

**CULTURALLY RESPONSIVE ARCHITECTURE IN THE DESIGN OF A  
HOTEL IN MINNA, NIGER STATE**

**BY**

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MTECH/SET/2017/7585**

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**JUNE, 2021**

## **ABSTRACT**

Culture is an expression of the way people live and interact and its manifestation is experienced through language art and architecture whereas hotels are hospitality buildings where tourist visitors and guest are offered shelter and comfort in exchange for payment. In today's society, adopting culture in design of hospitality buildings will have a significant impact on how customers describe their service experience for cultural features translate different meaning in the experiences that people encounter. The impact of culture on architectural design influences, spatial planning, forms, appearance and the perception of what constitutes good service. The driving force for tourism development in various part of world is related to cultural and environmental features of an area of which, most hotels in Niger state failed to consider cultural values and features in the cause of design and implementation rather, the hotel designs are mostly contemporary base. Therefore, the influence of culture in hospitality building and is essential, as culture is the lens through which we view the world and humans tends to adapt easily to customs and tradition, likewise, are they more amazed when experiencing the culture of a different locality. The methodology adopted for this research is the exploratory-descriptive approach, through cultural inventory; intensive literature review of journals, books, periodical; interview with locals and observation of existing hotels in Niger state. Findings from field indicate that 31 hotels in Niger state have little or no cultural related settings. This research aims to illustrate the cultural findings and expressions in architecture by analysing the architectural elements and details at all levels, from settlement to individual built form and till the implementation level. This research recommends that implementation of cultural values in contemporary design should be encouraged for maintenance of the architectural identity of a culture.

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## **CHAPTER ONE**

### **1.0 INTRODUCTION**

#### **1.1 Background to the Study**

In the society today, cultural backgrounds have a significant impact on how customers describe their service experiences at hotels (Dominici & Rosa, 2010). These cultural influences usually translate to different expectations in the experiences that people encounter. With globalization in full speed, people continue to travel to and from different countries to other places for tourism purpose and in the cause of this; the hotel industry in general and mostly hotels at tourist site involves many challenges in accommodating the diversity of the tourist that visit the area.

Apart from borders, sea shores and terminals, hotels are amongst the first place people come in contact with, which gives the visitor a firsthand experience of the hospitality of an area or community. This brings a unique opportunity to explore what role culture plays in modern architectural design of hospitality building, as Banta (2006) assert that culture is the lens through which we view the world.

In the past, travellers sought shelter and refuge in homes and the idea of acceptance of payment for food and shelter was unfamiliar and unheard of in the spirit of African hospitality and extended family structure. The hosts were only too glad to provide both food and comfort in the cultural context. This act of hospitality portrayed Africans as hospitable people within their means although with the economic change and increase in demand for shelter by the increasing number of traveller (tourist and businessmen alike) brought about hotel development and its paid services for comfort and food.

Hotel design approach in northern Nigeria often dismisses the importance of culture and the part it plays in providing good quality service based on the cultures own understanding of service quality. Moreover, understanding the culture may seem difficult as the complexity of culture add to the difficulty of measuring the critical elements within providing quality service. These critical elements, identified through

research done in the past, are already difficult to utilize effectively to accommodate guests from abroad.

Across the geographical zones in Nigeria, traditional buildings are identified to have displayed a meticulous rejoinder to the climate, and socio-economic scene in which they have emerged. The source of these diverse traditional building styles links with the natural material available to the local builders as well as religious conviction, tradition and taboos (Agboola & Zango, 2014). The coming on of colonialism distorted the traditional life and culture of Nigerian and has created a disparity among the traditional architecture and contemporary architecture in Nigeria. Largely latest building designs athwart Hausa regions in Nigeria have been constructed in contemporary forms bespoke to suit the modernity self-ego and desires. Thus, traditional architecture must not to be derelict and forgotten, therefore; the consciousness of experts should be tailored to the understanding of its original quintessence.

Architecture in Nigeria has developed to an extent where Architects from different localities or from other country are hired to execute a job and, it is not uncommon for us to see interesting designs and buildings that has no cultural features or attachment. It is as a result of these occurrences that gave rise to the question as to “what make the architecture of a given place culturally responsive? This thesis project would explore the idea of how to better understand the values of a culture in order to inform and direct the design of architecture that is responsive to that place and people.

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

Worldwide, a lot of environments vary and plenty are morphing as a result of tourism and its related increase (Green, 2005). Comparatively, Rogerson (2007) opined that the expansive implication of tourism is being recognised by many African governments and

global organisation. As such, tourism is spotted as extremely growing worldwide and subsequently, a financial achievement of the world economy.

The driving force for tourism development in various part of world is related to cultural and environmental features of the site. Most hotels in Niger state seem to have missed the consideration of cultural values and environmental features in the cause of design and implementation rather the hotel designs are mostly contemporary base. This has lead to depletion in cultural values and making the facility less interesting to visitors of tourist sites who seek adventure even in comfort. With this current development, adopting culturally responsive approach in design of a hotel will create diversity in comfort and user appeal that is different from the contemporary based designs that work with standards.

### **1.3 Aim and Objectives of the Study**

#### **1.3.1 Aim**

This study intends at exploring the cultural inventory of the Gbagyi (also known as Gwari) and Nupe in Niger state for the design of a hotel that is responsive to the culture of the place and people in Minna.

#### **1.3.2 Objectives**

1. Determine the cultural elements used in resort hotels designs in Niger state.
2. Investigate the design features that can allow for application of responsive architecture in Niger state.
3. Identify the influence culture can have on hotel buildings in Niger state.
4. Develop a culturally responsive resort hotel design in Minna, Niger state.

## **1.4 Research Question**

1. What are those cultural elements that will appeal to tourist in a resort hotel in Niger state?
2. What are the design features that can allow for the application of responsive architecture in Niger state?
3. What cultural features can influence hotel buildings in Niger state?
4. How can a culturally responsive resort hotel design be developed in Minna, Niger State?

## **1.5 Assumptions and Limitation**

### **1.5.2 Assumptions**

The assumption considered in this study includes the following.

1. Culture should be the primary and the first point of reference prior to planning and designing of buildings for tourist site.
2. Hotels at tourist site attract a wide range of tourism participants with an expectant need for comfort on different platform which is mostly cultural.

### **1.5.2 Limitations**

Inadequate funds and online information tends to impede the efficiency of the researcher in sourcing for relevant materials, literature or information and in the process of data collection. The researcher will also simultaneously engage in this study with other academic work. This consequently will cut down on the time devoted for the research work and design.

## **1.6 Scope of the Study**

This study on responsive architecture will cover majorly the ways on how hotel building can be designed to respond to the culture of the study area. This study focuses on the two major tribes in Niger state are the Gbagyi and Nupe.

Niger State is amongst the states in the Federal Republic of Nigeria that are majorly rural while hosting approximately, 5,556,200 people in the year 2016. The state is situated in the middle belt region of Nigeria 03° 30' to 07° 40' East by the Longitude and 80° to 11°30' North by the latitude. Remarkably, Niger state has towards its East, the Federal Capital Territory and a border with the Republic of Benin in the direction of its West, Kebbi, Zamfara and Kaduna states to its North and Kwara and Kogi to the South. The estimated land area covered by the state is 74,244km<sup>2</sup> (Niger State Government, 2016), which represents about 8% the total land mass of the Federal Republic of Nigeria. The major traditional societies live in the state, they include the Nupe (who occupy about one-quarter of the land area, make up one-third of the population), the Gbagyi (who occupy about one-quarter of the land area and make one-third of the population), Kamuku, Bariba, Bussawa Kambari and Dukawa (Figure 1.1).

## **1.8 Study Area**

The region for this study is found in the principal city of Niger state; Minna. The state, being a part of the North central geo-political region of the Federal republic of Nigeria (Figure 1.1) hosts majorly the Nupe, Gbagyi(or Gwari), Bussawa, Barsa, Kambari and Kamuku ethnic groups (Figure 1.3). This thesis concentrates on the architecture of the two major traditional societies, which are the Nupe and the Gbagyi (also known as Gwari). Idris and Umar (2017) noted that foreign entrance into Minna was said to have started in the twentieth century in the year 1908 as a result of the British imperial

power. Niger state has twenty five (25) local government areas (Figure 1.2), from which is the Bosso and Chanchaga Local Government Area, the location for the study area. The Traditional groups of the Nupe and Gbagyi are mixed over and around the State capital (Figure 1.3).



**Figure 1.1: Location of Niger state in Nigeria**  
**Source: [www.nationsonline.org](http://www.nationsonline.org)**





## **1.8 Significance of the Study**

The upshot of this study will inform the wide-ranging public on how culture responsive architecture can enhance tourism infrastructure, sensitize professionals in architecture to adopt culture and tradition in contemporary design as this will create an appeal for tourist. This research will also hand out a resource base to other researchers concerned in doing further research on this ground, if practiced, will go to a degree to supply novel clarification to the subject.

Agboola and Zango (2014) viewed that it will be disastrous and a major loss should our traditional building styles and construction process vanish from the region. The profit derived from our native methods and materials were mammoth and essential to be broadcast, while any insufficiency connected with the traditional approach could be made to order.

## **CHAPTER TWO**

### **2.0 LITERATURE REVIEW**

#### **2.1 Culture**

In the simplest terms, Van Maanen and Laurent (1993) noted that culture is what is familiar, recognizable, and habitual. Therefore saying it is an expression of the way people live and interact which is mostly condoned by beliefs, tradition and the environmental composition of an area would be reasonable. In 2002 the publication, Lassister defined culture as “a shared and negotiated system of meaning informed by knowledge that people learn and put into practice by interpreting experience and generating behaviour” likewise, humans are flexible in nature, mobile, creative, and capable of operating in a wide range of environments, for this reason, shelter and comfort provided in a culturally responsive form would be more interesting and appealing as humans tends to adapt easily to customs and tradition, likewise are they more amazed when experiencing the culture of a different locality. Local results are observably sharpened by culture and social logic (Rapoport, 2005 & Oliver, 2003).

Culture and tourism are correlated for the reason that noticeable synergies and their expansion latent (OECD, 2009). Culture and tourism are consequently necessary tools to hold up the relative and competitive lead of sections in international markets. The rising range of “culture” and the cultural and creative industries also means that sections need to take on a broad move towards to culture, which includes not just physical heritage, but also insubstantial tradition and modern-day creativity (OECD, 2009).

#### **2.2 Relationship between Culture and Architecture**

Architecture is a scientific and artistic action done to; produce room and arrange it; crystallize the culture of a neighbourhood after a while in clear reflect of the civilization

in dissimilar era. Rashid and Ara (2015) idealised that any margin amid tradition and modernity is flowing and multifaceted. Architecture is a manifestation and expression of culture (Kenney, 1994) such that it should respond to, and acknowledge the cultural needs and values of the society that it interacts with; as culture, tradition, economy, technology and ecology are forces that instigate new ways in which buildings are designed and examined to support life and work. The sidestepped vernacular built results, like fabric and structural responsiveness, minimalism, modularity, adaptability, and tactile and temporality or fluidity, are fundamentally up-to-the-minute.

To comprehend this association linking culture and architecture, the association between space and culture is first examined. Space and culture have a social structure shaped in the course of determining the perception of people. Space has a significant function in reinforcing cultural modification, for the reason that the likely behaviour blueprint inside a exact space mirrors the precise cultural values. This means the construction of a mental space. Effects of mental space from tangible and physical space become explicable. Putting the operation of subjective and objective space in order in the diverse unbroken form is called architecture.

Recommending the association connecting culture and architecture, particularly in the ground of psychology, elucidates the need to the association between human and their synthetic environment. With this approach, culture is the motive or way of human relation with a synthetic environment and involves on two categories:

1. Standardized behaviours, thoughts, and feelings;
2. Products that are the consequence or a furtherance of the performance and thinking of people in a specified society (Shayan, 2011).

Kenney (1994) idealized that cultures should not be broken down into a series of cause resulting in associations connecting diverse features of the society. Looking at the quantitative relationships between the different aspects of society can lead to misconceiving of the culture. It is to that effect that architectural design comes close to allocating for a greater significance in giving detail of past building forms. Checking the fulfilment of the basic needs of a culture, the family pecking order arrangement, and outlook concerning the function of women and seclusion, and the technique of societal cooperation help in decode architectural forms (Kenney, 1994).

**Table 2.1: Model of the relationship between Culture and Architecture**

Architecture And Culture	Motive Of Architecture	Scope Of Culture
Function	Because of social component in interaction	Sociology
Conception	As an artistic product that comprise a last part elevation of the mind.	Aesthetics
Function and Conception	As a substance of the human life and comprise of efficient on actions	Anthropology
Perception	Because of mental attitude in response to the surrounding built environment	Psychology

Source: Shayan, 2011

Concerning the relationship between architecture, Ettehad *et al.* (2014) noted that in a society, the culture is a means of identifying architecture as a public trend initiated from the culture and predisposed it. The skill of architecture is a part of the largely significant indications and descriptions of every country and past era and symbolizes the environment of people in any moment. Every novel style of architecture is supported by the philosophies, methods and traditions of previous techniques and this is the motive that there was well-built connection amongst diverse styles of architecture in earlier period (Ettehad *et al.*, 2014).

## **2.3 Vernacular Architecture in Northern Nigeria (VANN)**

The chief causes that are hampering the permanence of Vernacular architecture in northern Nigeria are numerous. Danja *et al.* (2017) in a study highlighted a number of factors; Human disregard, Socio-economic circumstances, Modernization, Discontinuity and Weather and climatic setting. In these conditions traditional architecture would barely survive in Northern Nigeria. Danja *et al.* (2017) stated that the appearance of modern building materials like Cement (which are utilized in concrete and plasters), steel (that are often applied as rods for strengthening or in structural steel section), Zinc and Aluminum ( for roof casing sheets, glass) and other multiple materials amongst others, truly slowed down and weighed down the connection of the ideas and building processes applied in the traditional architecture even as they also reduced its conservation, preservation and socio-cultural relevance.

## **2.4 Architecture of the Nupe and Gbagyi Culture**

### **2.4.1 Nupe**

The Nupe traditional house (Plate I) is discrete circular adobe with thatched roofs with granaries of earth and fibres. It is made of coupling of some units based on matri-linear relations and heavy multi-theme mural decoration. Their cultural building form has transformed to rectilinear masonry houses which sometimes have circular or rectilinear earth granaries (Osasona, 2012).

The smallest nucleated settlement among rural societies is a compound, known as *emi* in Nupe. A number of compounds make up a ward known as *efu* in Nupe, while a number of wards make up a village, known as *tunga* in Nupe. Each compound in Nupe culture, is often consisting of members of the same family in most cases, but not in some, is surrounded by a perimeter fence which could be constructed of mud wall or of

grasses. In almost all cases the compound was entered through a principal entrance building known as *katamba* (Nadel, 1951; Dmochowski, 1990). Usually inside the house are smaller partitions and a number of smaller *katamba*, all invisible from outside, including living rooms, the kitchen, the animal section, the barn or granaries and the main hall (Nadel, 1951). On Plate I is the picture of a typical *katamba*.

Aiyedun and Oyerinde (1998) noted that the Nupe foundations of houses are generally dug, measuring 13cm and 22.5cm deep, by about 12-13cm and 25cm wide respectively and such foundations are made of wet earth and loam, the same basic structural building material. Aiyedun and Oyerinde (1998) added that this building material, whether intended to be used in its wet form as mud or as mould in its dry form as brick, is known as *lamkpa* in Nupe, are always mixed with soft dry grasses, or *banal* in Nupe which are usually broken into 10cm lengths which are trodden and used as building material.



**Plate I: Nupe *katamba* (as reproduced at Museum of Traditional Nigerian Architecture, MOTNA, Jos). The proliferation of carved eaves supporting wooden posts is peculiar to the residence of the rulers  
Source: Osasona, 2012**

Among the Nupe, who maintained that a husband's room is the first to be built, there is a general agreement that when a new compound is to be established the room of a woman (*kata nzagi* in Nupe) is always first built, followed by the room of a man (*kata baji* in Nupe) by all of them. Among the Nupe the man's room *kata bagi*, is followed in construction by the bachelor's room, *kata gbarufu*, after which the animal hut, *egagi* is built; the compound is then fenced before the entrance hall, pounding and grinding hut, *takun kpan*, and the granary, *edo*, are built in that order (Aiyedun & Oyerinde, 1998).

The Nupe traditionally, had circular cob huts. However, they were prolific decorators, specializing in heavy mural sculpting on the facades of their buildings (Denyer, 1978) and the tessellating of doorways with ceramic platelets (*giama tetengi*); they used both geometric and zoomorphic motifs (Dmochowski, 1990). In addition to agrarian pursuits, the Nupe engaged in brass/bronze casting and beadwork, owing to the availability of vast local deposits (Nadel, 1951); fishing was also actively pursued (as the River Niger courses through their geographical territory). Characteristically, in the Nupe culture, the ruler of the settlement had his residence very distinct: quite apart from sheer size, it invariably sported lavish ornamentation that set it apart from that of the commoners'. With the Nupe, the traditional ruler's *katamba* (reception hut) in addition to other decorative work also had a framing veranda with elaborately carved timber posts holding up the low-swung eaves.

#### **2.4.2 Gbagyi**

Aiyedun and Oyerinde (1998) noted that the Gbagyi (also known as Gwari) foundations of houses are not generally dug, the first 20cm height in the course of building a house from the ground level serves as the foundation, but such foundations are made of wet earth and loam, the same basic structural building material. Aiyedun and Oyerinde

(1998) added that this building material, whether intended to be used in its wet form as mud or as mould, known as *tubeli* in Gbagyiare always mixed with soft dry grasses. this is followed by the construction of the room of a bachelor, *abigbe*, the girl's room, *gbebi*, the man's main granary, *dobui yako*, then the pounding or grinding room, *ataboknu*, then the fence (Figure 2.1 and 2.2).

In a Gbagyi compound there are always other structures and features not commonly found among other societies as shown on Figure 2.3, such as animal hut, *kudumi*, the wife's kitchen, *gache*, a fuewood hut, *knunu*, other smaller granaries, *dobui*, an inner entrance hall, *boknu*, as well as two small features in the form of shrines, *bori*, *madaka* for the women and *tsafi* for the men, represented by a stone and a pot in a compound respectively (Aiyedun & Oyerinde, 1998). Each compound also contains an entrance hall, known to be used as a meeting place, for recreation, to settle dispute and as a guest room, while the larger open space within the compound are used for carrying out activities such as pottery making, wood carving, tray and basket making as shown on Figures 2.3 and 2.4 (Folorunsho & Ogundele, 1993).



**Figure 2.1: A typical Gbagyi compound with multiple entrances**  
**Source: Mai and Shamsuddin, 2008**



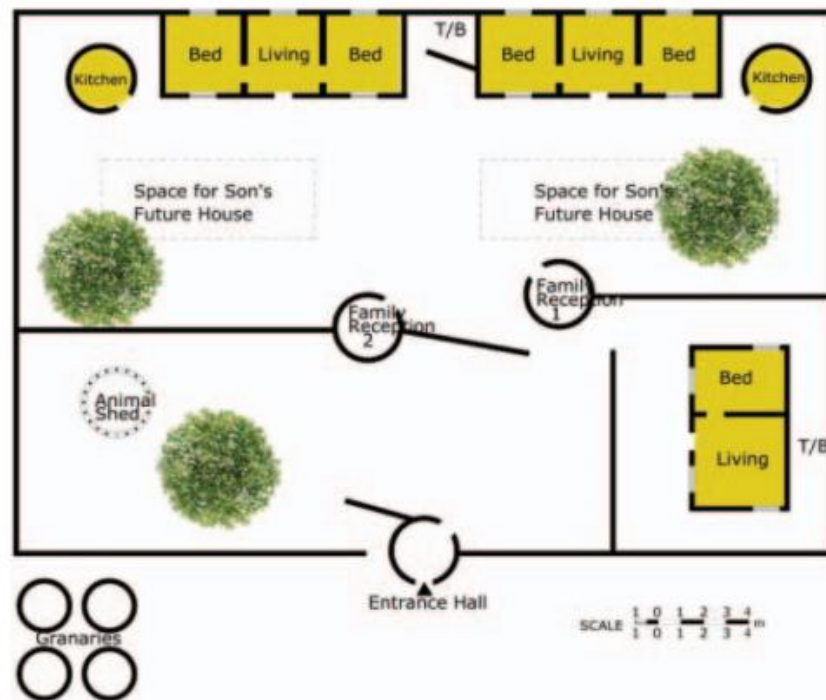


Figure 2.2: Typical Gbagyi modified Muslim compound  
Source: Mai and Shamsuddin, 2008

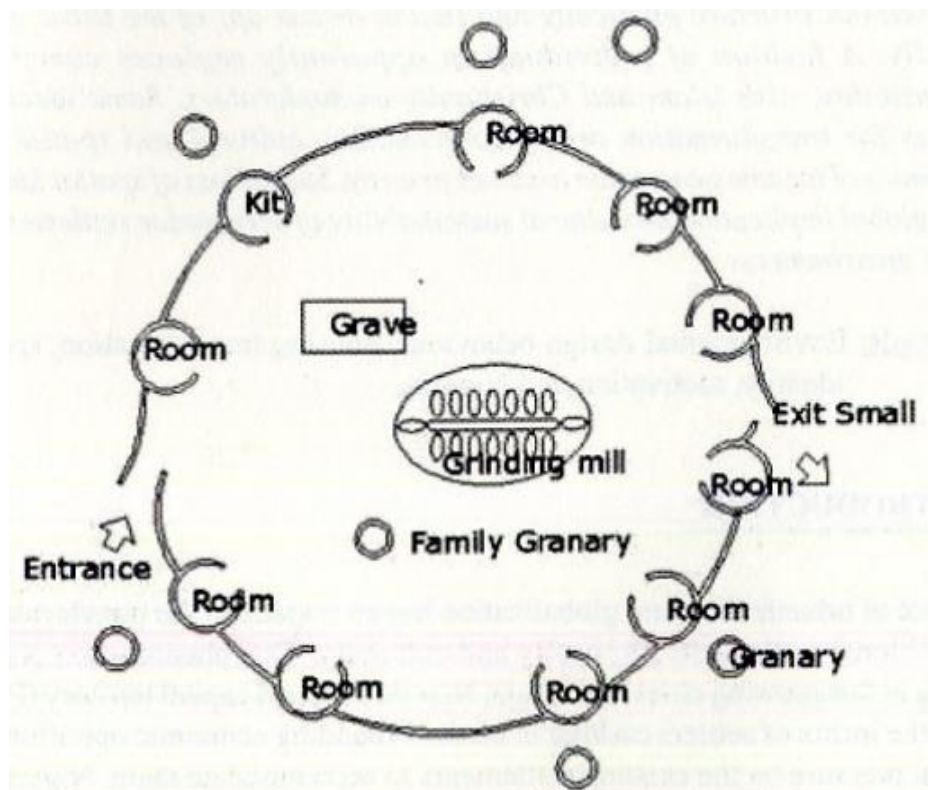
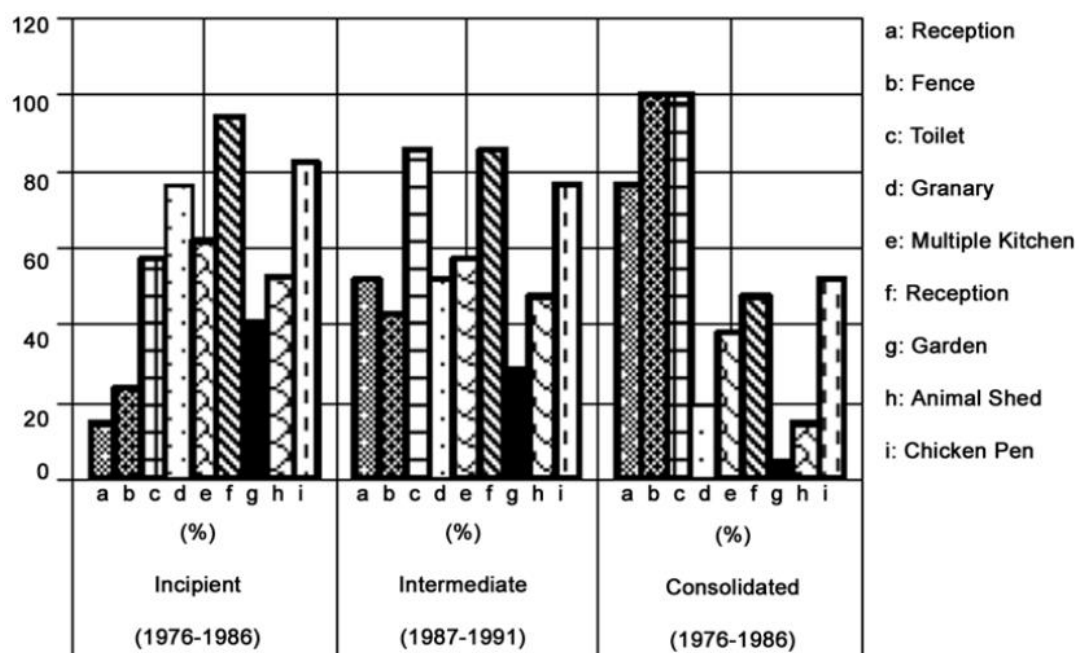


Figure 2.3: Typical Gbagyi rural compound  
Source: Mai and Shamsuddin, 2008 as adapted from Balogun, 2001:103

The circular compound is common to other societies and usually contains five huts. The compound walls and the houses are built in the same way (Plate II). Local Gbagyi communities continue their existence in relative un-sophistication, making use of building practices and forms that have not significantly altered from their more traditional past. In the spirit of global urban practices as is the case with the village in Plate II.

The traditional Gbagyi house is observed on Figure 2.4 to have evolved between 1976 and 1991 as studied by Mai and Rahman (2010) has Receptions, fences, toilets, granaries, multiple kitchens, gardens, animal pens and chicken pens all in variant proportions.



**Figure 2.4: Transformation pattern of housing features**  
**Source: Mai and Rahman, 2010**



**Plate II: Gbagyi village on the outskirts of Abuja. Buildings made of Adobe, but roofed with corrugated metal sheets. Notice granaries background and foreground, some now rectilinear and sheet-roofed. Source: Osasona, 2012**

## **2.5 Responsive Architecture**

In a bid to create flexible building that responds sustainably to culture, tradition, economy, technology and ecology, gave rise to responsive architecture as it was introduced by Nicholas Nagroponte in the late 1960s. Responsive architecture is a new point of view that redefines architectural thinking and tends to create harmony between the atmosphere and the constructed environment (Meagher, 2015). This type of architecture adapts rather than reject; responds to change rather than stagnates and generally it is a new philosophy that connects culture of an area, nature, technology and the universal forces that constitutes the environment in dynamic ways.

Responsive architecture is a design approach for building implementation of building components designed for adaptation by changing in response to the conditions of the environment or designed in response to environmental condition. Each of the buildings is in skilfully a set unit, inert and passive. To add to that, simultaneously, every building

is dynamic body whose outward show, permeability and affordances for goings-on are able to abruptly and fickly transform in reaction to the needs of its residents and its environmental milieu.

Instances of plan of responsive buildings that can gain more consequence due to its increase in popularity consist of robotic, responsive parts in buildings of cultural and architectural importance (Meagher, 2015). The location, landscape and structure make up the fixed components of buildings. Even so, should the behaviour of a building be completely static, it would be difficult for it to host the range of unforeseen events that represent daily life. An amount of liveness, a capability for adjustment and modification is needed in times of change; in weather, the behaviour and needs of people.

Each one of the buildings represent a diverse kind of responsiveness, and (with added significance) a dissimilar move towards design to alter and incorporate responsive components in the building as an entity. One cause for the absence of cases of poetics in the design of responsive components is certainly a shortage of instances, both positive and negative (Meagher, 2015).

### **2.5.1 Forms of responsive architecture**

There are two forms of Responsive Architecture based on the extent of the research and they are;

#### **2.5.1.3 Kinetic responsive architecture**

This is a form of responsive architecture in which a building is designed to respond to climatic changes, whereby the building features such as the shading devices and skin are automated with actuators to respond to the environmental forces or controlled to

respond to user needs. An example is the Al-Bahr tower (Plate III) in the UAE where a high performance adaptive building envelope is designed to respond to the intensity of sunlight (Meagher, 2015).

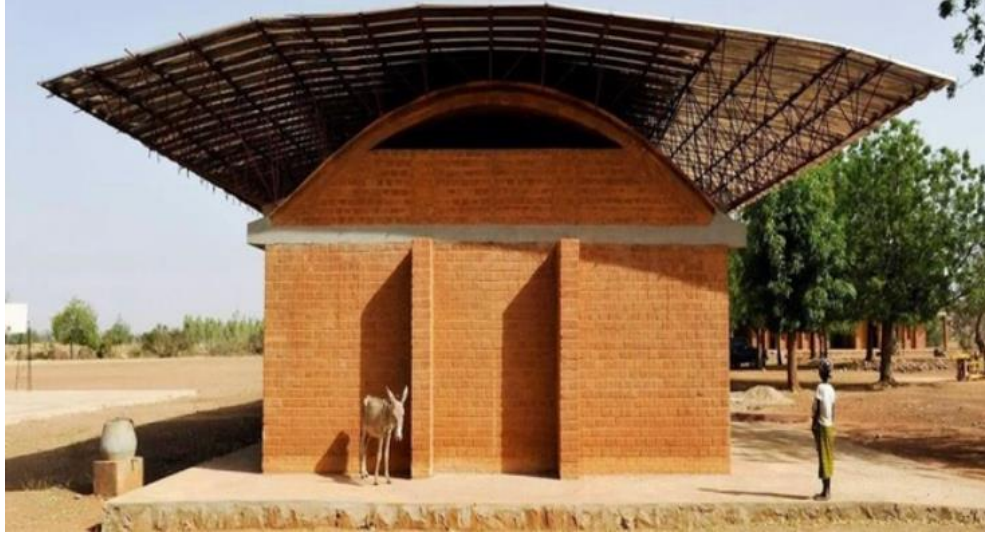


**Plate III: Al-Bahr Tower, Abu Dhabi**  
**Source: Meagher, 2015**

#### **2.5.1.4 Static responsive architecture**

This is a form of responsive architecture where a building is designed in response to the climatic state of a given neighbourhood. In this form of responsive architecture the building features are preset to conform to the environmental force hence providing the same thermal conditions for every instance in time for users. A Primary school designed by Arc D. F. Kere in Burkina Faso (Plate IV) where suspended roof with an extended overhang, stack windows and locally made bricks were used in response to the regional climate in the architecture of the building.

Culturally responsive architecture can be categorized under static responsive architecture in sense that most traditional building are designed in response to the life style life, religious beliefs and the climatic condition.



**Plate IV: Primary School, Burkina Faso**  
**Source: Arc D. F. Kere**

## **2.6 Culturally Responsive Architecture**

Ettehad *et al.* (2014) discussed that the architectural body and the residents of the national culture can generate architecture with uniqueness because of the cultural indices of that society. The human values influence architecture as well as the old architecture. The culture of the neighbourhood defines the identity and architecture of an area as determined by the culture because a social occurrence originate from the lifestyle and predisposed it. The art of architecture is one of the most significant indications and descriptions of every country and historical era and stand for the environment of the people anytime.

From the descriptions above it could be said that culturally responsive architecture is a style or design approach done in response to the social value, cultural history and the environmental context of a giving place or community. Which means a building is said to be culturally responsive by its; spatial planning; construction technique and material used; the building features, form and appearance in relation to cultural forms, life style and cultural identity of the place it exist. This brings us to the question of how can culture influence building style and users appeal. Urban arrangements are cultural

places having architecture as the greatest evidence that showcases a cultural identity. Design amongst these arrangements need a an extensive knowhow of the places and the cultural identity they stand for (Herbig, 2016).

Danja *et al.* (2017) identified the main features of cultural building architecture in northern Nigeria (referred to as Vernacular Architecture of Northern Nigeria (VANN)) to include engravings on the facades of building and utilize building materials that include timber, earth, stones and grass, just to mention, these materials are examples of those outstanding to the VANN. The chief material applied in VANN is Earth; it is the most copiously easy to get to building material. in the case when combined with grass, it is applied as an adhesive to form a composite material and also applied to make the most likely application of other materials.

The housing developed by a people is a true indication of their lifestyle. It reflects the society and supplies a sturdy foundation for comprehending the culture of the people. Spatial planning is a rationale to which a building is put. It is also dependent on the needs of the users and ambition, and their socio-cultural backdrop on the one side and that of the designer on the other (Abiodun & Damilola, 2016).

Environmental and cultural sustainability might be attained through a regional design approach. In regional approach, design considers the climate and topography and means to maintain the culture of the region through deeming the existing prototype of the region, the active architectural features of the buildings, the active lifestyles of the inhabitants and the existing cultural issues (Kultur, 2012).

Laurell-Stenlund and Eriksson (2010) discovered that visitors evaluation of a building of cultural making and its design in relationship between design factors based on their



experience as (which are the Technical design, Multifunctional design with spaces for familiarity, Multifunctional design with spaces for utilization and practice of goings-on):

1. Technical and multifunctional design variables being weak, yet positive. Hence, the need for the development of purposeful and technical clarification during briefing (Ryd, 2004)
2. Noteworthy connection between occurrence of activities and visiting regularity but being very frail.
3. No relationship between technical and functional design variables.
4. flourishing landmarks or iconic buildings are motivated by social forces even as these buildings have an unusual brunt on their cities in terms of coherent something mysterious and meaningful, common known as the artistic vigor behind the conception of the landmark or iconic building (Jencks, 2005; Short *et al.*, 2007 & Bröchner 2009).

Kockler (1989) highlighted that the opportunities for social interaction and increased understanding and empathy offered by a culturally responsive architectural building are significant first steps toward building cultural bridges. By means of an architectural program that is multi-use in character. It is also a way of producing diverse ways of responding to critical economic and social needs as well as to the basic psychological need for self-affirmation in both the individual and community sense by design (Kockler, 1989).

## **2.7 Hotels**

Hotel buildings are popular for the sumptuousness, gathering and sightseeing they provide for in any place because of their conspicuous nature and drive for commercial



success. The hotels being a part of the hospitality industry play an important part in the hospitality of any place as guests, visitors, and tourists are offered accommodation and its allied facilities in exchange of payment (Chan & Mackenzie, 2013). The number of bedrooms in the hotel building can be addressed as suites as they are also involved in the categorization of the hotels and these could be the luxury hotel, business hotel or the smaller hotel, although these classifications are irrespective of the bedroom floor area of the hotels (Guide 36, 1997).

### **2.7.1 Classification of hotels**

According to Chan and Mackenzie (2013), hotels have many systems of classification. These classifications could be for evaluation or description. Table 2.2 highlights a few factors criteria often used in hotel classification. Through classification, the characteristics of different hotels provide travellers a brief idea about different options available and make comparison before their reservation.

There are different types of hotels, which could offer accommodation, proximity to places of activities, comfort, and luxury and function as required by travellers. The types of hotels include; city centre hotels, sub-urban hotels, airport hotels, highway hotels or motels, convention hotels, commercial hotels, resort hotels, spa hotels, casino hotels, all-suite hotels, boutique hotels, guesthouses, hostels and cabins.

**Table 2.2: Classification factors of hotels**

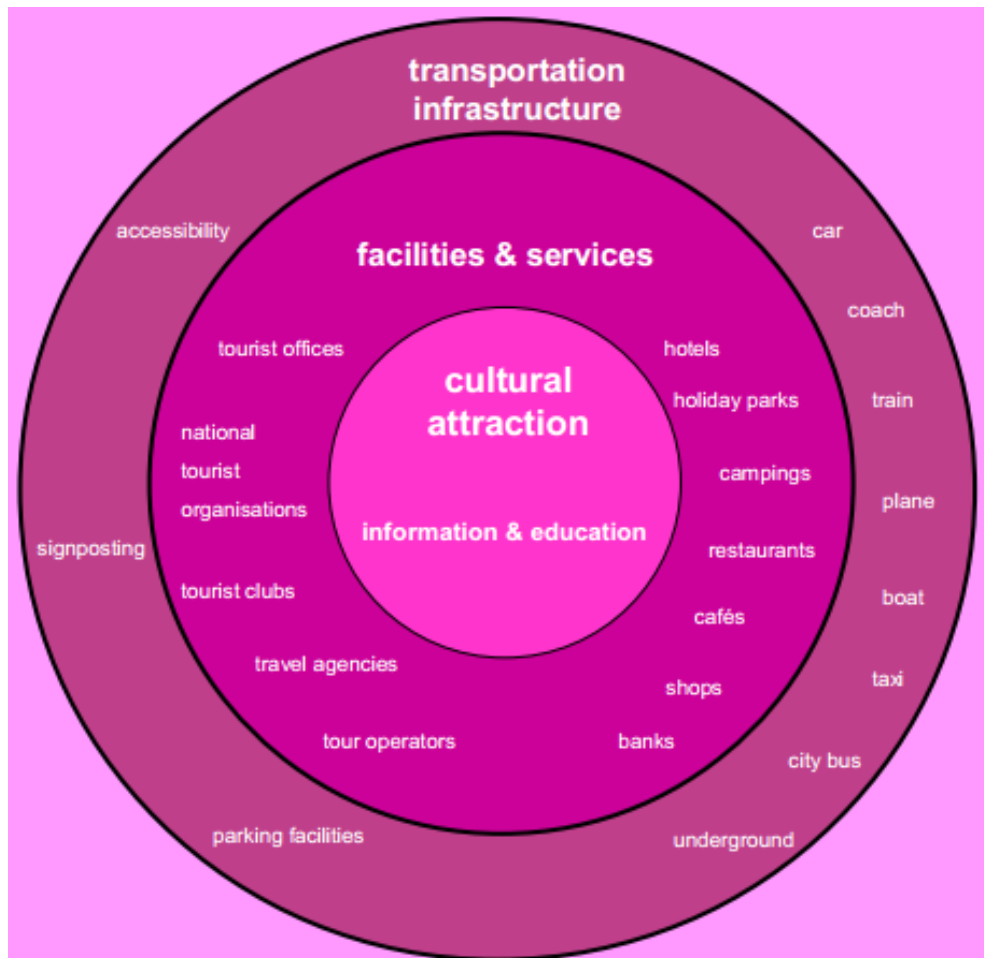
s/n	Classification Factor	Examples
1	Function	Meeting and convention
2	Market segment	Leisure travellers
3	Design	Exterior or interior design features
4	Location	City centre
5	Hotel size	Number of rooms
6	Rating	5(five) star hotels
7	Price	Budget or luxury
8	Staff to room ratio	A staff serving 2 rooms
9	Distinctiveness of property	All-suite hotels

Source: Chan and Mackenzie (2013)

There are different types of hotels, which could offer accommodation, proximity to places of activities, comfort, and luxury and function as required by travellers. The types of hotels include; city centre hotels, sub-urban hotels, airport hotels, highway hotels or motels, convention hotels, commercial hotels, resort hotels, spa hotels, casino hotels, all-suite hotels, boutique hotels, guesthouses, hostels and cabins.

## **2.8 Architecture of Cultural Responsive Hotels**

Wotton (1924) idealized from the works of Vitruvius and Leon Battista Alberti that the ‘logical’ position is on the fitness of purpose, that ‘the end must direct the operation’ and ‘the end is to build well’ and ‘commodity, firmness and delight’ are the three basic elements of a good building. Evident on the features from *the Foundation, The Walles. The Appertions or Overtures. The Compartition*. Through to the Cover are the elements of a building. This emphasises the importance of building architecture to the cultural tourism of any society, Freund de Klumbis and Munsters (2005) summed up the facilities and functions in the activities hosted in a hotel building ( from tourist offices, banks, shops, cafes, restaurants, camps, holiday parks) as parts of the information and education factors that lead to cultural attraction (Figure 2.5).



**Figure 2.5: The cultural tourism product**  
**Source: Freund de Klumbis and Munsters, 2005**

Hotels, being part of the hospitality industry are an important part of cultural tourism even as they. On several levels need to meet the needs of the customer (Kotler, 2003):

1. The core product offers the benefits provided by the hotel to the consumer and not the features; room comfort and convenient location.
2. There are services or goods that must be present for the guests to use the core product.
3. In order to add value to the core product, Supporting products are offered to help to position a hotel through differentiation from the competitors; an example is a full-service health spa.
4. Foremost dissimilarities happen amid the variety of hospitality concepts similar to the atmosphere formed by centring on lightning, marriage of textures and

colours to gratify the senses. Social-cultural facilities for the parishioners and pilgrims serve as augmented product as an important concept.

Freund de Klumbis and Munsters (2005) pointed out that consumers view food, accommodation and culture merely as elements of a superior complete relating to a whole experience. For the reason of this, a germane prospect for hotels, from a marketing point of view with a foremost brand outside the tourism industry likes lifestyle brands.

### **2.8.1 Factors that challenge the sustainability of traditional architecture and their possible impacts**

Traditional architecture integrates a wealth of adaptable building forms in buildings that have been planned and formed by means of confined resources and acquaintance (Oliver 1975). Rigid designs, predominantly in rural cultures, arise when the knowledge and objectives of designer become separated from the experience and needs of users, resulting in unsuitable, rigid and despicable architecture (Oliver 1975).

One of the greatest challenges of traditional architecture in Northern Nigeria as described in Table 2.3 is in human neglect; heritage buildings are often left in neglect, forgotten and ignored by the people. In this effect, all finances needed to sustain these buildings are not provided as they are left in preference of modern buildings and are left to the forces of nature.

**Table 2.3: Factors that challenge the sustainability of Traditional Architecture in Northern Nigeria and their possible impacts**

s/n	Factors challenging the sustainability of Traditional Architecture in Northern Nigeria	Possible impacts
1	Human neglect	a. Abandonment of heritage buildings b. failure to remember and disregard for traditional architectural elements
2	Socio-economic conditions	a. monetary ability b. Social-class feature c. High cost of maintenance
3	Modernization	a. Substitution of the old buildings with fresh modern ones b. Poor social satisfactoriness of traditional buildings
4	Discontinuity	a. Deficiency of qualified builders and master builders presently b. Desertion of traditional buildings in the cities c. Traditionally noteworthy buildings of earth have worn bodily and are somewhat derelict
5	Weather and climatic conditions	a. Surface erosion b. One-sided crumbling c. Harmful situations owed to steady humidity and unoccupied pedestal d. Wear and tear of the buildings e. Continuous humidity f. Moisture from underground

Source: Danja *et al.* (2017)

## **CHAPTER THREE**

### **3.0 RESEARCH METHODOLOGY**

#### **3.1 Research Method**

Journals, conference papers, seminar papers, workshop papers, newspapers, text books, magazines and the internet sources were the major sources of secondary data that were consulted in the re-examination of literatures in the Vernacular Architecture field and aided in the identification and channelling some characteristics of the Vernacular Architecture. These characteristics were investigated and the factors standing in the way to their sustainable relevance within the Vernacular Architecture were found out and thrashed out in relativity to the global context.

The method of this research trails the exploratory-descriptive approach, and it can be added up into three major junctures as articulated by Asquith and Vellinga (2006). First is the putting of spotlight on the cultural and emotional parts of persons to house their behaviour in producing a community and discharging the expressive and imaginative aptitude through involvement. Second is the process of re-making the design that guarantee an ample region of contemplation of cultural givens and communal behavioural activities of the neighbourhood beleaguered by the design. Thirdly is the re-comprehension and analysing urban and architectural prototypes of vernacular environments, with particular focal point on the consciousness of the design progression with its pros and cons that guarantee its furtherance overtime.

Examination of the connection of the spatial planning of the compounds to the cultural development of women in relation to the constraints of flow in the compounds is done to determine the consequence on the socio-economic development of women

predominantly in sight of their intrinsic potentials to the general development of the society.

This thesis documents aspects of the traditional architecture and the construction of traditional buildings and the features in a compound, including the construction of floorings of houses, among the linguistically distinct rural communities of the Gbagyi in Dama village and Nupe in Kataeregi in Niger State. Kataeregi is located in the along bida and its environs, is a Major Towns and Cities in Nupe land (Yahaya, 2003). It also attempts to compare the ethnographic material on the subject with that from the Wushishi excavations, to see whether additional cultural relationships could be discerned and established. This is with the intention of exploring the culture of the Gbagyi and Nupe in Niger state for the design of a resort hotel that is responsive to the culture of the place and people in Minna. Knowing that it is important to obtain data to carry out this research, the analysis and organisation of this work involved the use of qualitative tools to carry out this research. The study takes Culture to be the primary and the first point of reference prior to planning and designing of buildings for tourist site, and that Hotels at tourist site attract a wide range of tourism participants with an expectant need for comfort on different platform which is mostly cultural.

### **3.4 Data Type and Sources**

#### **3.4.1 Primary data**

Used in this work were data obtained directly by the author through fieldwork in and from the villages of Dama and Kataeregi for the research. This involved conducting direct personal observations and personal interviews in collecting data in the course of this research.

#### **3.4.1.1 Personal interview**

The village heads were interviewed and information on the pattern of their buildings was collected. This concerned the engravings, the building distribution and the arrangement of the spaces within them.

#### **3.4.1.2 Direct personal observation**

The interpretations made in the course of the research work were from building, finishing, flooring and techniques applied concerning their culture were observed.

#### **3.4.2 Secondary data**

These includes the data that were obtained during the course of the research as sourced from existing data sources through the counsel of publications from journal articles and other publication.

### **3.5 Methods of Data Collection**

The assembly of data for this research was carried out with the qualitative data collection method to guarantee that the information was justifiable and verifiable.

#### **3.5.1 Qualitative method**

The qualitative method investigated the building use pattern in the Nupe and Gbagyi culture with the use of interviews of the village heads of Kataregi and Dama respectively. The findings described and explained the sequence of their special organisation.

### **4.4 Variables of the Study**

Identifying and testing the specific typical subjects of cultural responsiveness was done in this research. The process included the identification and examination of buildings



considered in the cause of the research. For this work, the two form of variables used are:

- i.Independent variables
- ii.Dependent variables

### **3.4.3 Independent variables**

These are already occurring and cannot be controlled nor manipulated the data gotten in the study includes the following;

- i.Type of building
- ii.Location of the building
- iii.Building materials

### **3.4.4 Dependent variables**

These variables change with their integration to the buildings and consequently affect the appearance. In the samples that would be taken in the course of the research. These variables include;

- i.Location of wall openings
- ii.Courtyards
- iii.Openings
- iv.Engravings
- v.Roofing materials
- vi.Flooring

### **3.5 Analysis of Variables for Culturally Responsive Architecture in Design of a Hotel in Niger State**

#### **3.7.1 Determining the cultural elements in Nupe and Gbagyi buildings architecture**

Interviews were employed with many other research methods and they allow the researcher to understand the cultural elements in their buildings (Siegel & Swanson, 2006). Structured personal interviews with village heads in the Nupe and Gbagyi villages of Kataregi and Dama respectively were carried out. The sampling technique used for this survey was stratified random sampling method; their location in Niger state determined the selection of these sampled traditional buildings. The elements for traditional buildings that were considered for this research includes walls, roofs and floorings, the case that were analysed are buildings of the Nupe and Gbagyi villages of Kataregi and Dama respectively.

#### **3.7.2 Investigating the design features of the Nupe and Gbagyi buildings and responsive architecture**

The design features present and applied in the cultures and their buildings were observed. The investigation was made with the aid of observation schedules on buildings. The template as recommended on Table 3.1 is going to guide the research in this thesis.

#### **3.7.3 Identifying the influence of culture on building forms in Niger state**

The influence of the culture of the Nupe and Gbagyi people on building design was investigated with the aid of observation schedules and personal interviews with the village heads from selected villages. Table 3.1 illustrates the template that would be used to study the presence of the traditional architecture in Minna. The details of the patterns on 1.1.1 to 1.1.3 in the domestic case studies will not be emphasised while the community on 1 will be identified as the site.

**Table 3.1: Recommended template for building in any vernacular society**

s/n	Level	The blueprint of actions of the targeted vernacular communities (which have been stirred from the cultural dimension)		
1	Community	1.1	Fabric	1.1.1 Pattern's name 1.1.2 Pattern's photo 1.1.3 Users, Researchers, Specialists And Comments of Authorities
		1.2	Planning	
		1.3	Themes	
2	Building	2.1	Character	
		2.2	Spaces	
		2.3	Features	
3	Details	3.1	Completion	
		3.2	Finishes	
		3.3	Special elements	

**Source:** Abdel-Azim and Osman. (2017)

### **3.7.4 Developing a culturally responsive designed resort hotel in Minna Niger State**

Design a resort hotel to be located in Minna, Niger state by using responsive architecture to integrate Nupe culture and Gbagyi culture.

### **3.8 Sample Size of Study**

The sample area for the research is located in Dama village of Bosso local government area and Kataregi of Katcha local government area, which are two (2) out of the twenty five (25) local government areas in the state.

### **3.9 Sample Selection Criteria**

#### **3.8.1 Sample location**

The research study area is in Niger state, Nigeria. In this location, the proposed design for the research and hence, the sample hotels for observations and other research investigation are located in this study area.

### **3.8.2 Building type**

The building type for this research work is what determined the samples examined for this research. The building type is traditional buildings.

### **3.9 Method of Data Analysis**

The data that would be obtained in the course of this research would be analysed with the aid of the statistical analysis application SPSS, through tables, Figures, plates and charts.

## CHAPTER FOUR

### 4.0 RESULTS AND DISCUSSION

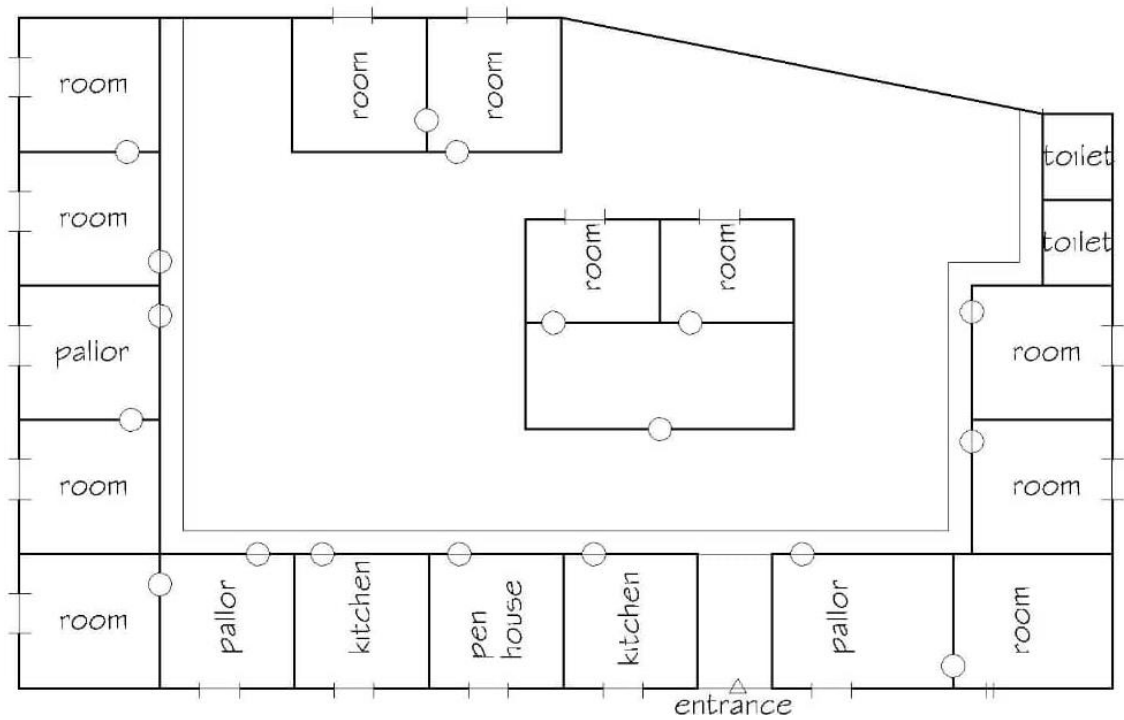
The data obtained from literature as well as observations made from the cases studied would be analysed in this chapter.

#### 4.3 Cultural Elements in Nupe and Gbagyi Buildings Architecture

It was observed that the buildings in the communities of the study had evolved as confirmed by even the village heads. A high majority of the buildings were covered with corrugated iron roofing sheets, as this was the dominant evolution that had taken place in the building elements of the buildings.

As highlighted by Danja *et al.* (2017), this evolution could have been influenced by the following factors; Human disregard, Socio-economic circumstances, Modernization, Discontinuity and Weather and climatic conditions. The Nupe traditional house in the study area is discrete rectilinear adobe with corrugated roofing sheets with granaries of earth and fibres. The building material for the walls was found to be mud and Cement plasters.

The settlement is nucleated among rural societies with a compound (Figure 4.1) which is entered through a principal entrance building known as *katamba* as documented by Nadel (1951) and Drnochowski (1990). Inside the house are smaller partitions or rooms and a number of smaller *katamba*, which cannot be seen from outside, including living rooms, the kitchen, the animal section, the barn or granaries (Plates V and VI).



**Figure 4.1: Typical Nupe House plan in Kataeregi village**  
**Source: Author, 2019**

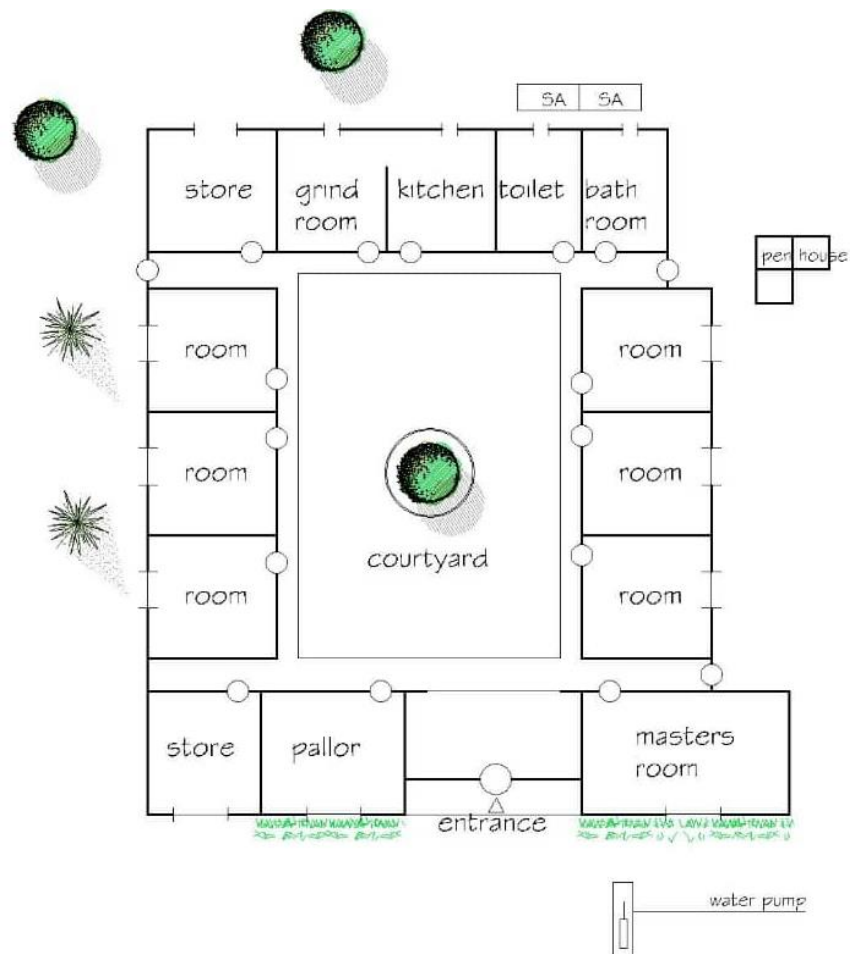


**Plate V: The entrance to a Nupe compound**  
**Source: Author's field work, 2019**



**Plate VI: The Nupe compound**  
**Source: Author's field work, 2019**

In the Gbagyi compound (Figure 4.2) there are the animal hut, *kudumi*, the wife's 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 shrines, *bori*, *madaka* for the women and *tsafi* for the men, represented by a stone and a pot in a compound respectively in agreement with Aiyedun and Oyerinde (1998). However, rectilinear adobe with some corrugated roofing sheets and others thatch roofing with granaries of earth and fibres. The building material for the walls was found to be mud and some having Cement plasters (Plate VII, VIII and IX).



**Figure 4.2: Typical Gbagyi house plan in Dama village**  
**Source: Author's field work, 2019**



**Plate VII: The Gbagyi eternal granaries**  
**Source: Author's field work, 2019**





**Plate VIII: The Gbagyi entrance**  
**Source: Author's field work, 2019**



**Plate IX: The Gbagyi compound**  
**Source: Author's field work, 2019**

#### 4.4 Design Features of the Nupe and Gbagyi Buildings

The Nupe traditional buildings were surrounded by a perimeter fence which was constructed of mud wall and in most cases entered through a principal entrance building. Inside of the buildings there are the prolific decorations of patterns and sculpting on the building façade similar to that which was described by Denyer (1978). On the doorways are ceramic platelets made of both geometric and zoomorphic motifs as documented by Dmochowski (1990) (Plate X).



**Plate X: Decorations placed on the walls of rooms and doorways of the Nupe Traditional building**

**Source: Author's field work, 2019**

In a Gbagyi compound in Dama village was found the animal hut,, kitchen, *gache*, a firewood hut, other smaller granaries, an inner entrance hall, *boknu*, an entrance hall, and a large open space within the compound with a tree in the middle of the compound (Plates XI).



**Plate XI: Entrance to the animal hut**  
**Source: Author's field work, 2019**

### **4.3 Influence of Culture on Building Form in Niger State**

This study was made on four (4) hotel buildings with notable forms of responsive architecture. The influence of the cultures of the location of these places on the design and concepts of the designs would be analysed. The cases that were studied are:

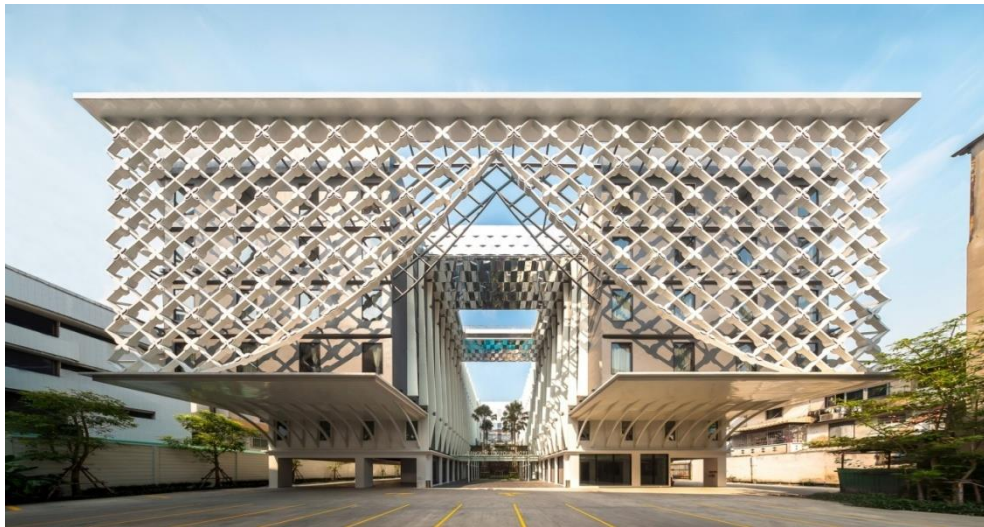
1. Bangkok Midtown Hotel
2. Four Seasons Hotel Kuwait
3. KALM Bangsaen Hotel
4. Wild Coast Tented Lodge

#### **4.3.1 Bangkok midtown hotel**

The hotel building designed by the Plan Architect (2019) is located in Bangkok the capital city of Thailand covers an area of 9,287 m<sup>2</sup> was built in the year 2018. It stands 6-storeys high with a central lobby, restaurant, and swimming pool and Thai spa. The 4-star hotel is designed with a main concept of reinterpreting a pictorial explanation of

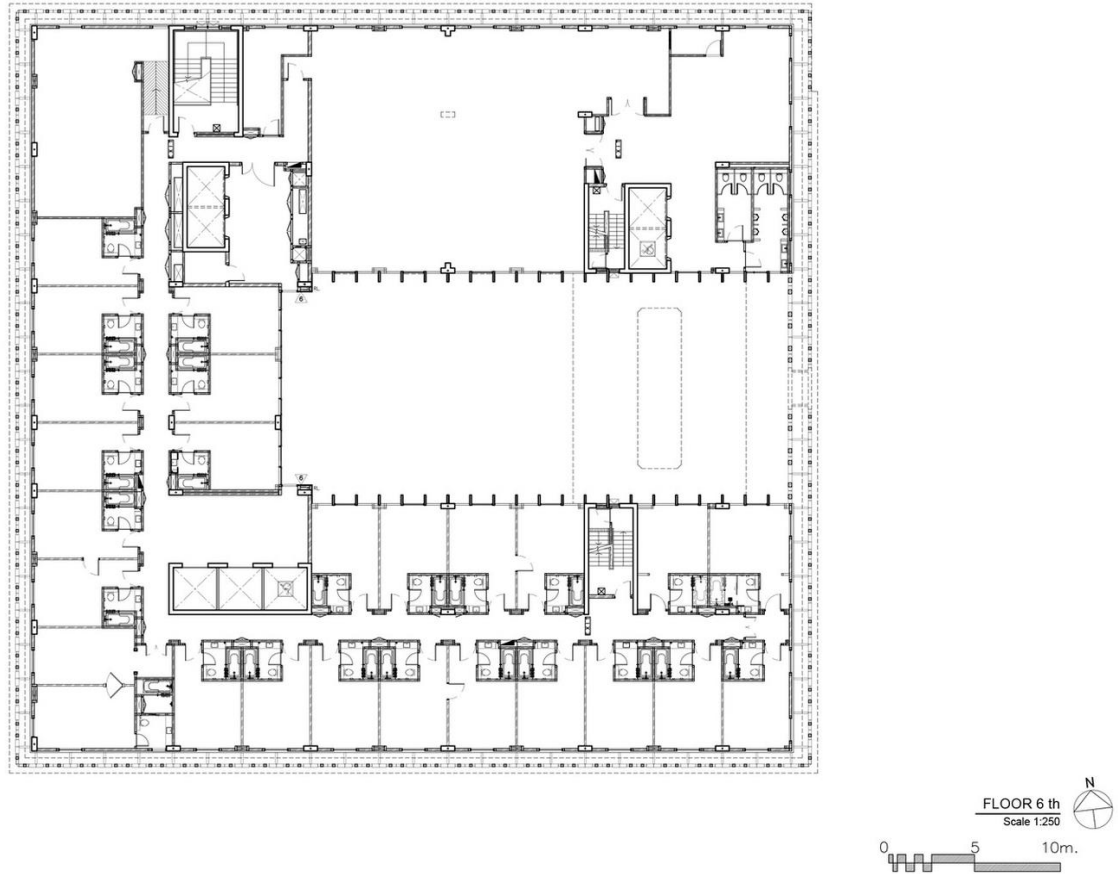


*traditional Thai* as well as converts it to a modern-day Thai architecture (Plate XII). Based on its traditional significance to the Thai, the floral mobile was brought forward as building facade prototype with a pictorial sieve for the consumers and neighbourhood. In its position on the building façade, the floral mobile also works as a second skin and umbrella of the building that makes a shape-reproduced silhouette on the wall.



**Plate XII: Approach elevation of the Bangkok Midtown Hotel**  
**Source: Plan Architect, 2019**

The traditional Thai temple pillar is depicted within the courtyard (Figure 4.3 and Plate XIII and XIV) as a pillar-alike vertical fins, at the end of which, reflecting glass wall is calculated and positioned to produce a perspective of continuous hall. There is also a bridge on the roof that serves as a roof top bar and produces an illusion reflecting effect which is also identified as similar to a quality of assortment glasses on Thai pagoda (Plan Architect, 2019).



**Figure 4.3: Sixth floor plan of the Bangkok Midtown Hotel**  
**Source: Plan Architect, 2019**



**Plate XIII: Entrance courtyard of the Bangkok Midtown Hotel**  
**Source: Plan Architect, 2019**



**Plate XIV: Entrance courtyard of the Bangkok Midtown Hotel**  
**Source: Plan Architect, 2019**

#### **4.3.2 Four seasons hotel kuwait**

The design concept of the five-star Four Seasons Hotel Kuwait as designed by Gensler (2018) was reported to have been motivated by the culture of the region, and hence, built up about a regional architectural tradition called *mashrabiya* (an element of traditional Arabic architecture in which windows are hemmed in with latticework to give shade and seclusion while maintaining views). The building envelope is an efficient and iconic representation of the Arabic architecture (Plate XV).





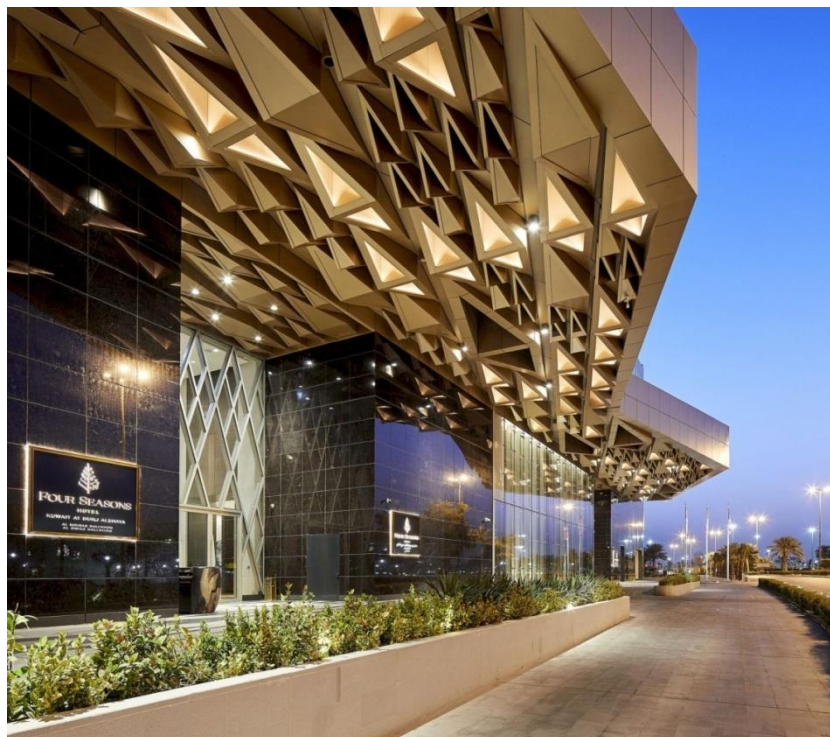
**Plate XV: Approach elevation of the Four Seasons Hotel Kuwait**  
**Source: Gensler, 2018**

The design is a contemporary take on traditional patterns and forms that interprets the traditional architecture of the region through a three-dimensional lattice in a range of scales and locations across the development (Plate XVI and XVII). This method incorporates the three (3) foremost elements of the project by enfolding the east and west elevations of both towers and coating huge sections of the podium with a *mashrabiya* type envelope (Gensler, 2018).



**Plate XVI: The swimming pool at the Four Seasons Hotel Kuwait**  
**Source: Gensler, 2018**

The forty-two (42) storey office tower offers class-A office space in estimated at about 60,000m<sup>2</sup> (square metres) added to the first level of the basement which has 2,000 m<sup>2</sup> (square metres) of retail space to hold up the office tower (Gensler, 2018).



**Plate XVII: Entrance of the Four Seasons Hotel Kuwait**  
**Source: Gensler, 2018**



#### 4.3.3 KALM bangsaen hotel

The KALM Bangsaen Hotel was designed by Junn architect as documented by Junn Architect (2019). It is situated at Bangsaen Beach which is about 100 km southeast of Bangkok, the capital city of Thailand. The beach is frequently packed with tourists. The site is roughly 18 by 60 metres which is fairly very slender and elongated shape, and 1986.0 m<sup>2</sup> large (Figure 4.4). Due to this peculiar challenge added to the fact that the width side is facing to the sea, makes extremely unworkable to make each units to be the sea sight room sort it could only work by making only diminutive numbers to realize that sea sight kind if it was designed with the conformist way of unit organization (Junn Architect, 2019).



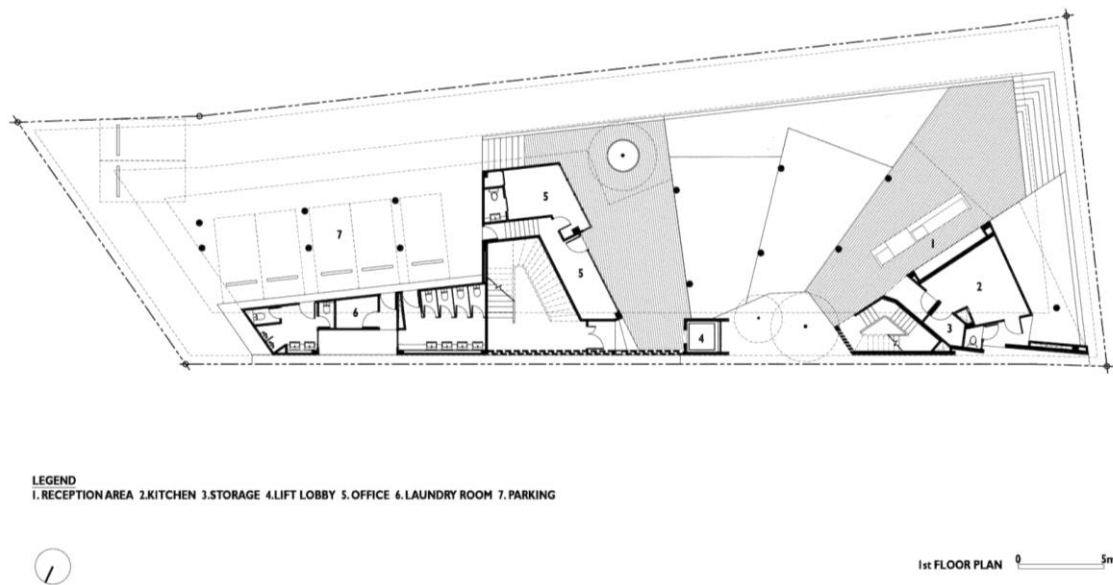
**Figure 4.4: Sketch of the building and site of the KALM Bangsaen Hotel**  
Source: Plan Architect, 2019

The hotel design maximized the rooms with the sea view by arranging the lodging units down the curve route in the approach while the rest received the soothing view from the swimming pool of the hotel. This unusual arrangement of the unit organization ensured the occupants of each unit could be able to notice the diverse view of neighbouring environment and the building itself could depict the spatial organization in the course of the façade devoid of any ornamental elements (Plate XVIII).



**Plate XVIII: Bird's eye view of the KALM Bangsaen Hotel**  
**Source: Junn architect, 2019**

On the ground level (Figure 4.5), the designed space is associated to the culture in the customary Thai house which is high a little from the exterior and designed with no wall to enlarge boundary and actions connecting interior and exterior (Junn architect, 2019).



**Figure 4.5: Typical floor plan of the KALM Bangsaen Hotel**  
**Source: Junn architect, 2019**

#### 4.3.4 Wild coast tented lodge

Nomadic Resorts (2019) documented on the design made of the Wild Coast Tented Lodge (Plate XIX) in Main Entrance Rd, Palatupana, Sri Lanka. The hotel in an area of

about 5250.0 m<sup>2</sup> was designed by the Nomadic Resorts and Bo Reudler Studio teams. The structure had in its designed the intertwining of heritage, sustainability and landscape in its majestic integration of organic architecture to the site of dry-land forests and craggy sandy seashore towards the Indian Ocean. The five-star lodge had its design influenced by local elements in aligning it to the vernacular traditions and materials to also community involvement.



**Plate XIX: Site plan of the Wild Coast Tented Lodge**

**Source: Nomadic Resorts, 2019**

The natural formation of the landscape of Yala was referenced in the architecture of the hotel in the extensive curved boulders spread all through the park, at a large scale, and termite hillock, at a small scale. The main building of the camp was made to look like outcrops of boulder looking pavilions gathered together in an organic manner at the edge of the site. With Larger open volumes connecting with lesser covered domes which accommodate greater private activities. Joining the entrance to the waterfront bar, restaurant and library is a twisty natural landscape matched with a bunch of cocoon-like tensile membrane structures (Plate XX).





**Plate XX: Interior view of the Wild Coast Tented Lodge**  
**Source: Nomadic Resorts, 2019**

The bulky pavilions are light, unfastened structures skilfully built from a woven grid shell bamboo structure dressed in reclaimed teak shingles. Large, bent openings and elevated vaulted ceilings generate a sturdy sagacity of space. The live vegetation is reserved to make sure an authentic experience of the landscape, complemented by a gorgeous Xeriscaping of bristly plants and chic rock steadiness sculptures (Plate XXI).



**Plate XXI: Exterior view of Wild Coast Tented Lodge**  
**Source: Nomadic Resorts, 2019**

While the architecture centre on the external of the boulders, the interior mirror the resources masked within such as caves, crystals and veins of precious minerals. Echoes a sense of innovation, escapade and fascination in the interior with ecological comfort and local sophistication all put together in the context of the site (Plate XXII).



**Plate XXII: Night view of the Wild Coast Tented Lodge**  
**Source: Nomadic Resorts, 2019**

#### **4.3.5 Cultural responsively of design of case studies**

The Wild coast tent lodge houses a unique mix of traditional building materials, cultural element all merged to cause a unique blend of traditional and contemporary elements to form a unique blend in the details of the buildings in the resort. This in its sense causes a unique blend for the occupants. The Bangkok midtown hotel on the other end houses a more prominent contemporary look with a smooth mix with the Thai traditional architectural concept on its building details.

Comparing the responsiveness of traditional architecture in the foreign case studies on Table 4.1 showed that cultural responsiveness was applied in different facets of the buildings and they include:

1. The use of building organisation on the site plan to respond to the eco-environment on the site as in Wild Coast Tented Lodge.

2. The maximization of the site in response to the limitation of space on not-so-long and yet narrow sites as in KALM Bangsaen Hotel.
3. Use of local building materials for the building façade as in Wild Coast Tented Lodge.
4. Implementing cultural and traditional styles the building façade as in Bangkok Midtown Hotel and Four Seasons Hotel.
5. Adaptation to the structural requirements with symbolic structural systems in relation to the culture where the building is domicile as in Wild Coast Tented Lodge, Bangkok Midtown Hotel and Four Seasons Hotel.
6. Integration of interior decoration to create a cultural expression to both locals and visitors in a contemporary context as in Wild Coast Tented Lodge.
7. Adopting cultural styles on building plan and flow as in Bangkok Midtown Hotel and KALM Bangsaen Hotel.



#### **4.3.6 Study of cultural responsiveness of design of domestic hotels**

The hotels in Minna were seen to have some things in common and a number of them having a form of cultural responsiveness in them. The site planning of the Gbagyi and the Nupe culture as studied earlier in 4.1 was seen to have greeneries with the buildings all put round towards a central courtyard which enhanced interaction. Although, as intervisibility was obtainable in the Nupe compound, it was not in the Gbagyi as there is a tree which sits at the centre of the compound. And uniquely also for the Nupe building is the used of decorations made of patterns and attachments on the walls.

Comparing the observations made from the ideal cultural setting that the hotels in Minna as shown in Table 4.2 were found to have jeered away in different degrees from the cultural settings. This is evident in the site planning a large percentage of the hotels

do not have a central courtyard space inside of them, with very little elements of interior decorations of cultural semblance were also seen. The floor plans of the cultural buildings gave room for cross ventilation as each room in the compound had two opposite walls with directed contact with external air flow, this was not seen in most of the hotels visited as a large percentage of them were as a result, not cross ventilated. Figure 4.6 summarized the findings from the observations made from the hotels in Minna that, there was no visible sign of any cultural element or feature in about 58% of the hotels.

**Table 4.1: Comparing the responsiveness of traditional architecture in the foreign case studies**




s/n	Hotel	Images	Description	Effects of Traditional Architecture on the Building Levels		
				Site	Building	Details
1	Bangkok Midtown Hotel		Located in Bangkok the capital city of Thailand. covers an area of 9,287 m <sup>2</sup>	Dominated by hard-landscape and disperse soft-landscape elements	the floral mobile as building facade pattern	traditional Thai temple pillar as a pillar-alike vertical fins bridge on the roof similar to mosaic glasses on Thai pagoda
2	Four Seasons Hotel Kuwait		Located in the city of Kuwait. Estimated at about 60,000m <sup>2</sup> (square metres) added to the first level of the basement which has 2,000 m <sup>2</sup> (square metres).	built up about a regional architectural tradition called mashrabiya	building envelope is a representation of the Arabic architecture	






3	KALM Hotel	Bangsaen		Situated at Bangsaen Beach in Thailand. Approximately 1986.0 m <sup>2</sup> large	Designed space is associated to the culture in the traditional Thai house.	High a little from the exterior and designed with no wall to enlarge boundary.
4	Wild Coast Tented Lodge			Located in Main Entrance Road, Palatupana, Sri Lanka. Area of about 5250.0 m <sup>2</sup>	Pavilions gathered in an organic manner Twisty natural landscape.	Cocoon-like tensile membrane structures.  Pavilions built from a woven grid shell bamboo structure clad in teak shingles

Source: Author, 2019

**Table 4.2: Comparing the responsiveness of traditional architecture in Hotel buildings in Minna**

s/n	Hotel	Images	Description	Effects of Traditional Architecture on the Building Levels		
				Site	Building	Details
1	IfyJoe Guest House		Located in Sayako Area, Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes
2	Frank Guest Inn		Locate on Plot 8326, Tunga, Minna, Niger state.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes
3	Falcon Hotels		Located Off Top Medical Road, Minna, Niger state.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes

4	Intecco Hotels Limited		Located at 50 Bosso Road, Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes
5	Davis Hotel and Suites		Located on Plot 375 , Dr Sheik Abdullai Road , Of Dr Babangida Aliyu Road, Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes
6	Dogon Koli Hotel Limited		Located along Western Bye-Pass Beside State Secretariat Tunga, Minna, Niger state.	Scars vegetation with some shrubs Has a courtyard like feature at the entrance	Very little cultural related settings	No traditional decoration or finishes
7	Nothing Pass God Hotel		Located along Kaduna By-Pass, Shango, Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes

8	Sogbafo Guest Inn		Located in Chanchaga , Opposite Uba, Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes
9	Zahamar Guest Palace		Located Off Alheri Clinic Road, Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes
10	Masterclass Hotel and Suites		Located Behind Mr Biggs , By CKC Church , Tunga, Minna, Niger State.	Scars vegetation with some shrubs	Has a contemporary look with curtain wall features Very little cultural related settings	No traditional decoration or finishes

11	Amana Guest Inn		Located along Mosalashi Road , Tunga, Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes
12	Dogon Koli Hotel Annexe		Located along Western Bye-Pass, Opposite NNPC Mega Station, , Minna, Niger State.	Scars vegetation with some shrubs	The hotel has a courtyard design which is similar to that of the Nupe and Gbagyi traditional architecture	No traditional decoration or finishes
13	Sadia Hotel		Located at No 6 / 7 Sadia Avenue, Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes




14	Falana Suites		Located Off Shiroro Hotel Road , Tunga Low Cost, Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes
15	Nasfah Hotels Ltd.		Located Directly Behind Shiroro Hotels , Tunga, Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes
16	Haske Luxury Hotel		Located Beside Tudun Wada Police Station, Tunga, Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes



17	Farindoki Hotel		Located at No 16, F Layout, Bosso Road, Tunga, Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes
18	Unico Uchesm Hotel		Located Off Old Alheri Road, Tunga, , Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes
19	Haske Hotel Annex		Located along Mustapha Babagida Road , Tunga Low Cost, Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes
20	Alovera Hotels International Limited		Located along Top Medical Road , Tunga, Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes

21	Carol Deep Sleep Hotel		Located Opposite INEC Ware-House , Eastern By -Pass, Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes
22	Ango Guest Inn		Located Beside Mypa School   Bosso, , Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes
23	Gurara Suites Limited		Located Opposite House Of Assembly Quarters, Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes

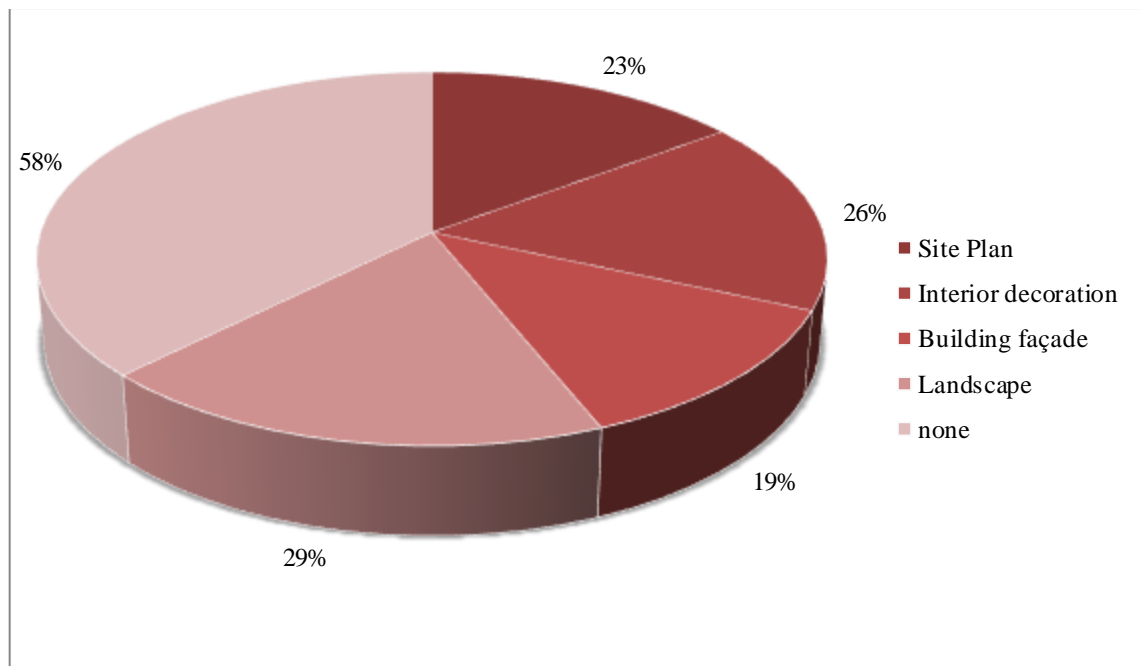


24	Yayi Hotels Limited		Located along Nnamdi Azikiwe Way, Western Bypass, Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes
25	Doko International Hotels Limited		Located adjacent Minna City Gate , Suleja - Minna Road, Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes
26	Haske Luxury Hotel		Located Beside Tudun Wada Police Station, Tunga, Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes

27	Saftec Hotel Limited		Located on Plot 5450 Along Broadcasting Road, Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes
28	Hydro Hotels		Located at 1 Farm Centre Tunga, Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes
29	Az-Zahra Lodge		Located in the GRA, 81, Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes
30	Ajuba Hotels		Located at Zone E 2 , Farm Centre , Beside Hydro Hotel , Chanchaga , Opposite Abdulsalam Garage, Minna, Niger State.	Scars vegetation with some shrubs	Very little cultural related settings	No traditional decoration or finishes

31	Shiroro Hotel		Western By Pass, Nnamdi Azikwe Way, Minna., Minna, Niger State.	With some mixed vegetation of trees and shrubs in and around of it	The presence of some gazebos gave it an impression of the traditional Gbayi cultural granaries that are placed round the house
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**Source: Author, 2019**



**Figure 4.6: Presence of Cultural elements and features in Hotel buildings in Minna**  
**Source: Author, 2019**

Form the hotels visited, worth noting is the Shiroro hotel which has a total of 208 rooms. It stands out from all the hotels in Minna for its interior which has cultural touch (Plate XXI), to the with rectangular plan buildings with diagonally recessed walls that also aid in reducing solar glare (Plate XXIII). The site adds up as it is well vegetated with four wings connected in the central point in a courtyard-like manner and surrounded by a well vegetated terrain (Plate XXII). The presence of gazebos gave it an impression of the traditional Gbagyi cultural granaries that are placed round the house (Plate XIV).



**Plate XXIII: Interior of Shiroro hotel**  
Source: Author, 2019



**Plate XXIV: Site plan of Shiroro hotel**  
Source: Google earth, 2019





**Plate XXV: Entrance view of Shiroro hotel**

**Source: Author, 2019**



**Plate XXVI: Exterior green space in Shiroro hotel located behind the entrance lounge**

**Source: Author, 2019**

#### **4.4 Proposed Design of Culturally Responsive Hotel in Minna, Niger state**

The design for a responsive hotel in Minna, the capital city of Niger state, comes under the driving force for tourism development which has become a global market with the hospitality industry playing a big role. This proposed hotel is a work that considers the cultural values and environmental features of the site, the people and the state in general. Hence, instead of being only contemporary based, the hotel design is made to

add to the rich cultural values and make its facilities interesting to visitors of tourist by providing both adventure and comfort.

#### **4.4.1 Site selection justification**

The site is found on one of the most notable hills in Minna, standing at an elevation of 300m above the sea level, with a spectacular view of the city of Minna and a responsive significance of being the shoulder that carries the town (Figure 4.7).

#### **4.4.2 Site inventory**

The site is on a hill called the uphill in Minna, with the ground level at the acme of the hill being at about 300m above the sea level, the views that are obtainable from the site stretches through well over 50km (stretching from the south, west and to the North) from the site. On the environs of the site are the NTA state office, the water board reservoir, and the homes of some prominent Nigerians. The site has a loam soil with a rocky base and some huge lumps of rocks spread around it across which is an open pavilion placed on the edge of the site which is a steep slope (Figure 4.8).

#### **4.4.2 Site analysis**

The topography of the site is steep at an angle of approximately  $30^{\circ}$  from the ground level with the highest point of the site being of about 300m above sea level. The site is rocky with a smoothly arranged placement of rocks naturally giving the site a serene terrain, with some trees scattered around provided shades for the site. There is a water board reservoir which can be a sustainable source of water for the hotel. The downward part of the site spreads from the North, through the west to the south, thereby providing a good view of the sunset at the Western end of the site. This orientation gives room for air flow from the ground causing an upward movement of cool air into the site from the south west and a warm air on the leeward side from the North east (Figure 4.9).

#### **4.4.3 Conceptual analysis**

The notion for the design is pulled from the structural analogy from the human shoulder which is the highest part of the human body from the head which is used to support a calabash of load culturally by the Gbagyi women of Niger state, this stacking and support system is idealized to be re-enacted on the site which is sloppy and about 300m above the sea level and hence being a motivation for the utilization of the effect of the elevation of the site on the temperature and its structural load in the image of the calabash holding a load of firewood (Figure 4.10).



- THE HUMAN SHOULDER IS THE SECOND HIGHEST POINT OF A HUMAN BODY AND ANYTHING PLACED ON IT GET AN AREA VIEW OF ALL THINGS BELOW
- THE GWARRI WOMEN DO CARRY THINGS ON THEIR SHOULDER AND ANYTHING CARRIED ON IT IS OF IMPORTANCE TO THEM AND THE FAMILY THEREFOR AS A RESPONSE TO CULTURE THE SITE WAS SELECTED AS IT STANDS AT 300m ABOVE SEA LEVEL. THIS MAKES IT A HIGH POINT AND A BUILDING PLACED ON IT GETS A CLEAR VISTA OVER THE ENVIRONS OF MINNA AND WILL BE IMPORTANCE THE PEOPLE OF NIGER STATE



**PLATE 1:** A GBAGYI LADY WITH FIRE WOODS IN A GALABASH ON HER SHOULDER.



**PLATE 2:** NORTHEAST VIEW FROM THE PAVILION ON THE SITE



**PLATE 4:** WEST VIEW FROM THE PAVILION ON THE SITE



**PLATE 3:** VIEW FROM THE SITE OVER CENTRAL BANK MINNA (SOUTHWEST OF THE SITE)



**PLATE 5:** VIEW FROM THE SITE OVER THE MINNA CENTRAL MOSQUE AT MOBILE (NORTHWEST OF THE SITE)

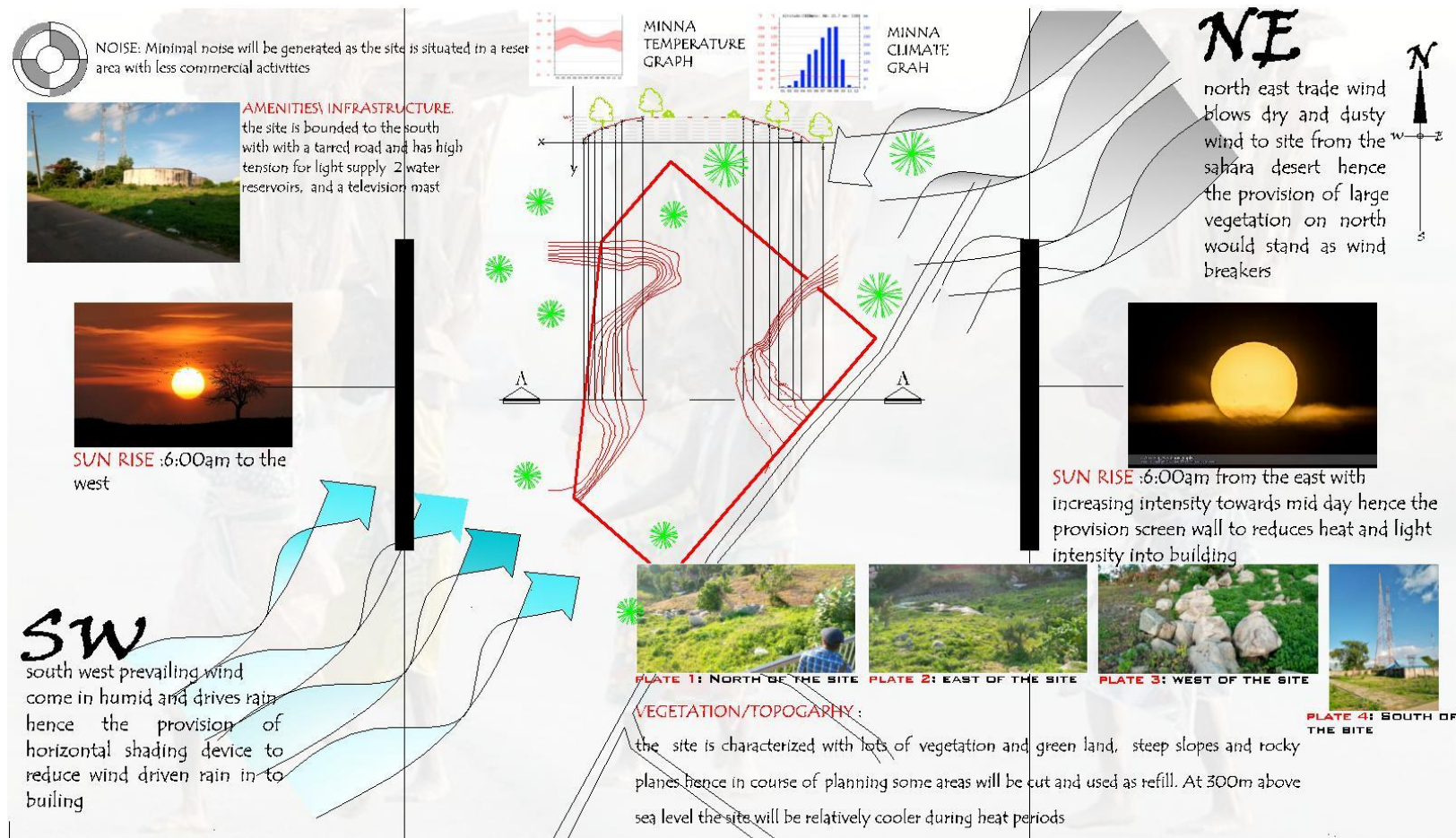


**FIG 1:** A TOPOGRAPHIC MAP OF THE SITE

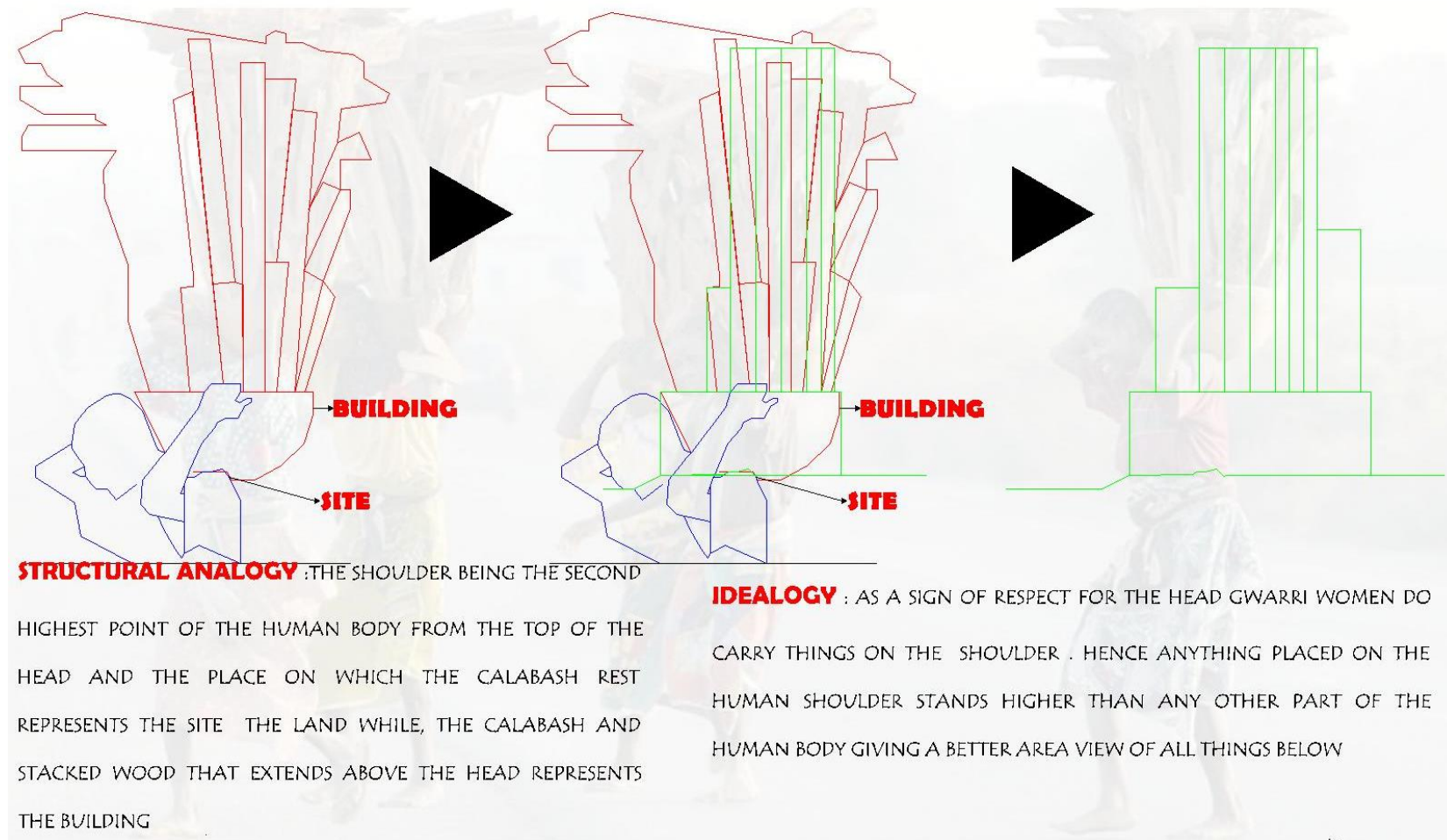
**Figure 4.7: Site justification**  
Source: Author, 2019







**Figure 4.9: Site analysis**  
Source: Author, 2019



**Figure 4.10: Conceptual analysis**  
**Source: Author, 2019**

#### **4.4.4 Site plan**

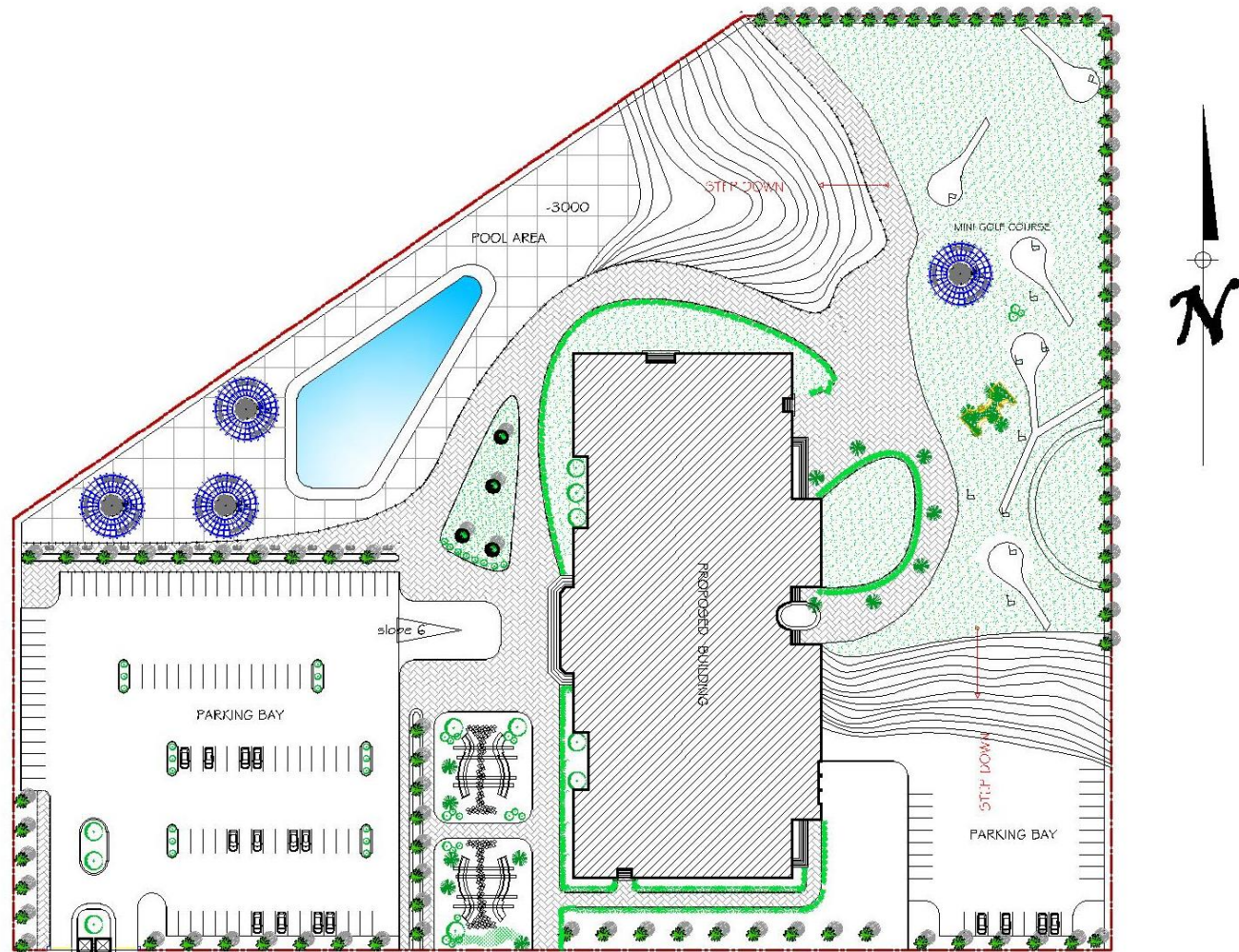
The Eastern side was chosen as the direction which the entrance to the hotel building should face while the access to the site would be from the south of the site. This was made so that the view of the Hotel on the hill would stand out from anyone moving around the city of Minna.

The site of the hotel (Figure 4.11) is made green as the existing vegetation on the site is retained to provide and sustain the shading and the natural setting of the site and its environment. The boulders of rocks too were sustained and added were circular walkways that flows with the terrain of the site, thereby engaging the passersby to be engaged in a healthy interaction with the environment. Also on the site are car parking bays, a swimming pool, sit-outs and a mini golf course.

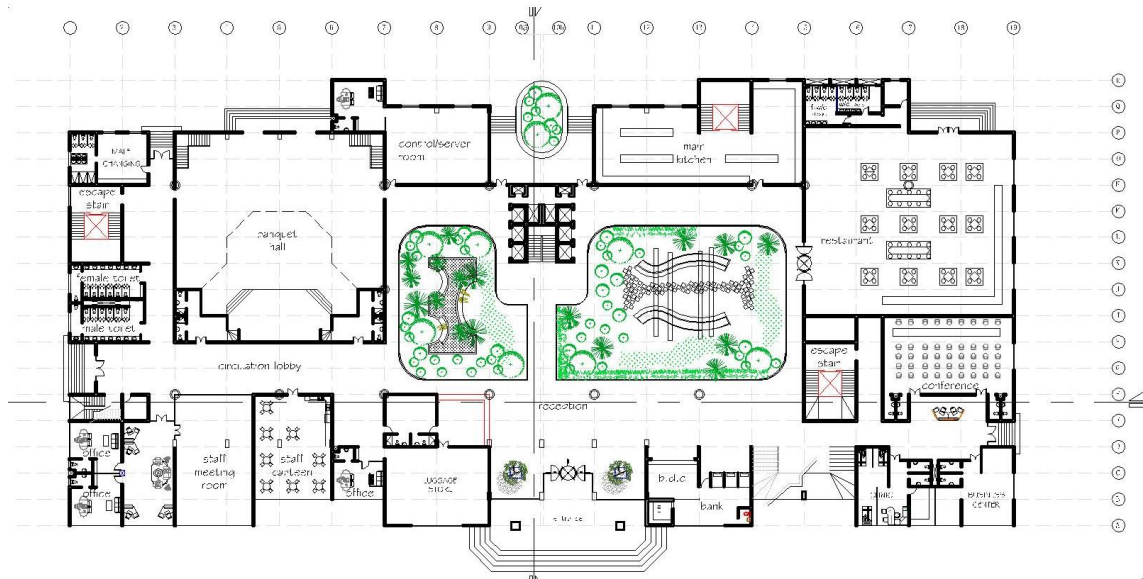
#### **4.4.5 Floor plans**

The hotel stretches to fifteen (15) floors with not only suites for guests but also, restaurants, lounges, arcades, meeting rooms and cafes (Figures 4.12; 4.13). In making it responsive, every floor was given either a courtyard or an external green area or both, to bring the traditional environment to the interior and cause a coherence of the occupants of the hotel and tourists to better appreciate the culture of the Gbagyi and Nupe people of the state. From the first step in the morning hours into an environment shaded from the hot sun, into interior spaces of green, well patterned façade and interior with exquisite traditional techniques with traditional materials like wood, earth and bronze to a sweet evening time when the beautiful sight of the golden sunset gazes into the hotel façade and its environs to the serene greens on the interior and exterior.

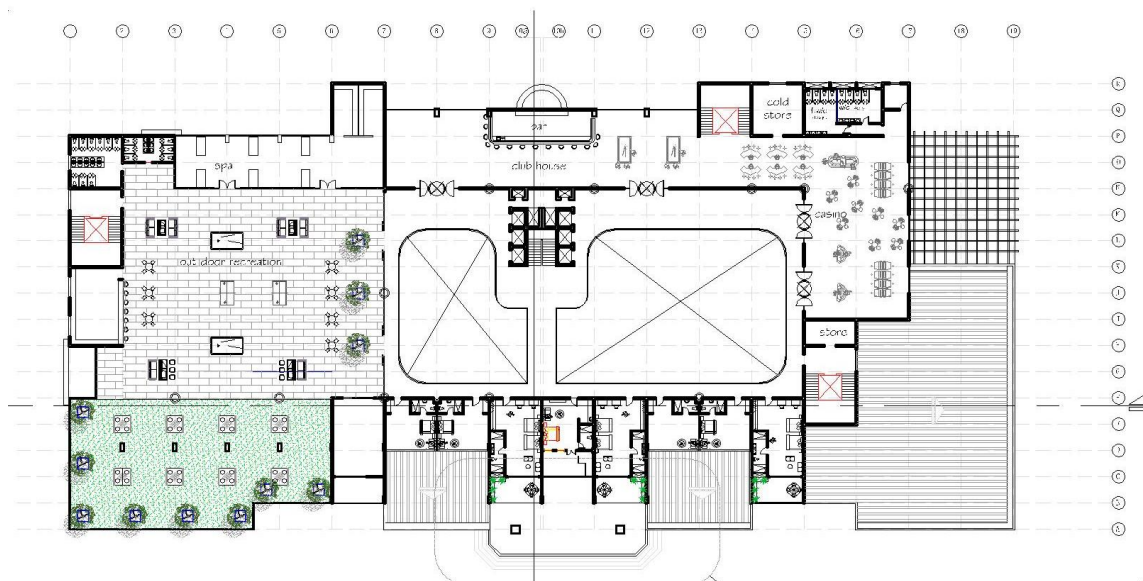




**Figure 4.11: Site plan**  
**Source: Author, 2019**



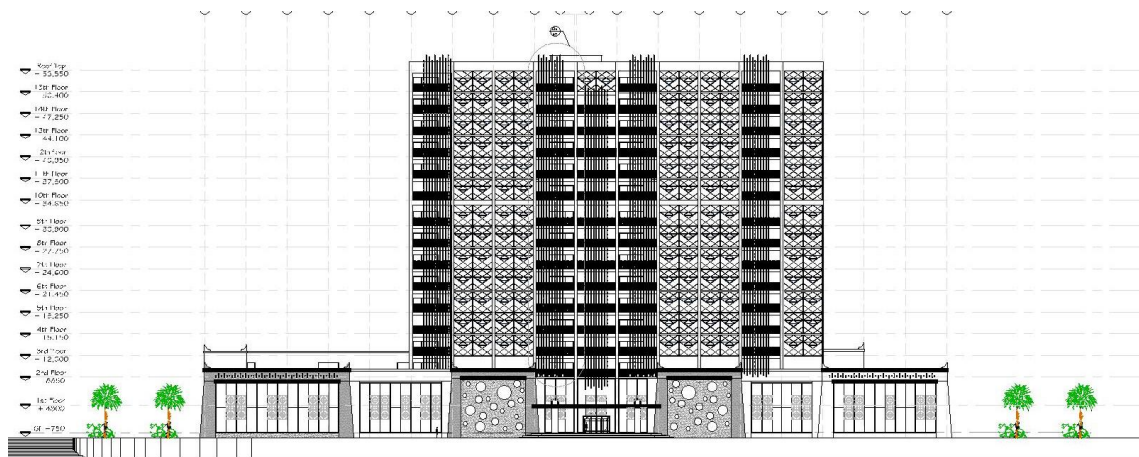
**Figure 4.12: Ground floor plan**  
 Source: Author, 2019



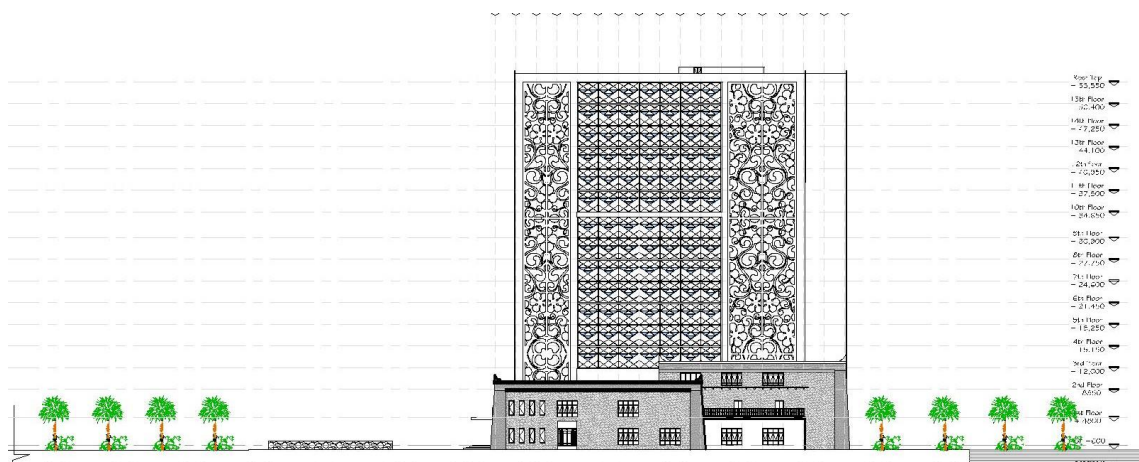
**Figure 4.13: Second floor plan**  
 Source: Author, 2019

#### 4.4.6 Elevations

The building has its exterior to the left right and rear beautified with elaborate patterned façade in similitude to the laili design usually done on the hands of the ladies to beautify the skin mostly during festive periods, and the schematic design used on the glazed cladding in response to the Nupe traditional patterns on the walls of their traditional buildings, and circles at the entrance used in response to the popular Nupe and Gbagyi walls which are decorated with round metal plates which are glued to the walls thereby depicting the artistic and intrinsic nature of the traditional architecture of the Nupe and Gbagyi people (Figure 4.15; 4.16 and 4.17).

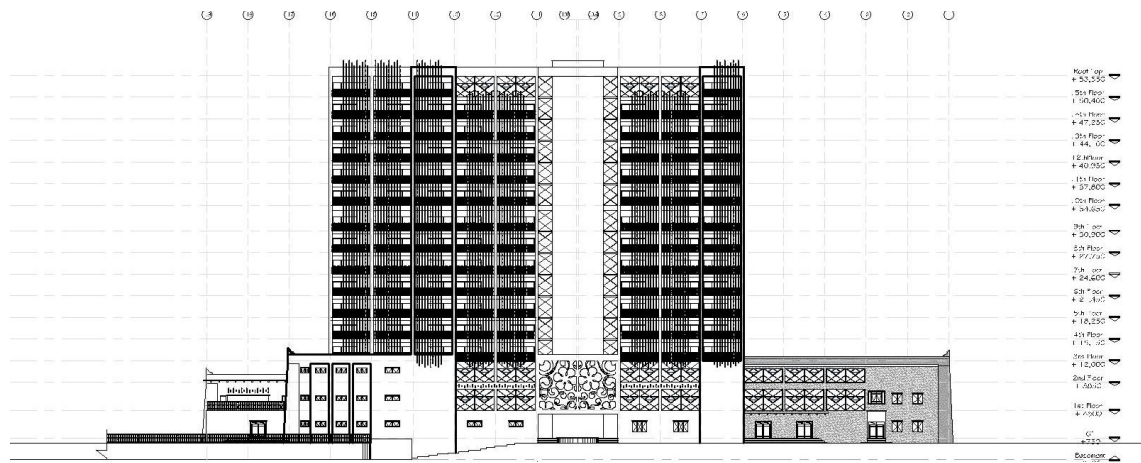


**Figure 4.15: Approach elevation**  
Source: Author, 2019



**Figure 4.16: Left side elevation**  
Source: Author, 2019





**Figure 4.17: Rear elevation**  
**Source: Author, 2019**

## **CHAPTER FIVE**

### **5.0 CONCLUSION AND RECOMMENDATIONS**

This thesis started by recognizing the house form and features of culture and later narrows it to the cultural elements of the Gbagyi and Nupe and the nature they can be utilized as a foundation of form which will be responsive to the identity of the culture.

Appropriate literature were reviewed and brought to light the significance of cultural responsive buildings, displaying the culture of a society and further examining the way the elements can be used to design a hotel that is culturally responsive. The proposed hotel was intended to produce a special structure in a contemporary style that responds to culture of the Gbagyi and Nupe people in diverse ways. It additional looks to form a distinctive characteristic in Niger state through the application of cultural features in the plan to make certain the accomplishment of the aim of the study, the following objectives were highlighted:

1. Determine the cultural elements used in resort hotels designs in Niger state.
2. Investigate the design features that can allow for application of responsive architecture in Niger state.
3. Identify the influence culture can have on hotel buildings in Niger state.
4. Develop a culturally responsive resort hotel design in Minna, Niger state.

#### **5.1 Conclusion**

In conclusion it was found that the Gbagyi and Nupe cultures in the state have a lot in common and from other case studies can be architecturally integrated into a responsive form of building structure.

The Nupe traditional buildings were surrounded by a perimeter fence which was constructed of mud wall and in most cases entered through a principal entrance

building. Inside of the buildings there are the prolific decorations of patterns and sculpting on the building façade similar to that which was described by Denyer (1978). On the doorways are ceramic platelets made of both geometric and zoomorphic motifs as documented by Dmochowski (1990).

### **5.1.1 Architectural Contribution**

This thesis contributes the below mentioned information to architecture:

1. The cultural elements in the traditional architecture of the Gbagyi and Nupe people and in Niger state.
2. This study also established the choice of elements that match to designing a hotel in Minna, Niger state.
3. Lastly, the study showed that cultural elements of a particular area can be used to source forms in the design of a hotel in that particular area.

### **5.2 Recommendations**

This thesis was able to utilize cultural features through the use of apposite study and collection of cultural features to make a cultural responsive Hotel design. This enlightens the people about their culture and gives balance in the cultural practices of the state in general and thus;

1. The need for a conscious study of cultural features when designing a hotel
2. Deduce that the fading cultures of countless cities in Nigeria can be revived through the exploitation of cultural elements as basis of forms in the design of hotels.
3. More in-depth study of cultural elements should be carried out to cause for more variety of cultural element and features that can be used in designing a hotel of particular place.

It is therefore of cultural and national benefits to tourism and cultural sustenance that more research is done on also improving the traditional building materials to meet international standards while meeting local construction needs.

## REFERENCES

- Abdel-Azim, G. G. & Osman, K. A-A. (2017). The importance of cultural dimensions in the design process of the vernacular Societies. *Ain Shams Engineering Journal* (9),2755-2765
- Abiodun, O. O. & Damilola, E. O. (2016). Space and cultural development in hausa traditional housing, *International Journal of Engineering Sciences and Research Technology*, 5(9), 2277-9655
- Agboola, O. P. & Zango, M. S., (2014). Development of traditional architecture in Nigeria: A Case Study Of Hausa House Form. *International Journal of African Society Cultures and Traditions*. 1(1), 61-74.
- Aiyedun, K. D. & Oyerinde, S. O. (1998). Traditional Architecture among Rural Communities in Niger State: An Ethno-archaeological Study. *Nyame Akuma, Nigeria*. June 1998, 49, 43-54
- Asquith, L. & Vellinga, M. (2006). *Vernacular Architecture in the Twenty-First Century: Theory, Education and Practice*. New York, USA: Taylor and Francis; 2006.
- Banta, B. (2006). "Culturally Responsive Architecture; Designing a Community Center in Arboledas". *Mexico: Ball State University College of Architecture*.
- Bröchner, J. (2009). The Changing Nature of the Built Environment, an Economic Perspective. In Ruddock, L. (ed.), *Economics For The Modern Built Environment*, London: Taylor and Francis, 11-33.
- Chan, B. & Mackenzie, M. (2013). *Manual on Module II:Introduction to Hospitality*. Hong Kong: The Government of the Hong Kong Special Administrative Region.
- Danja, I. I.; Li, X. & Dalibi, S. G. (2017). Vernacular Architecture of Northern Nigeria in the Light of Sustainability. *International Conference on Environmental and Energy Engineering (IC3E 2017)*. IOP Publishing IOP Conf. Series: *Earth and Environmental Science* 63
- Denyer, S., (1978). *African Traditional Architecture*, Lodon: Heinemann Educational Books Ltd.:
- Dmochowski, Z. R. (1990). *An Introduction to Nigerian Traditional Architecture*. 2. *Southwest and Central Nigeria*. Ethnographical Limited, Gbdansk, Poland, in Association with the National Commission for Museums and Monuments, Lagos, Nigeria. ISBN 0905788265, 9780905788265
- Dominici, G. & Rosa, G. (2010). Customer satisfaction in the hotel industry: A Case Study of Silicy. *International Journal of Marketing Studies*;2 (2), 3-12
- Ettehad S.; Azeri A. R. K., & Kari G. (2014). The role of culture in promoting architectural identity. *European Online Journal of Natural and Social Sciences* ; 3(4), 410-418.

- Folorunsho, C. A. & Ogundele, S. O. (1993) Agriculture and Settlement among the Tiv of Nigeria: Some Ethno-archaeological Observations. In T. Shaw et.al., editors, *The Archaeology of Africa: Food, Metals and Towns*. London: Routledge, pp. 274- 288.
- Freund de Klumbis, D. & Munsters W. (2005). Developments in the Hotel Industry: Design Meets Historic Properties. *International Cultural Tourism*. Edited by M Sigala and D Leslie, published by Elsevier Butterworth Heinemann. ISBN 07506 6312
- Gensler Architect (2018) Four Seasons Hotel Kuwait/ Gensler, 10 sep 2018 Archdaily. <https://www.archdaily.com/901647/four-seasons-hotel-kuwait-gensler> ISSN 0719-8884
- Green, R. (2005). Community Perceptions of Environmental and Social Change and Tourism Development on the Island of Koh Samui, Thailand. *Journal of Environmental Psychology*, 25, 37-56.
- Guide 36. (1997). *Energy Efficiency in Hotels- A Guide for Owners and Managers*. Watford. Best Practice Programme Publications.
- Herbig, U. (2016). Cultural Spaces Research on Architecture and Identity. *Book of Proceedings. International Conference on Architecture and Spatial Planning*. 156-161.
- Idris, A. Z. & Umar, A. B. (2017). The Gbagyi *Bayekpe* (education) and imperialism in Minna, 1928 – 1960. *International Association of African Researchers and Reviewers, 2006-2017: An International Multi-Disciplinary Journal, Ethiopia AFRREV*. 11 (2), 46.pp 56-66. ISSN 1994-9057 (Print) ISSN 2070-0083 (Online). DOI : <http://dx.doi.org/10.4314/afirev.v11i2.5>
- Jari, A. T. (2011). Use Of Cultural Elements As Sources Of Forms In The Design Of Cultural Centre, Katsina. A Dissertation Submitted To The Postgraduate School, Ahmadu Bello University, Zaria Nigeria In Partial Fulfilment For The Award Of Master Of Science Degree In Architecture Department Of Architecture, Ahmadu Bello University, Zaria Nigeria.
- Jencks, C. (2005). *The Iconic Building*. London: Frances Lincoln Ltd.
- Junn architect (2019). KALM Bangsaen Hotel / Junnarchitect, 05 Sep 2017. ArchDaily. <https://www.archdaily.com/879086/kalm-bangsaen-hotel-junnarchitect/> ISSN 0719-8884
- Kenney, S. F. (1994). *Cultural Influences on Architecture*. A Thesis in Architecture Submitted to the Graduate Faculty of Texas Tech University for the Degree of Master of Architecture. Approved by the Chairperson of the Committee and Accepted by the Dean of the Graduate School.

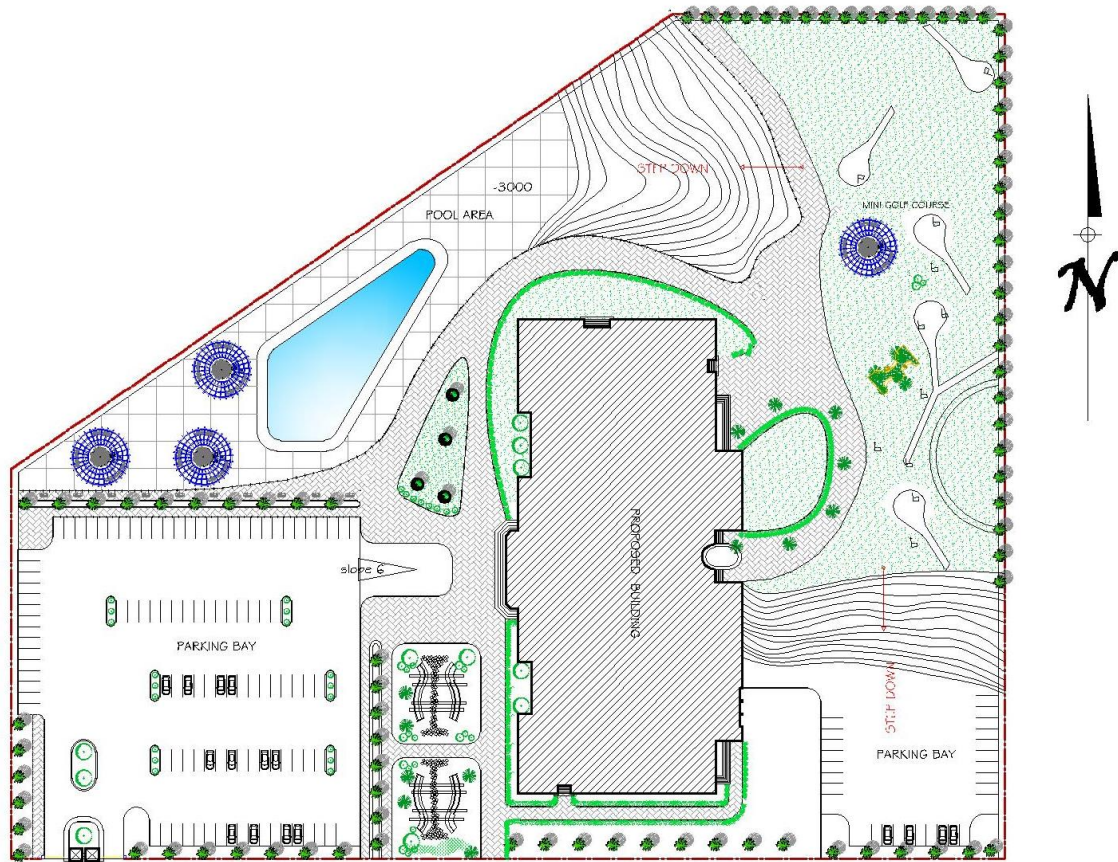
- Kockler, R. E. (1989). *Culturally Responsive Architecture: A Community Centre and Housing for Latinos in Roxbury*. Submitted To The Department of Architecture in Partial Fulfilment of the Requirements for the Degree of Master of Architecture At The Massachusetts Institute Of Technology Cambridge, Massachusetts. February 1989.
- Kotler, P.; Bowen, J. & Makens, J. (2003), *Marketing for Hospitality and Tourism*. New Jersey: Prentice Hall Pearson Education International.
- Kultur, S. (2012). Role Of Culture In Sustainable Architecture, *Archi-Cultural Translations through the Silk Road 2nd International Conference, Mukogawa Women's Univ., Nishinomiya, Japan, July 14-16, 2012. Proceedings* 503, 262-267
- Laurell-Stenlund, K. & Eriksson, P. E. (2010). Design Factors' Influence On Value Creation When Building Houses Of Culture. In: Egbu, C. (Ed) *Procs 26th Annual ARCOM Conference*, 6-8 September 2010, Leeds, UK, Association of Researchers in Construction Management, 929-938.
- Mai, M. & Rahman, M. (2010). Contrasting Housing Transformation in Core Dhaka and Peri-Urban Abuja. *Journal of Research in Architecture and Planning*; 9. 82-94. Architectural for Housing
- Mai, M. & Shamsuddin, S. (2008). Ethnic Spatial Identity in the context of Urbanization: the Transformation of Gbagyi compounds in North Central Nigeria. *Journal of Urbanism* 1(3), 265–280
- Meagher, M. (2015). Designing For Change: The Poetic Potential of Responsive Architecture. *Frontiers of Architectural Research*. 4,159–165. <http://dx.doi.org/10.1016/j.foar.2015.03.002>
- Nadel, S. F (1951). *A Black Byzantium: The Kingdom of the Nude in Nigeria*. London: Oxford University Press.
- Nadel, S. F (1961). *A Black Byzantium: The Kingdom of Nupe in Nigeria*, London University Press.
- Nomadic Resorts (2019). Wild Coast Tented Lodge / Nomadic Resorts, 22 Dec 2017. ArchDaily. <https://www.archdaily.com/885689/wild-coast-tented-lodge-nomadic-resorts/> ISSN 0719-8884
- Organisation for Economic Co-Operation and Development (OECD) (2009). *The Impact of Culture on Tourism*. ISBN - 978-92-64-05648-0
- Oliver, P. (1975). *Shelter, Sign and Symbol*. London Barrie and Jenkins.
- Oliver, P. (2003). *Dwellings: the Vernacular House World Wide*. Rev. Ed. London Phaidon.

- Osasona, C.O. (2012). Transformed Culture, Transforming Builtscapes: Experiences From Nigeria. *International Journal for Sustainable Development and Planning*. 7(1). 69–100 2012 WIT Press, www.witpress.com ISSN: 1743-7601 (paper format), ISSN: 1743-761X (online), <http://journals.witpress.com>. DOI: 10.2495/SDP-V7-N1-69-100
- Plan Architect (2019). Bangkok Midtown Hotel / Plan Architect, 10 Apr 2018. ArchDaily. <https://www.archdaily.com/892161/bangkok-midtown-hotel-plan-architect/> ISSN 0719-8884
- Rapoport, A. (2005). *Culture, Architecture, and Design, Architectural and Planning Research Book Series*. Chicago: Locke Science Pub. Co.
- Rashid, M. & Ara, D. R. (2015). Modernity in Tradition: Reflections on Building Design and technology in the Asian vernacular. *Frontiers of Architectural Research*. 4(1), 46–55. <http://dx.doi.org/10.1016/j.foar.2014.11.001>
- Ryd, N. (2004). The Design Brief as Carrier of Client Information During the Construction Process. *Design Studies*, 25, 231-249.
- Shayan, H. (2011). Criteria for Defining Architectural Identity. *Journal of the Village*, 70. 409-426
- Siegel, J. S. & Swanson D. A. (2006). The Methods and Materials of Demography (2nd Ed.). *Chapter 4: Data collection Methods*. 97-150. Elsevier Academic Press
- Van Maanen, J. & Laurent, A.(1993). The Flow of Culture: Some Notes on Globalisation and the Multinational Corporation. In: Ghoshal S., Westney, D. E. (eds). *Organisation Theory and the Multinational Corporation*. Palgrave Macmillan, London. Doi.org/10.1007/978-1-349-22557-6\_12
- Wotton, H. (1624). *The Elements of Architecture*. edited by Davis, C. with an Anthology of Critical Commentary. Part One. John Bill: London.
- Yahaya, M. K. (2003). The Nupe People of Nigeria. *Kamla-Raj 2003 Stud. Tribes Tribals*, 1(2): 95-110.

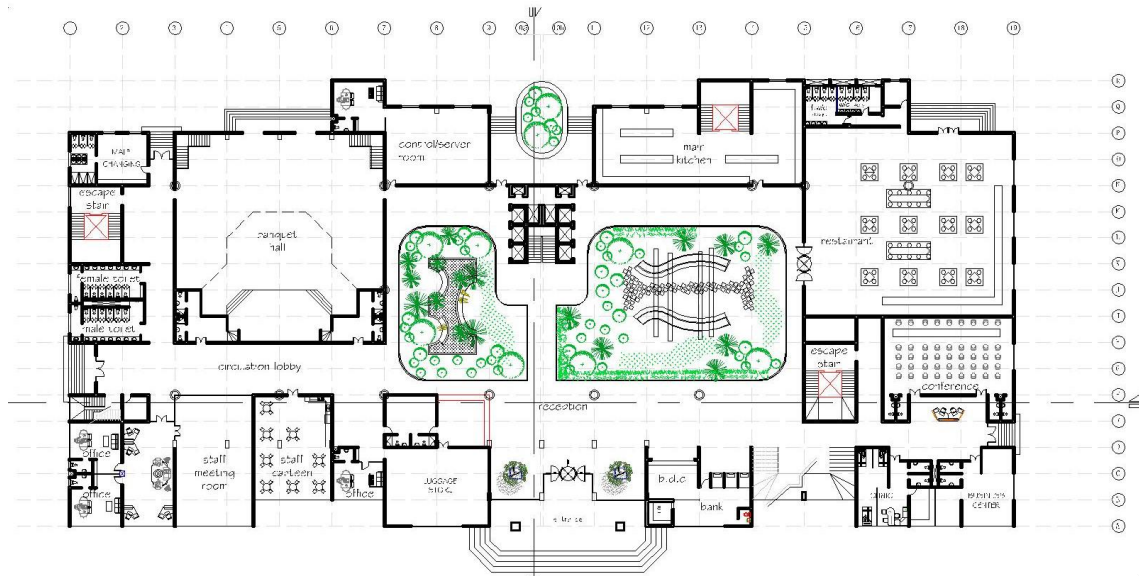


## APPENDICES

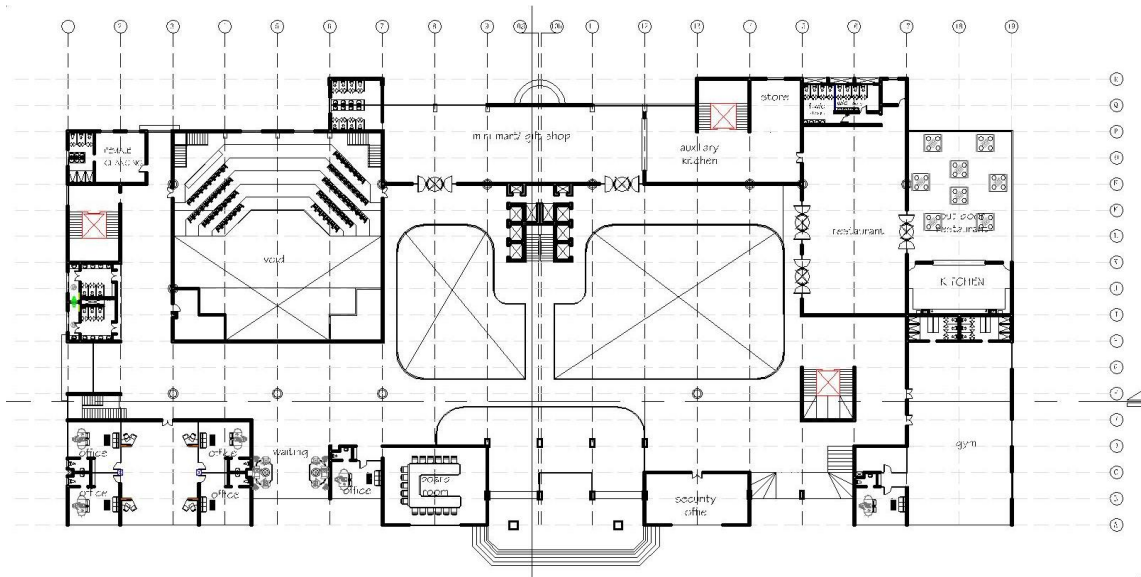
## APPENDIX A: SITE PLAN



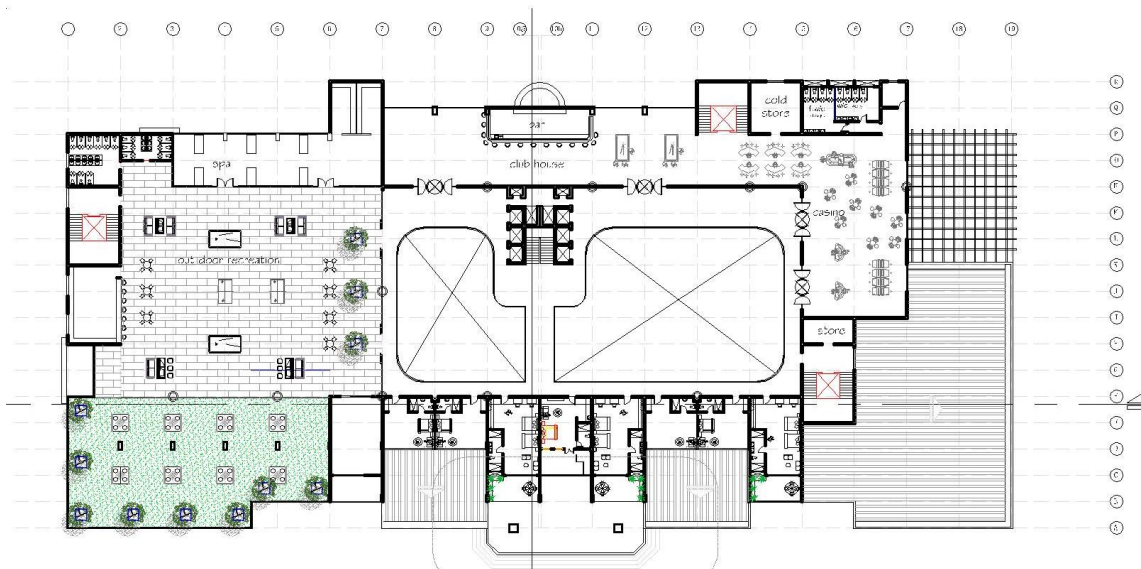
## APPENDIX B: GROUND FLOOR PLAN



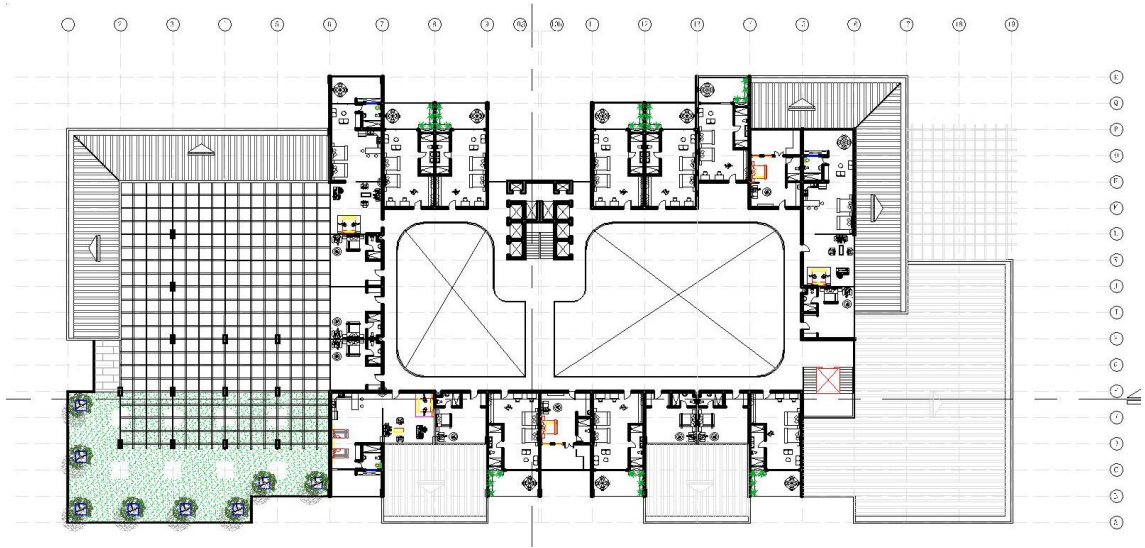
## APPENDIX C: FIRST FLOOR PLAN



## APPENDIX D: SECOND FLOOR PLAN



## APPENDIX E: THIRD, FOURTH AND FIFTH FLOOR PLAN

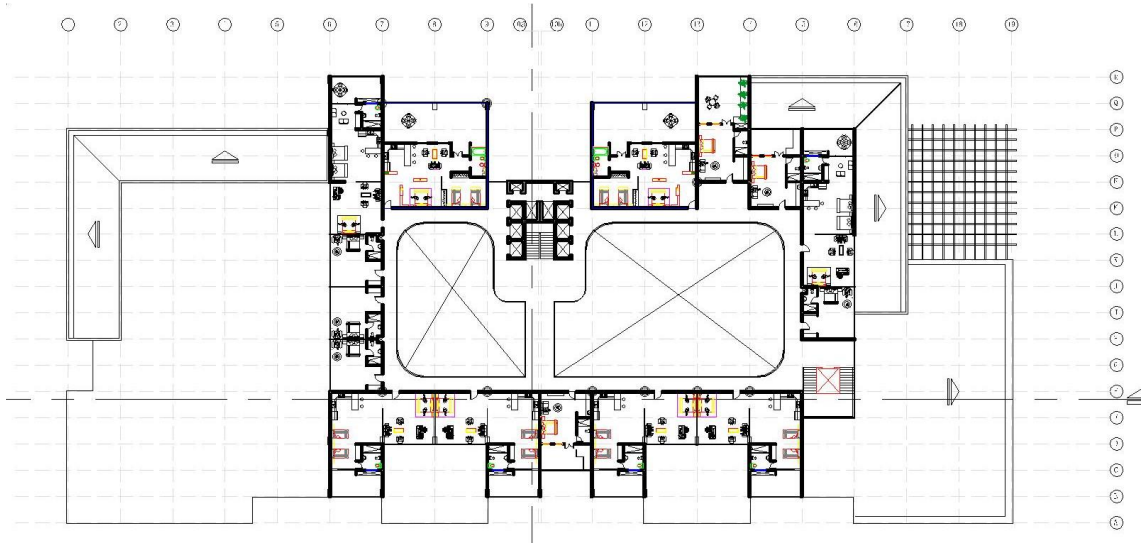


## APPENDIX F: SIXTH, SEVENTH, EIGHT AND NINTH FLOOR PLAN

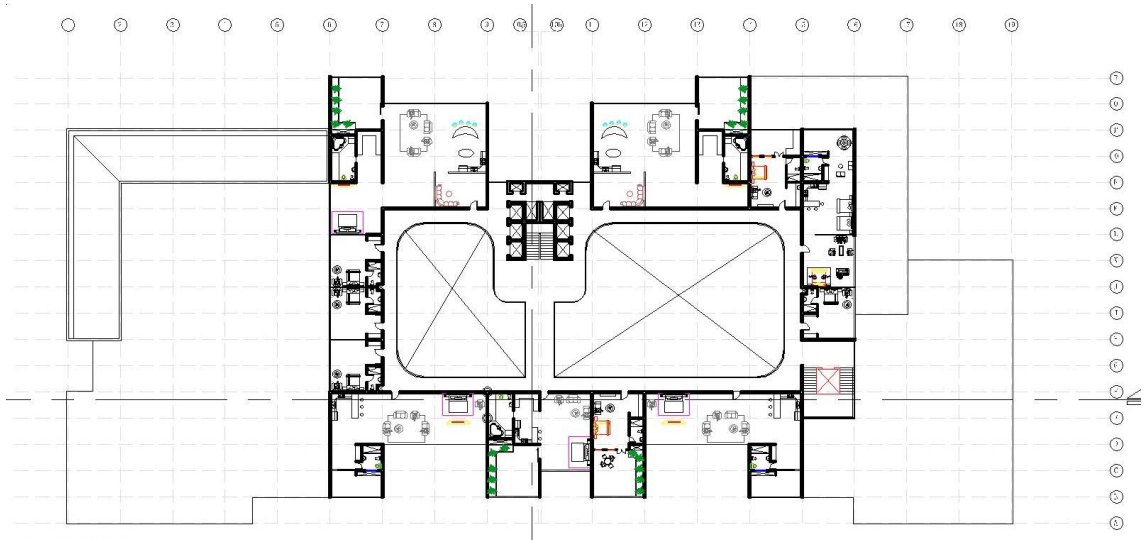




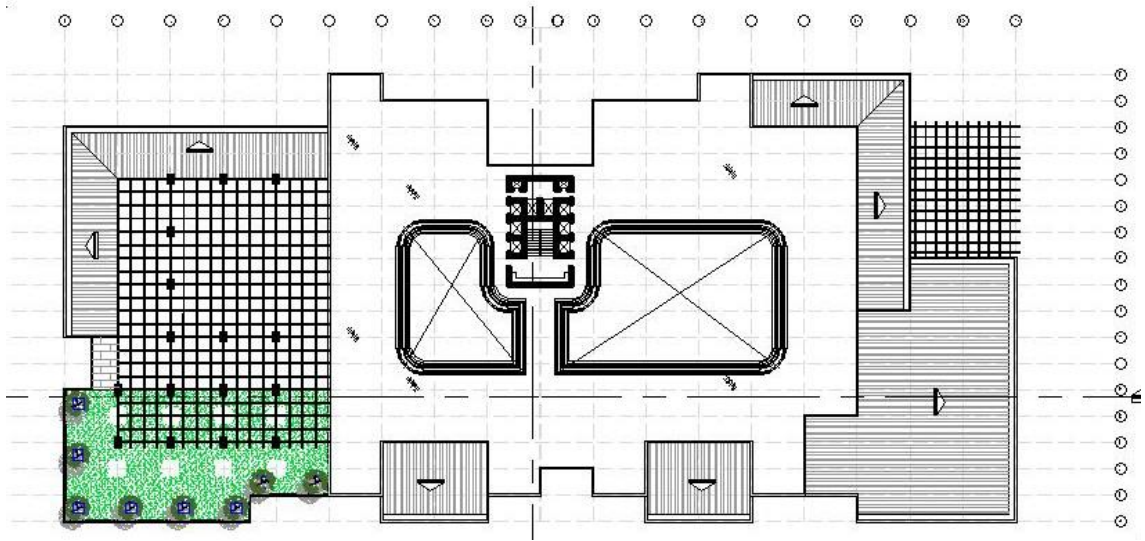
## APPENDIX G: TENTH TO FOURTEENTH FLOOR PLAN



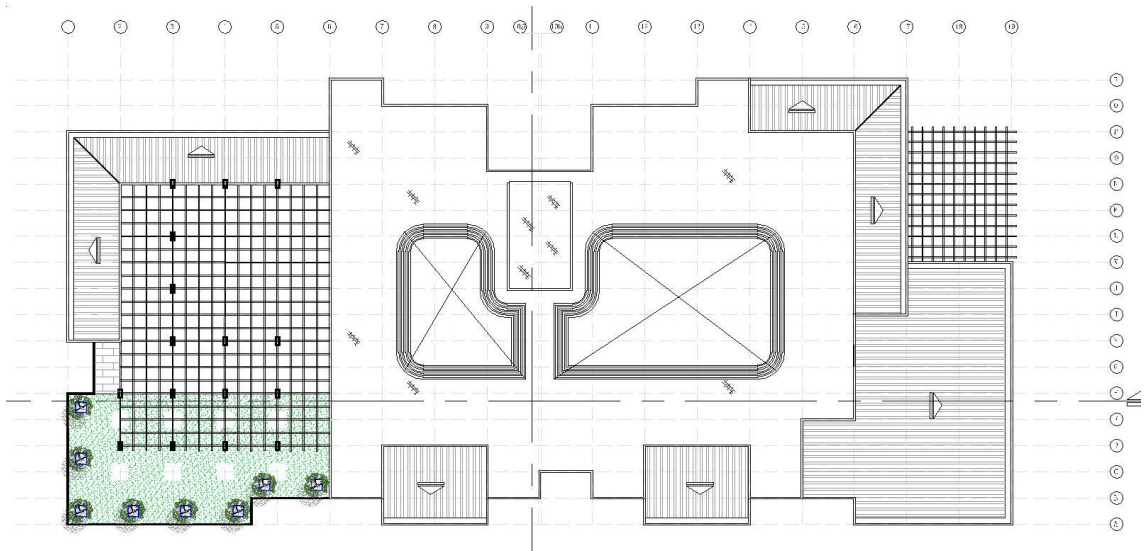
## APPENDIX H: FIFTEENTH FLOOR PLAN



## APPENDIX I: SIXTEENTH FLOOR PLAN



## APPENDIX J: ROOF PLAN



① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮ ⑯ ⑰ ⑱



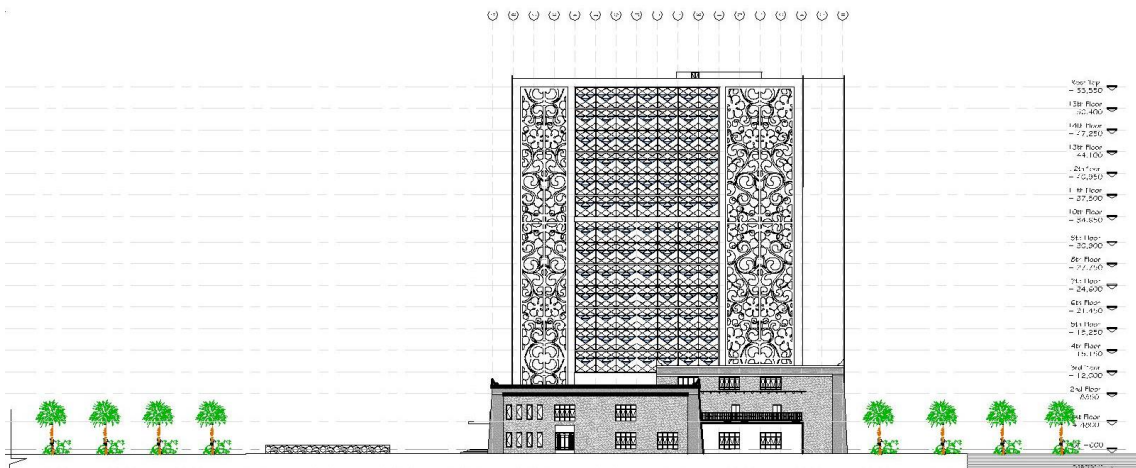
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ 14 ☐ 15 ☐ 16 ☐ 17 ☐ 18 ☐ 19 ☐ 20



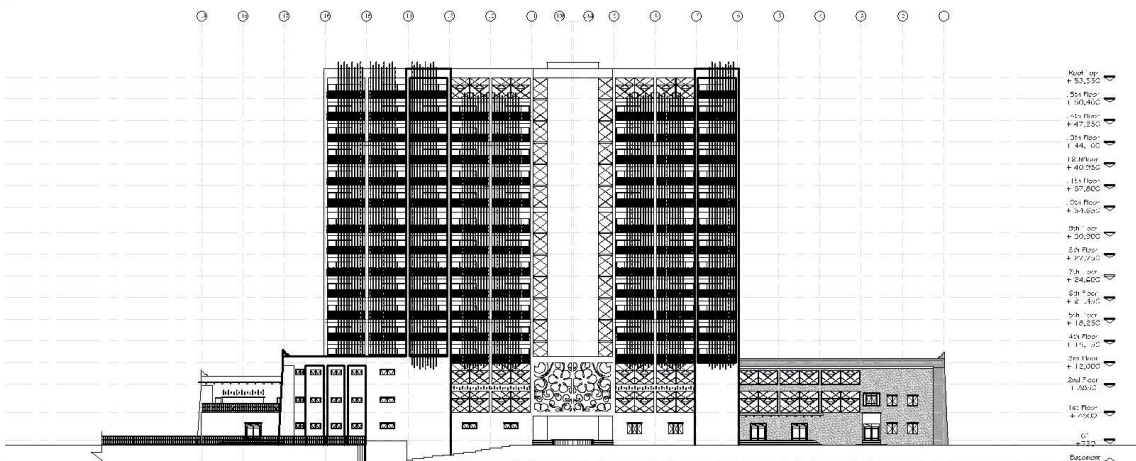
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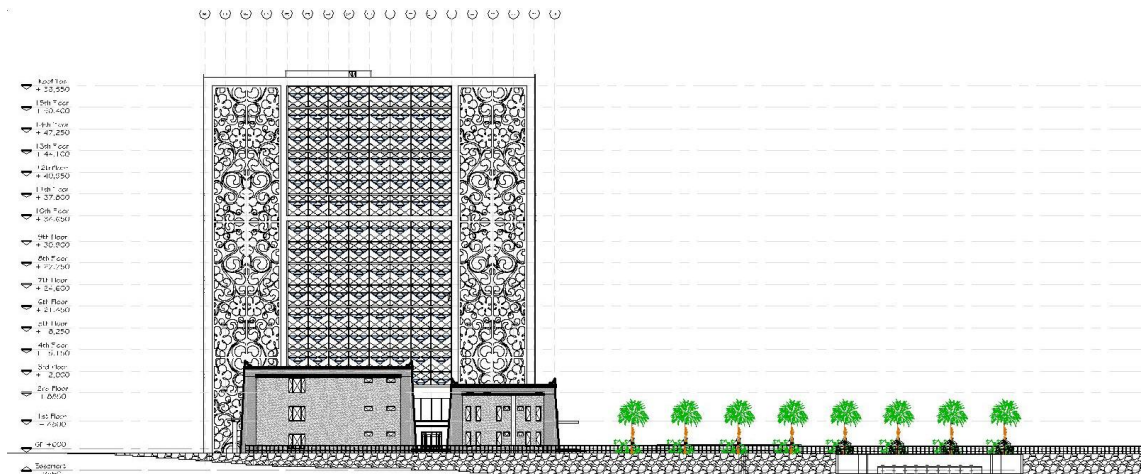
## APPENDIX N: LEFT END VIEW



## APPENDIX O: REAR VIEW



## APPENDIX P: RIGHT END VIEW



## **APPENDIX R: Observation Schedule**

### **Observation Schedule for Traditional Building Elements in Hotel Buildings in Minna**

<b>s/n</b>	<b>Level</b>		
1	Community	1.1	Fabric
		1.2	Planning
		1.3	Themes
2	Building	2.1	Character
		2.2	Spaces
		2.3	Features
3	Details	3.1	Completion
		3.2	Finishes
		3.3	Special elements