
INTEGRATION OF HAUSA TRADITIONAL ARCHITECTURE IN THE DEVELOPMENT OF ABUJA: A METHODOLOGICAL APPROACH

Tanimu Adamu Jatau Noma¹, Ali F. Bakr² and Zeyad M. El Sayad³

^{1,2} Department of Architecture, Faculty of Engineering, Alexandria, Egypt.

³ Faculty of Engineering, Alexandria, Egypt.

Citation: Tanimu Adamu Jatau Noma, Ali F. Bakr and Zeyad M. El Sayad (2022) Integration of Hausa Traditional Architecture in the Development of Abuja: A Methodological Approach, *International Journal of African Society, Cultures and Traditions*, Vol.10, No.1, pp.27-39

ABSTRACT: *The development of urban areas is a discourse that has been on-going particularly in Abuja, Nigeria where different modern styles of architecture have emerged in recent years. Yet little is done in the adoption of traditional architecture into the present needs. Therefore, this paper presents the potentials of Hausa traditional architecture, in terms of how architecture still adopts to the various impacts of modernization. A literature-based discourse is pursued in this study. The main keywords are expanded to argue the adaptation of Hausa traditional architectural styles into the present need for development in urban areas. Findings here suggests traditional architecture adapts better to the present developmental needs and the local materials used are less expensive, durable, cost effective. Furthermore, the findings are expected to spur developers as well as the different development control agencies particularly in Abuja to develop models for infrastructural developments. It ends with a discourse that integrates Hausa traditional architecture with urban development.*

KEYWORDS: architecture, Hausa, integration, traditional, urban, Abuja

INTRODUCTION

Nigeria is one of the most urbanized African countries south of the Sahara (Onibokun et al., 2013). The urban infrastructure in Nigeria is under great pressure from the teeming population migrating from the rural areas, including search of better means of livelihood (Pat-Mbano et al., 2012). All this growth and rapid urbanization was not without its problems (Ajayi et al., 2014). One of the challenges faced in urban areas like Abuja, Nigeria is that its beneficiaries and citizens now have new forms of development that represents a loss in the people's traditional form of identity. Globalization and technology moved into one culture, thereby abstracting traditional styles (Wang, 2007). Rich cultural heritage is being eroded, traditional architecture is giving way to modern and contemporary architecture, and cultural arts and crafts have been replaced by modern designs, leaving a future generation without knowledge of their roots (Falola, 2003). As such, building professionals, especially the architects, are yet to make reasonable efforts toward

synergizing traditional as well as indigenous design ideas, techniques, and craftsmanship within the contemporary practices.

Researchers like Agboola and Zango (2014), iterated that the recent domination of modern technology and concept would be to the detriment of indigenous expertise in building design and construction. While it is obvious that lately; architects, designers and government policies in Nigeria have frivolously abandoned traditional architecture in general, and little attention focuses on linking traditional architecture with modern developments. This study therefore intends to fill the gap that exists. The study is aimed at reviewing methodological approaches used in integration of Hausa traditional architecture in the development of Abuja, Nigeria. The specific research objectives are to: (1) identify the major features of Hausa traditional architecture, (2) determine suitable methodological approaches used in integrating Hausa traditional architecture in urban areas of Abuja. In realizing this goal, the following research questions were raised:

- i. What are the major features of Hausa traditional architecture?
- ii. What suitable methodological approaches can be used to integrate Hausa traditional architecture in developing urban areas of Abuja?
- iii.

Result from the study is useful to equip architects with more knowledge in cultural and traditional building settings which features indigenous building technologies and innovations.

Hausa Traditional Architecture

The 'Hausas' occupy a large part of northern Nigeria and can be found in the seven centralized feudal fenced cities namely; Gobir, Biram (Hadeija), Kano, Rano, Katsina, Kaduna, collectively known as Hausa States (Figure 1). The predominant religion in these states is Islam; it came in the 14th century and as a result strengthened the existing Hausa monarchies and traditions. In the late 18th century, the British colonial masters brought in a new system of government and their unique architectural style.



Figure 1: Map of Nigeria showing Hausa land/States.

Source: www.google.com

Functional spaces in Hausa traditional architecture

a. Compound Structure

According to Sa'ad (1986) "a traditional Hausa residence is conceptually subdivided into (3) parts or layouts namely;

1. Inner core (private area),
2. A central core (semi-private area), and
3. Outer core (public areas).
- 4.

The women area is the *inner core* consisting of the ward and guest/servant area with backyard space for the rearing of animals and refuse disposals. A courtyard is located mostly in the *central core*, for household and other associated social activities as well as for lighting and ventilation. These concepts historically originated from Egyptian domestic architecture of around (500 CE). Hence, the Hausa traditional village layouts of shelter and settlements that developed to villages and towns in such morphology". The core of the compound is an *open courtyard*, where the family spends the greater part of their daily household activity and other social or ceremonial activities. It is also a place where children may quietly crawl or play undisturbed, there, one may chat and eat with other members of the family and sleep during hot night or season (Figure 2). The division between the exterior and interior space is accentuated in Hausa.

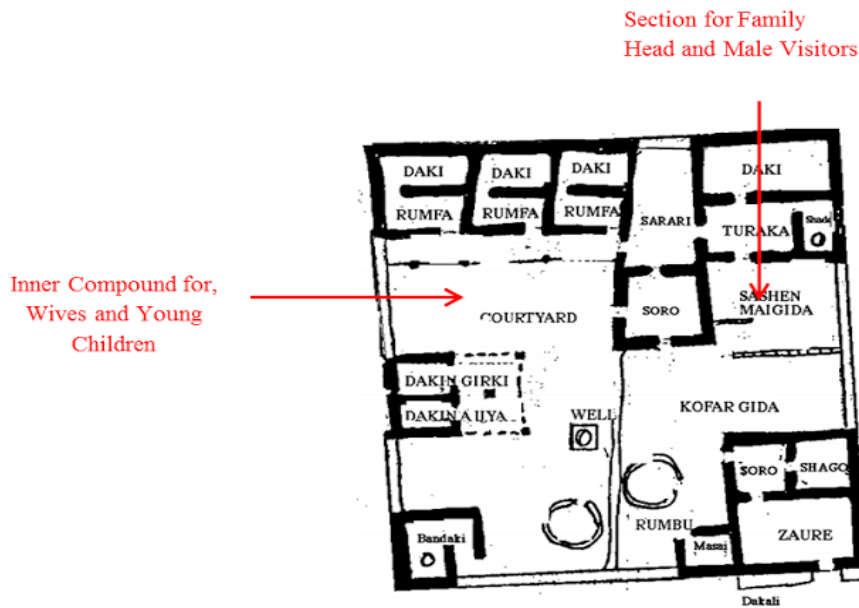


Figure 2: Floor plan of a Hausa compound.

Source: Adapted from Oumar, (1997).

Islamic architecture is influenced by “*PUR-DAH*” (exclusion of women) described as *Haremlik* and *Selemlik* areas (accessible and non-accessible). In other parts of the courtyard are well accentuated, but three common space denominators (i.e. the courtyard system for household and social activities, the kitchen and dining areas, where the kitchen is located far away in the compound, and the dining place individually or collectively in a Parlor or open space). The toilet or latrines is also located away from, or at the end of the compound for privacy, health and other reasons (Figure 3). “The major function of ‘*Zaure*’ includes security, protection, reception, privacy, moral, ethnic ideas, decorations, and administration (Adamu, 2005). Moreover, the provision of fairly large space at the vicinity of the neighborhood necessitates congregational assembly to celebrate social functions such as a naming ceremony, wedding ceremony, and a playground for children and so on”. The open spaces are used for the rearing of animals’ little cultivation and future expansion. The built-up areas have a sleeping and living room, kitchen, entrance space, toilets, and stores. The height of the compound wall is raised high enough to prevent passers-by from seeing what is happening inside the compound.

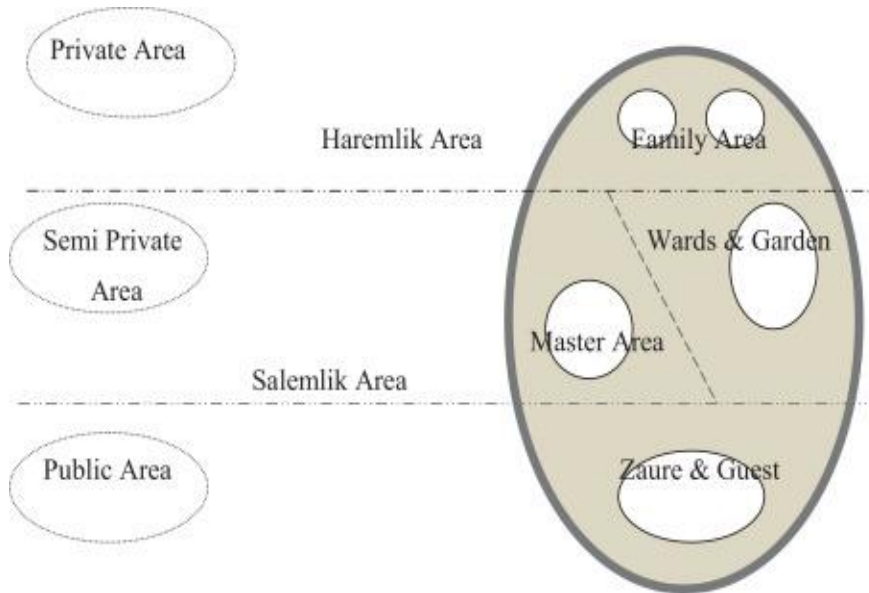


Figure 3: Layout form of a Hausa compound.
Source: Sciencedirect.com

Features of Hausa Traditional Architecture

The tradition of fine architecture has flourished with the Hausas in the sense that it is termed as most beautiful of the medieval age. Many of their early structures like mosques and palaces were made of bright, colorful intricate engraving or elaborate symbols which are designed on the facades. These traditional buildings were designed in various shapes and sizes and carried a special aura as they are built to generate much delight and enthusiasm. Indeed, the manner in which buildings are constructed as well as the sheer artistry deployed in the effort, combines to reveal aspects of a people's development, their history and culture, and goes a long way in projecting the precise conditions of a people's soul.

Natural occurring materials such which do not require extensive energy input like earth, stone, timber and thatch are employed in construction. These are used in constructing virtually all building elements like foundations, walls, columns, slab, beams, roof, openings and process of renovations. Ornamentation and engravings are also amongst distinct features seen. These different components are highlighted below.

Earth

Earth is the material in abundant supply in northern Nigeria and the basic traditional material used in making blocks and finishes. It has good thermal properties and slowly absorbs and releases heat thereby cooling building occupants in daytime and warming them at night. (Haruna, 2016). The walls that are constructed with earth have low heat conductivity; performs better than sand-crete block wall and a lot cheaper (Oluwagbemiga, 2014). As soon as walls are plastered and covered properly with roof overhangs, these earth

buildings stand strong and firm (Plate i a & b), environmentally sound and could exist for many years as long as day to day maintenance are adhered to (Ejiga, Paul, Cordelia, 2012).

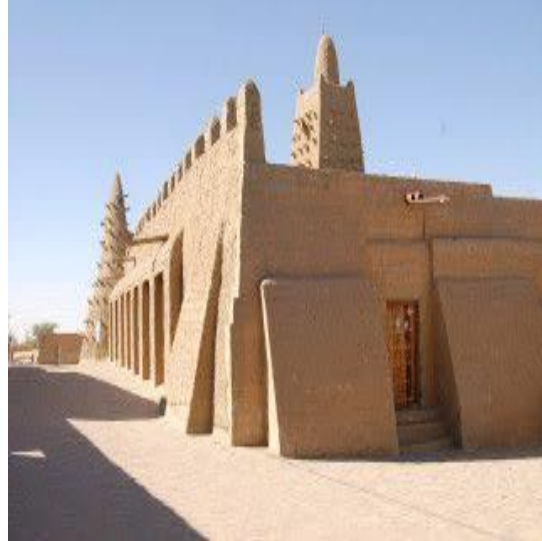


Plate i a & b: Earth as building material
Source: www.google.com

Stone

Hausa architecture utilizes stones in foundation for structural support and as moisture barrier to protect the superstructure earth walls (Isa, 2016). In some northern states particularly Katsina, stone is used in walling to represent authority. Some native authority buildings are observed to have walls built using stones. Stone foundations provide a cheap alternative as compared with the conventional over-site concrete floors. It is also considered cheaper as it requires less maintenance and protects isolated walls from unwanted elements (Plate ii & iii).



Plate ii: Irregular cut flagstone slabs steps



Plate iii: Retaining walls constructed from cut stones/ leading to the art gallery at Jos, Zoo building at the Jos Zoological Garden

Source: Adapted from field work of Orewere et al., (2021).

Wall Décor and Engravings

Engraving involves the practice of creating designs on wall surfaces by cutting various grooves. It is a practice that dates as far back as hundreds of millennia BC (Wikipedia, 2016). This is usually carried out by skilled traditional builders and artisans and highly experienced hand engravers. Hausa traditional architectural decoration is known to be categorized into three groups namely; surface design, calligraphy and ornamental (Australian Geographic, 2014). These finishes are naturally sourced without non-natural additives to even the color finishes. These engravings are withstands the taste of time to a reasonable degree. The use of these colors and motifs signify wealth and express the status quo of the building owner. Plate iv a & b below shows engraving symbols carved out or designed on walls in building facades in northern Nigeria.



Plate iv a &b: Engravings on walls of a Hausa traditional building.

Source: www.google.com

Timber

Timber used in Hausa traditional buildings serve as strong structural members in walls and pillars. They are obtained from trunks of male palm trees (Dalep or Gingiya) commonly known as “Azara” beams which are used to make frame construction, beams, brackets, and corbels which are elements that are seen carrying flat and domed roofs. They are characterized by durability, hardness, resistant to termite attacks, and are treated with infusions from pods or roots to water proof the top of flat roofs (Fatty, 2006).

Thatch and Grass

Thatching method is a system of building construction that has been passed down from generation to generation and has numerous descriptions of its uses, methods of construction

for over three centuries. Many ancient African buildings are made of grass and thatch. These construction materials are sourced from matted or baled straw from wheat, oats, barley, rye, rice or others and used as walling materials that are covered with earth or lime stucco (Ejiga, Paul and Cordelia 2012). Thatch is employed by traditional builders in many developing countries due to its low cost and easily sourced from local vegetation (Wikipedia, 2016).

RESEARCH METHODOLOGY

Research Locale

Geographically, Abuja lies at latitude 9.07°N and longitude 7.48°E , and at an elevation of 840 m (2760 ft) above sea-level. Abuja city is located in the central part of Nigeria north of the confluence of the Niger and Benue Rivers (Figure 4). The city is part of the Federal Capital Territory (FCT) whose land area of about 8000 km² makes it almost two and a half times the size of Lagos State, the former capital territory of Nigeria, the most populous country in Africa and the sixth most populated in the world. The geography of the area is defined by two renowned rock formations— the Zuma Rock from whose base the FCT begins and the Aso Rock that is located to the east of the city (Abubakar, 2014).

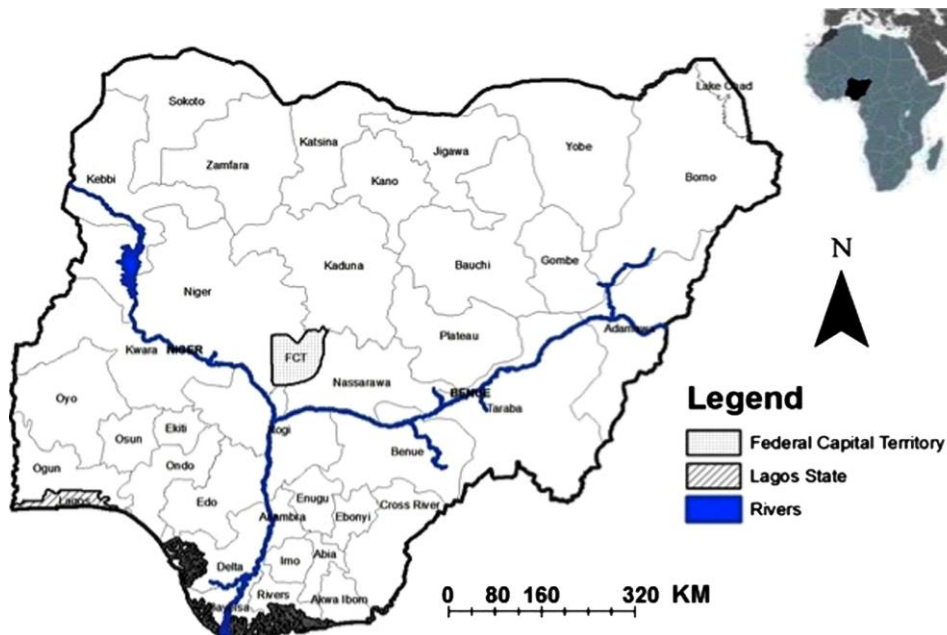


Figure 4: Location of Abuja in Nigeria

Source: FCDA, 1979 Archives

This elevation and tropical location gives Abuja a mild weather which contrasts sharply with the humid weather of Lagos, which is located on the shores of the Atlantic Ocean at 35 m (11 ft) above sea-level. The Abuja area has two distinct seasons: the rainy season that

lasts from April to October with rainfall ranging from 305 to 762 mm (12–30 in.) and temperatures raising up to 40°C in May; and the dry season that lasts from November through March with dry winds lowering the temperature to as low as 12°C. Because of its abundant rainfall, rich soil and the location within the Guinea-Savanna vegetation zone, the region is agriculturally productive, with maize and tubers as the dominant crops (Abubakar, 2014).

Data Collection

The study implemented different tools to gather data, tools used include, field survey, observation and secondary data from documented sources

DISCUSSIONS

Integrating Hausa traditional architecture for urban development

Hausa traditional architecture and modern construction have the inevitability of integration at the traditional level. Hausa buildings that are integrated with religious cultures have often been preserved for a long period of time. The methodological approach include:

Conduct intensive architectural research: Intensive literature reviews should be carried out to ascertain the culture and lifestyle, and development patterns of Hausa architectural practice and typologies. Studies on use of sustainable and organic materials which makes the building structure adaptable to tropical climate should be carried out. This will go a long way in establishing workable and sustainable developmental strategies especially in Abuja, Nigeria.

Adhere to Traditional architectural design concepts: With the current rapid urban development, there are requirements for improvements in the area of building aesthetics, concepts and functionality, the Hausa traditional architecture has great drawbacks which needs to be integrated for urban development purposes, Its traditional architecture needs to be preserved. Architecture is a poetry which cannot be imitated from foreign model but must be developed from its root and clearly expressed in its language (Adeyemi, 2008). With the forgoing, more functional architectural design efforts should be directed toward harmonizing the traditional and contemporary design methods. For instance, re-establishing the concept of triple space will go a long way in strengthening and maintaining a healthy community and bring the community together and this will encourage safer neighborhoods and also create a livelier community atmosphere. The use of courtyards which has successfully brought “the outside environment to the inside” without compromising privacy should be encouraged to continue as the positive impacts of the design concepts are seen evident in the Hausa traditional home settings.

The use of traditional building materials, construction and techniques: Earthen block technologies as posited by Morton, (2008) have been utilized in housing one-third of the world’s population. Houben and Guillaud, (1994) also opined that a modest 30% of the

world's population live in homes constructed of earth. Attempts have been made in recent years to stabilize earth with additives and compression for longer use in Abuja and its environs. With the establishment of the Nigerian Building and Road Research Institute (NBRI) under the aegis of the Federal Ministry of Science, Technology and Innovation, the institute has come up with various research developments of which one of such is the cement-stabilized earth bricks. These are produced from laterite soils with a combination of cement and water. It is laid with mortar when constructing brick walls. It is cost effective in wall construction and is thermally comfortable. This is an indication that the traditional materials have been modified to suit the present challenges by integrating its building technologies.



Plate v a & b: A house under construction using NBRI CEB technology in North-Central Nigeria

Source: Author's Archive 2019

Carry out extensive field surveys and analysis: An extensive review on building materials/technologies, its properties, applications and quality should be carried out with the view of establishing its comparative performance. Building materials should be examined based on its strength, durability, density, thermal values, water absorption and moisture content. Market surveys should also be conducted to ensure, its affordability, availability and applications. Data obtained with regards to quality, applications and cost should be used to buttress the comparative advantages with respect to performance and affordability.

CONCLUSION

This paper discussed the methodological approach of Integrating Hausa traditional architecture in the development of urban areas in Abuja, Nigeria. Field study had shown

that adoption of cheaper traditional building materials such as earth, wood, stone, and thatch in planning and construction is functional and aesthetically appealing. The use Hausa building motifs, symbols, and decoration in contemporary styles can be utilized as an incentive for aesthetical streetscapes in cities: the more desirable a place is, the more likely it will be visited, and in turn, money spent.

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