



Commonalities in the Traditional Architecture of Northern and Southern Nigeria: A Comparative Analysis.

Henry Emusa

Department of Architecture, Faculty of Architecture, Bingham University Karu, Nigeria.

ABSTRACT

Traditional architecture in Nigeria reflects cultural identity and historical heritage, exhibiting distinct regional variations between the Northern and Southern regions. This comparative analysis identified commonalities in traditional architecture across these regions. Drawing upon existing literature and architectural documentation, the research examined key architectural features such as building materials, spatial organization, decorative motifs, and construction techniques. It also examined socio-cultural factors like communal living, religious beliefs, and socio-economic activities to understand their impact on architectural design and evolution. The findings revealed significant commonalities in building elements, architectural form, spatial organisation, building materials and construction techniques despite geographical and cultural differences. The study also revealed environmental conditions, cultural and religious practices, and building materials as influential factors shaping architectural practice in both regions. Furthermore, shared socio-cultural values contributed to the preservation and continuity of traditional architectural practices across generations. Identifying and preserving Nigeria's diverse architectural heritage is crucial, and understanding commonalities between Northern and Southern architectural practices promotes appreciation for the country's cultural richness. It also fosters sustainable preservation efforts and facilitates cross-cultural dialogue and community engagement in heritage conservation initiatives. Overall, this comparative analysis contributes to a deeper understanding of Nigeria's architectural heritage, underscoring the importance of preserving and promoting shared architectural practices as integral components of the nation's heritage, cultural identity and unity.

Keywords: Northern Nigeria; Southern Nigeria; Traditional Architecture; Culture; Commonalities; Similarities

1. INTRODUCTION

Traditional architecture is referred to as the architectural style that has been handed over from one generation to another or the architectural style that has come to be accepted and practiced by a group of people (Rikko & Gwatau, 2011; Okoye & Ukanwa, 2019). Traditional African architecture is an expression of the people's way of life and traditional values. Traditional African Architectural forms are tied to different ethnic cultural practices. Nigeria, for example, is a heterogeneous society comprising ethno-geographical regions such as the North, Middle Belt, East, West, and South Each of these regions has its own culture and as such exhibits peculiar housing form. As a result, Nigerian traditional architecture varies both over time and from place to place. These changes are clearly influenced by the progress of civilization, cultural infiltration and technological advancement (Astrolabe, 2002). The Nigerian architecture of the pre-colonial era depended on the social, cultural, and religious background of these ethnic groups in the country. The major determinants of form then were social, cultural, religious needs coupled with some environmental factors, like landscape and vegetation (Uchegbu, 2007).

It is universal that certain architecture is identified with certain group of people either as a state or nation. For example, there is the Chinese architecture, the American, the early Egyptian, Greek, the Roman and so on. Within this sphere of national architecture, there exists architecture of specific functions. Consequently, the Chinese pyramidal cake form is a depiction of temples whereas the ordinary linear design is reserved for housing, while in America, the simple wooden architecture is peculiar to cottage buildings (Astrolabe, 2002).

Research has shown that the traditional architecture of the various ethnic groups in Nigeria have unique features and values that can be incorporated into contemporary architecture to enhance the quality of the built environment (Ilesanmi & Egbe, 2013; Adedokun, 2014; Okoye & Ukanwa, 2019; Adenaike, et al., 2020). Hence, research on traditional architecture are important in revealing how traditional building forms, concepts, materials and techniques have been employed to adapt to the changing environmental conditions, and at the same time preserve the cultural heritage and identity of the people. Arguably, the total abandonment of traditional building design strategies has come with adverse environmental and economic challenges, especially in urban areas (Ezezue & Diogu 2016; Dayaratne 2018). To change this narrative, several authors (Rikko & Gwatau, 2011; Ekhaese et al., 2015; Okoye & Ukanwa, 2019) have advocated for the re-invention of traditional architecture in Nigeria as a way to mitigating some of these challenges. The study by Agbo (2018) has shown that some African countries such as [Mali](#), [Sudan](#), [Niger Republic](#) and parts of Northern Nigeria have done better in the preservation and propagation of indigenous architecture.

The review of literature revealed that understanding the intrinsic features and values of traditional or vernacular architecture has continued to attract the attention of scholars and researchers in architecture, especially, in the sub-Saharan Africa where colonial influence and modernisation have contributed to traditional architecture going into extinction. In Nigeria, Rikko and Gwatau (2011) observed that the country's architecture comprises the traditional architecture of the Hausa, Tiv, Igala, Tarok, Berom, Nga, Kutep, Bajju people of Northern Nigeria and Yoruba, Igbo, Benin people of Southern Nigeria among others, and that the multiplicity of architectural styles is as a result of differences in culture, religion, climate, urbanization, and professionalism. The available literature on Nigeria traditional architecture also shows that some research works have been carried out to examine several issues associated with the architecture of the Northern and Southern people of Nigeria. For example, Dmowchosky (1990) documented the key features of the traditional architecture of the Hausa, Igbo, and Yoruba-speaking people in the North, South-east, and South-west, respectively. Specifically, a recent review by Adenaike et al. (2020) revealed that extensive research has been carried out on the features and values of Yoruba traditional buildings, spatial organization patterns, and construction materials. Nsude (1987); and Okoye and Ukanwa (2019) examined the Igbo traditional settlement pattern, compound layout, house form, and building materials, while Umar (2017) and Umar et al. (2019) investigated the practice of Hausa traditional architecture and transformation in Hausa traditional architecture, respectively. In addition, Ekhaese et al. (2015) focused on issues related to the architecture of the Benin people of Southern Nigeria, including its evolution from pre-colonial to contemporary times. Notably, Auwalu (2019) compared the different vernacular architectures in Nigeria.

Although these authors noted that the architectural styles of the various ethnic groups in Northern and Southern Nigeria have noticeable differences, they also identified common features. This research was conducted relying mainly on the review of existing literature to investigate the commonalities in the traditional architecture of Northern and Southern Nigeria to underscore the importance of preserving and promoting shared architectural practices as integral components of the nation's heritage, cultural identity, and unity.

2. LITERATURE REVIEW

2.1. The Study Area

Nigeria's capital Abuja is centrally located in the country. It lies between latitudes $6^{\circ} 45'$ and longitudes $7^{\circ} 39'$ North of the equator. The total area of the country is about 923,768 square kilometers, and about 13,878 square kilometers of water (National Bureau of Statistics, 2010) with a population of 198 million (National Population Commission, 2018). Nigeria is divided into Northern and Southern parts (See fig. 1). The distance between the Northern region and the Southern region covers about 1400 kilometres, and 1100 kilometres from the Eastern region to the Western region (Federal Ministry of Culture and Tourism, 2007). There are more than 250 ethnic groups, speaking over 500 local dialects and upholding highly varied socio-cultural practices and heritage. However, the predominant ethnic group of Hausa-Fulani occupies the Northern region, the Yoruba ethnic group occupies the South-western region, and the Igbo ethnic group occupies the South-eastern region (Demographics of Nigeria, 2018).



Figure 1: Map of Abuja Showing Northern and Southern Regions

Source: https://miro.medium.com/v2/resize:fit:828/format:webp/1*pNNqn7IVOhDqGCVw8vh_SQ.jpeg

2.2. Traditional Architecture in Nigeria

According to Gutkind (1953), traditional architecture embodies the ethos and traditional values of a people. The Nigerian traditional architecture before the colonial period depended on the social, cultural and religious background of the identified ethnic groups, and some environmental factors such as landscape and vegetation (Nduka, 2013), and is characterized by its building materials, forms, and techniques, particularly evident in the architectural styles of the three major ethnic groups: the Hausa in the Northern region, the Yoruba in the South-west region, and the Igbo in the South-east region. Consequently, architectural forms within this context are closely intertwined with diverse ethnic cultural practices (Chukwuali, 2004).

The Hausa, predominant in the Northern region, form the largest ethnic group in that area. They reside in large social clusters, exemplified by cities like Kano and Zaria, and are primarily engaged in arable farming, cultivating crops such as cotton, groundnuts, and food crops, alongside extensive trading in agricultural produce, leather work, textiles, and weaving. With a predominantly Muslim population, their traditional architecture is influenced

by religious precepts, affecting aspects such as attire, social interactions, and spatial arrangement. The Yoruba, primarily inhabiting the South-west region, have historically lived in large urban communities, even predating colonialism (Ferguson, 1970; Eades, 1980; Laitin, 1986). Renowned for their artistic endeavours in bronze-casting, terracotta, and wood sculpting, they traditionally adhered to animist beliefs, with a significant embrace of Christianity in recent times. Early exposure to Western influences, facilitated by British colonialism, introduced advancements such as formal education and cash crop trade to Yoruba land. The Igbo, predominantly located in the South-eastern region, are renowned for their industrial prowess and entrepreneurial spirit, particularly in trade and commerce. Traditionally dwelling in small, clan-based settlements with decentralized governance, they resisted the British 'indirect rule' system applied elsewhere in the country (Laitin, 1986). Similar to the South-west, Igbo communities also benefited from early access to Western advancements. Despite their trading acumen, they are also notable for their substantial agricultural output, including yams, cassava, and palm oil.

2.3. Traditional Architecture in Northern Nigeria

Two primary styles of traditional architecture have emerged in Northern Nigeria, each adapted to the unique lifestyles and environmental conditions of its inhabitants. The first is characterized by the stable, enduring structures of the Hausa homesteads (Hussaini, 1999). These are predominantly found throughout the region and reflect a significant influence from Islamic practices, particularly noticeable in urban areas. Before the introduction of Islam in the 7th Century AD on the Arabian Peninsula, the courtyard-style layout, now often linked with Islamic architecture, was already prevalent (Friedrich, 1982). The second architectural style is seen among the Fulani people, who are traditionally nomads. Their shelters are constructed from temporary materials like reeds, leaves, and elephant grass. The simplicity and impermanence of these structures are a response to the nomadic lifestyle of the Fulani, necessitated by seasonal movements (Hussaini, 1999).

The housing designs in both cases are heavily influenced by a combination of factors including climate, religion, and socio-cultural norms. In urban centers, other practical considerations such as security needs, availability of building materials, and land scarcity have also shaped the architectural styles. Further south, in the North-central region of Nigeria, known as the Middle Belt, the architecture exhibits diversity but also shares some similarities across the groups such as the Tivs, Igalas, Taroks, Beroms, Ngas, Kutep, Gbagyi and Bajus, among others. Despite commonalities like the use of curvilinear forms, significant variations exist in the layout of compounds and construction methods, reflecting the unique cultural practices of each ethnic group (Rikko & Gwatau, 2011).

2.3.1. Traditional Hausa Settlement Pattern

Traditional Hausa architecture in Northern Nigeria is shaped by a blend of factors including religious influences, socio-cultural norms, climate conditions, and the materials available. The organization of settlements and the structuring of family compounds deeply reflect the cultural and social backgrounds of the region. Key centres within these communities include the emir's palace, the mosque, and the local market. The emir's palace acts as the hub for administrative functions, while the market serves as a vital weekly gathering spot for commerce and social exchange, drawing individuals from both the local area and beyond (Auwalu, 2019). In Hausa communities, the distinction between urban and rural environments is often not clear, as urban centers are seen as extensions of the rural landscape, a type of planning referred to locally as 'Anguwani' which resembles traditional rural setups (Sa'ad, 1986). This perception underscores the seamless integration of rural traditions into urban settings.

Furthermore, Popoola (1984) noted that the rural areas are typically characterized by clustered villages which may show signs of expansion. Historical settlement walls still mark these villages, although newer settlements tend to feature more dispersed compounds, indicating a shift towards newer settlement patterns while maintaining connections with traditional nucleated village types prevalent in Hausa territories. This arrangement not only accommodates three distinct settlement types but also illustrates the complex interplay between tradition and evolving community needs. In Hausa land, three primary types of settlements define the regional architecture and social organization. The first is the village known as 'Kauaye' in Hausa. This is typically reserved for rural settings and consists primarily of matrilineal family groups living in a centralized hamlet designed primarily for agricultural activities. The farmland or 'Gona' is directly adjacent to these hamlets and is distinctly separated from the farmland of other nearby villages (Kwauiyika). This separation is marked by forest (Daji). Urban residents often avoid being identified with 'Kauaye' due to its strictly rural connotations. The second is the town known as 'Gari' in Hausa. It is larger than a village, a 'Gari' forms a township where distantly related families and even strangers coexist. Such towns are typically divided into 'Anguwanni' (wards), which are homogeneous groups linked by family, religious affiliations, or professional roles. The development of these towns has been influenced by several factors including the availability of fertile agricultural land and locations of religious significance, which have become focal points for migration and settlement. Interestingly, towns in Hausa land traditionally lack defensive walls, as the construction of fortifications often came after the initial establishment of these settlements, usually in response to later conflicts (Popoola, 1984). The third is the city known as 'Birmi' in Hausa. It is the most cosmopolitan of the three, a 'Birmi' is always fortified with walls, reflecting its role as a refuge during sieges. Such cities often emerged as political or commercial hubs and were capital cities of various Hausa city-states at different times. The structure of a 'Birmi' includes three main zones: 'Cikin Gari' (inner core), 'Tsakiyar Gari' (central core), and 'Wajen Gari' (outer core), each surrounded by a strong mud wall known as 'Ganuwa'. Entry into the city is through a gate called 'Kofa', reinforcing the city's layout as a fortified entity (Sa'ad, 1986). This hierarchical classification not only reflects the social and physical architecture of Hausa land but also mirrors the organizational structure within Hausa compound houses, showing a clear correlation between the microcosm of a household and the macrocosm of urban planning in Hausa culture.

2.3.2. Traditional Hausa Compound Layout

In Northern Nigeria, particularly in major cities, Hausa compounds are noted for their privacy and intricate spatial hierarchy, which deepens as one moves from the exterior to the interior areas. The compound is surrounded by a mud wall, or in some cases a grass matting fence known as 'Zana'. The compound's entrance, termed 'Zaure', is an essential transitional space between the public street and the compound's private interior, serving the extended family (Sa'ad, 1996). The buildings are mostly rectangular in shape but in some place like Zaria, there are circular forms.

Traditional Hausa architecture can be classified under the 'Sudanese' style, prominent across the West African savannah regions near the Niger and Chad rivers (Fatiregun, 1999). Hausa houses often incorporate a courtyard surrounded by multiple rooms, allowing for expansions to accommodate family extensions like additional wives and children. The layout includes open-air spaces essential for social and religious functions, adhering to Islamic principles that emphasize women's seclusion and privacy. The architectural design distinctly separates men's and women's quarters, with the latter organized around a courtyard and generally inaccessible to non-family males, reflecting the practice of 'PURDAH' or seclusion (See fig. 2) (Agboola & Zango, 2014).

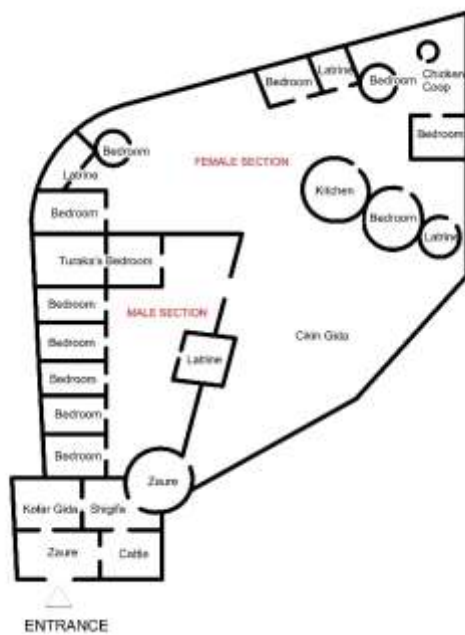


Figure 2: Traditional Hausa Compound Layout

Source: Adapted from Auwalu (2019)

The 'Zaure' functions as more than just an entryway; it embodies a social-religious unit within Hausa architecture, delineating the levels of social interaction permissible within the compound. This space is multifunctional, accommodating activities such as receptions, security, and various social gatherings like weddings or naming ceremonies, while also serving decorative and administrative purposes (Adamu, 2005; Osasona, 2007). Beyond the 'Zaure' lies the 'kofar gida', a semi-public first courtyard acting as a buffer zone. This area restricts the access of adult male visitors, except for close relatives and the household head's intimate friends (Sa'ad, 1996). Adjacent to this is the 'Shigifa', a more private inner reception hall where the house head or *maigida* relaxes with close acquaintances and family. This space serves as a transitional area linking the outer courtyard with the inner courtyard 'cikin gida', which houses the private quarters of the household head. The 'cikin gida', traditionally reserved for the women of the house, constitutes the core of the compound. It accommodates the married women's quarters, children's play areas, kitchens, storage facilities, and other essential household functions. This section of the compound is designed to support the daily activities and wellbeing of the women, their children, and female guests or relatives.

2.3.3. Traditional Hausa Building Materials and Construction Techniques

In the construction of traditional Hausa buildings, four primary indigenous materials are commonly utilized: earth, timber, reeds, grasses, and stones. These materials are foundational to the architectural practices in Hausa land (Moughtin, 1985; Dmochowski, 1990). In the traditional Hausa architecture, building techniques prominently feature the use of sun-dried, pear-shaped mud bricks, known locally as 'tubali.' These bricks are crafted from the red laterite soil (Jankasa) commonly found in the surrounding areas. The soil is mixed with water to form a malleable mixture that, when dried, forms durable building units. The 'tubali' are then methodically laid in a specific pattern with pointed ends up, following the traditional Tubali method, which gives the buildings their unique, monolithic appearance (Osasona, 2007). The foundation for these buildings is typically excavated to a depth of about 400 to 600mm to surpass the less stable topsoil layer. At the base, the walls are constructed with a thickness of around 600 mm, tapering to about 200mm at the top. This design helps in ensuring structural stability and thermal efficiency. The 'tubali' bricks are arranged in courses and bonded with a specially prepared mud mortar, enhancing the structural integrity as the wall height increases.

In addition, these bricks are left in the sun to harden before use, ensuring they are sufficiently dry to contribute effectively to the construction. The walls are typically built using five to six layers of 'tubali' at the base, reducing to two layers towards the top, optimizing both strength and thermal properties. This construction method is prevalent in the historical walled city of Kano, where the thick walls serve multiple purposes: they structurally support the buildings, provide thermal comfort, and are historically cost-effective due to the availability of labor (Umar et al., 2019).

Mud, an essential material in traditional Hausa architecture, plays a critical role in roofing construction. Typical mud roofs cover spaces approximately 1.8 meters wide, supported at each end by mud walls and reinforced with 'Azara' beams. For larger spans of 2.7 to 5 meters, the builders introduce corbelled mud projections approximately 45cm long from the top of the walls, which also utilize 'Azara' for additional support. In cases where room dimensions extend up to 4 meters, 'Azara' beams are strategically placed either diagonally across or horizontally along the room to support the roof structure in larger spaces. These roofs may also rely on a network of columns interconnected by 'Azara' beams, forming a grid that supports the roof, with the interiors between beams simply covered by additional spans of 'Azara' (Sa'ad, 1986). In addition, 'Azara' is employed in constructing frames, beams, brackets, and corbels for both flat and domed roofs, the dome is known as 'Tulluwa' in Hausa. Also, 'Zankwaye' (Pinnacles) are a distinct architectural feature in Hausa buildings. These vertical projections serve practical purposes such as assisting builders with roof access during construction or maintenance (See fig. 3). An insulating layer made from timber ashes is spread atop these roofs, which are also treated with extracts from pods or roots to ensure they are waterproof (Dmochowski, 1990). Mud used for wall plastering often includes additives like potash or extracts from locust beans, which enhance durability and texture.

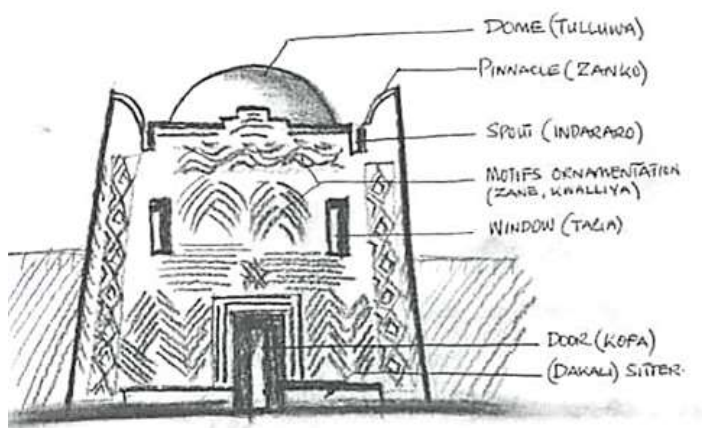


Figure 3: Typical Traditional Hausa House showing Decorative Façade, Pinnacle and Roof Dome.

Source: Bena (2024).

The predominance of flat or vaulted mud roofs in urban Hausa areas is a strategic response not only to the severe diurnal temperature shifts but also to urban fire safety concerns. This led to policies that discourage the use of highly flammable thatched roofs, highlighting a distinct architectural divergence between urban and suburban settings. While urban buildings typically feature mud roofs and rectangular walls, suburban buildings often have thatched roofs over circular bases. The advent of new materials such as cement and corrugated iron sheets from Europe dramatically transformed local architecture. Corrugated iron, in particular, quickly replaced thatch due to its non-flammability and ease of use on rectilinear structures. This shift contributed to a change in the basic shape of many buildings from circular to rectangular to better accommodate the new roofing material (Agboola & Zango, 2014).

2.3.4. Traditional Hausa Motifs and decorations

In Northern Nigeria, the artistry of traditional Hausa architecture is expressed through elaborate wall engravings crafted by skilled builders and artisans. This distinctive style features colorful designs and decorations that enhance the aesthetic and functional quality of interior spaces. Typically, these embellishments include a variety of elements such as vaults, piers, decorative archways, and intricate motifs, designed to capture and delight the eye of observers. According to Adamu (2005), traditional Hausa architectural decorations are classified into three primary types: surface designs, calligraphy, and ornamental motifs. These elements may all appear together on the facade of a 'Zaure,' with the specific selection reflecting the social status and personal tastes of the homeowner (See fig 4). A unique decorative technique used in Hausa architecture is 'Graffito,' which involves layering different colored plasters and then drawing designs into the upper layers to reveal the colors beneath. Denyer (1978) noted that such decorations often carry magical or religious meanings.

The facades of Hausa buildings are frequently adorned with complex arabesque patterns and reliefs, painted in vibrant colors. These elaborate decorations not only demonstrate wealth and social prestige but also contribute to the picturesque quality of the streetscape. Features such as 'Zanko' which represent mud horns along the building's parapet often add a light, decorative touch to the buildings. Hausa building motifs represent a celebration of craftsmanship, echoing the relationship between man and nature, and are infused with the same passion and vibrancy found in the works of visual artists. These motifs, which may include relief patterns are scratched, painted or textured onto the building surface, vaults, piers, and the facades of

'zaures', interiors, walls, doors, and windows. Sa'ad (1986) categorized these motifs into four origins: modeled fresh mud plaster, carved wet cement or mud plaster, a plastered 'Makuba,' or painted directly onto a plain white wall (Umar et al., 2019).



Figure 4: Traditional Hausa Facade Decoration showing Pinnacles (Zankwaye).

Source: <https://www.baytalfann.com/post/the-art-of-hausa-architecture>

2.4. Traditional Architecture in Southern Nigeria

The traditional architecture of Southern Nigeria is characterized predominantly by the architectural styles of the Igbo, Yoruba, and Benin cultures. These groups represent the most influential and well-documented traditional architectural forms in the region, overshadowing other significant but less prominent styles such as those of the Ibibio and Efik (Rikko & Gwatau, 2011). The discussion herein examines the distinct characteristics and historical backgrounds of Igbo, Yoruba, and Benin architecture, providing a comprehensive overview of their contributions to the architectural heritage of southern Nigeria.

2.5. Traditional Igbo Architecture

The traditional Igbo society practiced both theocratic and communal principles, evident in their architectural style. Each Igbo community manifested these traditional components, notably in the layout and design of their buildings. A typical Igbo settlement delineated two distinct zones: the public quarters (ama) and the kindred (ezi). Within the public quarters (ama), one would find the assembly hall and the sanctuaries dedicated to the community's various deities. The kindred comprised individual compounds, the number of which corresponded to the polygamous practices of the compound head (Hopkins, 1973).

2.5.1. Traditional Igbo Settlement Pattern

The Igbos live in scattered towns and villages, communicating in the prevalent Igbo language and renowned for their industrious nature (Chukwu, 2015). They inhabit the South-eastern region of Nigeria, spanning both banks of the lower parts of the River Niger, predominantly situated on its eastern side. This geographical area covers the South-east States of Enugu, Abia, Anambra, Enugu, and Imo (Hopkins, 1973).

Communality is an important aspect of Igbo cultural life and is incorporated into the layout of the settlement pattern with their buildings seeking to integrate spiritual, cultural and lifestyle values into their architecture (Dmochowski, 1990). In a traditional Igbo settlement, a cluster of independent villages develop around a central point, creating what is commonly known as a village group. These village groups can vary in size, comprising as few as four to as many as twenty or more villages. This clustered arrangement is a defining characteristic, with each village positioned around the perimeter of the central hub, directing its agricultural activities outward. Consequently, the residential area surrounds the central point, while the land beyond is utilized for farming and forestry purposes. This layout facilitates the expansion of individual villages with minimal disruption to the overall settlement. The name of the settlement, or village group, often originates from the name of its founder or a prominent geographical feature of its location. For instance, *Awkunanaw* translates to 'of four relatives,' signifying a settlement established by four relatives. Similarly, names like *Mba Ise* meaning 'of five clans,' *Umuofia* translating to 'children of the forest,' and *Enugu Ukwu* indicating 'top of the big hill' follow the same pattern. In addition, the villages within the settlement may bear names associated with their supposed ancestors or geographical features of their surroundings. Similar to the settlement, the village itself can be conceptualized as comprising three main components: the village square, the wards, and the farmland extending beyond. Each village is demarcated from others by natural features such as bushes or forests. Narrow pathways extend from the village square to smaller gathering spots within the individual wards of the village. These pathways also branch out, creating smaller routes that lead to the different compounds within the village (Nsude, 1987).

2.5.2 Traditional Igbo Compound Layout

In traditional Igbo architectural traditions, the compound stands as the fundamental unit of habitation, comprising not only residential spaces but also a host of distinctive features, as documented by Dmochowski (1990). Among these are imposing compound gates and communal meeting house (*obi*) (See fig. 5). Encircled by a mud perimeter fence with a single entrance and exit, Igbo compounds typically exhibit a variety of shapes, including rectangular, square, curvilinear, composite, and occasionally amorphous configurations (See fig. 6). According to Rikko and Gwatau (2011), the layout of a typical Igbo compound reflects societal divisions, with separate sections allocated for men, women, and children. Compounds and buildings commonly manifest in two principal forms: rectilinear and circular. The dimensions of these compounds vary, contingent upon factors such as inherited plot sizes and the number of occupants. Central to the layout of a traditional Igbo compound is a cleared space positioned at the forefront, serving as a nexus from which pathways extend to neighboring wards and compounds. Within this open area, one often encounters the shrine dedicated to the compound's protective deity, be it *egbo*, *egya*, *mmuo*, or another tutelary *alusi*, believed to safeguard inhabitants against malevolent spiritual forces. To shield the shrine from the weather elements, it may be housed within a small shelter. Overall, the architectural layout and features of Igbo compounds reflect not only the practicalities of communal living but also the spiritual beliefs and social structures that underpin Igbo society.

In Igbo tradition, the communal meeting house (*obi* or *obu*) holds significant importance within the compound structure. Serving as a symbolic space, the *obi* house acts as a welcoming area for visitors. Typically, only family members proceed beyond this point, while visitors remain within the *obi* house for the duration of their stay. Each visit involves customary rituals, including the presentation and acceptance of kola nut, which serves as a gesture of goodwill from the visitor. Within the *obi* house, seating arrangements are carefully organized to facilitate these rituals, with the owner of the compound positioned to observe the proceedings. Consequently, the spatial layout of the *obi* house divides it into two distinct zones: one for visitors near the entrance, and another for the compound head, who sits facing the entryway. This spatial arrangement ensures that visitors are positioned on the outer edge, facing a seat designated for the compound owner (Nsude, 1987). Nsude (1987) further described three primary variations of traditional Igbo compounds: the impluvium type, the giant type, and the Igbo heartland type. The impluvium type features rooms arranged around one or more internal rectangular courtyards. Conversely, the giant compound type, prevalent in the Eastern and South-eastern regions of Igbo land, comprises an expanded compound accommodating several minimal segments of a clan (*umunna*). Houses within this type of compound are often closely juxtaposed, forming a perimeter wall that encloses an oval-shaped courtyard. The compound itself may assume circular, oval, or even amorphous configurations. Distinctively, the heartland type, found in the Northern, Central, and Southern areas of Igbo land, consists of several houses situated on a plot of land encircled by a wall, typically with a single main entrance gate. This gate, known as *ofu obodo*, *mgbo ezi*, or *onu ofu*, serves as a vital link between the village and the internal sections of the compound. Unlike the impluvium type, houses in this category are usually detached from one another. Unlike the giant type, the heartland compound typically accommodates only a single family or a blood-related group forming a segment of *umunna*.



Figure 5: Igbo Traditional Compound Entrance.

Source: Duckworth (1938)

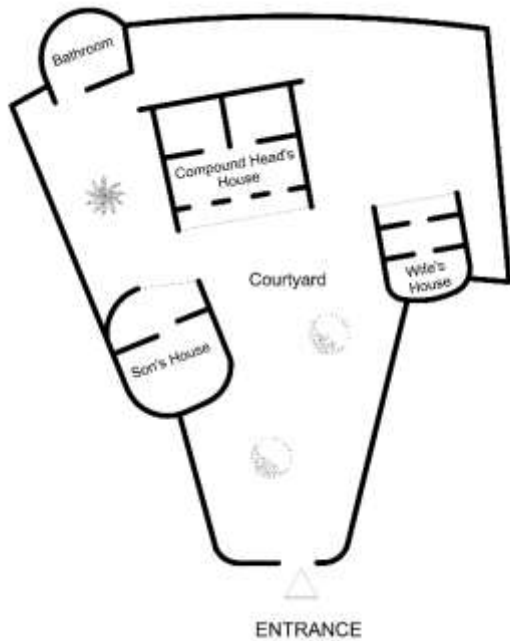


Figure 6: Single Court Traditional Compound belonging to Nwaozo Ude in Ngwo.

Source: Adapted from Nsude (1987).

2.5.3 Traditional Igbo Building Materials and Construction Techniques

The primary building materials used by the Igbos comprise a diverse array of natural resources. These include various types of mud, namely *aja uno*, *aja ozuzo*, and *otto*. Timber, such as *osisi*, and its variants like *uri*, *uda*, the silk cotton tree (*akpu*), as well as *apata*, *ewo*, *oduree*, *ugba*, *uze-gze*, *inyi*, *oji*, *ukpaka*, *uko*, *ugiri*, *mkpochi*, *okwe*, *odo*, and cam wood (*ufie*), are also widely utilized. In addition, bamboo (*achara* or *otosi*), palm midribs (*ogugu* or *ofolo*), thatch (*akanya*, *akilika*, *ejo*, *eyo*, or *ata*), and bush twine (*udo*, *akili*, *ekwele*, or *elili*) are integral components in traditional Igbo building construction (Nsude, 1987).

Nsude (1987) categorized the structural systems employed by the Igbo people into three main types. These include the load-bearing wall or solid mud wall structure, the skeletal or timber-framed structure, and the composite structure. The load-bearing wall structure typically comprises monolithic non-reinforced mud walls, approximately 0.3m – 0.6m thick, which support the weight of the roof. The skeletal or timber-framed structure utilizes timber posts and beams to transfer the roof's load to the ground. Walls in this system serve primarily as partitioning elements, constructed either from closely fitted timber boards, common in areas like Uratta near Owerri, or as separate non load-bearing mud walls or non-structural mud filling. The third structural system, the composite type, integrates both load-bearing walls and timber posts to distribute the roof's weight. This structural system is prevalent throughout Igbo land and is the most commonly adopted among the three systems.

In the construction of solid mud walls in Igbo land, three primary traditional methods are used. They are the dry mud method, the layering method and the rammed-earth method. The dry mud method involves utilizing preformed lumps of sun-dried mud, akin to bricks, with wet mud serving as binding mortar. The layering method, or puddled mud method, entails delivering kneaded wet mud to builders in lumps about the size of a man's head. Builders drop these lumps into position, then ram and shape the wall using their fists. The wall's two sides are smoothed with the palm of the hand, and each course is left to dry for approximately four days before the next course is added atop. The rammed-earth method is arguably the most sophisticated technique. It involves piling unkneaded mud and pounding it vigorously by foot, followed by ramming and beating with wooden beaters, and finally trimming by hand. Throughout this process, the wall's faces are periodically moistened with water sprayed from the mouth and rubbed in by hand (Nsude, 1987). Window and door openings are subsequently cut out during the process of wall construction. Timber was commonly used for window and door panels. However, palm fronds and climber stems were later utilized, woven into removable wickerwork panels and placed at the door way.

Nsude (1987) outlined the diverse range of roofing forms utilized by the Igbos in traditional construction, including hipped, pyramidal, gable, and conical roofs. The choice of roof form is influenced by the building's design. These forms are broadly categorized into gable and hipped roofs, as well as conical and pyramidal roofs, with occasional use of single-pitched roofs. Materials for roofing consist of timber, bamboo, palm mid-ribs, raphia palm mats, thatch, and bush twines such as *akwala* from raffia palm and *ekwele* from palm fronds. Purlins, made from split timbers, split bamboo, or palm mid-ribs, support the thatch in layers. In some instances, an entire roof is prepared on the ground and then lifted into position, particularly for conical roofs, especially when covering small areas.

After completing the walls and roof, floor construction commences. This involves removing topsoil and replacing it with puddled mud poured onto the excavated floor and compacted using heavy wooden beaters known as *nchi*, forming a sturdy foundation. Also, built-in mud seats and couches, such as *agbidi*, *agodo*, and *ikpo*, are constructed during this phase, serving both as seating elements and buttresses for the base of the walls (Nsude, 1987).

2.5.4. Traditional Igbo Motifs and decorations

In traditional Igbo architecture, decoration is not restricted to their compounds and sleeping houses only. Structures such as shrines and public buildings are also often decorated. The exercise of decoration is generally termed a feminine activity in Igbo land. Chadwick (1937) noted significant variations in house decoration techniques across different dialects in Igbo land. A basic method involves smoothing the wet wall surface and painting it with cow dung or rotten banana stems. However, more elaborate decoration methods include bas-relief, insertions, colour mural painting, and the use of moulded and carved objects (See fig. 7). A variety of materials such as indigenous paints, plates, pieces of bottles, cowries, and clay were used in these decorative practices (Nsude, 1987).



Figure 7: Traditional Igbo Wall Decoration by Insertion

Source: As portas dos Igbos.

According to Nsude (1987), wall painting served as a prominent form of decoration among the Igbo people, employing indigenous colors predominantly such as red, reddish-orange, brown, yellow, white, black, and green. While blue was introduced later, it did not originate from traditional sources. Red and orange pigments were typically obtained through quarrying or baking quarried yellow ochre, known as *aja nwa mmuo*. Brown hues were sourced from quarrying or from rotten banana stems. Yellow pigments were derived from earth or by grinding pieces of yellow camwood (*edo*). White paint was crafted from chalk collected from streams, while soot or burnt tendrils served as black paint. Green hues were obtained by pulping green leaves. Notably, water served as the medium for all these pigments, and they were never intermixed. These pigments were utilized to paint abstract designs, geometrical patterns, representations of natural objects, and sometimes entire events (See fig. 8). Tools for decoration included cloths used as brushes, fingers, and special knives called *mna nwuli*, used for creating lines and motifs on the walls.

Nsude (1987) classified Igbo motifs into three main categories: Uli motifs, geometrical motifs, and motifs derived from natural objects. These categories are not strictly defined, as elements from one group may occasionally appear in another. Motifs are typically drawn using fingers, pointed sticks, twigs, or specially forged curved iron instruments by blacksmiths to achieve precision.



Figure 8: Outer Wall of Enclosure of Alose (Alusi) Ngene at Nibo Decorated with White Paint.

Source: Ọlọ omé n'Ìgbò

2.6. Traditional Yoruba Architecture

Yoruba land, known as *Ilè Yorùbá*, is the cultural region inhabited by the Yoruba people in West Africa, spanning Nigeria, Benin, and Togo. This region covers an area of 142,114 km², stretching northward from the Gulf of Guinea and westward from the Niger River into Benin and Togo. To the North, Yoruba land begins West of Lokoja and extends continuously to the Ogou tributary of the Mono River in Togo. In the South, it starts West of the Benin River, an area occupied by the *Ilaje Yorubas*, and stretches uninterrupted to Porto Novo. Within Nigeria, Yoruba land includes the States of Oyo, Ogun, Ondo, Ekiti, Lagos, as well as parts of Kogi and Kwara (Awonusi, 2014).

Yoruba architecture is distinctive and somewhat similar to that of other West African coastal cultures. The Yoruba people's high degree of urbanization contributes significantly to their architectural complexity. They reside in urban centers but cultivate primary and secondary farmlands surrounding their towns, known as *oko etile* and *oko egan*, respectively (Bray, 1968).

2.6.1. Traditional Yoruba Settlement Pattern

According to Ojo (1966), the status of a Yoruba town is determined more by the traditional prestige of its ruler than by its size and population. However, the prestige of the ruler is also influenced by the size and population of the territory under his control. The Yoruba people distinguish between different types of settlements based on these factors. They classify major towns with significant traditional prestige as crowned or capital towns (*ilu ereko*). Subordinate settlements are further categorized into *oloja* (market towns), *ileto* (villages), *abuile* (hamlets), and *ago* or *aba* (camp settlements).

In traditional Yoruba settlements, land was primarily allocated for residential purposes, markets, the Oba's palaces (palaces of traditional rulers), farmlands, and shrines (Oluremi, 2002). According to Denyer (1978), the most prominent location in these settlements was the Oba's palace, which was situated next to the principal market at the town's center. This central area also include the main temple and featured two wide roads that intersected at the center (See fig. 9). Traditional Yoruba settlements typically exhibit an amorphous layout with a dense concentration of houses. This high density is due to the Yoruba's longstanding urban lifestyle, as they have lived in large urban communities for centuries (Ogunba, 2002). The layout of these settlements generally places the palace of the king or paramount chief and the central market at the city core. Surrounding this core is the town itself, which is further encircled by farmlands and smaller villages. Larger Yoruba settlements are usually nucleated, featuring high-density central areas surrounded by lower-density agricultural lands. The growth of these cities typically occurs from the inside out, meaning the closer an area is to the city core, the older it is. The palace and the central market, located at the very center of the town, are the oldest establishments and form the foundation of the city (Awonusi, 2014).

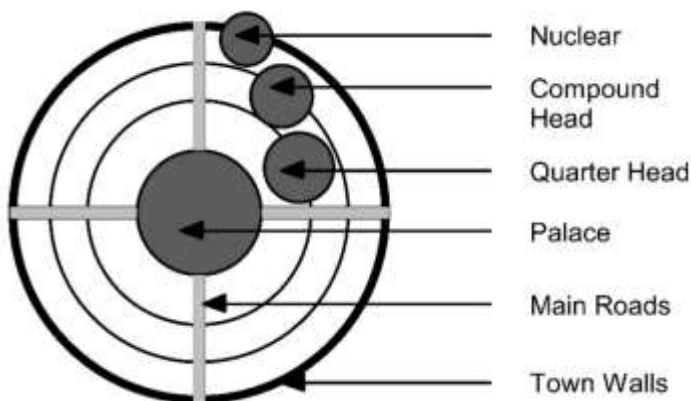


Figure 9: Spatial Arrangement of Traditional Yoruba Town

Source: Adapted from Sonaiya (2008)

2.6.2. Traditional Yoruba Compound Layout

The traditional Yoruba compound, known as *agbo-ile*, literally translates to a 'cluster' of houses, reflecting its organic spatial arrangement designed to accommodate several patrilineally-related families (Fadipe, 1977). Buildings were largely rectangular in form which allows for attachment of functional room spaces clustering around large courtyards and central corridors referred to as 'Oodele' with single entrance (Sonaiya & Dincyurek, 2009). According to Sonaiya (2008), these compounds are typically divided into three distinct zones: the entry area, the central core, and the rear section. These zones accommodate various functional spaces, including the entryway with a front yard, veranda, entry corridor, and sitting rooms; the central core which features a courtyard, hall or day room, and sleeping quarters; and the rear section comprising a backyard, kitchen, and storage (See fig. 10).

Yoruba traditional compounds primarily fall into two main types. The more common type is arranged around one or more courtyards, with interconnected rooms enclosed within a walled perimeter. This design creates an open courtyard or quadrangle at the center, surrounded by porticoes and

verandas that facilitate covered passage from one part of the compound to another (Chokor, 2005). The courtyard serves as a pivotal communal space for activities such as social gatherings, livestock husbandry, and ceremonial events like weddings and family celebrations. It also serves as a secure play area for children. Evenings in the courtyard are often marked by social interaction, including the sharing of riddles, poems, songs, and traditional games. Some compounds may also include a secluded backyard, used for private relaxation, meditation, and small-scale gardening. This area gains further significance during sacred family rituals performed to honour ancestors buried nearby, and symbolizes a connection between human life, nature, and spiritual beliefs (Chokor, 2005).

The second type of Yoruba house is the non-compound style, characterized by rooms arranged along a central corridor. This layout typically consists of double rows of rooms opening onto a shared corridor, which serves multiple functions such as workspace, seating area, and additional sleeping space for guests (Amole et al., 1993). This architectural form gained prominence in the 1930s when economic prosperity, particularly from cocoa and palm oil, enabled younger family members inheriting shares of the family compound to establish their own residences.

The size and layout of traditional Yoruba compounds vary widely, often reflecting the social status and lineage of the family head, known as the *Bale*. The *Bale* oversees the daily activities of the compound, resolves disputes, and presides over important family and spiritual ceremonies, underscoring the compound's role as both a residential and cultural center (Chokor, 2005).

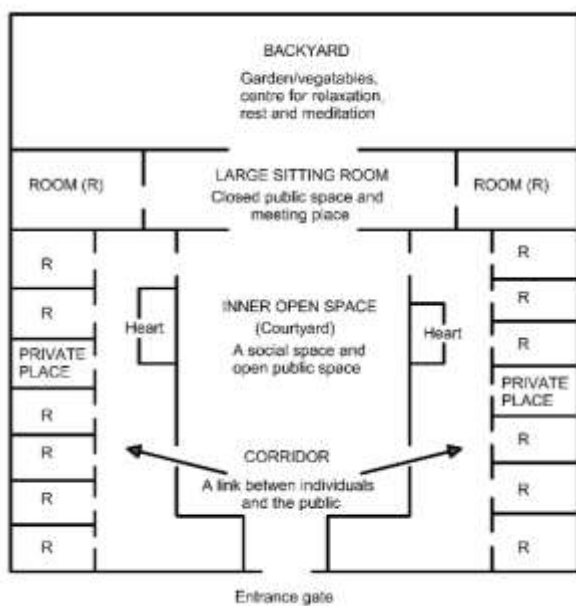


Figure 10: Traditional Yoruba Compound Layout.

Source: Adapted from Chokor (2005)

2.6.3. Traditional Yoruba Building Materials and Construction Techniques

Traditional Yoruba architecture primarily adopted materials such as mud, timber, bamboo, thatch, and animal dung. Walls were typically constructed from mud derived from laterite. The design of traditional Yoruba houses often omitted windows. Roofing choices varied with environmental conditions: raffia palm leaves were common near the Atlantic coast, whereas wood replaced palm fronds in the Northern areas (Ojo, 1968).

A distinctive feature of Yoruba building practices is the absence of a master builder. This stems from a cultural belief in communal participation in construction. Osasona (2005) explained that those who assist in building construction are usually friends or relatives of the owner, which minimizes the financial burden, with the main cost being the provision of food for the workers during the construction process. Traditional materials like timber and bamboo were used to reinforce mud walls. Puddling (a technique involving treading on wet earth to achieve plasticity) was often employed in the preparation of mud for wall construction (Osasona, 2005). Roofs were traditionally made with thatch, timber, and palm fronds. This approach ensured low construction cost and simplicity due to the availability of labor and materials. The construction methods were straightforward and lacked technical complexity.

2.6.4. Traditional Yoruba Motifs and decorations

Decorative elements are integral to traditional Yoruba architecture, reflecting the cultural significance of aesthetics in their built environment. Ornaments such as patterns, symbols, motifs, carvings, metal works, pottery, beadworks, and wall decorations are essential components of Yoruba architectural heritage. These elements showcase the Yoruba people's exceptional artistic intellect, as evident in the detailed decorative arts adorning their buildings and surroundings (Adeniran & Eze, 2022). Notable examples include the famous ornamentations in Ife, Osun State (See fig. 11). Ornamental paintings were often obtained from plant concoctions, while carvings were typically crafted from timber.



Figure 11: Stone Mosaic Rendering at Ooni's Palace Ife, Osun State.

Source: Adefila and Abdulrahman (2022).

According to Akande (2020), Yoruba indigenous patterns and symbols are deeply rooted in the ontological beliefs surrounding deities. Consequently, many sculptural images depict the heads of various gods, which are intricately carved and painted on residential buildings, shrines, palaces, and communal centers. An example of Yoruba art and craft is illustrated in Figure 12, which shows a seated king and his wife. This statue serves as a wooden sculptural column known as an *opo*, or verandah post, and is one of the most imposing architectural ornaments created by Yoruba sculptors.



Figure 12: Sculptural Image Used as Structural Column in Traditional Yoruba Building.

Source: Okediji (1997)

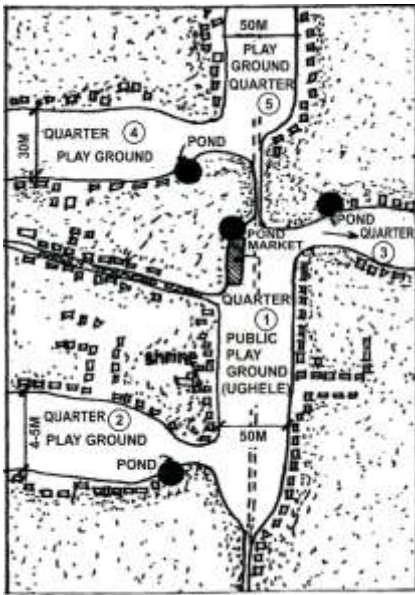
2.7. Traditional Benin Architecture

The architectural style in traditional Benin architecture was significantly shaped by the guilds system, which mirrors the cultural heritage of the Benin people and has been perpetuated across generations. Among the most common traditional structures in Benin is the Traditional Courtyard House Type (*oto-eghodo*), which can be divided into two categories: the Palace Compound Courtyard House-Type and the Family Compound Courtyard House-Type (Ekhaese & Amole, 2014).

2.7.1. Traditional Benin Settlement Pattern

The study carried out by Ahiamba (2009) on the culture and architecture of the Esan people of Edo State, revealed that the Esan, a significant ethnic group in Southern Nigeria located to the North-east of the Benin kingdom, traditionally organized their villages in a linear settlement pattern. However, due to land constraints and population growth, these settlements evolved into more nucleated forms. This shift fostered a sense of belonging and

strengthened familial bonds. Figure 13 depicts Ebhoiyi Village (Afuda quarter) in Uromi town, illustrating a typical traditional Benin settlement with its ten densely populated quarters arranged in a linear pattern.



Source: Ahianba (2009)

Figure 13: Typical Village Layout in Esan land.

2.7.2. Traditional Benin Compound Layout

Traditional Benin compounds are classified into two main types of courtyard houses: the Palace Compound Courtyard House and the Family Compound Courtyard House. Despite variations in quality and complexity, these courtyard houses share a common characteristic, which is the thoughtful planning of public and private spaces during their construction. These buildings are often rectilinear in form (Ekhaese & Amole, 2014).

The Palace Compound Courtyard House includes the residences of the Oba (king), hereditary chiefs, and non-hereditary chiefs. These palaces, which also serve as their homes, are larger and feature more courtyards than the family compounds of nobles and commoners. Saad (1996) noted that the ancient Benin Kingdom had a sophisticated political and social system centered on divine kingship, with the Oba at the top of the hierarchy, followed by chiefs of various ranks, royal courtiers, free commoners, and finally royal servants and slaves. This hierarchical structure is mirrored in traditional Benin architecture, where the Oba's residence is an elaborate palace comprising multiple apartments, compounds, and spaces of religious and political significance, all arranged around numerous open courtyards. The residences of important chiefs, while smaller than the Oba's palace, are still complex and reflect the chief's status and resources (Saad, 1996, pp. 6-7). The Palace Compound Courtyard House features rooms arranged around a series of interconnected internal courtyards, reminiscent of the layout of Classical Roman houses with their sequence of atria. The courtyards lead to the chief's private apartments, with quarters for wives and boys arranged on either side (see fig. 14). Also, small rooms in odd corners are often used for storage (Ekhaese, 2011).

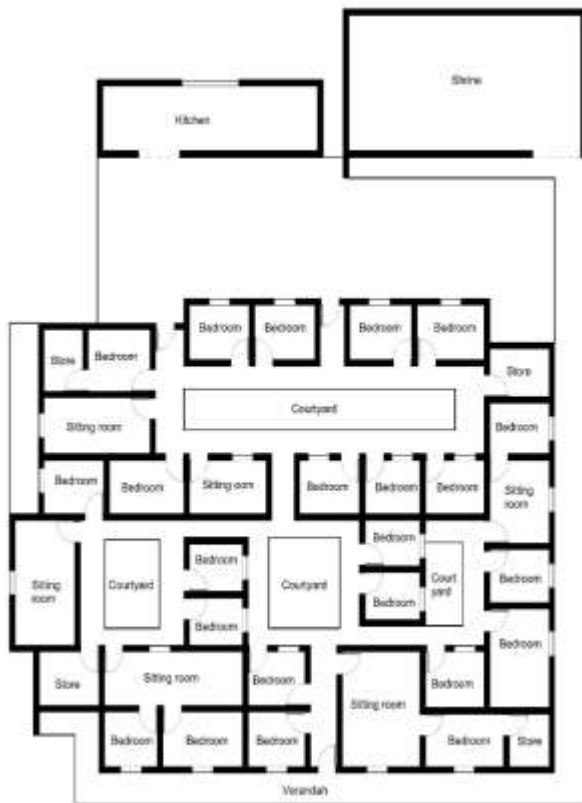


Figure 14: Floor Plan of A Typical Traditional Benin Palace Compound House.

Source: Adapted from Ekhaese (2011)

A typical Family Compound Courtyard House in Benin is strategically divided into public and private sections. The public area includes the sitting room and the courtyard, which are used by the household head to receive guests, conduct rituals, and resolve family disputes. The store is part of this public area. The private section consists of the household head's bedroom, a rear lobby used by close friends and relatives, the kitchen, and the bedrooms for the wives and children. Also, it has a closed-ended courtyard surrounded by lengthy corridors. An outer corridor, measuring around 12-16 feet in length, features rooms on either side for servants who act as security personnel. This corridor leads to the central part of the house known as the main courtyard or *Ogua*, which is used for worship and celebrations. The *Ogua*, consisting of 7-9 rooms, includes an altar with an attached room. From the main courtyard, a narrow lobby leads to the *Ikun n'derie*, the harem for the wives, arranged in a longitudinal/parallel layout with 5-7 rooms. Adjacent to this area is another section for the boys, which then leads to the backdoor providing access to the kitchen and restrooms (Ekhaese, 2011).

2.7.3. Traditional Benin Building Materials and Construction Techniques

According to Awotona (1986), Yoruba and Benin housing styles share many similarities, particularly in construction materials and construction techniques. Building materials, like in the traditional Yoruba architecture, are locally sourced and the building process often involves the efforts of the family or community. The materials include *Olila* (wood beam), *Ere* (wood column), *Eken n'obar* (rammed-earth), *Ebeeba* (raffia/leaves), and *Iri* (twine) (Ekhaese & Ediae, 2014).

In traditional building construction, the walls are made of mud, laid in four layers, each 3 feet high, over the substructure. The roofing system is pitched and uses materials such as raffia, bamboo, and thatch. The internal courtyards exhibit typical indigenous features and may or may not include a colonnade, depending on their size. Common features in these courtyards include couches and shrines, which are made entirely of mud with highly polished surfaces that exhibit remarkable durability. Even the oldest examples appear as though they were recently built (Foyle, 1953).

2.7.4. Traditional Benin Motifs and decorations

The people of Benin were renowned for their intricate brass and bronze works, which often decorated the walls and columns of palaces and the homes of the elite (Uchegbu, 2007). In traditional Benin architecture, the exterior mud walls were commonly finished with horizontal rib patterns, a style that has persisted over time. This distinctive feature often identifies old royal houses. Unlike Yoruba and Ibo houses, traditional Benin roofs include ornamented carvings around the roof openings. While the exterior may appear unremarkable, doors, door jambs, and wooden posts supporting the colonnade around larger courtyards were frequently adorned with elaborate decorations (Ekhaese & Amole, 2014).

3. METHODOLOGY

This research adopted a comparative approach to identify commonalities in the traditional architecture of Northern and Southern Nigeria. Relying on comprehensive literature review, the study examined architectural features of major ethnic groups across Northern and Southern Nigeria. Features such as settlement and compound layouts, building form, building elements, building materials, construction techniques and cultural influences were examined. Data was gathered from existing literature such as scholarly articles, books, journals, historical records and archival documents that provide historical context, theoretical frameworks, and comparative perspectives on traditional architecture in Nigeria. Only peer-reviewed academic publications and reputable sources were included to ensure the validity of the review. Thematic analysis was utilized to systematically organize and interpret the collected data, enabling the identification of recurring patterns and themes in the architectural styles of the traditional architecture of Northern and Southern Nigeria.

4. COMPARATIVE ANALYSIS AND FINDINGS

This section presents a detailed comparative analysis of the traditional architecture of Northern and Southern Nigeria, highlighting the commonalities between the two regions. The findings are supported by data obtained from a comprehensive literature review and are visually represented through Table. This comparative analysis focuses on shared architectural features and practices.

Table 1: Key Commonalities in the Traditional Architecture of Northern and Southern Nigeria

Architectural Feature	Northern Nigeria (Traditional Hausa Architecture)	Southern Nigeria (Traditional Architecture of the Igbo, Yoruba and Benin ethnic groups)	Commonalities
Entrance Element	Presence of compound entrance element called 'Zaure'.	<ul style="list-style-type: none"> Presence of entrance gate in traditional Igbo architecture. The verandah is the entrance element in traditional Yoruba and Benin architecture. 	Adoption of clearly defined entrance element.
Reception Space	The <i>Zaure</i> also functions as a reception space in traditional Hausa architecture.	<ul style="list-style-type: none"> The traditional Igbo <i>obi</i> house is a welcoming area for visitors. Presence of reception area/entry corridor in traditional Yoruba and Benin architecture. 	Clearly defined reception area/entry space for visitors and guests.
Housing Form	The basic forms are rectilinear and circular.	<ul style="list-style-type: none"> The basic forms are rectilinear and circular in traditional Igbo architecture. The basic forms is rectilinear in traditional Yoruba and Benin architecture. 	Use of rectilinear building form.
Spatial Organization	Separate spaces for public and private activities (Kofar Gida and Cikin Gida).	Separate spaces for public and private activities.	Clear division of public and private spaces.
Openings	Openings are very few in number and small in size	Openings are few in number and small in size.	Very few and small size windows.
Open Courtyard	Compounds often incorporate a courtyard used for social and religious activities, surrounded by multiple houses/rooms.	<ul style="list-style-type: none"> Igbo traditional compounds often incorporate a courtyard used for social and domestic activities, surrounded by multiple houses. Traditional Yoruba and Benin architecture have one or more open courtyards used for social and 	Incorporation of open courtyard system.

		domestic activities, surrounded by numerous rooms.	
Building Materials	Locally sourced building materials such as laterite earth, timber, thatch and vegetable materials.	Locally sourced building materials such as laterite earth, timber, thatch and vegetable materials.	Use of locally sourced building materials such as mud, timber and thatch as primary construction materials.
Decoration	Geometric patterns, engravings and motifs on walls primarily for aesthetics and cultural representation.	Ornamental carvings, geometric patterns, engravings and motifs on walls primarily for aesthetics and cultural representation.	Rich use of decorative elements.
Security	Enclosed compound with perimeter fence, limited openings and few strictly monitored entrance and exit points	Enclosed compound with perimeter fence, limited openings and few strictly monitored entrance and exit points	Security consideration in compound layout
Gender Segregation	The architectural design distinctly separates men's and women's quarters ensuring privacy and appropriate social interaction.	The architectural design distinctly separates men's and women's quarters ensuring privacy and appropriate social interaction.	Separate spaces for men's and women's quarters.
Cultural/Religious Influence	The architectural design is influenced by Islamic architecture with emphasis on privacy and communal living.	The architectural design is influenced by cultural beliefs and practices.	Integration of cultural and religious elements in design.

Source: Developed by Author (2024)

5. DISCUSSION OF FINDINGS

The entrance element is a critical feature in Nigerian traditional architecture, serving as a distinct separation between external and internal spaces. Despite differences in form, size, and design across cultural groups, a defined entrance is consistently present. Architectural designs of traditional compounds in both Northern and Southern Nigeria incorporate reception areas or entry spaces that facilitate social interactions and serve as places for welcoming visitors. Both regions typically adopt a rectilinear housing form with buildings arranged around courtyards, which supports communal living and privacy. This design is well-suited to the needs of extended families and community-oriented lifestyles, underscoring a shared cultural beliefs and community.

A clear division between public and private areas is a common feature in traditional compounds in both regions, with distinct spaces for men and women. This spatial organization reflects cultural norms regarding privacy, gender roles, and the importance of communal living. Small, strategically placed windows are used in both Northern and Southern Nigerian traditional houses to provide ventilation while maintaining privacy and minimizing heat. The central courtyard is a vital element in the layout of compounds in both regions, serving multifunctional roles for social, domestic, and religious activities. These courtyards are essential for ventilation, light, and communal interactions, highlighting their cultural and environmental significance.

The use of locally sourced materials such as laterite earth, timber, thatch, and vegetable materials is prevalent in both regions. These materials are environmentally sustainable, suitable for the local climate, and ensure comfort and durability. High walls, limited openings, and enclosed compounds are common security features in both Northern and Southern Nigerian architecture. These designs emphasize the need for protection and privacy, shaped by cultural, social, and environmental factors. The separation of spaces for men and women, particularly in reception and communal areas, reflects cultural norms and religious practices that prioritize privacy and appropriate social interactions.

In addition, Both Northern and Southern Nigerian architecture feature decorative elements, though with different stylistic influences. Both regions adopt engravings, ornate carvings and detailed motifs, reflecting a rich tradition of indigenous artistry. The emphasis on aesthetics demonstrates a shared cultural value placed on beauty and artistic expression in architecture.

Overall, the traditional architecture of Northern and Southern Nigeria demonstrates a strong adherence to cultural and religious values as well as environmental adaptations. The similarities in entrance elements, housing forms, spatial organization, material use, and security features highlight a shared architectural approach that balances communal living with the need for privacy and protection. The common use of courtyards and the strategic design for ventilation and climate control further illustrate the ingenuity and cultural coherence in traditional Nigerian architecture.

6. CONCLUSION AND RECOMMENDATIONS

This comparative analysis of traditional architecture in Northern and Southern Nigeria revealed a remarkable consistency in architectural practices, drawing attention to a shared cultural emphasis on communal living, family-oriented lifestyles, and environmental adaptability. Despite differences in cultural influences and stylistic elements, the architectural solutions in both regions underscore the importance of privacy, security, and sustainable use of locally sourced materials. The rich decorative motifs and patterns in both regions reflect a deep appreciation for aesthetic expression and cultural heritage.

To preserve and build upon these architectural traditions, it is essential to document and preserve traditional building materials and construction techniques through heritage conservation programs and collaboration with local artisans and craftsmen. Architects and other building professionals should integrate traditional architectural designs and elements with modern architecture to create hybrid structures that maintain cultural identity while meeting contemporary needs. Encouraging the use of locally sourced and environmentally sustainable materials in modern construction projects can promote eco-friendly building practices.

Schools of architecture in Nigeria should incorporate detailed study of traditional Nigerian architecture that involves field study into their curricula to foster a deeper understanding and appreciation of traditional architectural heritage. Engaging local communities in the planning and development process can ensure that new construction projects align with cultural values and social needs. Modern designs should strive to create inclusive spaces that respect traditional norms while promoting gender equality.

Developing a common acceptable model of traditional Nigerian architecture that combines the best practices from both regions can help create a unified architectural identity. This model should emphasize sustainability, cultural heritage, and the evolving needs of the Nigerian people. By embracing these recommendations, Nigeria can develop a modern architectural identity that upholds its rich cultural heritage and promotes unity.

Acknowledgements

The authors appreciate the Bingham University Directorate of Research for creating a supportive environment for this research.

References

- Adamu, M. S. T. (2005). Interpretation of significant and messages in Hausa traditional architecture. Case of the "Zaure" entrance hall. *Journal of the Association of Architectural Educators in Nigeria*. Vol.4, No. 1. January- March, 10-21.
- Adedokun, A. (2014). Incorporating traditional architecture into modern architecture: Case study of Yoruba traditional architecture. *British Journal of Humanities and Social Sciences*, vol. 11(1), 34 - 45.
- Adenaike, F. A., Opoko, A. P. & Oladunjoye, K. G. K. (2020). A documentation review of Yoruba indigenous architectural morphology. *International Journal of African and Asian Studies*, 66:27-31.
- Adeniran, T. A. & Eze, J. C. (2022). Eco-resort: towards promoting Yoruba architectural characteristic in Offa, Kwara State. *African Scholar Journal of Built Env. & Geological Research (JBEGR-4)*, vol. 25(4), 75-86.
- Adetokun, O. (2020). Architecture and Urban Planning in Nigeria: An historical overview. *Journal of African Studies*, 3(2), 12-24.
- Agbo, M. (2018). Why african vernacular architecture is overdue for a renaissance. *ArchDaily*. Accessed 7 Apr. 2021.
- 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.
- Ahianba, J. E. (2009). Cultural issues in architecture - Case study of Esan in Edo State – Nigeria. *J Soc Sci*, 18(1), 29-43.
- Amole, B., Korboe, D. & Tipple, G. (1993). The family – house in West Africa: A forgotten resource for policy maker. *Third World Planning Review*, 15/4.
- Awonusi, F. S. (2014). Physical planning implications of the management of heritage sites in Nigeria: A focus on Osun Grove, Osogbo, Nigeria. Unpublished Master Thesis, Federal University of Technology Akure, Nigeria.

- Awotona, A. (1986). Aspects of Nigerian architecture. *NIA Journal*, Vol. 2(3). October- December, p. 55.
- Auwalu, F. K. (2019). Exploring the different vernacular architecture in Nigeria. *Int. J. Afr. Soc. Cult. Tradit*, 7, 1-12.
- Bray, J. M. (1968). The craft structure of a traditional Yoruba town. *Transactions of the Institute of British Geographers*, No. 46, 179 – 193.
- Chadwick, E. R. (1937). Wall decoration of Igbo houses. *Nigerian Field*, vol. 6(3), 134-135.
- Chokor, B. A. (2005). Changing urban housing form and organization in Nigeria: lesson for community planning. *Planning Perspectives*, 20(1), pp. 69-96. DOI:10.1080/0266543042000300546
- Chukwu, J. C. (2015). Traditional Igbo building architecture: An historical perspective. *Journal of Art and Design Studies*, 34 (7-14).
- Chukwuali, B. C. (2004). Traditional housing system in Nigeria: An analysis of principles, concepts and determinant factors. *Journal of NIA Enugu State Chapter*, vol. 1(2), 9-18.
- Dayaratne, R. (2018). Towards sustainable development: lessons from vernacular settlements of Sri Lanka. *Frontiers of Architectural Research*. <http://doi.org/10.1016/j.foar.2018.04.002>.
- Demographics of Nigeria. (2018, September 30). Retrieved from Wikipedia, the Free Encyclopedia.
- Denyer, S. (1978). *African traditional architecture*. Heinemann Educational Books Ltd., London.
- Dmochowski, Z. R. (1990). *An Introduction to Nigerian traditional architecture*, vols. (1-3). Ethnographical Ltd. London.
- Eades, J. (1980). *The Yoruba today*. Cambridge: University of Cambridge Press.
- Ekhaese, E. N. (2011). Domestic architecture in Benin City: A study of continuity and change. Unpublished Ph.D. Thesis, Covenant University Ota, Nigeria.
- Ekhaese, E. N. & Amole, B. (2014). Benin domestic architecture “a tabula rasa” for transition: From pre-independence to contemporary architecture. *International Journal of Social Sciences and Entrepreneurship*, 1 (9), 264-287.
- Ekhaese, E. N. & Ediae, O. J. (2014). From home owners perspective, “Ikun Concept” of design in Benin, Nigeria: Some like it some don’t. *Architecture Research*, 4(1): 20-34 DOI: 10.5923/j.arch.20140401.03
- Ekhaese, O. N. E., Taiwo, A. A., Izobo-Martins, O. O. & Adewale, B. A. (2015). *International Journal of Humanities, Arts, Medicine and Sciences*, 3(3), 17-28.
- Ezue, A. M. & Diogu, J. O. (2016). Design strategies for reduction of moisture in residential buildings in Enugu, Nigeria. *Tropical Built Environmental Journal*, 1(5), 138-141.
- Fadipe, N. A. (1991). *The sociology of the Yoruba*. Ibadan. Ibadan University Press, 160-161.
- Federal Ministry of Culture and Tourism. (2007). Map of Nigeria Pamphlet. International Tourism Promotion and Co-operation Dept., Abuja.
- Ferguson, J. (1970). *The Yorubas of Nigeria*. Bucks: The Open University Press.
- Foyle, A. M. (1953). Some aspects of Nigerian architecture. *Man*, Vol. 53, 1-3.
- Friedrich WS (1982). *Traditional housing in African cities. A comparative study of houses in Zaria, Ibadan and Marrakech*. John Willey and Sons, New York.
- Hopkins, A. G. (1973). *An economic history of West Africa*. London: Longman, p. 22.
- Hussaini, I. U. (1999). Traditional housing forms in Nigeria. A brief analysis of the regional styles. *Niger. J. Constr. Technol. Manag.*, 2(1).
- Ilesanmi, A. O. & Egbe, M. (2013). Sustainable innovations in building design: The courtyard and veranda concepts in Nigeria. *In AEI 2013: Building Solutions for Architectural Engineering*: 594-603.
- Laitin, D. (1986). *Hegemony and Culture: Politics and Religious Change among the Yoruba*. Chicago: University of Chicago Press.
- Moughtin, J. C. (1985). *Hausa Architecture*. Ethnographical Ltd. London. Pp. 1-123.
- National Bureau of Statistics. (2010). Annual Abstract of Statistics. Federal Republic of Nigeria.
- National Population Commission. (2018). Retrieved from National Population Commission website: <http://www.population.gov.ng>
- Ndubisi, F. (2002). *Ecological planning: A historical and comparative synthesis*. Baltimore: Johns Hopkins University Press.
- Nduka, E. O. (2013). A study of architectural monuments in South-east zone of Nigeria: Evolving appropriate listing criteria. Unpublished Ph.D Thesis, UNN Nsukka.

- Nsude, G. C. (1987). The traditional architecture of the Igbo of Nigeria. (Phd Thesis) School of architecture and landscape, Thames Polytechnic, United Kingdom.
- Ojo, G. J. A. (1966). *Yoruba palaces: A study of Afins of Yoruba land*. University of London Press.
- Ojo, G. J. A. (1968). Traditional Yoruba architecture. *African Arts*, 1 (3), 14-72. Doi:10.2307/3334339(<https://doi.org/10.2307%2F3334339>).JSTOR334339(<https://www.jstor.org/stable/3334339>).
- Oluremi, I. O. (2002). *The Yoruba city in history, 11th century to the present*. Penthouse Publication, Nigeria.
- Osasona, C. O. (2005). *Ornamentation in Yoruba folk architecture*. Book builders Editions Africa, Ibadan.
- Osasona, C. O. (2007). From traditional residential architecture to the vernacular: the Nigerian experience. Online http://www.mainline.Org/aat/2007_documents/AAT_Osasona, 17-19.
- Popoola, J. O. (1984). Responsive housing: the spatial formation of housing environment in Hausa land, Nigeria and the implications for public housing strategy. Unpublished Ph.D Thesis, University of Nottingham.
- Rikko, L. S. & Gwatau, D. (2011). The Nigerian architecture: The trend in housing development. *Journal of Geography and Regional Planning*, vol. 4(5), 273 - 278.
- Sa'ad, H. T. (1996). Hausa Traditional architecture in a historical perspective. International seminar on Hausa studies, University of Sokoto Nigeria.
- Sa'ad, H. T. (1986). Impact of modernization and westernization on traditional Hausa architecture, *Kano Studies (New Series) Journal*, vol. 3(4), 105-111.
- Sonaiya, O. A. (2008). Evolution, analysis and future of the traditional Yoruba house. Gazimagusa, TRNC. Unpublished M Arch Thesis, Eastern Mediterranean University.
- Sonaiya, O. A., & Dincyurek, O. (2009). Tradition and modernism in Yoruba architecture: Bridging the chasm. *Eastern Mediterranean University, Open house international*. 34 (4). 55-56.
- Umar, G. K. (2017). Transformation in Hausa traditional residential architecture. *International Journal of Innovative Environmental Studies Research*, 5(4), 5-11.
- Umar, G. K., Yusuf, D. A, Ahmed, A. & Usman, A. M. (2019). The practice of Hausa traditional architecture: towards conservation and restoration of spatial morphology and techniques. *Scientific Africa*, 15:1-8.
- Uchegbu, S. (2007). Evolving trends in Nigeria's architecture. Paper presented at Kuwait University, Kuwait.