside and vice versa. Reflector and projector, the victorious modern museum should show a strong symbiotic association not only with its contents, but with its context-the city. Museum architecture unlike art or a great collected works never stands alone.

#### **2.6.4 Museum culture in Nigeria**

In retrospect the growth of museums in Nigeria is an essential part of the culture and traditional inheritance of the region in which it was found. Museum architecture in Nigeria today continues to embellish such customary legacy in adherence with western architectural ideals (Gehry, 2001).

#### **2.6.5 Museum patronage levels in Nigeria**

As a panacea to certify accurate research, a data analysis of museum vacations by the youths was studied to certify a reliable confirmation of the case at hand. Museum patronage data is systematically carried out with the various stages of human development employed as a basis for the analysis. This work looks at the inspirations of young adults for visiting museums and the reasons hindering them from visiting museums in Nigeria. Using an oral interview survey, 253 working respondents were analysed to execute the research objectives. The result indicates that despite the observable low museum visitation among youth in Nigeria, 18% of the respondents have really visited at least one museum in the last three years. This shows that youth in

institutes of higher learning has lower tendency to visit museums and could be a possible sub-segment to target when advertising museums. Also, a majority (70.5%) of respondents has on the whole negative representation of museums.

### 2.6.6 Nigeria arts

Nigeria's rich and varied artistic heritage dates back to more than 2,000 years. The most primitive notable pieces are finely produced terra-cotta sculptures produced by the Nok culture in the locality of the Jos Plateau from 500 BC to 200 AD. Many such pieces, on the other hand, dwell in Western museums, where they were taken in the time of regal invasion (Nyame, 2015).

Nigerian arts consist of a variety of forms with the distinct ones being literature which grew out of a custom of storytelling and historical commemoration that has survived in Nigeria for millennia, arts and architecture, music and dance, plays and film. Plate X, XI and XII shows clearly the rich cultural inheritance of Nigerian Arts and culture:



**Plate X: The music and dance culture of the Igede people of Benue State (Source: Joshua, 2016)**



**Plate XI: A Theatrical Performance**  
(Source: [http://: www.journalofafricanarts.com](http://www.journalofafricanarts.com)2017)



**Plate XII: Benin Kingdom Sculpture**

## **2.7 Trends and Challenges in Museum Architecture**

### **2.7.1 Funding for museums**

In some nations, the government is the only source of funding for museums. In others, the financial reinforcements of museums are a complex blend of private and community funding and earned revenue. Private funding for museums may come from persons, foundations, and corporations (Cano *et al.*, 2013).

### **2.7.2 Attracting visitors to museums**

Museums enjoyed a surge in fame in the 1990's, driven by a strong global economy and rising public demand for high-quality cultural and educational activities to fill leisure time. As such, museums have become more market-driven. In pursuit of these goals, many museums have extended their physical facilities and programs and refocused their missions to highlight public right of entry (Griffin, 2008).

### **2.7.3 Robbery and forgery of museum collections**

Robbery from a museum collected works can be the work of an outsider or a museum employee. The thieves may have a mixture of motivations. Some art thefts entail ransom demands, while others are devoted for the purpose of quickly selling the object or

artwork. High-profile robberies involve famous works that would be effortlessly recognized on the open art market. An example is the puzzling theft of paintings worth \$200 million, together with works by Dutch masters Rembrandt and Jan Vermeer, from the Isabella Stewart Gardner Museum in Boston, Massachusetts, in 1990.

The subsequent design trends are presently being applied in most modern museums in selected regions around the world as defined by designs of popular design masters.

#### **2.7.4 Planning of a museum**

In recent museum design, the inventive interior is visible on the outside, eliminating a visual barricade between inside and outside, the building's exterior is clear, animated by the external circulation system

##### **2.7.4.1 Museum interior**

- i. Spatial planning of interior spaces in museums of new work suggests a mindful disposition of fluctuating planning of transparent and open spaces.
- ii. Interior planning of spaces tends towards clusters and circulation spaces connecting one function to another as against the rather concentrated open spaces of earlier museums.
- iii. In other conditions, spaces in the centre do not have to be distinct by the need for walls to hang pictures on.
- iv. Dwelling away from the box from 90 degree angles of inclination is the drift in gallery designs.
- v. Having ease of access through gallery spaces in museums introduces an arrangement of ramps, stairs and lifts, in order to create visual pleasure within interior spaces through a puzzled circulation way.

#### 2.7.4.2 Museum exterior

- I. Since today's artworks differ from urban-scale objects to the close experience of video, museums are designed as changeable building to house changeable Arts.
- ii. Architectural masterpieces of museums of the new era portray architecture of liberty. Its elemental standard is founded on —free plan and —objective form. Objective form is the spine which allows free plan to work and refers to
- iii. The substitute of history load bearing walls with and organized structure. Facilities today must be designed to suit numerous uses for programming and economic explanations (design spaces are multipurpose)
- iv. Obvious zoning of related functions, particularly services, which as much as likely are designed in a precise section.
- v. The old fashion in museums which necessitates administrative and staff areas to be protected from public view and often have their own right to use from outside is now old fashioned.
- vi. Use of open or traditional trends and the modern trends included with user minded spaces within interior of museums.

#### 2.7.5 Architectural form of museums

Museums in recent times have developed in relation to the advancement of architectural styles (Griffin, 2008). These buildings are no longer built for storing artefacts alone but has also become places of monumental value due to its architectural inputs. In addition, the following shows the architectural input into museums:

- i. Museums show clear, stylish effortlessness and difficulty in use of forms. The configuration is the art.

- ii. Architecture of new museums as with the trend of the age is characterized by complexity of forms and shape.
- iii. Museum is characterized by planned and contradictory geometry in compositional traits of its nature.

## **2.8 Museum Galleries**

Museums are known to be buildings of height, this has seen the incorporation of galleries and balconies which has transformed from just mere spaces to spaces of significance.

- i. Most museums have been planned in a way that totally natural light out of the fear that the UV rays causes art works to die away.
- ii. From investigations carried out, museums designed in the early part of the 20th century showed that designing a clean white box as neutral space for display of works no longer holds.
- iii. The gallery spaces in today's museums are designed to look contemporary, through the use of ocular trick to enlarge the look of its interior space.

### **2.8.1 Impact of technology to museums**

Technology has always been a part of the modern world and subsequently, architecture of historic buildings have adopted this technique of development. Technology has the following impacts in museums:

- i. Bare use of new materials and technologies in producing a perceptual discourse of exterior make up of elements.
- ii. Technology is affecting the type of exhibits that are held in exhibition spaces, as well as improving the museum's learning mission. State-of-the-art electronics and audio-visual tools are essential.



### **2.8.2 Museum outdoor landscape**

- i. Art, sculpture concert art, is going outdoors.
- ii. The addition of nature with the architecture a basic element in plan of museums. Having the outdoor artwork is a significant idea (more outdoor art and landscaping).

### **2.8.3 Parking spaces in a museum**

- i. For museum proprietors, parking is an enormous headache. Sufficient parking is still a necessity.

### **2.8.4 Ancillary facilities in a museum**

- i. At present, museums are busier and more exciting and beautiful, making art obtainable to more and more people.
- ii. Museums of the 21<sup>st</sup> century are liable to be more commercially oriented serving as public facilities with provision of public use facilities.
- iii. As museums draw more guests, many are stressing the design of retail space to make the most of revenue. Thus a new trend on better emphasis on retail and restaurants spaces.

## **2.9 Traditional Architecture and Buildings of Northern Nigeria**

Rudofsky (1994) states that life is being tamed by contemporary design implementation but that conventional architecture supports and incorporates as a scale aspect of nature. Schultz (1984) supports the argument that conventional building relates to the existing elements of the site. Conventional buildings are commonly defined as those configurations put in place prior to 1919, with solid- not- cavity-walls from a variety of quality materials, which includes stones, earth, brick, wood and lime. These buildings

uniquely reflect the social and cultural history of the area of which they belong and make a major contribution in shaping of our countryside, villages and towns (Helen and Tom, 2014).

Nigeria is a nation that displays several conventional building design concepts at diverse regions of cultural background, socio-economic and climatic states. Rikko and Qwatau (2011), referred to traditional as a cultural tradition gained from age group to age group accepted and practiced by the people. For that reason, reaction to the material, spiritual, and social design of the humanity cannot be overemphasized (Olotuah, 2001). In addition, the shape and functions of housing differ with people, customs and culture, as a result of what the populace measured as significant in their housing.

Traditional building forms at diverse regions of Nigeria are the consequential effects of the pursuit to comfy people structures design as manipulated by culture, religion, weather, urbanization, and current expertise (Imaah, 2008). The conventional architecture of northern Nigeria which is also called Vernacular Architecture of Northern Nigeria has suffered greatly from human neglect, weather and climatic factors, socio-economic conditions, modernization (Danja *et al.*, 2017). Vernacular architecture is an architectural approach that is designed based on accessibility of building materials and reflecting local tradition. At least originally, vernacular architecture did not use formally schooled architect but relied on the design abilities of local builders.

Traditional architecture of Northern Nigeria is the residential (domestic) Architecture because the primary need for human shelter was the primary need as of that time, (before contemporary Architecture), using the obtainable building materials, easy tools and equipment. The interest of various disciplines in domestic architecture is because of its

influence on human wellbeing such as comfort, behaviour and also portrays the culture of the people. People's behaviour and the way they carry out their daily activities are culture specific (Jenkins, 2007).

### **2.9.1 Understanding cultural heritage**

Historic conservation is concerned with cultural tradition. Cultural tradition has itself come to be understood as a story subject to alteration, alteration, and reinterpretation.

Cultural tradition as defined by United Nations Educational Scientific and Cultural Organisation (UNESCO) is the bequest of physical artefacts and insubstantial attributes of a set or society that are inherited from past generations, maintained presently and granted for the benefit of future generation. One more meaning is Cultural heritage is an accumulation of daily details in large tradition, social, racial and religion built up from time and memory (UNESCO, 2012).

### **2.10 Nupe Community**

The Nupe people reside in the center of Nigeria, spread over the low basin formed by the two Rivers, Niger and Kaduna generally referred to as *Edu* and *Lavun* respectively. Nupe people are sited in the north central of Nigeria with two unique landscapes of high ground and riverine communities. Those residing within the river banks have their occupation as fishing and are referred to as the Upland people (Nadel, 1942).

There exist over seventy-eight well established Nupe communities which are made up of both riverine and upland settlements (Yahaya, 2003). How-ever, amongst these, twelve towns have been identified to be the nucleus in the formation of Nupeland. They are Bida, Eda, Ewu, Egbe, Esa, Yesa, Towagi, Pandzuru, Gaba, Tafyan, Nupeko, and

Doko. For this reason, Doko town is selected as a representation of these twelve towns. Doko town is selected as a representation of these twelve towns. Doko town is located 12 kilometres south of Bida, the Nupe capital. It is a rural community which has maintained its old tradition of subsistence farming and cultural values. Furthermore, Doko community is situated away from the transit route of major towns and thus, less likely to be quickly acculturated by the other ethnic groups especially the Hausa and the Yorubas (Muhammad, 2015).

### **2.10.1 Common festivals in Nupeland**

- i. *PategiRegata*– A colorful canoe festival on River Niger in Pategi.
- ii. *Bariki* celebrations in Bida – The fifth day of *Sallah* festival of both *Id-fitr* and *Id-Kabir* festivity in Bida. Each of this festivity lasts five days. *Gani* festival in Kutigi – Yearly traditional boxing contest, where men show their strengths. A strong self-assured person comes out and contenders file out and he chooses who he feels like taking on. It usually attracts large crowds from dissimilar parts of Nupe land and further than (Yahaya, 2003; UNESCO, 2012).

### **2.10.2 Tourists attractions in Nupeland**

#### **1. Confluence of Rivers Niger and Kaduna**

The coming together of Rivers Niger and Kaduna at *Muregi* shows a clear difference, with marked differences showing River Kaduna, whitish in color and River Niger greenish in color.

#### **2. Masaga Glass work in Bida**

It is a magnificent tourist resort in Bida town. The glasswork involves dissolving of modern day bottles as raw material.

### 3. Tswata Mukun Blacksmithing, Brass and Silver Smithing Bida

Most of the brass and silver smithing work, which involves melting and processing them into various ornaments used to decorate houses, offices, events and royal houses. like the glass bead work and brass work shown in Plate XIII. Others, include cookware utensils, and storage containers. It's also a beautiful piece for tourism in Bida.



**Plate XIII: Glass Bead work and Brass Work**  
(Source: Google Images, 2016)

#### 2.10.3 Food, dress, religion, arts and crafts, occupation of the Nupe tribe Food

The main staple food regular in many homes in Nupe land is rice. It is prepared either as *jolof rice*, rice and stews or in the form of “*ejobocil* (mashed) rice referred *tuwon shinkafa* in Hausa.

The major source of protein and domestic animals is fish; both smoked and fresh fish are in large quantity, particularly from neighbouring tributaries around Rivers Niger and Kaduna. These snacks are very essential in Nupe land because they make easy —casual eating most especially among children (Nyame, 2015).

There is this preferred food of the Nupes, “*Jekun*’ eating of —left over that is prepared with fresh ingredients. *Jekun* is the second cooking of leftover food from preceding supper.

**a). Dress**

The native Nupe dresses like “*bente*” under wear have been changed by contemporary pants, boxer shorts have replaced “*Ganpegi*” short knickers. There is the native wear which is common to all northern tribes called *baban riga* as shown in Plate XIV.



**Plate XIV: Nupe Traditional Dress**

(Source: [http://: www.journalofafricanarts.com](http://www.journalofafricanarts.com) 2017)

**b). Religion**

Islam is the principal religion in Nupe land, although Christianity is a familiar religion in very many other communities where the pioneer activities of missionaries were documented. Conventional religion was practiced prior to the beginning of Islam.

**c). Arts and Crafts**

The people of Nupeland are known with their industrial arts, particularly guild-organized crafts in which devotion is largely inherited, are done by men.

**d). Occupation**

The economy and social life of the Nupeland population rotate Round farming. The populace are active farmers. Most important crops grown are rice, sorghum, sugar cane, millet, melon, vegetables, yam, farmhouse, fishing and livestock management.

**2.10.4 Traditional building elements of the Nupe tribe**

Nupe people have rich cultural and political system which was established before the intervention of Islamic and Christian missionaries (Nadel, 1942). They have some rich cultural heritage associated with their belief, how they live their life and also their building elements. It is therefore important that such building elements is studied and documented.

There are components that make up a building structure; these are called the building elements (Rosa, 2018). A building element can be defined as the major functional part of a building. Traditional building elements are those building element put in place by the use of traditional building materials, sourced locally from the community according to necessity (Sandak and Negri, 2005; Englund, 2013). The Nupe community use building materials such as, stones, earth, grass, sticks, timber, ropes and thatches.

**a) Walls**

The thickness of walls varied from 20 – 70cm, slightly narrower than their foundations (Rahman, 2016). Walls were erected by mixing earth with water, this process is *called Eguna-elajibana*. The surface of the walls both inside and outside were thickly plastered and sometimes ornamented. The decorations were applied either by moulding the surface with geometric patterns, or by inlaying ceramic in the wet surface of the plaster.

### b) Doors and windows

Doorways were typically rectangular in shape with well-built shaped wooden lintel. The door ways are usually high about 29 cm above the ground level; the upper part of the door way is often lined with a door sill or lintel made up of two bamboo poles tied together to form a support for the wall on top of it (Liangdong *et al.*, 2015). Doors were occasionally caped with an arch, they often had no doors instead a well-built stiff mat *shegi*, as shown in plate XV (some were elaborately woven) was hung from a hook on top of the axis of the opening. The few doors were wooden and generally ornamented in multi – form carved design. Window openings were sometimes covered with wooden shutters, or with a metal screen pierced with a tracery of imaginative geometrical or vegetable pattern. Most windows were not covered (Zhang, 2015). The shape of the windows ranges from upright triangle ingeniously divided by inner partition arrow head shapes and circular shaped windows. Coconut lumbar is good for structural elements like pillar, windows and door frames, floors and decking (Shao, 2017).



Plate XV: Typical Nupe circular building showing a Door and decorations on the wall  
(Source: <http://www.journalofafricanarts.com> (2017))

### c) Floors

This was utterly the work of women. Building earth was filled to the floor and then beaten down to form a compressed hard surface, and then the floor was coated with a



kind of liquid or great composition of nearly conceptual character were made by concurrent application of carved tiles, proficiently selected pieces of broken pottery and multi-coloured stones.

#### **d) Roof**

These are of two types; the sharply pitched pointed thatch roof as seen in Plate XVI and the gable roof for rectangular plan (Carson, 2010). The main element of their creation was a strong edge beam with the apex usually decorated. The crisscrossing of the *giyayya*, *kulunga*, *wuyandamo*, *karan Meiwa* and from corn stalk, all tied with palm leaves, *kwakwa* leaves or *rama*. Roof is made up of wooden rafter, purlins, struts and grass thatch.



**Plate XVI: A Typical Traditional mud house with thatched roof**  
(Source: [http://: www.journalofafricanarts.com](http://www.journalofafricanarts.com) 2017)

e) **Foundation:** the foundations of a Nupe compound are generally dug measuring 13 cm and 22.5 cm in depth, by about 12-13cm and 25 cm in width respectively, but such foundations are made of wet earth and loam, the same basic structural building material. This building material, whether intended to be used in its wet form as mud or

as a mold, known as *tubeli* Gwari or in its dry form as brick, known as *lamkpa* in Nupe, are always mixed with soft dry grasses, *rauno* in Hausa, or *banal* in Nupe which are usually broken into 10 cm lengths trodden and used as building material.

**f) Decorations:** Decorations on walls, openings and furniture were mainly molded, inserted or painted. The decorations were not just linear but a three-dimensional, spatial ornament, with its characteristic show of light and shadow. The commonest building in a Nupe compound is the granary, *edo*, ranging in number from three to four surrounding a small family, to as many as ten for a large compound. They are often difficult, delicate, and time-consuming to erect and are thus often erected by specialist builders who could take up to as many as twenty-five days to erect an *edo* (Khan, 1994).

In order to erect an *edo*, a large stone was first laid in the centre, it was then surrounded with circular smaller stones. If the granary was to be large, two concentric circles of stones were placed around the central stone. The stones were set firmly on the ground; on each a lump of clay was placed which was then shaped, using both hands, into a mushroom or inverted cone form (Dmochowski 1990).

The typical Nupe compound structure is made up of quite a few small individual court units which are linked up jointly by alleys. A classic family house is made up of opening hut (*katamba*), which is common to most Nupe compounds; it is like a form of identity of a Nupe community, sleeping rooms (*kata*), the courtyard, (*zhempa*), the animal house (*ega*), the granaries (*edo*), the kitchen (*katagi*), the fireplace (*yekun*) and the toilets and pool (*shikpata*). However, each culture has what it lays emphasis on as the basic requirement for fulfilling their daily activities.

## **2.11 Origin of the Gwari Tribe**

The Gwari people of Nigeria are also called Gbayi or Gbari, according to Gwari anthropologist they migrated from Borno into the Abuja region (Nyame, 2015), they inhabit the western part of Abuja, the southern Niger State. The Gwari's celebrate many festivals such as, agbamaya and zhibaje. Agbamaya isa festival to welcome the coming of the rain during the rainy season's and zhibaje before harvesting. Their major occupation is farming. They are one of the major group in Nigeria (Kwekudee, 2013) and the second in Niger State with estimated population of about 5.8 million increase in four states and situated in 30 local government area according to 2006 national population census Plateures.

The name Gwari which the Gbagyi's are notably called is the name of a scrupulous yam in Gbagyi. There are mainly three categories of Gwari. There are three categories of Gwari the Gwari Niger, the Gwari Gengen and the Gwari Yama residing in notable gwari towns.

### **2.11.1 Cultural identity of the Gwari tribe**

The Gwari populace are known to be accommodating, harmony loving, easy going and transparent people, in the northern Nigeria people are fond of saying *\_mu yishigwarigwari\_* 'let's do it like the Gwari's. The Gwari people has surfaced as a distinctive type, their culture shows how much they have come to terms with the creation (Chigudu, 2008) the Gwari's are persistent carriers of Knunu through the eye of their language and symbolic cultural artefacts (Ayuba et al, 2016). Knunu is a traditional Gwari religion still practiced today in some part of Gwari society. The Gwari women do not take loads on their head as common with most Africa culture, they take loads on their shoulders for they are of the notion that the head should be accorded majestic status

as the king of the body thereby not to be disturbed by any form of labor or ferrying goods from one place to the other.

### 2.11.2 Food, dress, religion, arts and crafts, occupation of the Gwari tribe

#### food

The favourite food of the Gwari is called *whizhe*, it is prepared from guinea corn to make *zheporo* a unique drink taken together with *knadolo*.



**Plate XVII: Gwari Dress**  
(Source: Pinterest, 2018)

#### a). Dress

The modern Gwari people of these day, dress like hausa's. The Gwari people planted cotton on their farm which they use in making their traditional clothes, before the westernization of Gwari land. They have their own Gwari dress as seen in Plate XVII weaved by them which are of colors that are not too bright. The famous dress of the gwari's is called *ajesida* prepared from locally made cotton and traditionally woven by their skilful dressmaker.

**b). Religion**

Prior to the emergence of Islam and Christianity the gwari people exercised their customary African religion, which is the believe of a highest god refer to as Shekwoyi (Kwekudee 2013) shekwoyi is the originator, the one who made the world the whole thing in the sky, on earth and in the sea and all Gwari people are expected to adore him. He owns their judgement, most times all Gwari people both Christian and Muslim practice their long-established African worship referred to as *Knunu*. The meaning of *knunu* has been disputed according to (Ayuba &Yusuf 2016) *Knunu* is intrinsic, pervasive and a necessary fabric of Gbagyi/Gbari personality, existence and identity, it portrays the Gwari worldview in its totality. (Shekwo, 2007) perceives *knunu* as connoting —culturell in a general sense.

**c). Arts and Craft**

The Gwari's are good in various activities like sculpturing, traditional smelting, indigenous textile and general domestic crafts which would be discussed as follows

**I. Sculpturing**

The sculpturing of the Gwari represent human like and zoomorphic Plateures such as monkey or reptiles. Their sculpture origination falls in-between naturalism and concepts although there is proof of wood sculptures which created objects of social value as the stiff sculptures that were believed to be fruitfulness gods were revealed. The year 1963, emerges to be the birth of past writings of Gwaris visual art (Fagg, 1969) ensuing the innovation of a head by a farmer in Abuja emirate near the village of Sherekaro on a shrine. The farmer confirmed that the head has been in the control of his family for age groups and they have brought it with them from the aged hamlet in the hills. Frequently sacrifices were offered to the gods of the terracotta and chicken feather were sprayed

over the holy place (Fagg, 1969) other villages argued that the holy place was formed in hope of usefully influencing the riches of the other villages, the holder of the head would earn the right to be made the community chief. It was later declared that the head was found in the bank of a close stream.

## II. Traditional Iron Melting

Smelting sites are set up near kwali, jere, taruga, chekari, garki communities as well as conventional method of making farming equipment, arrow head, knives, hammers, and other equipment that are still in use the most primitive working in Niger region is Taruga.

## III. Pottery

The Gwari populace are good in ceramic making. In the year 1950, the then northern administration called a British potter of northern origin to acquaint the people with ceramic making skilfulness. The potters tutored in this centre have attained international recognition like hajiya ladi kwali, who is the most renowned potter in Nigeria (Michael, 2016). She was able to combine conventional and modern practice and could finish making a Trado –new pot as shown in Plate XVIII devoid of blueprint or sketches and even without a potter's wheel (Abiyamo, 2018). It is fascinating that this Centre produced the first glassy pot in Nigeria. A thin necked pot with double handle running from the top to the higher part of the body used for storage, flower pots and for ornament purposes.



**Plate XVIII: Ladi Kwali glazed Pot**  
(Source: Pinterest, 2018)

**d). Occupation**

The Gbagyi people are mainly farmers, they are also good in other things like blacksmith, wood fetching and pottery (Joshua, 2017). Most of the land of the Gbagyi people of the federal capital territory was taken away by the then federal government for the use in the creation of the new federal capital territory, which made most of them loose their farming land, venture into white collar jobs and practice other trades. The Gbagyi people were also known for their visual arts most especially pottery, alongside sculpture, iron smelting domestic crafts and smelting.

**2.11.3 Gwari traditional architecture**

The Gwari architecture owes a lot to nature. An adult male in a Gwari society aside from being a farmer is also an architect cum builder he relies on the locally sourced material to obtain a built environment (Samuel, 2004). These materials are those readily available in the society such as stones, sticks stones, ropes grass and mud. All the living houses among the Gwari are single roomed and the floors were plastered with clay. The

compounds were enclosed by mud walls or fences of smutty plated materials and had one or more doorway huts (*boknu*) which served as waiting area for friends.

Among the gwari's the bachelor room's *agbibe* were built first, then the girl's room *gbibi* in some cases the girls live in their mother's room followed by the man's main granary *dobuiyako* which is larger than other granaries, the pounding or grinding room *ataboknu* and then the fence of the compound. There are features in the Gwari compound not commonly found among other society such as the animal hut *kudumi*, the wives kitchen *gache*, a firewood hut *knunu*, other smaller granaries *dobui* an inner entrance hall *boknu* as well as two small features in the form of shrine *bori*, *madaka* for the women and *tsafi* for the men.

#### **2.11.3.1 Traditional building elements of the Gwari tribe**

1. **Doors and windows:** doors are constructed above the ground level to a height between 12cm to 29cm to avoid rain from entering. The doorway is built without beam and parabolic in shape with a height of about 1.5m and a height of 69cm at midpoint
2. **Floors:** the thickness of the clay floor ranges from 3-4cm. The ground level is tilted, spread with gravel and gently beaten with a wood, after which broken potsherds are flat laid on the floor, sprinkled with water and further beaten hard and thorough to solidify. Water is poured to wash off dirt, then pounded locust bean pod is soaked with water and sprayed on the newly constructed floor to harden it.

#### **2.12 The Kambari Tribe**

The Kambari people also known as the *Ashingin*, are found in Magama, Mariga and Agwara LGAs in Niger State. However, fractions have settled in Wushishi, Rijau and



Borgu areas. In Niger State, it has over 151,000 people. The kambari are said to have formally established their empire and had the *Awunci*, *Avadi*, *Agadi*, *Akimba*, *Agaushi* and *Ashen* as the sub-ethnic groups (Mansur, 2013).

### 2.12.1 Cultural identity of the Kambari tribe

The main dialects of this tribe is the *Tsishingini*, *Tsikimba* and *Cishingini*. Plate XIX shows tsishingini homeland, a main dialect in the kambari tribe. The Kambari is known for its separation from the modern world and its ways. In their view, formal education is seen as a waste of time (Joshua, 2016).



**Plate XIX: The Tsishingini Homeland**  
(Source: Google Image, 2018)

The main dialects of this tribe is the *Tsishingini*, *Tsikimba* and *Cishingini*. Plate XIX shows tsishingini homeland, a main dialect in the kambari tribe. The Kambari is known for its separation from the modern world and its ways. In their view, formal education is seen as a waste of time (Joshua, 2016). In most regions, the Kambari are ruled by non-kambari chiefs. Social gatherings are notable periods in this region but however engaging in drunkenness, sexual immorality and stealing are prohibited.

### 2.12.2 Religion

The Kambari people are mainly traditional worshippers, they worship a god called *Magiro*. These people strongly believe in magic, curses and witchcraft.

### 2.12.3 Occupation

The Kambari are also farmers who grow crops like groundnut, millet, yam and guineacorn. Every household has a section of animal farm in his compound in which hen and goats are reared for meat while the rich ones have cattle.

### 2.12.4 Traditional building elements of the Kambari tribe

1. **Doors and windows:** Doors and windows are constructed using straws woven to prevent access into the building and heat effect. Door sills or lintels are made up of *gwagwala*.
2. **Walls:** The walls are made with black mud soil, *bakinkasa*, constructed in round shapes. This nature of construction is used to remedy the unbearable heat of these desert regions. Black soil material, *bakinkasa*, is poured and spread on the floor which is further smoothed with water and burnished using small quartz stone, *dutsin magogi* (Nyame, 2015)
3. **Roof:** Roofs are made using straws. They are constructed in dome-like manner covering the round mud houses.

### 2.13 The Kamuku Tribe

The Modern Kamuku are the progenies of the ruling *Saifawa* people of the Kainji kingdom, they are an ethnic group in central Nigeria with native speakers of over 45,000. Its dialects include Chinda, Regi, and Tiyal. The kamuku may have been the dominant people of the kingdom of kankuma, a people whom Al- Makrizi (d.1442) called Karuku

in his book —The races of the Sudan. This development has not ended. Intermarriage, trade, politics, and other factors have combined to make a people who are ethnically diverse (Joseph 2000). The Kamuku, being agriculturalist prevalent group of Niger state Province in north who keep livestock, are of a somewhat timid and retiring nature.

### **2.13.1 Cultural identity**

The Kamuku have a tall and dignifying look. They mostly speak Hausa, Arabic and some other languages. A basic family unit of the Kamuku is an extended family in a single walled large compound. A man's status is measured by the size of his family and the number of his kin group. This however means there is maximum farm labour, market aid and source of income through marriage (James 1996).

### **2.13.2 Food, dress, religion, arts and crafts, occupation of the Kamuku tribe**

#### **a). Food**

The Kamuku people farm mainly millet and some other crops such as corn, sorghum and peanuts. A typical Kamuku meal consist of large quantities of millet, made in form of porridge, a vegetable potage made with meat, groundnut oil, salt and local spices.

#### **b). Dress**

The Kamuku are known for dressing with big robe-type piece of clothing, worn with turbans or vibrantly embroidered caps. The large robes serve as a basis of defence from the prevailing heat of this region. This clothing is worn for occasions and Islamic ceremonies or festivals.

### **c). Religion**

The Kamuku's have been Muslims ever since the 11<sup>th</sup> century. The Koran stresses the significance of the people and the power of the father. Women are seen lesser to men in the Islamic scriptures, and so also is the belief in Kamuku culture.

Some of the people still resort to traditional religion in which gems and charms are tied round the neck or carried in pockets. There is a charm to make certain a good pregnancy for a mother. There is also one to keep the spirit of the dead from haunting its progenies.

### **d). Occupation**

The kamukus are predominantly farmers, however some engage in other occupations especially during the dry season. They also rear animals such as sheep, goats and horses. Those who live in cities work in offices, public service, construction and commerce. Some work as butchers, well-diggers and blacksmiths the bulk of the Kanuri, though, are craftsmen, farmers and traders.

### **2.13.3 Kamuku architecture**

The kamuku live in settlements of tiny hamlets having three to four households. These settlements are characterized by walled compounds (Rosman, 1966).

### **2.13.4 Traditional building elements of the Kamuku tribe**

1. **Doors and windows:** Doors and windows are constructed using grass-mats woven and tightly packed to prevent access into the building
2. **Walls:** the walls are constructed using mud or grass-mat which are carefully fastened to a conical thatched roof.

3. **Floors:** the floors are constructed using muds which are padded for strength and stability. The thickness of the mud floor is raised to a considerable height to reduce the effect of the heat from the ground.

## 2.14 The Gade Tribe

The Gade people, as known as the *Babye* can be traced to have started through the *Adakpu* people, which migrated in 1068AD from Congo basin to Kano in search of a suitable farmland and settled in Gadawur area, in the present day Jigawa. When the leader of this empire died, the people moved from Kano to Doma, in Nasarawa state, today, this tribe is predominantly found in FCT and some part of Niger State and Nasarawa State. Plate XX shows the Gade people in their traditional attire and the region they cover.



**Plate XX: (a) Gade People (b) Map showing the Region Covered by Gade (Source: Joshua, 2017)**

### 2.14.1 Cultural Identity of the Gade tribe

Despite the fact that development has altered their environment, they still hold strong their cultural norms and values, and find time to showcase and celebrate their unique festivals. They have annual festivals such as the *Gade cultural festival* in which masquerades such as *Zururkpu*, *kakamauwu*, *Adakpu* and *Zurunuba masquerades*

are displayed. A mystic display in these festival is the pounding of millet in a mortar placed on the abdomen of an old man, while another display is the slicing of their bodies with sharp knives and cutlasses as shown in Plate XXI.



**Plate XXI: (a) Slicing of Tongue with Knives (b) Pounding on an Old Man**  
(Source: Joshua, 2017)

The Gade people allow intermarriage and are peaceful people. Having over 119,000 Gade speakers, this region has welcomed civilization and adopted many modern principles to both their lifestyle and economy.

### **2.14.2 Religion**

The Gade are main Islamic followers, while some practice mystics and diabolic traditional beliefs. Christianity came into this region in the 1950s. Today, approximately 50% of the people are Christians (Joshua, 2017).

### **2.14.3 Occupation**

The Gade people engage in many economic activities, their main occupation is farming and hunting while the women weave clothes and make baskets. They farm ginger, beans, citrus fruit and guinea corn.

## 2.15 The Gwandara Tribe

The Gwandara have largely been overshadowed by the Hausa tribe. They are Chadicspeaking people found in Lafia, Akwaja, Keffi and Niger State. History has it that this tribe stemmed up from the break out from Islam in Kano, Gwandara, the younger brother of the then chief took his followers and traveled to Gwagwa when he was forced to convert to Islam. He finally settled in Jukun after many attacks in the seventeenth century.

### 2.15.1 Cultural identity of the Gwandara tribe

They live in close relations to many ethnic groups in the Benue basin and are seen as *Gwari* and *Yeskwa* people. However, they marry from these tribes and have similarities in culture to the *Arago*. The men of this region wear Hausa-style gowns while the women wear clothings, beads strings round their hips with stack of leaves covering their front and back.



**Plate XXII: The Gwandara People**  
(Source: Pinterest, 2018)

### **2.15.2 Religion of the Gwandara tribe**

The Gwandara are traditional worshippers who offer goats and sheep to their gods and partake in ritual dances (Joshua, 2017). Every village is made up of two shrines or temples consisting of mud huts in which their gods reside.

### **2.15.3 Occupation**

The Gwandara are farmers. They mainly produce palm oil. Also some are involved in mat making. They are also going in Bear brewing and tobacco business.

### **2.15.4 Gwandara architecture**

Mud Huts are constructed in a circle to form the boundary of the compound which houses an extended family setting. The huts are connected to each other by a granary or a corn bin (Joshua, 2017). Mats are used to construct windows, doors and roofs.

## **2.16 Deductions**

Museums date back to the 17<sup>th</sup> century were little art objects, conserved animals, gems, minerals being collected by the rich and powerful for exhibition in there private houses which later evolved to public museums in the 18<sup>th</sup> century. There are various types of museums according to object of collection, The Art museum, history museum, natural history museums, war museums and science museums and concerned with the preservation of history. Niger state is vast having various tribes with rich cultures, among these tribes are settlers who came to stay because of the accommodating nature of the inhabitants.

The six (6) tribes of Niger state are Nupe, Gwari, Kambari, Kamuku, Gade and Gwandara, have their various unique cultures and similar building materials. The traditional building materials gotten from the immediate environment, such as mud,



straw, wood, grasses, ropes and stones are almost the same in the various tribes but the method of their construction may differ.

The various tribes of Niger state have some common building features such as the entrance porch, round shaped buildings, courtyards and thatched roof. The building elements of the various tribes is mostly, the use of sticks for columns, roofing, window sills, lintels, roof coverings made of thatch and tied together with rope, doors were made of *shegi*, floors made of compressed mud. Except for the Nupe tribe who 's walls were either molded into geometric patterns with earth or ornamented with ceramic pates or the covers of the plate. The Gwari's use drawing of bow and arrows or shapes on their walls, the Kamuku, Gwandara and Gade also use drawings on their walls.

Entrance porch called the *Katamba* in Nupe and *Boknu* in Gwari, is use to receive visitors and rest after a long day at the farm. The Round buildings were often used because it is more comfortable, more resistant to wind, is energy efficient and it separates the rooms more accordingly, everyone having his/her own room standing apart without taking up much land mass. Courtyards were mainly use for drying of crops.

## CHAPTER THREE

### 3.0 RESEARCH METHODOLOGY

#### 3.1 Research Method

The research method can be said to be the technique and principle for which data would be collected and analysis to achieve the desired results. This research employs a qualitative research method which provides a subjective reason for the various operations of the research. The research, which is imbibes a descriptive and historical survey approach, tends to explore the various traditional building techniques and materials used by the people of a particular tribe. The study was carried out using the case study approach, because it allows for discovering and comprehending composite nature of the subjects to be studied (Malgwi and Musa, 2014).

#### 3.2 Data Types and Sources

##### 3.2.1 Primary data

The main data was collected from using case studies, oral interview (unstructured) and physical examination of traditional building elements, materials, design and space work of existing traditional buildings in different parts of Niger State. Existing traditional buildings were visited, observations were carried out with the help of examination guide to acquire information about the traditional building techniques and materials used, and photographs were taken for visual documentation. A camera was used to capture the images that includes the traditional elements found in the visited regions. Table 3.1 shows source of data and type of data collected.

**Table 3.1: Primary Data: Sources and Types**

| S/N | Data  | Source         | Type        |
|-----|---|----------------|-------------|
| 1.  | Villagers' perception of heritage and its preservation  | Oral interview | Qualitative |
| 2.  | Historic importance of building elements and techniques | Oral interview | Qualitative |
| 3.  | Building techniques used                                | Observation    | Qualitative |
| 4.  | Types of traditional building elements used             | Observation    | Qualitative |
| 5.  | Types of traditional building materials used            | Observation    | Qualitative |
| 6.  | Availability of the traditional building materials      | Oral Interview | Qualitative |

(Source: Field Survey, 2019)

### 3.2.2 Secondary data

Written works (journal, books and online sites) and other past literature was consulted and reviewed for further information on the roles of traditional elements and the different types available in the study area.

### 3.2.3 Variables of study

The variable measured is the physical components of the traditional buildings found in the visited areas, the construction technique unique to such areas as well as the spatial composition of the building and the compound.

A variable checklist, was prepared to evaluate the building elements and techniques used in the various regions of the study area to preserve the cultural heritage of the people.

The checklist is as shown in Table 3.2.

**Table 3.2: Sample of the Variable Checklist**

| S/N | Variable to Considered        | Checklist         |                     |
|-----|-------------------------------|-------------------|---------------------|
|     | <b>Physical component</b>     | <b>Types</b>      | <b>Use</b>          |
| 1.  | Building Materials            |                   |                     |
| 2.  | Building Elements             |                   |                     |
|     | <b>Construction technique</b> | <b>Process</b>    | <b>Duration</b>     |
| 1.  | Roof                          |                   |                     |
| 2.  | Walls                         |                   |                     |
| 3.  | Foundation and Floors         |                   |                     |
|     | <b>Spatial Composition</b>    | <b>Structured</b> | <b>Unstructured</b> |
| 1.  | Interior Spaces               |                   |                     |
| 2.  | Exterior Spaces               |                   |                     |

(Source: Field Survey, 2019)

### 3.3 Population of the Study

Advanced Learners Dictionary 4<sup>th</sup> edition describes population as the amount of a subject inhabiting a picky location per time. Population of study entails an occurrence, individuals or building that is examined at a particular time. This study would look into the inhabitants of each of the local administration areas in Niger State. However, the major tribes are Gbagyi, Nupe and the Hausas, pure settlements of these tribes could be found in places like Duhu, Bida and Kontagora towns of the state respectively while other little settlements are scattered around.

### 3.4 Sampling Method and Size

This research carried out qualitatively, employed a purposeful sampling method which involves the strategic selection of traditional buildings (both residential and other notable buildings) for study based on the availability and using of various building techniques and materials which reflect the heritage of the people. The sample size would cover notable buildings of a particular tribe as well as residential buildings such as the

residence of the village heads of different tribes and region in Niger State. The selected tribes include: the Nupe, Gwari, and the Gade people.

### **3.5 Method of Data Collection**

To attain the desired purpose of this study as specified in chapter one, descriptive Survey process and historical method was used in the assembly of information. Descriptive survey technique involves direct examination and study of the regions and traditional buildings, in the collected data is illustrated and deduced while the historical technique is the use of historical proofs linked to the design and construction of traditional buildings in the region. Therefore, carrying out case studies that may require field visit, observations and pictures was used. The following method was used during in the study for the collection of data: **I. Interviews:**

Oral interviews were done in places where the case studies were done in the visited regions.

#### **II. Literature Review:**

This comprises of literature review of related periodicals, academic journals and books. This gave understanding on the different traditional techniques, elements and materials of the different tribes in Niger State as well as visual representation of each of these elements.

#### **III. Observation:**

The main source for data collection as regards the study is examination which was carried out with the help of an observation guide, drafts and pictures.

### **3.6 Case Study Selection Criteria**

The case studies employed in this work was carefully chosen based on purposive sampling technique. The case studies were taken in all the residence of the village head

and other notable residence in the visited areas as well as other historic building found with the aid of pictures and drafts. The visited tribes and residences are:

- I. Mal Kotsu's Residence, Emiworongi Village, Gbako LGA
- II. Residence of Mallam Salisu Abubakar, Kopa Village, Bida LGA
- III. Residence of Mr.Tani, Duhu village, Paikoro LGA
- IV. Residence of AlhajiAliyu, Gbaiko village
- V. Mal SutaiAliyu Residence, TudunGade, Kwakuti

### **3.7 Method of Data Presentation and Analysis**

The collected data was analysed using the content analysis method. This method involves the coding of collected data based on the various features/conditions for which the data exist. This data is represented in tables for easy understanding.

### **3.8 Summary**

The exploration method is a strategy for critically examining a phenomenon over a range of possibilities. The qualitative method used in this research provides the researcher the opportunity to judge occurrences and observations based on the flexible conditions. The descriptive research technique was used extensively in the study for data collection and proper evaluation of the existing situations. Descriptive survey research is necessary to discovering responses to questions and therefore creates a yardstick in order to make forecasts, suggestions and conclusions. The data would tend to explain the different types of traditional elements available in the locals of Niger State, as well as how these elements promote the culture of regions for which they are used.

## CHAPTER FOUR

### 4.0 DATA PRESENTATION AND DISCUSSION

#### 4.1 Case Studies

The subsequent case studies significant to the study were carried out and studied as follows:

##### 4.1.1 Case Study 1: Residence of Mallam Salisu Abubakar, Kopa Village, Bida LGA, Niger State.

###### 1. Location:

The compound is located in the heart of Kopa village close to Doko in Bida

###### 2. Background:

Bida is a local government locale in Niger State and it has its control centre as Bida town. It is the smallest local government area in Niger State owing to its 51.0km sq. aerial coverage. This region predominantly speaks Nupe tribe, which is known by them as *nupeci*. The head of this tribe is known as the *EtsuNupe*. Kopa village is a small village close to Doko.

###### 3. Physical Component

The people which are Nupe by tribe build circular huts and in some cases rectangular mud houses are constructed. Table 4.1 shows the elements and materials found in this region of Niger State.

**Table 4.1: Physical Component of the Nupe Compound**

| S/N | Building Elements | Building Used   | Material   |
|-----|-------------------|-----------------|--|
| 1.  | Flooring          | Earth           | The floors are made of moist earth which is padded with feet or a stronger ramming material. This is done for days to create a stable and compacted floor. |
|     |                   | Mud             | This is added to the earth to increase its ability to stick together and remain compacted.   |
| 2.  | Wall              | Mud             | Mud is used basically as wall material. It is moulded into blocks which are then used to construct walls.  |
|     |                   | Earth           | This is mixed with clay to serve as plaster material and for writing inscriptions.   |
|     |                   | Plates          | These are used for decorative purposes on plastered walls and entrances to the building.   |
| 3.  | Windows & Doors   | Wood            | The doors and windows are made of wood   |
|     |                   | Corrugated Zinc | This could also be used in place of wood   |
|     |                   | Thatch          | This is can be used for doors in barns and other small houses for animals.   |
| 4.  | Roof              | Straw           | The straws are weaved to the shape of a roof, taking the form of the house plan.   |
|     |                   | Zinc            | This can be used in place of the straws with wooden supports.  |

(Source: Author's Fieldwork, 2019)

### 1. Construction

A trenched foundation of 0.5 – 07meters is dug which is filled with mud and stone to the ground level. The blocks made of mud is then placed to form the walls. After laying blocks up to 1meter height, it is left for four days then another 1meter height until the needed height of the building is attained. Plate XXIV shows building under construction. Plastering can then be done and plates are placed in the mud mortar which solidifies to serve decorative purposes. The roof which is made from straw is first made and formed independent of the building, then it is placed on the house top and tied with ropes and



straws. If corrugated zinc is used for the roofing, wooden support is placed on the roof top and the zinc is then tied to it as shown in Plate XXV. Decorations are made on the walls using metal plates (Plate XXVI), which are pressed into the walls before it dries up.

## 2. Spatial Composition

A characteristic common to most compounds in the north, is the entry hut (*katamba*), which is present in most Nupe compounds; it is like a form of identity of a Nupe (Plate XXIII) community, sleeping rooms (*kata*), the courtyard, (*zhempa*), the animal house (*ega*), the granaries (*edo*), the kitchen (*katagi*), the fireplace (*yekun*) and the toilets and baths (*shikpata*). The huts are arranged in a way as to create a courtyard area in the compound. Also, little regions are left as access to other compounds and to the farms.



**Plate XXIII: Katamba of the compound**  
(Source: Author's Field Work, 2019)



**Plate XXIV: Building under Construction in the Compound**  
(Source: Author's Field Work, 2019)



**Plate XXV: Size of Windows and the use of Zinc for Roofing**  
(Source: Author's Field Work, 2019)



**Plate XXVI: Decorations using Metal Plates**  
(Source: Author's Field Work, 2019)

#### **4.1.2 Case Study 2: Mal Kotsu's Residence, Emiworongi Village, Gbako LGA, Niger State.**

##### **1. Location:**

The compound is located in Emiworongi village, close to Lemu in Gbako local administration area of Niger State.

##### **2. Background:**

Bida is a local administration area in Niger State and it has its control centre as Bida town. This region predominantly speaks Nupe tribe, which is known by them as *nupeci*. The head of this tribe is known as the *EtsuNupe*. Kopa village is a small village close to Doko.

##### **3. Physical Component**

The people which are Nupe by tribe build circular and rectangular mud houses. Table 4.2 shows the elements and materials found in the visited village.

**Table 4.2: Physical Component of the Gbagyi compound**

| S/N | Building Elements             | Building Material Used |   |
|-----|-------------------------------|------------------------|---|
| 1.  | Flooring                      | Earth                  | The floors are made of moist earth which is padded with feet by the women. This is done for days to create a compacted floor. |
|     |                               | Mud                    | This is added to the earth to increase its ability to stick together and remain compacted.                                    |
|     |                               | Stone                  | Stones are used for foundations as aggregates with earth and mud  |
| 2.  | Wall                          | Mud                    | It is moulded into blocks which are then used to construct walls with thickness of 70 – 100cm or more in some cases.          |
|     |                               | Earth                  | This is mixed with water and clay to serve as plaster material and for writing inscriptions.                                  |
|     |                               | Plates                 | These are used for decorative purposes on plastered walls and entrances to the building.                                      |
| 3.  | Windows & Doors               | Wood                   | The doors and windows are made of wood  |
|     |                               | Corrugated Zinc        | This could also be used in place of wood  |
|     |                               | Mat                    | Doors were sometimes capped with an arch, they often had no doors instead a strong stiff mats <i>shegi</i>                    |
| 4.  | Lintels, Door & Window frames | Wood                   | Wood is used to create a strong support for doors and windows and it is also used in the formation of lintels.                |
| 5.  | Roof                          | Straw                  | The straws are weaved to the shape of a roof, taking the form of the house plan.  |
|     |                               | Zinc                   | This can be used in place of the straws with wooden supports.   |
| 6.  | Columns                       | Coconut lumbar         | It is good for structural elements like pillar, windows and door frames, floors and decking                                   |

(Source: Author's Fieldwork, 2019)

#### **4. Construction**

A trenched foundation of 0.5 – 0.7 meters is dug which is filled with mud and stone to the ground level. Building earth was filled to the floor and then beaten down to form a compressed hard surface, and then the floor was coated with a kind of liquid or other decorative features. The blocks made of mud is then placed to form the walls. Walls were erected by mixing earth with water, this process is called *Eguna-elajibana*. The surface of the walls both inside and outside were thickly plastered and sometimes ornamented with plates. Doorways were typically rectangular in form with tough shaped stiff lintel. The door ways are usually high about 29 cm above the ground level; the upper part of the door way is often lined with a door sill or lintel made up of two bamboo poles tied together to form a support for the wall above it. The roof which is made from straw is first made and formed independent of the building, then it is placed on the house top and tied with ropes and straws. If corrugated zinc is used for the roofing, wooden support is placed on the roof top and the zinc is then tied to it. The huts in Emiworongi village in Gbako local government are roofed with both thatch and corrugated zinc as shown in Plate XXIII.

#### **5. Spatial Composition**

Most of the buildings are rectangular in shape and normally has two or three circular huts (plate XXVII) either placed in the middle or at strategic positions. The huts are arranged in a way as to create a courtyard area in the compound.



**Plate XXVII: Compound with combination of circular and rectangular huts**  
(Source: Author's Field Work, 2019)



**Plate XXIII: The use of both corrugated zinc and thatch material for roofing and space left for courtyard**  
(Source: Author's Field Work, 2019)



**Plate XXIX: Decorations using metal plates**  
(Source: Author's Field Work, 2019)

### 4.1.3 Case Study 3: Residence of Mr.Tani, Duhu Village, Paikoro LGA, Niger State

#### 1. Location:

This is the residence of Mr.Tani Shekwologaza, a well-known member of Duhu community in Paikoro local administration area of Niger State.

#### 2. Background:

The Gwari people of Duhu village are known to be peaceful and welcoming. They are largely tagged with ‘yam’ which is one of their main farm produce. The women are also well known for transporting loads on their shoulders instead of their heads.

#### 3. Physical Component

The people of Duhu village are typically Gbagyi by tribe. They have passed through some series of development and therefore, they make use of some contemporary building techniques in relation to their traditional style. Table 4.3 shows the physical components.

**Table 4.3: Physical Component of the Gbagyi compound**

| S/N | Building Elements             | Building Material used |  |
|-----|-------------------------------|------------------------|--|
| 1.  | Flooring                      | Earth                  | The floors are made of moist earth which is made moist and stacked up to a level 20cm.   |
|     |                               | Stone                  | Stones are used for foundations as supports before earth is placed on it                 |
| 2.  | Wall                          | Mud                    | It is moulded into blocks which are then used to construct walls and also used as mortal |
|     |                               | Earth                  | This is mixed with water to serve as plaster material.                                   |
| 3.  | Windows & Doors               | Wood/ Wooden branches  | The doors and windows are made of wood.  |
| 4.  | Lintels, Door & Window frames | Wood                   | Wooden trunks can be used as support for the wooden door.                                |
| 5.  |                               | Thatch                 | This is weaved and used to roof the circular huts.                                       |
|     |                               | Roof                   | This can be used in place of the straws with wooden supports.                            |

(Source: Author’s Fieldwork, 2019)

#### **4. Construction**

A trenched foundation of 50cm and stones are used to fill it up to 20cm above ground level. From the ground level up to the 20cm, stones are added to the moist earth to serve as the floor. This is done between 7 – 12 days for strength. Mud is used to mould blocks and are placed to form the structural element of the envelop. The walls are then smoothed with moist earth. Doorways were usually rectangular in shape and windows which are made 60cm by 60cm as shown in plate XXX. The roof which is made with zinc and wooden support as beams.

#### **5. Spatial Composition**

Most of the buildings are rectangular in shape and normally has two or three circular huts. The houses are placed in a rectangular pattern with a central courtyard (XXXI). huts are scattered in the compound which are used as kitchens and storage buildings. (Plate XXXII).



**Plate XXX: Windows and Doorways (Source: Author's Field Work, 2019)**





**Plate XXXI: Compound Layout**  
(Source: Author's Field Work, 2019)



**Plate XXXII: Huts used as kitchen and storage places** (Source: Author's Field Work, 2019)

#### **4.1.4 Case Study 4: Mal Sutai Aliyu Residence, Tudun Gade, Kwakuti, Niger State.**

##### **1. Location:**

Mal Sutai Aliyu is the village head of the Tudun Gade community which is close to Kwakuti and over 760 meters from the Minna-Suleja road,

##### **2. Background:**

The Gade people have a mix of languages but still have some peculiar traditions to their tribe itself. They are generally peaceful and are known to have adopted many historic and cultural values.

##### **3. Physical Component**

A typical compound in Tudun Gade is made up of houses which are scattered in an open manner to promote social relations. The main entrance to compound has a building with an arched entrance (Plate XXXIII) into a hall way and seating region for visitors. The compound is made up of houses built with moulded mud blocks and roofed with zinc. However, circular huts were found scattered around. The doors were made of zinc as shown in Plate XXXIV or woven thatch.

##### **4. Construction**

Rectangular houses are built using moulded mud blocks. It takes about 23 days to complete a building. The floor is made using a mixture of mud, earth and water and small stones can be tucked in for decorations. The exterior parts of the walls are plastered with earth mixed with mud. The roof is made using zinc placed on wooden support and tied or nailed. Thatch are gathered and tied with ropes around a space used for storage as shown in Plate XXXVII.

## 5. Spatial Composition

The compound is enclosed from the approach but left open from the sides and behind.

The main entrance leads to a courtyard which is for general use.



**Plate XXXIII: Entrance to the Compound (Source: Author's Field Work, 2019)**



**Plate XXXIV: Zinc used for doors (Source: Author's Field Work, 2019)**



**Plate XXXV: Thatch used for storage houses**  
(Source: Author's Field Work, 2019)



**Plate XXXVI: Huts scattered in the village**  
(Source: Author's Field Work, 2019)

#### **4.2 Discussion on objective 1: identify a variety of traditional building elements and materials in Niger State**

Niger State as earlier established, is made up of many tribes and as such, different building elements are incorporated in their buildings. These building elements include floor and walling systems, columns and lintel styles. A building element suggest the components of a building. The table 4.4 shows the dissimilar style of building elements and materials related to the various tribes of Niger State.

**Table 4.4: Traditional Building Elements**

| S/N | Tribe    | Building Elements                        | Building Materials                |
|-----|----------|--|-----------------------------------|
| 1   | Nupe     | Floor                                    | Earth<br>Mud                      |
|     |          | Wall                                     | Mud<br>Earth<br>Plates            |
|     |          | Windows & Doors                          | Wood<br>Corrugated Zinc<br>Thatch |
|     |          | Roof                                     | Straw Zinc                        |
|     |          | Lintels, Door & Window frames<br>Columns | Wood<br>Coconut lumbar            |
| 2.  | Gbagyi   | Floor                                    | Earth Stone                       |
|     |          | Wall                                     | Mud<br>Earth                      |
|     |          | Windows & Doors                          | Wood/ Wooden branches             |
|     |          | Lintels, Door & Window frames            | Wood                              |
|     |          | Roof                                     | Thatch Zinc                       |
| 3.  | Gade     | Floor                                    | Earth<br>Mud<br>Stone             |
|     |          | Wall                                     | Mud<br>Earth                      |
|     |          | Windows & Doors                          | Wood<br>Corrugated Zinc<br>Thatch |
|     |          | Roof                                     | Thatch Zinc                       |
| 4.  | Kanuri   | Floor                                    | Earth                             |
|     |          | Wall                                     | Mud<br>Earth                      |
|     |          | Windows & Doors                          | Wood<br>Zinc                      |
|     |          | Lintels                                  | Wood                              |
|     |          | Roof                                     | Zinc                              |
| 5.  | Gwandara | Floor                                    | Earth                             |
|     |          | Columns                                  | Wood                              |
|     |          | Wall                                     | Earth                             |
|     |          | Roof                                     | Thatch                            |
|     |          | Lintel                                   | Wood                              |
| 6.  | Kambari  | Door & Window                            | Straws                            |
|     |          | Lintels and Frames                       | Wood                              |
|     |          | Walls                                    | Mud                               |
|     |          | Floor                                    | Earth Stone                       |
|     |          | Roof                                     | Straw                             |

(Source: Author's Fieldwork, 2019)

#### **4.3 Discussion on objective 2: To determine possible ways to preserve the cultural heritage of the people of Niger State**

According to UNESCO in 2012, cultural tradition is seen as a gathering of the daily traits and way of life of a particular set of people over time which is reflected by their reference to such traits. These traits have been passed down from generations in different ways a have been preserved by its people.

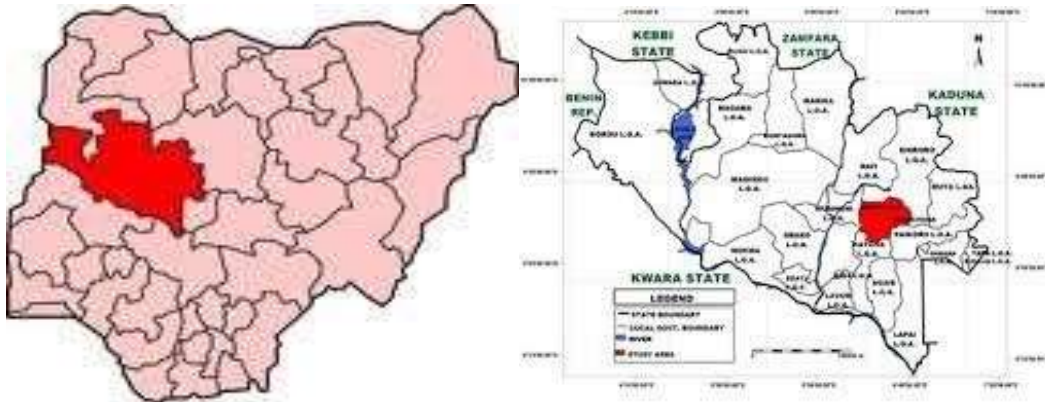
Cultural heritage of people has been preserved in form of monuments and reference points which could be in form of buildings, inscriptions, statues, shrines, rivers and other means. These regions are kept sacred by the stories which are told about it. Furthermore, cultural heritage has recently been preserved as artefacts and antiques in buildings dedicated for reference. These buildings include: shrines, art galleries, residence of village head, residence of village elders, residence of religious heads and cultural buildings worthy of note. Finally, Cultural heritage are preserved by the use of building materials and elements which depict the cultural and social system of the ancient lives. Cultural heritage is passed down from generations to generations with the use of historic building techniques to serve as a source of information pointing to the past.

#### **4.4 Discussion on objective 3: to propose a museum that will reflect the traditional building elements of Niger State**

Results from the collected data and the literatures reviewed, suggest a system of preserving the culture of a people through building elements and materials. This approach is used to propose the design of a museum which would reflect the different tribes of Niger State and their building techniques.

#### 4.4.1 Site location

The location of the proposed site is close to PDP secretariat, along southern by-pass, Minna, Niger State. The state having a population of about 3,950,249 has its capital to be Minna.



**Figure 4.1: Nigeria showing Niger State**  
(Source: Google Maps, 2019)

#### 4.4.2 Site selection criteria

The site was picked in view of the subsequent criteria:

- i. Easy accessibility due to the presence of an access road to the site
- ii. Vast land for future expansion in terms of cultural development.
- iii. The site has a good terrain which would facilitate construction and the use of traditional building materials.
- iv. Presence of public services and utilities like communication water and power.

#### 4.4.3 Site characteristics

The proposed site was visited and observations were made with resulting analysis on both physical and climatic conditions of the site. In order to attain the site characteristics.

### **I. Soil Type**

The site which gets water logged, has good load bearing capacity and good for construction.

### **II. Vegetation**

The site is predominantly covered with sparse combination of shrubs and short trees and grass cover. Some trees would be left to be used as landscape while others which would hinder construction would be removed.

### **III. Topography**

The site is fairly flat, with a mild slope towards the west.

### **IV. Accessibility and circulation**

The site can be accessed from the west by double carriage access roads which supports vehicular and pedestrian access to the site, this would further promote a clear distinction for both vehicles and pedestrians within the site.

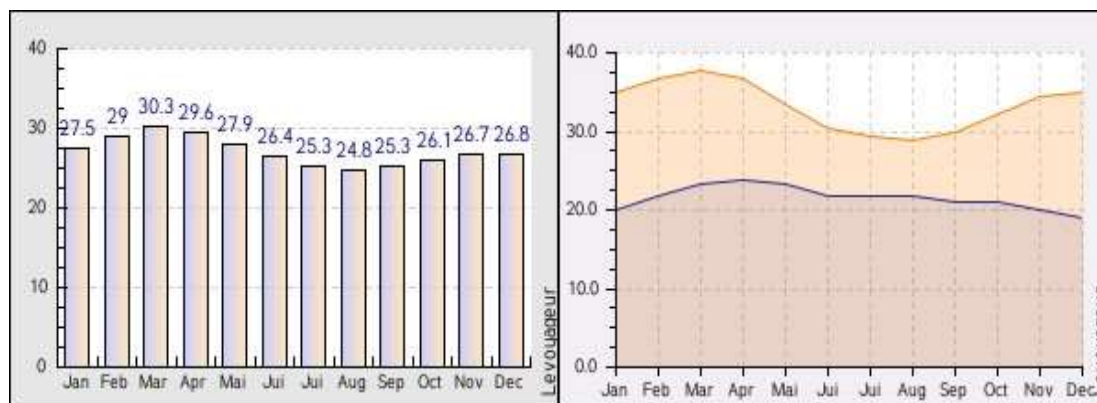
#### **4.4.4 Climatic condition**

Minna, which is situated in the north central area of Nigeria, has its climate determined by southwest trade wind blowing from Atlantic Ocean and north-east wind from the Sahara arid region that comes alongside harmattan. The climatic conditions found in Minna can further be explained as follows:

##### **a. Temperature**

The daily temperature of this region ranges from 23 – 37°C. Therefore, a mean variant of 9°C is witnessed starting from August to January and it has a hotter night of 24-25°C from January to July. Table 4.4 shows the average temperature of Minna.





**Figure 4.2: The average temperatures and minimum and maximum temperature of Minna.**

(Source: [www.levoyageur.net/weathercity-minna](http://www.levoyageur.net/weathercity-minna))

### b. Sunshine

The intensity of sunshine in Minna is reduced during the wet season reaching its minimum value in July. Daily heat reaches a peak of 41°C in November and 45°C in March and April as shown in table 4.5. The future museum will be adjusted so as to take full benefit of sun path to give natural lighting.

**Table 4.5 show various amount sun intensity annually**

| Month         | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Sun Intensity | 7.8 | 8.5 | 7.2 | 6.9 | 6.5 | 5.8 | 4.7 | 2.9 | 4.8 | 8.7 | 7.4 | 6.4 |

(Source: Niger State Agricultural Development Project Minna, 2019)

### c. Rain fall

The site has an average annual rainfall of 1100-1250mm (Otom, 2009). From November to March, the regular rainfall of the site is 50-100mm although in the rainy season it increases to 240-300mm, this declines to an average of 60-120mm in October.

#### 4.4.5 Planning principles and considerations

The development of the future centre is based on a variety of relationships between diverse functions and how they are carried out activities, function relating to functions

without intersecting non relating functions, wellbeing, security and comfort of users either directly or indirectly.

#### **4.4.6 Climatic control**

Generally, accepted temperature and relative humidity for most equipment in a social centre are 65°F - 70°F (18°C - 25°C) at 47% - 55% relative humidity. This is achievable with the use of a centralized climate control system where incoming air is purified, heated or cooled and distributed accordingly into various spaces. It is important to keep all equipment in a good working condition to ensure continuity of performance.

#### **4.5 Design Brief**

The pride of history has always been in the stories passed overtime. This stories are being passed down verbally or through physical components and monuments which stand the test of time. The raising of monuments has evolved from just art work representation to habitable structures which hold the historic and cultural values of a region. Niger State, with is a home to many culture which has over the decades upheld their heritage and cultural values. However, little has been done in uniting this various cultural values into a single monument which would tell the story of each of the tribe's history. The design would develop a museum that reflects the cultural heritage of the various tribes in Niger State in the course of the use of building materials and elements.

##### **4.5.1 Design consideration, planning and concept**

The concept utilized in the design is form follows function, the building design form tends to follow the function of the museum. The concept was derived using Arewa logo to show togetherness and oneness.

Proposed museum design is expected to seat on a site zoned to accommodate

recreational centres taken into consideration aesthetics, security, circulation and ease of access, comfort, and finishes. With regards to these considerations, the facilities will house key spaces such as the table tennis court, volley ball, hand ball, sit- outs and let table shops.

In the design, each tribe have a wing which houses a gallery to display their own traditional artefacts, sharing a common entrance and exit. There is a courtyard as common to all the tribes in Niger state, a curved shape building to represent the use of round shapes as common to the design of their various buildings, the use of wood for railings and posts as a traditional element, the use of thatch but instead of ordinary thatch, synthetic thatch is used, which lasts from 6-10 years, it is used on long span aluminium sheets.

Murals were inscribed on the walls to display cultural identity and for visitor to be able to identify the building even from afar, as a heritage museum that features the traditional building elements of Niger State

#### **4.5.2 Schedule of accommodations**

The design is based on its requirement to function as a museum featuring historical knowledge and artefacts. The museum is to accommodate various artefact of different ethnic groups found in Niger state, their historical knowledge and numerous cultural elements in terms of traditional building materials. The facilities to provide by the museum aimed to meets the world standard of a modern museum. To achieve the design goal, spaces were provided considering area required by a person to comfortably explore the museum spaces and its environments. The museum features the following activities distributed across its three floors.

- a. Ground floor: The ground floor to accommodate General entrance porch, reception, offices, curator unit, galleries and display units, sculpture with green courtyard, exhibition display, security stand, store and laboratory.
- b. First floor: The first floor housed cultural theatre, games arcade, gallery and display, meeting rooms with conveniences positions at every strategic locations.
- c. Second floor: on the second floor 90 percent of the spaces features green roof designed in a ramp with various levels, also stores, display rooms, studio, gymnasium and painting studio were featured.

### **4.5.3 Construction**

The projected site incorporates the elements, principles and materials that gives astonishing feeling to the users of the museum as discussed in both objectives. The road connecting to the site has the capacity to accommodate the traffic likely to be caused by its users. Service roads are provided and parking spaces are at the entrance of the site. The site possess a calm slope along the East as only need little filling to create the elevated part of the design where the platforms are. It only need grading in order to have a flat site surface that allows the utility of the facility. The site soil is loamy and encourage plants growth and creation of pavements because it is a load bearing firmed soil. In the conceptual phase of the design. The upper floor of the museum will be constructed with precast hollow clay pot to reduce weight of the concrete on the building by 50%. Precast hollow clay pot not only reduce the volume of concrete and steel but also, it reduces the cost of construction, sound insulation, and building load. The museum building facade are constructed with glass and reinforce concrete giving the building an aesthetical value and strength to perform its functions. The extensive glazed part of the façade is made up of skinned reflective glass to avoid heat and reflective sun

radiations. The block of 450mm X 225mm X 225mm are used for the construction of walls for adequate strength, thermal insulation, and resistance to dampness. The roofing style is the use of long span aluminium sheet covered synthetic thatch as it has the life span of about ten years.

#### **4.5.4 Materials and finishes**

Concrete has an all-embracing presentation in the construction of the proposed Museum. It is a material gotten from a sensibly balanced combination of binders such as cement, water, fine and coarse aggregates that will later strengthens to a stone like form. Concrete toughens under natural environments but the rate of hardening can be considerably improved by the help of steam cure, additives, electrical heat or auto cleave.

Also, some part of the building makes use of reinforce concrete.

Steel will be used for the creation of the structural roof members as well as the reinforcement for columns and suspended floors. Reinforcing steels are positioned where concrete is required to pass through significant tensile stresses and it must have considerable yield strength and tensile.

Sheets from aluminium are to be used for outer roof covering of the proposed design though to be covered with synthetic thatch finishes. This gives aesthetical view to the building and also avoid heat in to the building. On the railing features around the roof garden, wooden materials are to be use around the railing making it to symbolise the use of traditional building materials.

Blocks is the material constituting part of the building Envelope. It will be used as the wall material at the left, right and rear elevations respectively with the use of bricks to cover it as a finishing materials. Blocks are formed by the mixture of fine aggregate,

water and cement, in different proportions. Structural glazing will be used extensively at the building facade and on windows of the buildings. Marble tiles are clipped in Portland cement mortar and will be used mostly in the inner part of the building. They are made from the frying mixture of clays which have been forced into needed shapes.

#### **4.5.5 Landscape and external works**

Parking is an important factors in the museum which gives adequate parking area on the site for both the museum visitors and workers. Plant specifically trees, shrubs and flowers will be used as landscaping element on the site as it will be use to give aesthetical value and feelings to the museum environment. Adequate walkways are provided for users to be able to access various part of the buildings. Security house is provided at the entrance gate of the museum and also, security light are provided to keep facilities active and lovely thereby monitoring the environment.

#### **4.6 Summary of Findings**

The result revealed that, the traditional building materials are easy to get, easily available in the immediate environment and needs little or no processing, which makes it cheaper than the conventional materials. Technology and modernization have brought in materials that are expensive but easier to implement and more convenient than the traditional ones.

The pre -cast concrete, hollow blocks, tiles, roof finishing's, are some of the modern innovations that have replaced conventional materials or have made work easier. In addition, people today find it difficult to preserve the cultural use of traditional building materials, as they prefer to use the conventional building materials. For instance. The use of hollow blocks to replace the traditional clay in wall construction, the use of

reinforced column to replace the traditional wooden column. The use of aluminium to replace the wooden sills and lintels. Also, Aluminium roofing sheets have replaced the traditional thatched roof, flooring with cement and covering with ceramic tiles have replaced the ramming of earth. Round buildings have been replaced by rectangular ones.

There is a gradual extinction of traditional Architecture in civic buildings such as museums. In conclusion 83% of ethnic groups in Niger state uses round and rectangular shape clay huts, entrance huts, thatch and straw roofs, use of zinc and wood for windows and doors and the existence of courtyards are common building elements amongst all the ethnic groups. The thesis incorporated the use of some of those elements and materials as means of preserving the traditional Architecture in a museum.

## CHAPTER FIVE

### 5.0 CONCLUSION AND RECOMMENDATIONS

#### 5.1 Conclusion

Nations in the Western world have moved from a totally industrial society to a postindustrial one which places structures such as museums as both an economic facilitator and a monument for promoting and preserving cultural values. The museum has been an institute which helps people appreciate and value the natural world and the historic development. Museums collect, preserve, study, interpret and exhibit collections for social education.

Museum have proven to be a substantial medium of education extensively for preserving historic collections, scientific prior to the advent of museums in Nigeria, collected works with historic and cultural relevance were preserved in the homes of the owners and in the homes of the village heads. Traditional monarchs also had their royal collected works which consist of inherited and traditional objects that were conserved and preserved in a substandard way. Interest and objects of artistic (Akinrotimi, 1980). The collections of a museum tell a story of history and culture. However, the organization of the structure itself and the architectural approach can further give a description of the cultural values of a place. The development of this museum in Niger State, would unite the various tribes.

The incorporation of the long-established building materials and elements in the planning of museums helps in the promotion of traditional architecture. Recently, building materials have become a modified product of the traditional materials. However, little can be said about the relationship between these conventional materials



to the culture of the people because the type and use of materials differ from tribe to tribe.

## **5.2 Recommendations**

From the study, the development of museums can be seen as one with many benefits to both the economy of the country and the cultural heritage of its people. The development of museums with traditional building would promote its usage in Niger State, because the tribes in the state have been known to strongly uphold their culture. The proposed museum would bring a vital representation of historic and modern art and culture to Niger State. The number of visitors would increase, since the museum not only showcase artefacts and antiquities but also tells the historic story of the different tribes in Niger State through its design elements and techniques.

Museums should have elements which promotes the culture of the region for which it is sited. Elements like arches, door post and columns can be decorated with traditional motifs and decorations depicting the different culture in the state. Furthermore, graffiti and decorations like the use of plates by the Nupe people can be used to decorate the walls of both the interior and exterior. The construction and siting of museums in different parts of the country should be encouraged, because it has proven to be a site for tourist and therefore, a good source of revenue. It would also promote the education of the public about the cultural heritage of the people, thereby preserving history.

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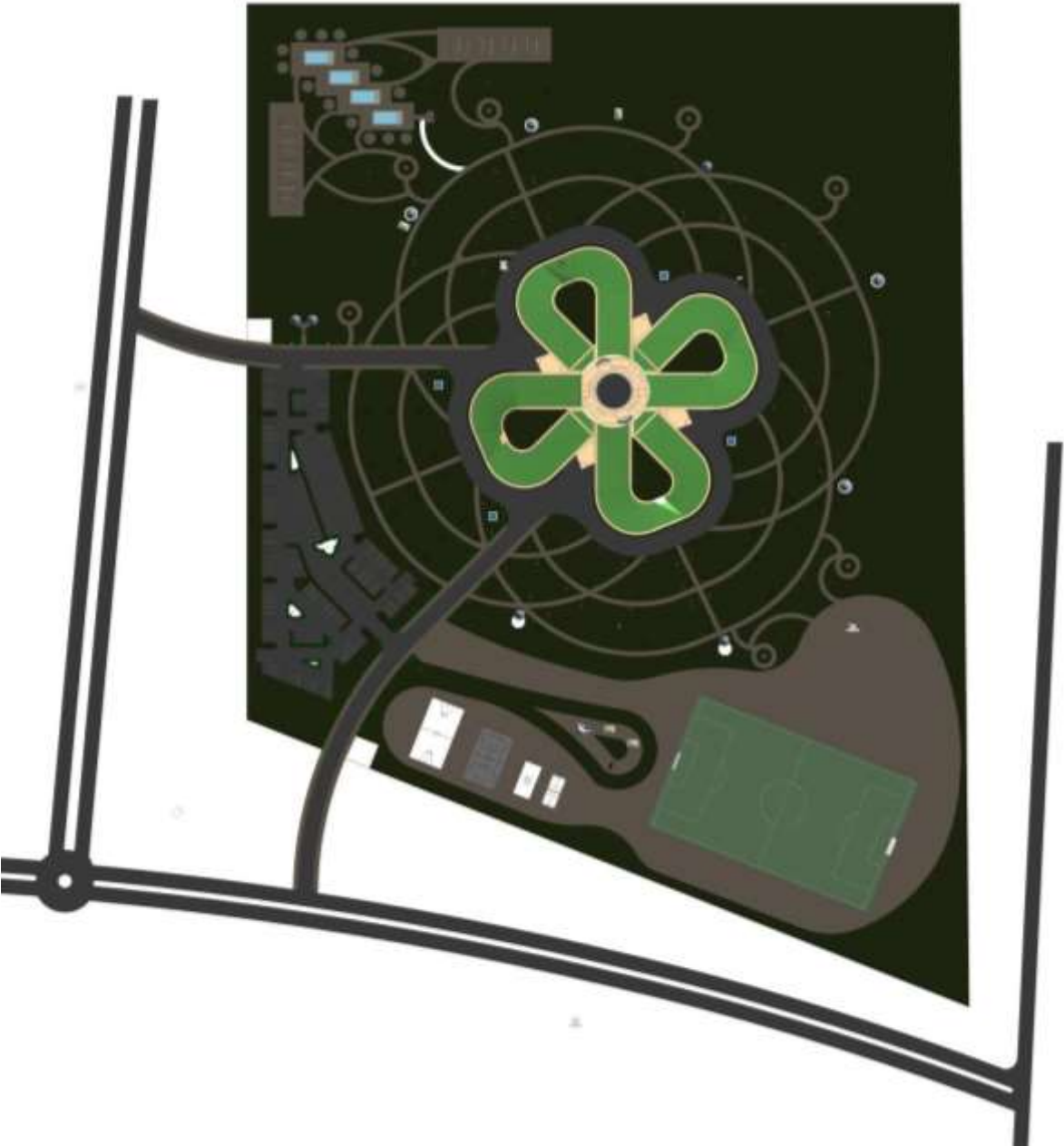
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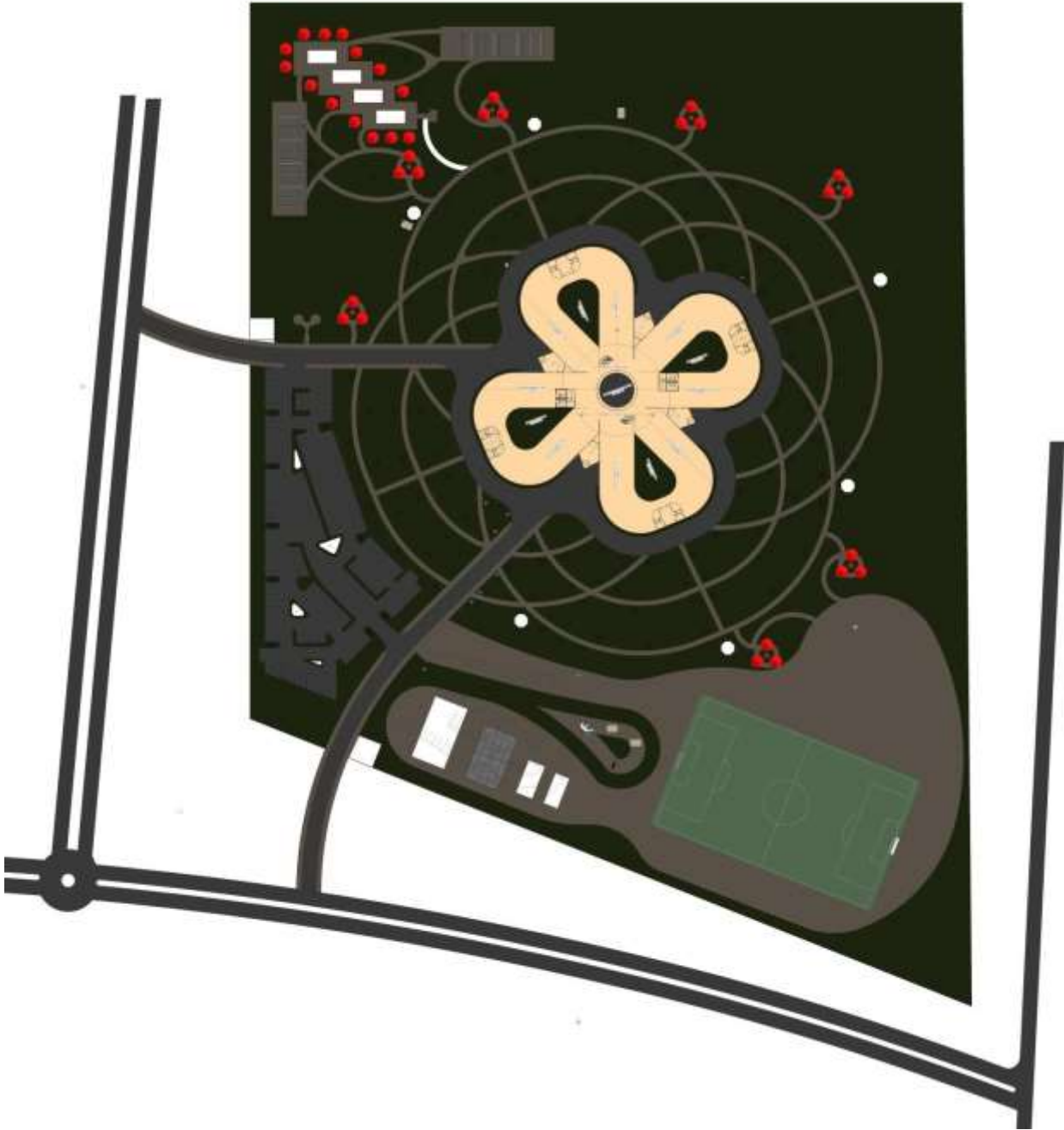
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Appendix A: Proposed Site Plan



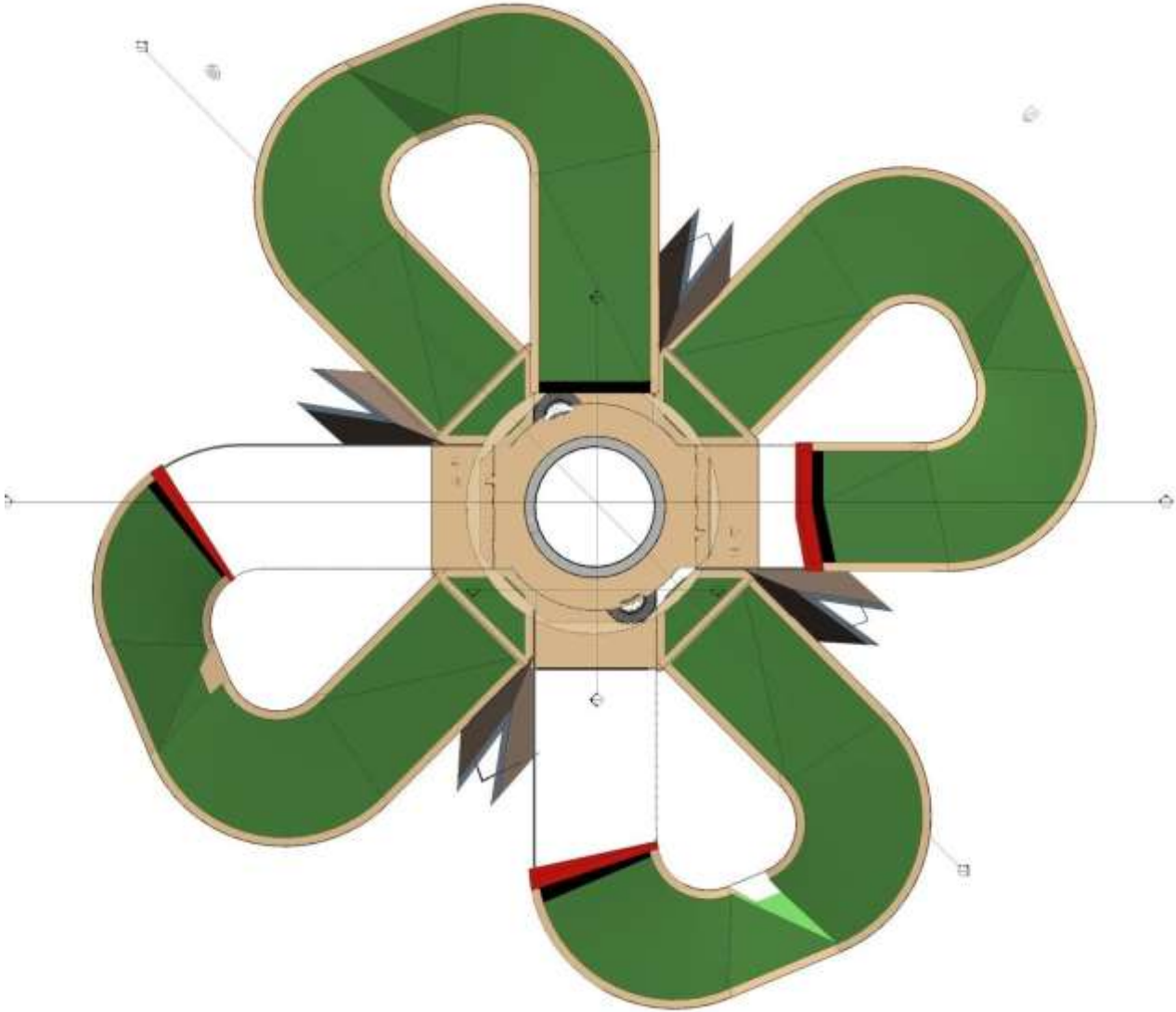
Source: Author's design work, 2019

Appendix B: Ground Floor Plan



Source: Author's design work, 2019.

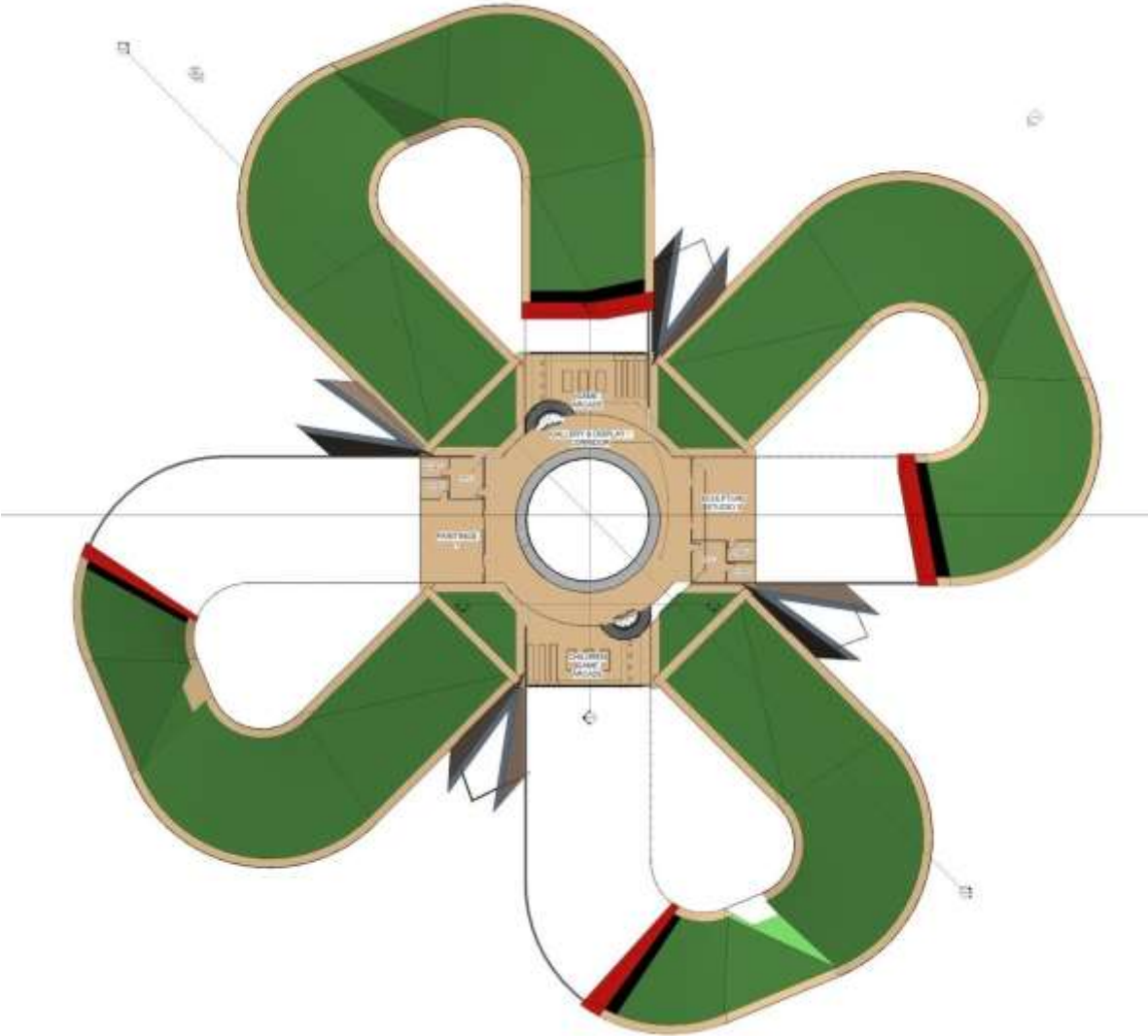
Appendix C: First Floor Plan



Source: Author’s design work, 2019.

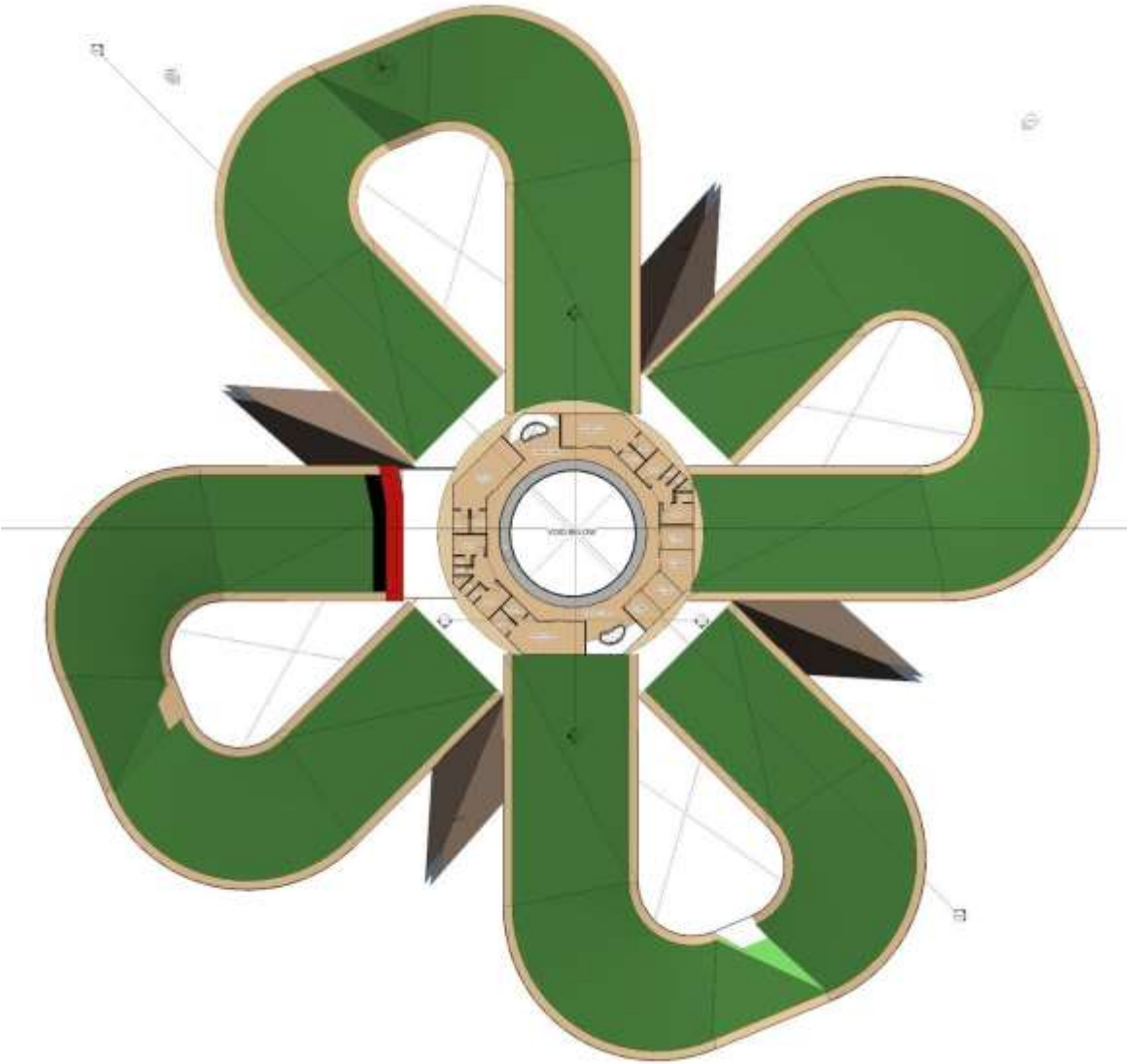


Appendix D: Second Floor Plan



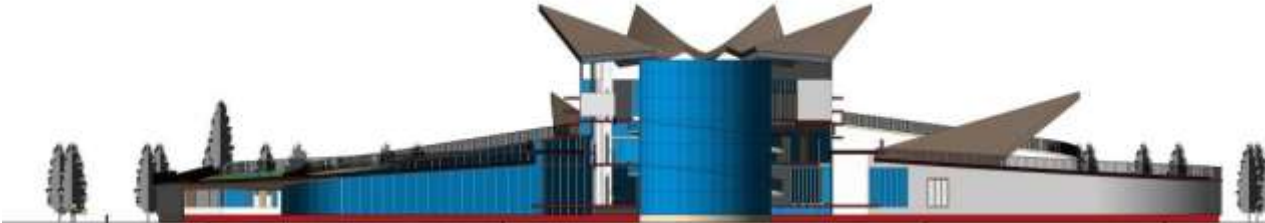
Source: Author's design work, 2019.

APPENDIX E: Mezzanine Floor Plan



Source: Author's design work, 2019.

Appendix F: Section 2



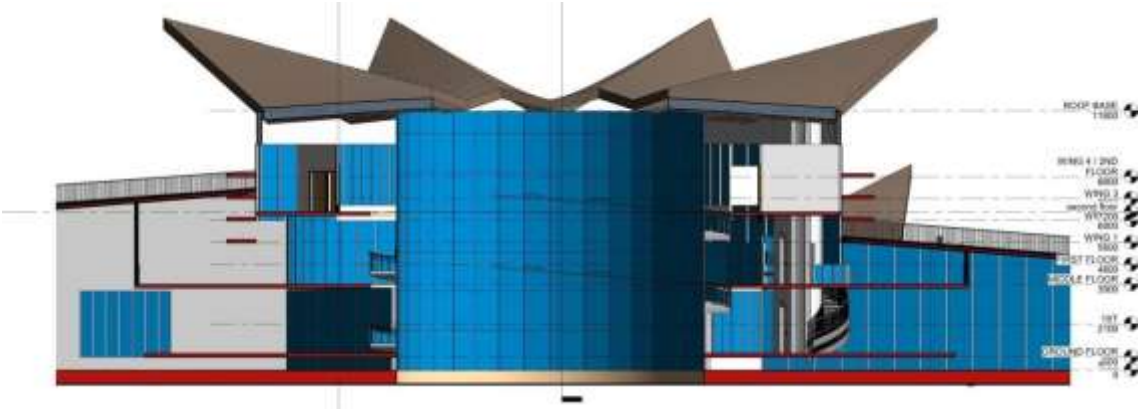
Source: Author’s design work, 2019.

Appendix G: Section 3



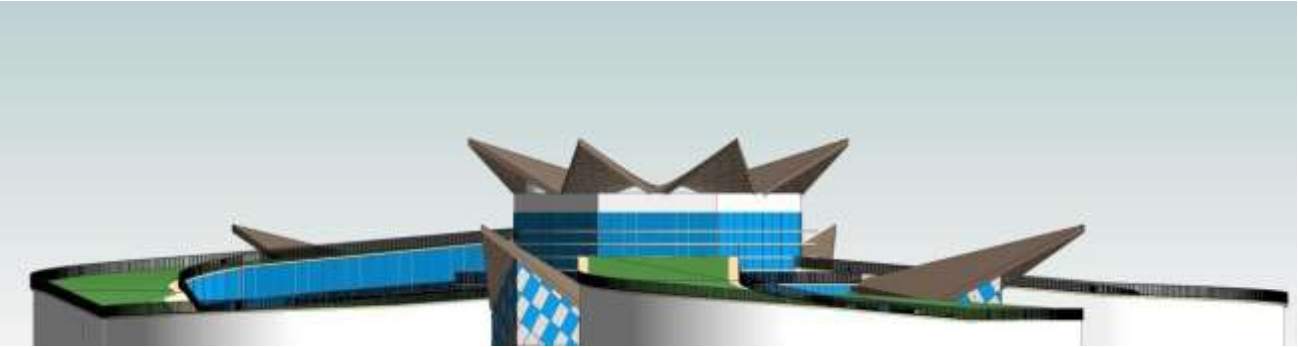
Source: Author’s design work, 2019.

Appendix H: Section 4



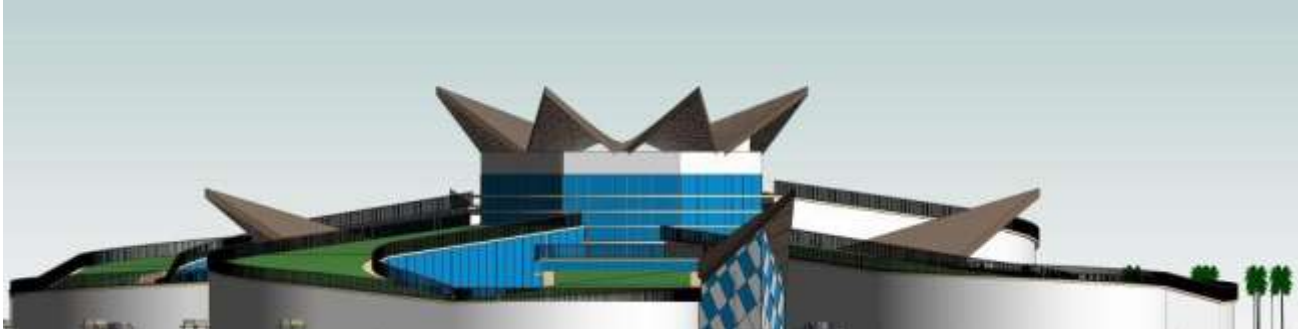
Source: Author’s design work, 2019.

Appendix I: East Elevation



Source: Author’s design work, 2019.

Appendix J: North-East Elevation



Source: Author’s design work, 2019.

Appendix K: North Elevation



Source: Author’s design work, 2019.

Appendix L: North-West Elevation



Source: Author's design work, 2019.

Appendix M: South-East Elevation



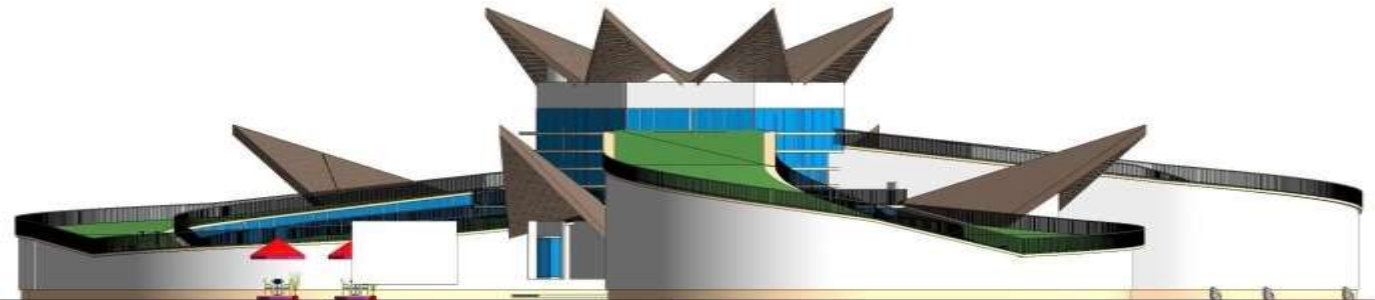
Source: Author's design work, 2019.

Appendix N: South Elevation



Source: Author's design work, 2019.

Appendix O: West elevation



Source: Author's design work, 2019.

Appendix P: Aerial View



Source: Author's design work, 2019.

Appendix Q: Approach 3D View



Source: Author’s design work, 2019.

Appendix R: 3D View of the Courtyard



Source: Author’s design work, 2019.

Appendix S: 3D View of the Walkway



Source: Author's design work, 2019.

Appendix T: 3D View of the Display Gallery



Source: Author's design work, 2019.