

BENIN DOMESTIC ARCHITECTURE “A TABULA RASA” FOR TRANSITION: FROM PRE-INDEPENDENCE TO CONTEMPORARY ARCHITECTURE**Ekhaese Eghosa Noel (Ph.D.)**

Department of Architecture, School of Environmental Studies, Covenant University, Ota, Ogun State, Nigeria

Prof. Bayo Amole

Department of architecture, faculty of environmental studies, Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria

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ABSTRACT

Domestic architecture over centuries in Benin, southern Nigeria has undergone series of transformation. Benin Empire which spread to Ga tribe in Ghana, Dahomey in republic of Benin and Cameroun in eastern coast has an admirable architecture which was compare to the architecture in Amsterdam, Netherlands. But due to urbanization, peri-urbanization, growth and development, there has been neck and neck transition in domestic architecture across the cross-section of the City. Hence the focus of the paper is to examine the domestic architecture transition in Benin, Nigeria from pre-independence to contemporary architecture. For purpose of the study, pre-independence architecture can be captured under: i. pre-colonial architecture and ii. Colonial Architecture. While contemporary architecture was captured as i. independence architecture and ii. Post-independence architecture. The transitions in architecture were identified along timeline and the timelines produced four (4) distinct residential zones in Benin. The method employed for the research was qualitative approach, which means the transitions in Benin domestic architecture were documented through observation from architectural plans, identifiable transition observed from physical characteristics of houses and the use of interviews guide for key stakeholder was documented.

Key Words: Domestic Architecture, Transition, Pre-Independence and Contemporary Architecture

Introduction

The transformation process of domestic architecture described in this study shows that it is not simply the changing arrangement of spaces, but also the interaction between the spaces and its activities within the domestic environment that defines the new space. There is an indigenous concept of level-distinction involved in the process. Guided by these underlying forces, the evolution of the houses in Benin followed topological paths to adapt old inherited properties to new physical environment, and the user's attitudes and responses shows that these values do persist through recognized changes. Transition in domestic space though interesting and gradual but understanding this usually depends on definite factors and physical observations. These factors and observations frame our imaginations, comprehension of reality and history to determine the process, rate and directions (Dynes, et al 2000). The cultural significance of transition in/of spaces is determined by technological development, socio-economic and socio-political characteristics of the people. The extent of depth of domestic space in culture is perhaps best measured by its transition. Furthermore, it was observed that the continuity of domestic space exists as an integral part of contemporary Benin culture, no longer controlled by religious or cultural ideologies, making a prototype used by anyone who finds it useful and in certain ways might be considered a model. The symbolic value of continuity of domestic space in contemporary house design has been reduced by increasing cultural illiteracy (Kazimee, et al 2002). However, in Contemporary house design in Benin, there have not been issues of cultural significance yet contemporary issues such as durability, aesthetics and class have limited our attention, it might be possible to adapt continuity of domestic space. The domestic spaces are now modified with durable and aesthetically pleasing materials and since culture is no longer too significant, spaces still has to be created and continued. It was discovered that shortly after independence (i.e. the 60s), the target of Contemporary Architecture Period in Benin was to modernise and enhance the people's living. For some architect, the old domestic culture was regarded as out-dated, unhealthy and not suitable for contemporary way of living; hence it is expected that contemporary house-types from the West should enclose the western style of living and jettison the existing traditional style of living in Benin. For instance, in the contemporary plans, the floor of the bathroom and kitchen is the same level with the living room, and heaters were provided in the bathrooms. (Zhang, 1994; Kang et al., 1999). Considering transition in Benin Domestic Architecture, the paper has itemise some issues that require investigation and findings in related areas of architecture, culture, built environment and behavioural science.

The paper examines and documents domestic architecture transition in Benin, Nigeria from pre-independence to contemporary architecture periods across cross section of the city and along timelines. The research further observes and documents the growth and developmental pattern across the entire Benin City, Nigeria. To underscore the relevance of the growth pattern would mean identifying chronologically, the developmental periods of the different sections/areas of Benin-City, thus validating its importance to the overall objective of domestic architecture transition in Benin. Subsequently, identify the zones in Benin according to their age as well as

the architecture during the period would make findings empirical enough to determine available domestic house types and ascertain the transition along timelines and across residential zone in Benin.

The Study Area

Benin City is located at latitude 06°19IE to 6°21IE and longitude 5°34IE to 5°44IE with an average elevation of 77.8 m above sea-level. Benin City is a pre-colonial city, the capital of defunct Bendel State and the present day Edo State. Benin City is underlain by sedimentary formation of the miocene-Pleistocene-age often referred to as the Benin formation. The city is located in the humid tropical rainforest belt of Nigeria with a population of 762,717 according to the 1991 national population census with a projected population of 1.3 million by 2010 at 2.9% growth rate. Benin City belongs to AF category of Koppen's climatic classification. The rainy season in Benin begins in March/April and ends in October/November. Rainfalls are of high intensity and usually double maxima with a dry little spell in August usually referred to as 'August Break'. Apart from demographic transmutation, Benin City has witnessed, rapid territorial expansion mainly due to rapid rural-urban migration. The people of Benin are called Edo and Jump to: navigation, search the population is found mostly in and around Benin City as seen in Figure 1 showing the map Benin City and its inner wall, covering four Local Government Area namely; *Oredo, Ikpoba-Okhan, Egor* and *Ovia South-West*.

Evolution of Domestic Architecture in Benin from Pre-Independence to Contemporary

An Overview the whole process of transition, would allow for a summary of some important points. The Pre-Colonial Architectural Period (40 B.C. - 1890 A.D) in Benin, south of Nigeria had a recognized architecture that was compared to architecture in Amsterdam, Netherlands. According to Dapper, (1686), the architecture was a large complex of homes in coarse mud, with hipped roofs of shingles or palm leaves which had sequence of ceremonial rooms, and was decorated with brass plaques. These architectural pattern and style were and are still found in the core zone of Benin. The colonial architectural period in Benin (1897 A.D. – 1959 A.D) the period experienced the 1897 British punitive expedition which affected the cultural and architectural foundation of the City. After the city was burnt down, the architectural landscape was altered and due to colonial influence the Benin architectural landscapes were dotted with foreign / western styles of architecture. Places like the Government Reservation Area (G.R.A), legislative quarters, doctors' quarters and Nigerian prisons' barracks among others emerged around the intermediate and suburban zone of Benin shows imprints of British Colonial rule. The Independence Architectural Period (1960 A.D. - 1979 A.D) the period observed majorly government housing schemes for workers at both state and federal level. There was the emergence of institutional house types, the long central corridor house type ("face me, I face you"), detached and semi-detached bungalow house type in government acquired areas known as quarters, estates and government reservation area located around the intermediate and suburban zones. The Post-Independence Architectural Period (1980 A.D – Till Date) the types of domestic

architecture observed in Benin during the period were contemporary designs that are inclined towards western style. Moreso, that it is only the architectural styles being thought today in Nigerian schools of architecture and also a show of status symbol for the elites, example of such designs are the bungalows, maisonette, duplexes and villas. These house-types and designs are found around the city periphery which is the planned estate zone in Benin.

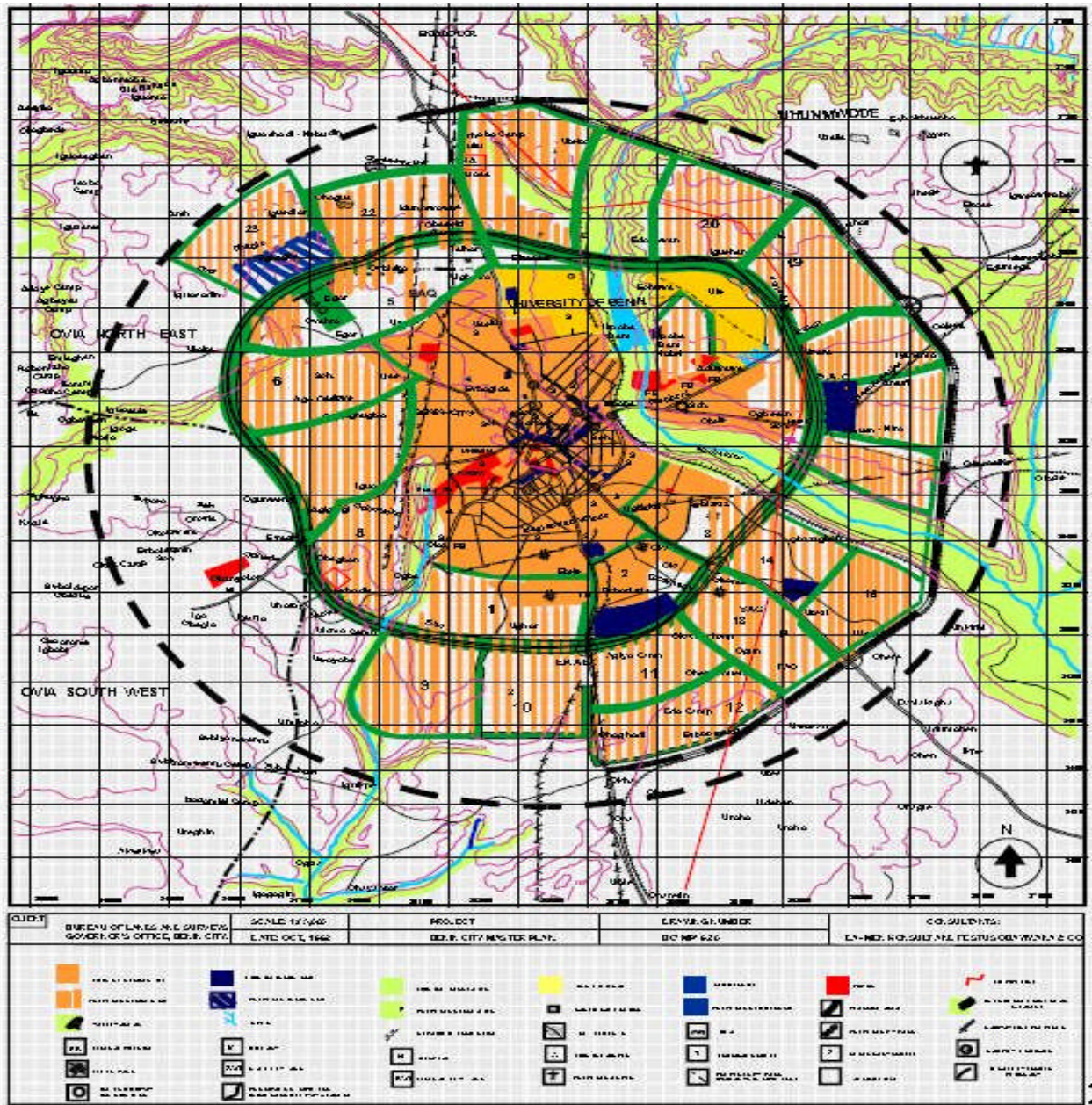


Figure 1: master plan of Benin showing surrounding four local government areas

Source: Abakare, (2013)

The traditional connection of the essential spaces was still preserved in the detached houses of the 50s and 60s, but in contemporary house-type all space-connectivity were re-organized and the courtyards disappears leaving small fragmented spaces to preserve some of its activities. The only indication that suggests the initial system structure is the adjoining space between the main bedroom and the living room, which, like a rule, appears in every typical plan. The central lobby emerges as a universal solution for circulation in the contemporary house in Benin, and it connects the three remaining important spaces which are living room, bedroom and kitchen. The function of circulation, therefore has been transposed from the courtyard to the ugha, and then to the central lobby or lobbies. Through the space-activity interactions, the most activity-depleted space is the egun (owners apartment), which implies that it lost its traditional meaning as the most important space for the whole family. The change in status of the kitchen, toilet and bathroom status is remarkable; they are the only spaces that have successfully crossed the conceptual boundary between the 'dirty low-level zone' and the 'clean high-level zone'. If the oto-eghodo and the ugha were regarded as two discharges of public activities in the past, then the terrace, ante-room, living room and dining replace them in contemporary houses. The most amazing change above all is the transformation of the courtyard. The multiple role of this outdoor space has been successfully re-distributed into the six newly emerged spaces in the contemporary house, which includes; utility room, balcony, ante room, lobbies, dining and laundry that have inherited its activities, and the central lobby is now supporting its function as a circulation core. Interestingly, what have been transferred from the courtyard are not just the activities it enclosed, but the structural concept of the courtyard itself. Except for the central lobby that succeeds only the positional role of the courtyard as a circulation core, those new alternative spaces have all become a clean living zone. The mud floor of the traditional house, which was originally designed for cooling, is now constructed with newer building materials in the contemporary houses. The initial function is now totally lost, but the secondary function, the clean-dirty distinction that was 'acquired' through long practice, has been transferred to the contemporary homes. Therefore, the transition process of Benin Domestic Architecture has shown a progressive process across the cross-section of Benin-City.

Study Methodology

The data collected in Benin City, among other data are samples of architectural floor plans of houses occupied by households in the four residential zones of the City (core, intermediate, suburban and planned estates residential zones) and socio-physical characteristics of each house-type. The study use measured drawings, photograph, physical characteristics of house-types and use of space as well as interview guide to determine the outcome of findings. Based on the field documentation and collections, the paper identified several house-types grouped under four residential zones across the City as shown in figure 2. The selections, analysis and documentation of the various house-types were done through series of observations, questionnaires and interview guide. Total residential houses across the four residential zones in 2009 were 52, 850 houses, amounting to 5020 houses in the core zone, 17980 houses in the

intermediate zone, 22950 houses in the suburban zone and 5900 houses in the planned estate (Ekhaese, 2011).

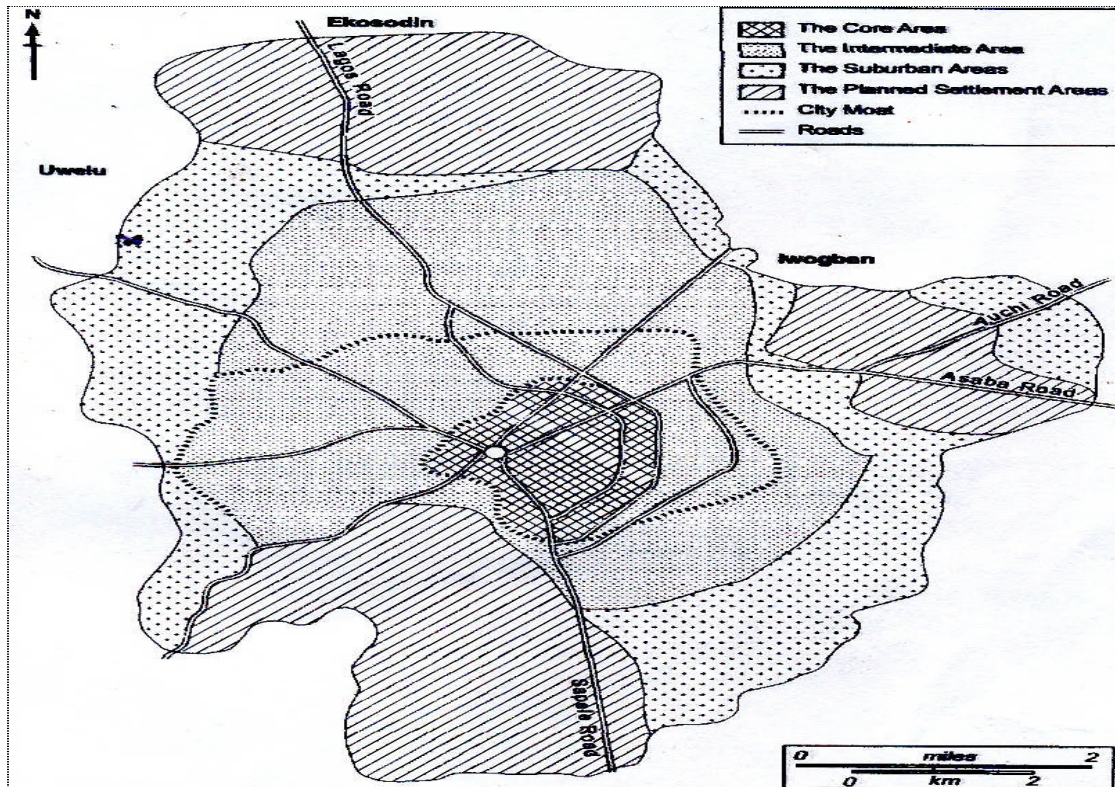


Figure 2: Map showing residential zone in Benin-City

Source: Ekhaese, (2011)

For purpose of the study, 2 percent of the total residential houses in 2009 was selected amounting to 1051 houses and using 2 percent across the four zones amounted to 100.4 houses in the core zone, 353.6 houses in the intermediate zone, 459 houses in the suburban zone and 136 houses in the planned estate as shown in table 1. In the end, the houses were identified, characterised and classified into eleven house- types based on the physical organization and the design of the domestic spaces as show in table 2. These eleven house-types are to be examined on three broad categories across the four residential zones along four timelines.

Table 1: Numbers of Selected Residential Houses in the Four Zone of Benin

CITY/TOWN	Four Residential Zones (Location Of Houses)			
Benin City (Total No. Of Residential Houses)	Core Zone 104 (100%)	Intermediate Zone 353 (100%)	Sub-Urban Zone 459 (100%)	Planned Estate Zone 136 (100%)

Table 2: The House-Types As Identified During the Field Survey

House types in Benin	Location (zones)	Plan form characteristics	Categories of types in each zone in Benin	Number
1 The Palace Compound House-Types -“Eguei Oto-Eghodo”,	Core residential zone		Three (3) house types	3
2 The Family Compound House-Types. -“Owa Eken	Core residential zone			142
3 The modified traditional courtyard house-type	Core residential zone			56
4 The Adapted Family-Compound Benin House,	Intermediate residential zone		Seven (7) house types	43
5 The hybrid Family-Compound Benin House	Intermediate residential zone			163
6 The Common Central Corridor House-Types (Face Me I Face You),	Intermediate suburb and planned estate residential zone			225
7 The Detached Bungalow House-Types (“Owa Eken’ebo”)	Intermediate, suburb and planned estate residential zone			165
8 The Semi-Detached Flat of Single Floor House-Types	Intermediate and suburb and planned estate residential zone		Five (5) house types	132
9 The Semi-Detached Flats of Double Floor House-type	Intermediate and suburban residential zone			77
10 The Detached Double Floor Villa House-Types.	Planned estate residential		Four (4) house types	20
11 The detached double floor Duplex house-types	Planned estate residential			28
Total		ELEVEN (11) HOUSE-TYPE IN BENIN CITY		1054

Transition Process in Benin Domestic Architecture

The transition process in Benin domestic architecture can best be captured in periods, residential quarters/areas/zones with timelines. The Edos developed a social system which resulted in transition process of traditional values that are firmly rooted in the past that will not endanger the future. It was this sense of common identity based on history, tradition, and beliefs of the society that may have spurred the transition in domestic architecture and resulted in socio-cultural change, upon which structures of social and political organization began to emerge. This developmental pattern characterized the settlements at different phases of their evolution. In his study of the origin of Benin as an urban Centre, (Onokerhoraye 1995) suggests that two major factors were involved in its development. The first relates to the natural environment of Edos being supportive of human settlements and the second factor was the integration of large political systems into a centralized one. Based on this, the need to co-ordinate the socio-economic and political activities of the centralized political system from one point led to the development of Benin as the capital.

Benin City started a cluster of thirty-one villages which were aggregates of family units (Osadolor, 2001). These villages are now quarters of a traditional Benin City as shown in figure 3. The thirty-one villages grew into an informal settlement, then to an urban center and become a metropolis. However, Benin because of “Renaissance City Plan Pattern” (which is a wide, regular, radial and circumferential streets forming concentric circles around a central point with other streets radiating out from that point like a spokes in a wheel), as shown in figure 4, it was easy for Benin to grow from cluster of villages into a metropolis without distorting the zoning pattern, transition process and domestic architectural periods (Aimiwu, 2005).

In this paper the transition of Benin Domestic Architecture was grouped under two major timelines which are, i) the pre-colonial timeline (i.e. pre-colonial architecture period and colonial architecture period) and ii) contemporary timeline (independence architectural periods and post-independence architectural periods). The process resulted in identifying eleven house types across four residential zones of the city which are arranged along the four timelines. The focal point today is the kings square in Benin City where the Oba's palace, Oba market, house of assemble complex, central hospital, churches, banks and publishing house are, it is described as the CBD of Benin City. As shown in figure 4.

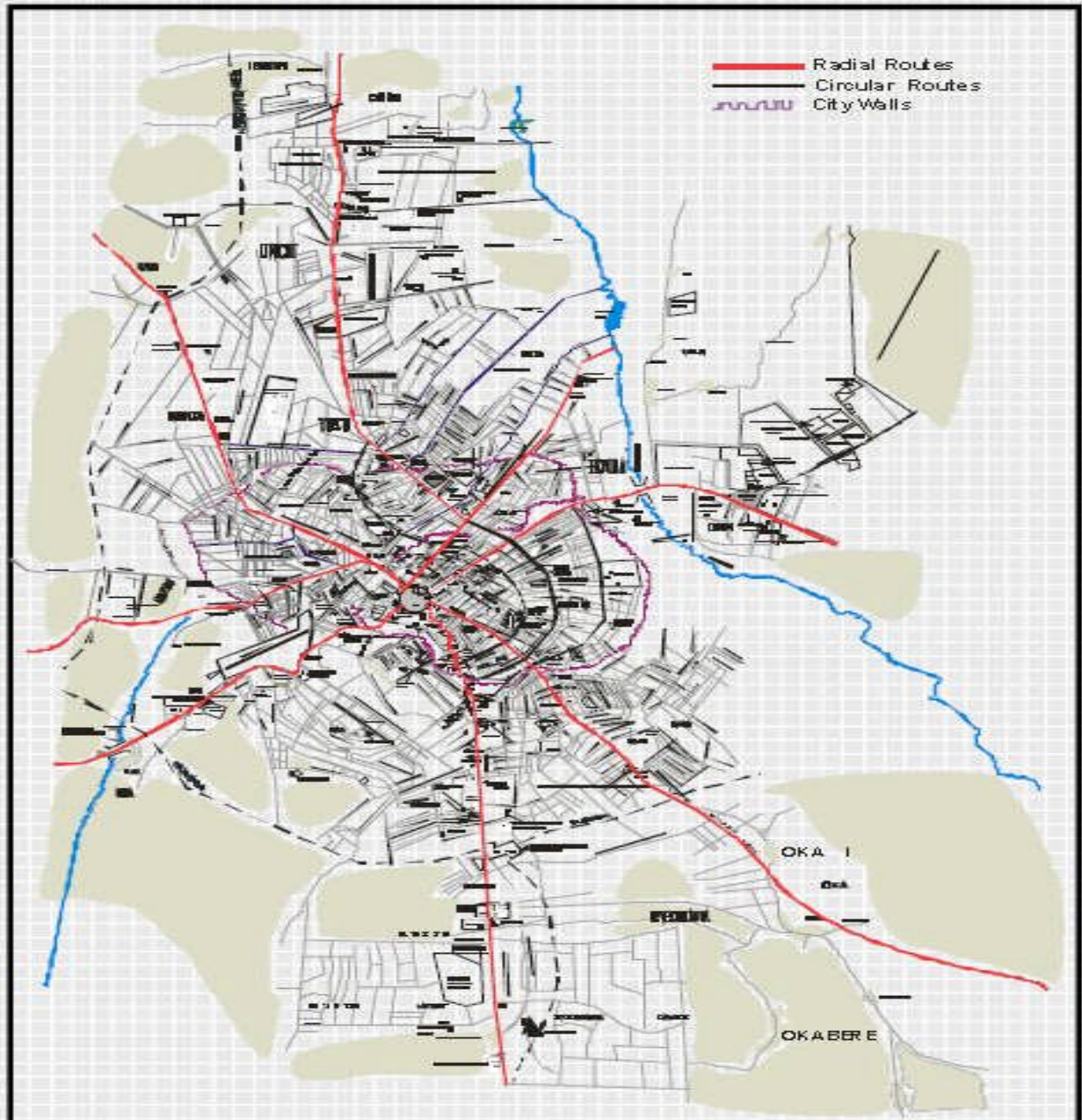


Figure 3: map of Benin, showing the city form and road network

Source: Abakare, (2013)

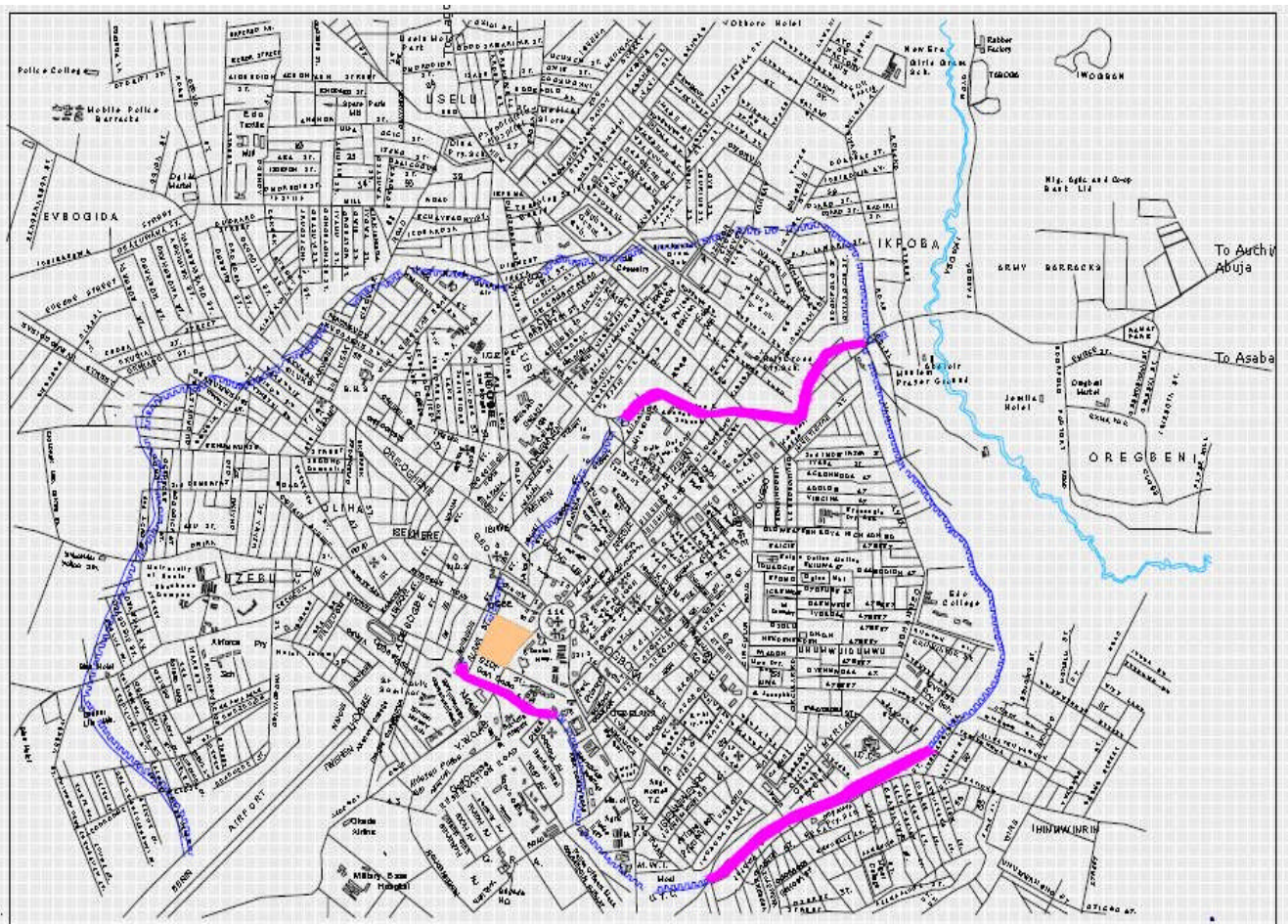


Figure 4 : Map of Benin showing the different quarters, road network and oba's palace
 Source: Ekhaese, (2011)

A. The Pre-Colonial Architectural Period (40 B.C. - 1890 A.D)

The architecture (*Ikun design*) of this period is found around the core residential zone (40 B.C. - 1225 A.D) of Benin which is oldest part of the City where the Oba, Chiefs and royal family live. The core area consists of quarters as shown in fig 4. These houses are old, cultural, and inherited. A cross-section of houses in the core residential zone, reveal two broad categories of house-types under Traditional Courtyard House-Type ("*Oto-Eghodo*") which are Palace Compound Courtyard House-Types and Family Compound Courtyard House-Types. According to Dr. Aisien, "*Comparatively the palace compound house includes the Oba's palace, the hereditary chiefs' palace and the non-hereditary chiefs' palace. These palaces which also double as their residential houses and are larger and has more courtyards than the family compound courtyard house of the nobles and the commoners*". Traditional courtyard houses could be different in quality and complexity, but they have one thing in common, and that is during the planning and construction stages, consideration was given to the public and private areas.

The Palace Compound House-Types (40 B.C. -19th century)

The houses of royalties (i.e. Oba & chiefs) are design such that the rooms are arranged around a series of internal courtyards connecting each other, similar to the pattern of Classical Roman house with its sequence of atria. Chief Nosakhare Isekure described the functions of courtyards as follows *“In the centre of the roof of each courtyard is a hole which serves to admit light and air, while immediately below it in the floor is a sunken impluvium with an outlet to carve away the storm water”*. The striking resemblance of the Roman examples has advanced theories linking the Benin traditional house plans with Roman sources. The internal courtyard has a typical Mediterranean feature which may be with or without a peristyle of columns, depending on their size, but a common feature in them all are couches and shrines constructed entirely of mud with high glaze polished surface having a remarkable quality of endurance so that even the oldest examples appear to have been but recently built (Foyle, 1953). The sequence of courtyards culminates in the private apartments of the chief, while on each side are arranged the wives' and boys quarters with room. While the odd corners are taken up by numerous small rooms without windows which are used for storage. Externally the mud walls are finished in a pattern of horizontal ribs, a fashion which has practically continued, and old royal houses are usually recognisable by this kind of work as shown in Plate 2.



Figure 5: shows that mud walls are finished in a pattern of horizontal ribs

The roofs were originally, the old method of providing a thatched coping on a light wooden framework to the tops of courtyard walls still persists. In contrast to Yoruba and Ibo houses the roof is constructed with heavy timbers carefully framed together with ornamented carving around the opening in the roof. Doors, their jambs and wooden posts supporting the peristyle around the larger courtyards are often ornamented behind the rather unimpressive exterior.

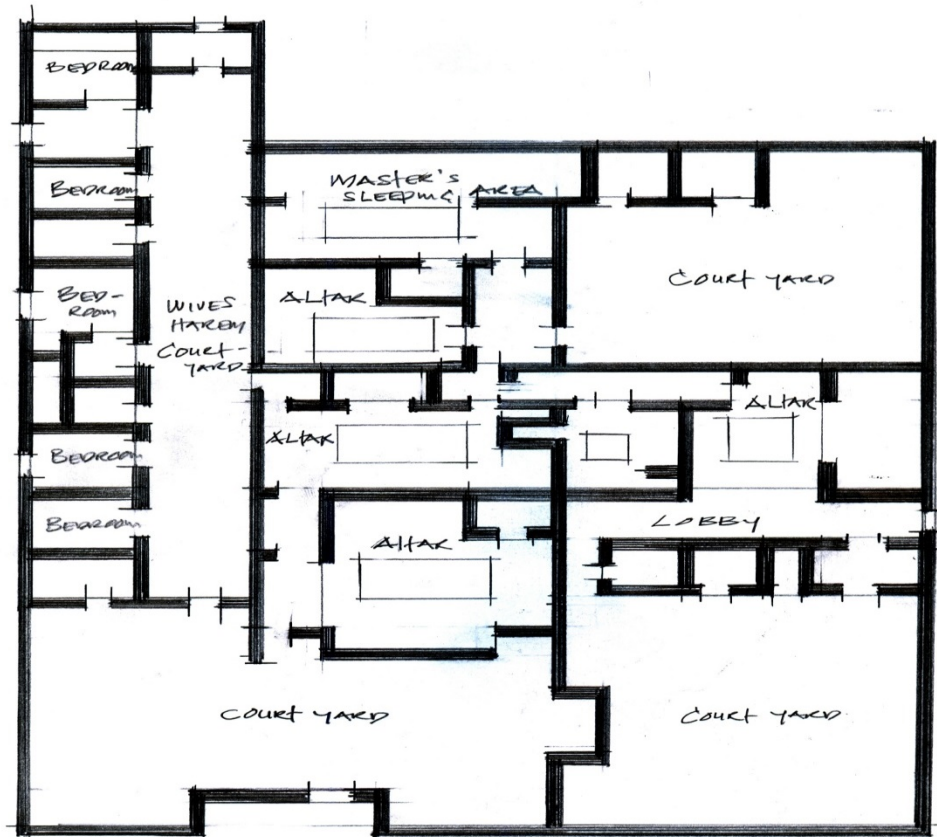


Figure 6: Floor Plan of a Typical Palace-Compound Benin House

Source: Ekhaese, (2011)

The Family Compound House-Types (16 A.D. -19th century)

According to chief Edebiri “An outer corridor usually about 12-16ft long has a room on both sides where the servants leave. This corridor leads to the central part of the house, main courtyard for worship and celebration (having 7-9 rooms) called Ogua (i.e. Altar with a room attached). From the main courtyard a narrow lobby leads to Harem for the wives (Ikun n’derie) - It is a longitudinal/parallel arrangement contain 5-7 rooms with harem for children on the right with an access to the back where kitchen and convenient are.” The Benin house is rectangular, built of large mud wall, seven levels high. The house is a hollow structure with several courtyards spread on a large expanse of land. The Design has section like Front section, contains main living room for visitor, fore-courtyard (for ancestral shrine), men servants room. The side section is for the house-hold-head apartment. (*Egun*), while the back section contains the women’s harem and children’s harem, household storage, the kitchen detached from the main house. The design allows adequate ventilations, unrestrained daylight into the various spaces in the house through the opening and courtyards, thus making the design environmentally friendly.

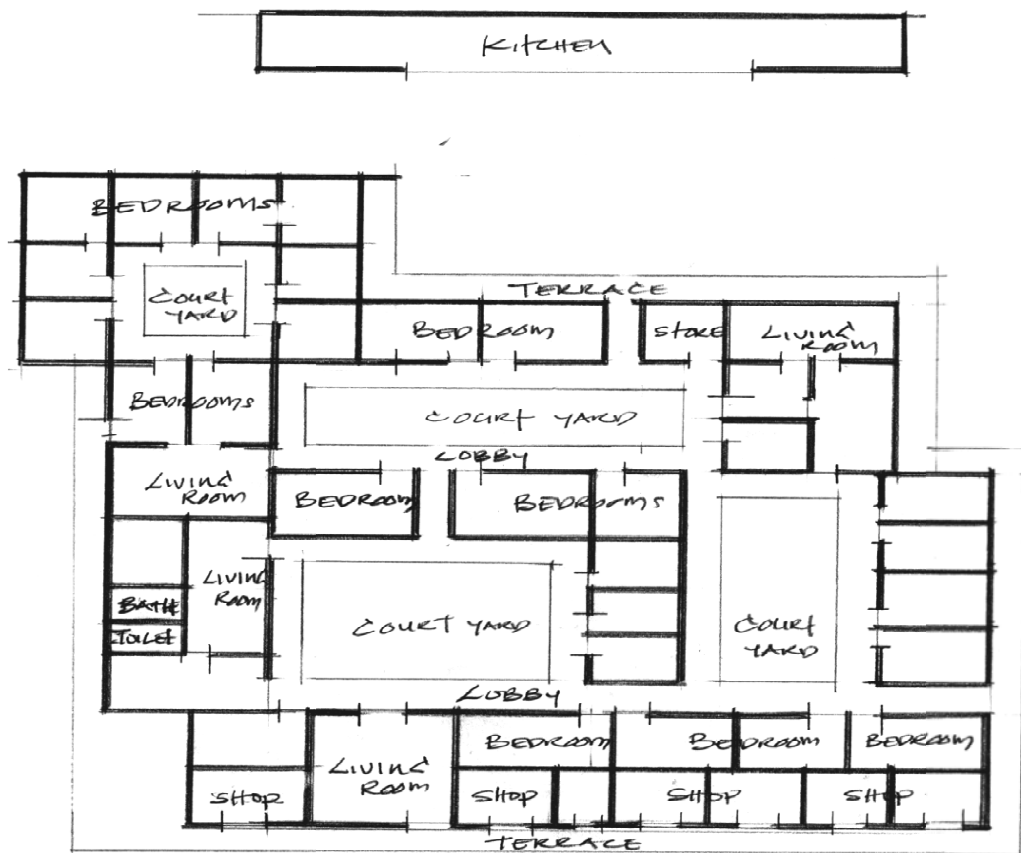


Figure 7: Floor Plan of a Typical Family-Compound Benin House

Source: Ekhaese, (2011)

B. The Colonial Architectural Period (1897 A.D. – 1950 A.D)

The colonial architecture began to influence the Benin domestic architecture around the intermediate residential zone (1280 A.D. – 1689 A.D.) which has the world large hand-dogged moat measuring 1,200 kilometres long and 20 metres height in 14th century which was conserved and declared as world heritage site (USAID, 2002), shortly after the British burnt down the city 1897. The quarters in the zone are; part of *Uzebu*, *Oliha*, and *Urubi* others are *Okhoro*, *Uselu*, *Ikpoba*, *Ikpokpan* and G.R.A See figure 4. Three (3) broad categories of house-type under the modified traditional courtyard house-type which are Family Compound House-Types, Adapted Family-Compound House and hybrid Family-Compound House were identified

The Modified Traditional Courtyard House-Types (17th century)

It is an improvement on the traditional courtyard design that is why it is labelled modified courtyard house-type. Due to colonial influence modern building materials were used to construct the house for durability and stability, the fenestration were reframed and the internal arrangement of spaces was modified to accommodate the colonial style. The house-type below in

Figure 7 was built in mud in 20th century. The plan followed the Benin traditional courtyard house style with a colonial style alteration. In an interview with Chief Sam Egbe, he stated that “the numbers of courtyards were reduced from as high as between 5-201 to 1 courtyard because of reduced family size and adjustment to accommodate tenants for commercial purpose”. The courtyard is centralized with paved corridors around it, the sitting room is to the left, around the courtyard are rooms of different sizes and the convenience at the back to the left of the compound. The compound has long verandas running from the front section through the entrance and to the right-side of the compound. This is typical of the modified traditional courtyard house-type in Benin.

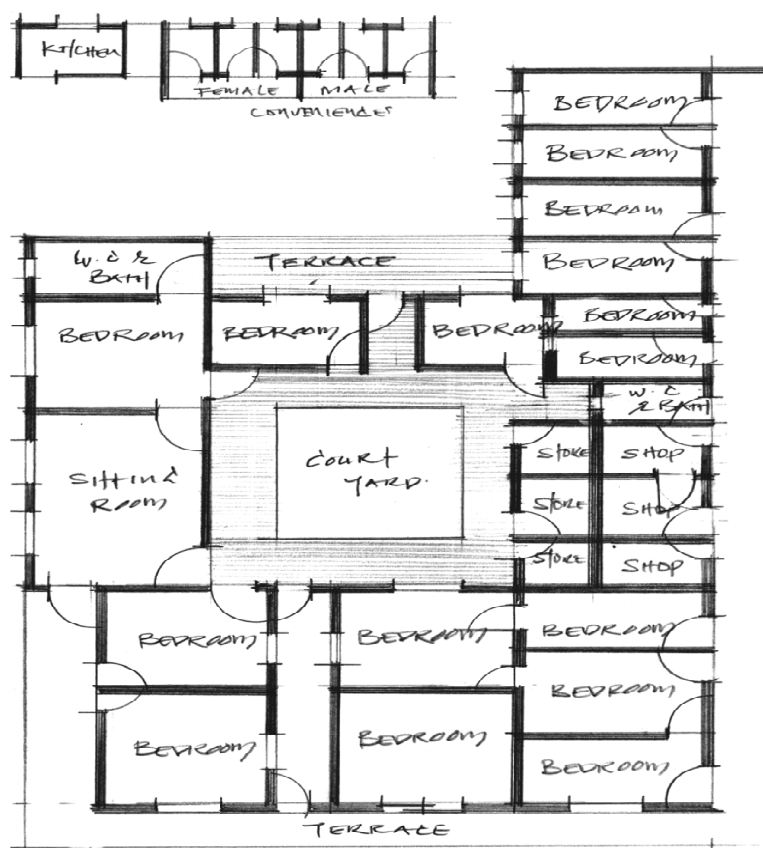


Figure 8: Floor Plan of a Typical Modified Family-Compound Benin House

Source: Ekhaese, (2011)

The Adapted Family-Compound House-type (17th century-18th century)

The adapted family compound house-type is a class of modified traditional courtyard house-type. It is so-called because it has successfully adapted colonial style into Benin courtyard house style with the tropical climate. Behind the “adapted family compound house-type” are spaces like shrine, altar, kitchen, convenience and storage space. The compound usually has two or more building enclosing the courtyard space. In this house-type, the open-ended courtyard towards the

back may or may not be surrounded with corridors and rooms may or may not face the courtyard. The adapted family compound has more than one convenience and the plan in Figure 8 has a garage, has three living rooms, two separate entrance lobby leading to the open-ended courtyard. Towards the back is the worship building; attached to it are spaces for kitchen, stores and utilities.

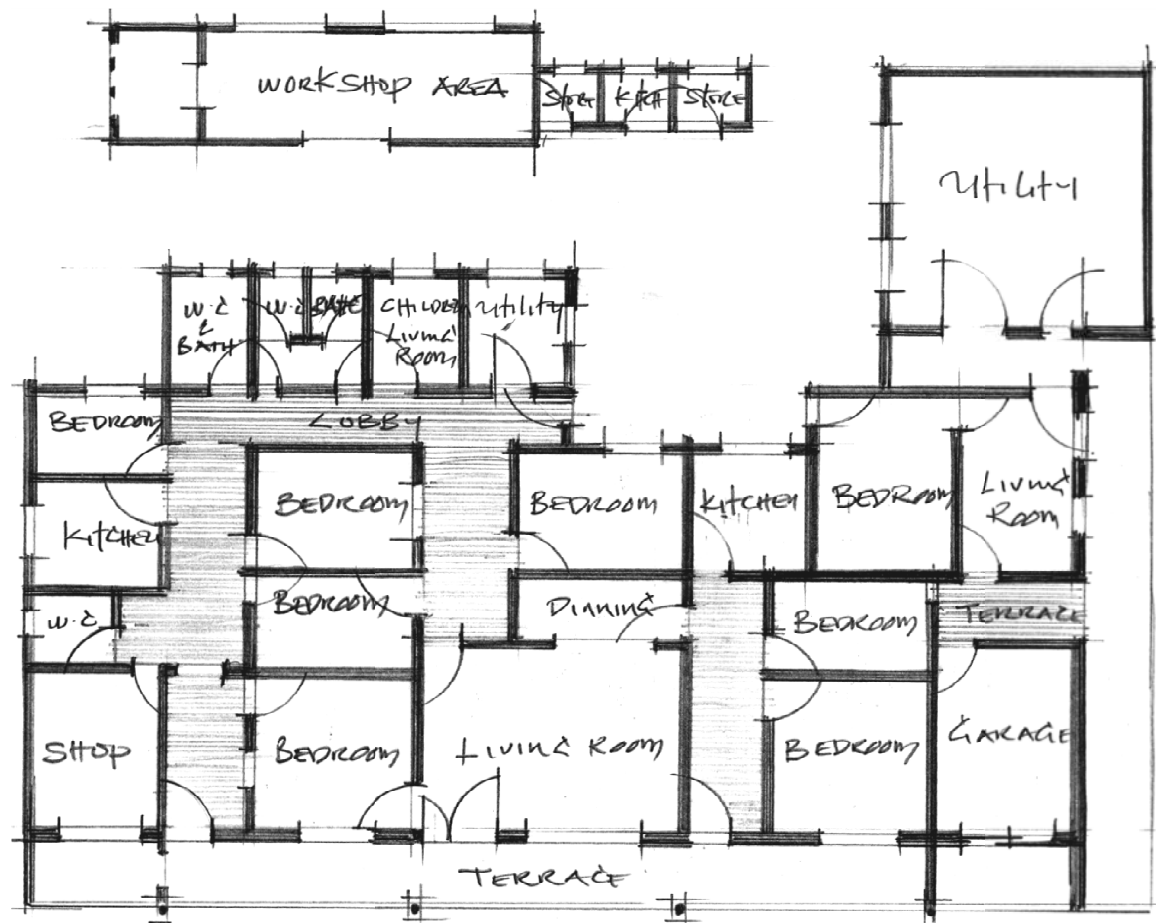


Figure 9: Floor Plan of a Typical Adapted Family-Compound Benin House

Source: Ekhaese, (2011)

The Hybrid Family-Compound House-type (17th century-18th century)

The hybrid family compound house-type is one of the modified traditional courtyard house-types. It has an open-ended courtyard like the adapted family compound house-type, but the difference is that the open-ended courtyard is either open to the back or open to the front without any other build enclosing the courtyard. Unlike the adapted family compound, the courtyard usually looks inwards. The house-type is known as hybrid because it combines more than one category of house-type together to form one compound. For instance Figure 9 below combines both the corridor house-type (face me I face you) and the detached bungalow house-type to form

the “hybrid family compound” house-type. The plan has two open-ended courtyards, one in the front and the other at the back of the compound.

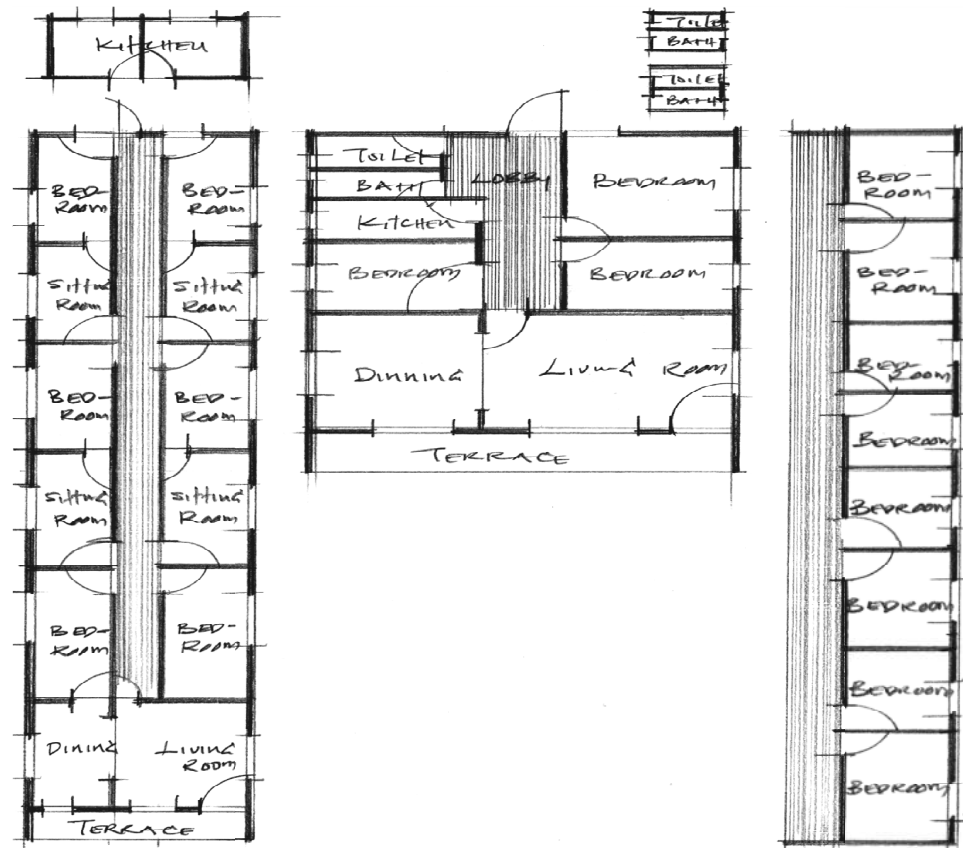


Figure 10: Floor Plan of a Typical Hybrid Family-Compound Benin House

Source: Ekhaese, (2011)

C. The Independence Architectural Period (1960 A.D. - 1979 A.D)

Houses in this period were found around the sub-urban residential zone (1770 A.D. – 1960) immediately after the intermediate residential zone. Sub-urban residential zone as the name implies is all the small communities around the peripheries of Benin-city that has become part of the Benin metropolis (peri-urbanization). Benin was under a local government area known as *Oredo* local government area, but with peri-urbanization occurrence, the city presently is combination of three local government area namely; *Oredo*, *Ikpoba-Okha* and *Egor* local government areas (Omoigui, 2005). The sub-urban zone make-up the other two local government areas, now quarters in Benin metropolis (Ogu, 2001). In the sub-urban residential zone, two (2) categories of house-type were identified. This includes; Central Corridor House-Types (Face Me I Face You) and Institutional/Apartment House-Type i.e. The Semi-Detached Flat House Types (Single or Double Floor), The Detached Bungalow House-Types.

The Corridor House-Types (Face Me I Face You) (18th century)

The corridor house-type otherwise known as “face me I face you”, is named thus because, the courtyard in the traditional courtyard house-type has reduced into a long internal corridor with rooms on either sides of the corridor facing each other. The lengthy corridor ends at the back of the house with horizontal building containing the kitchens, stores, toilets and bathrooms. In the case of Figure 10a the long internal corridor ends in a courtyard with paved corridors having rooms all around it, but behind the courtyard are two kitchens and conveniences behind.

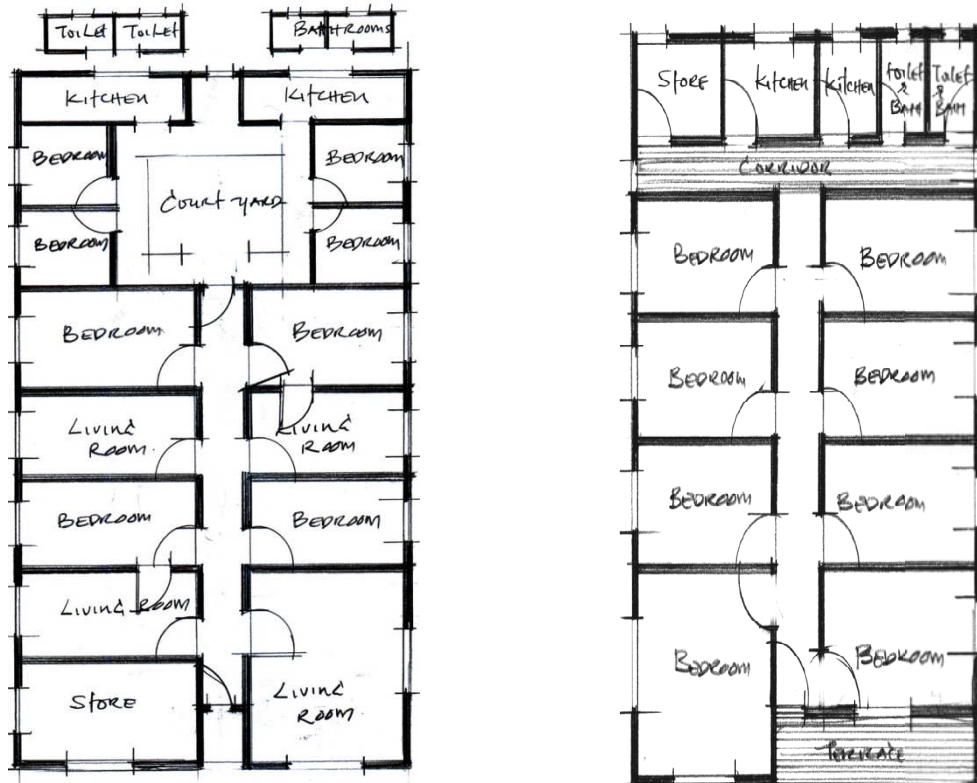


Figure 11a and 11b: Floor Plan of a Typical Face Me I Face You” Corridor House-type

Source: Ekhaese, (2011)

The corridor house-type plan (Figure 8b) is accessed from an approach terrace linking the long centre corridor where all rooms are accessed and joins another horizontal corridor at the back having the common facilities (i.e. kitchen, store and convenience)

The Detached Bungalow House-Types (18th century)

The Detached Bungalow House-Types is an institutional house-type. Most of the houses in this category are single floors, low-rise development, with flat timbers or corrugated iron roofing sheets and sand-screed blocks. The house-type share similarly spatial units to those observed in the traditional house, but the position of spaces and size of the house are very different from that of the traditional Benin courtyard houses. For instance Figure 11 has a circulation space at the centre of the house called utility space, this space help in movement of persons from one part of

the house to another. It takes the place of courtyard in traditional courtyard house. The conveniences are always clean and inside the main building as against the traditional courtyard house where the convenience is dirty and located at the back far from the main house. The dining is directly linked to the living room and the kitchen, unlike the traditional house where courtyard, kitchen, corridor etc. act as dining. The kitchen is also inside the main building contrary to the kitchen in the traditional courtyard house where the kitchen is built in a separate building behind the main house.

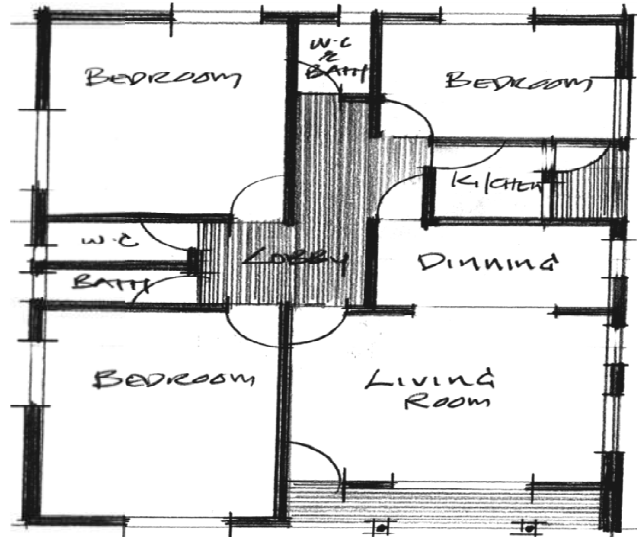


Figure 12: Floor Plan of a Detached Bungalow House

Source: Ekhaese, (2011)

The Semi-Detached Flat House Types (Single or Double Floor) (18th century)

The Semi-detached flat House-Type is one of the institutional house-types. It is recognized as semi-detached flat house because it contains two or more flats in a single building separated by partition walls for different families. Most of the house-types in this group can sometimes be single floor, double floors and multi-floors, with flat timbers or corrugated iron roofing sheets and sand-screened blocks. The construction of the house-type follows a prototype design. It is one the most sought-after house-types by individual developers, public/private partnership and government, because it is the most economical, cultural, easy to construct and with very high commercial value. However the house-type shares an identical set of spatial units with those identified in the domestic/traditional house. Figure 12 is a building that contains four (4) flats of three bedrooms each for four different families, on a single plot. It is a double floor semi-detached flat house with a common staircase. In this house-type, there is an upward expansion as opposed to the traditional courtyard house which is usually a single floor.

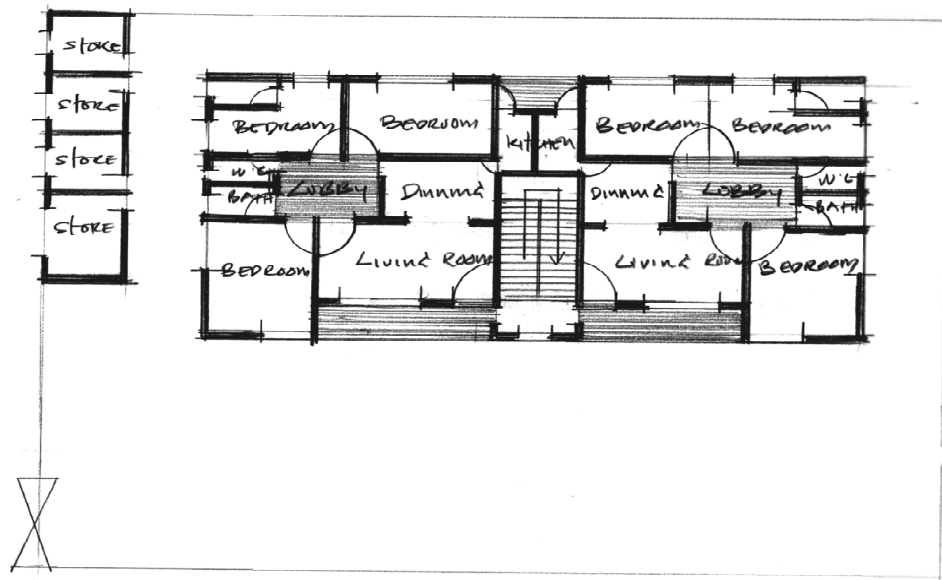


Figure 13: Floor Plan of Typical Semi-Detached Flats of Double Floor House

Source: Ekhaese, (2011)

D. The Post-Independence Architectural Period (1980 A.D – Till Date)

The post-independence architectural period is found around the suburban and the planned estate residential zone (1960 – 2012). These are houses with well-planned lay-out by government. Planned estate would usually require a large expanse of land. Therefore the only part of any developing city where large expanses of land are found is the peripheries of the town/city/metropolis that why the planned estate zone is at the periphery of Benin City. Here the contemporary house-types are found and two (2) categories were identified. They are; Apartment/Institutional and Contemporary House-Type, The Detached Double Floor Villa House-Types, The Detached Double Floor Duplex House-Types.

The Detached Double Floor Villa House-Types (19th century)

The Detached Double Floor Villa House-Types are in the class of a “more contemporary house-type”. The contemporary house-type is a villa house-type of one, two, or more floors constructed out of concrete structural frame and sand screed block walls. In most cases, private architects design houses of this type. The arrangement of this house is based on a central built area and contains spaces similar to those observed in traditional and the institutional houses. In addition it introduces new spaces like garage, laundry, patio (the hall), study, the guest bedroom, and guest bathroom and gym/sport room. Fig 13 is a detached double floor villa house-type. It has two staircases, one for access to the upper floor and the other for escape in case of emergency or fire outbreak. This house-type, most of the time, has the public area on the ground floor and the private area on the upper floor. On the ground floor is the car porch leading to the ante-room then to the living room. From the living room there is an arch-way linking the dining room and

then kitchen, with a store inside the kitchen. There is a kitchen terrace at the back of the house connecting the laundry. Still on the ground floor is the prayer room, a niche and two en-suite bedrooms for guests. On the upper floor are bedrooms (for father, mother and children) gym/sport room, study and family lounge.

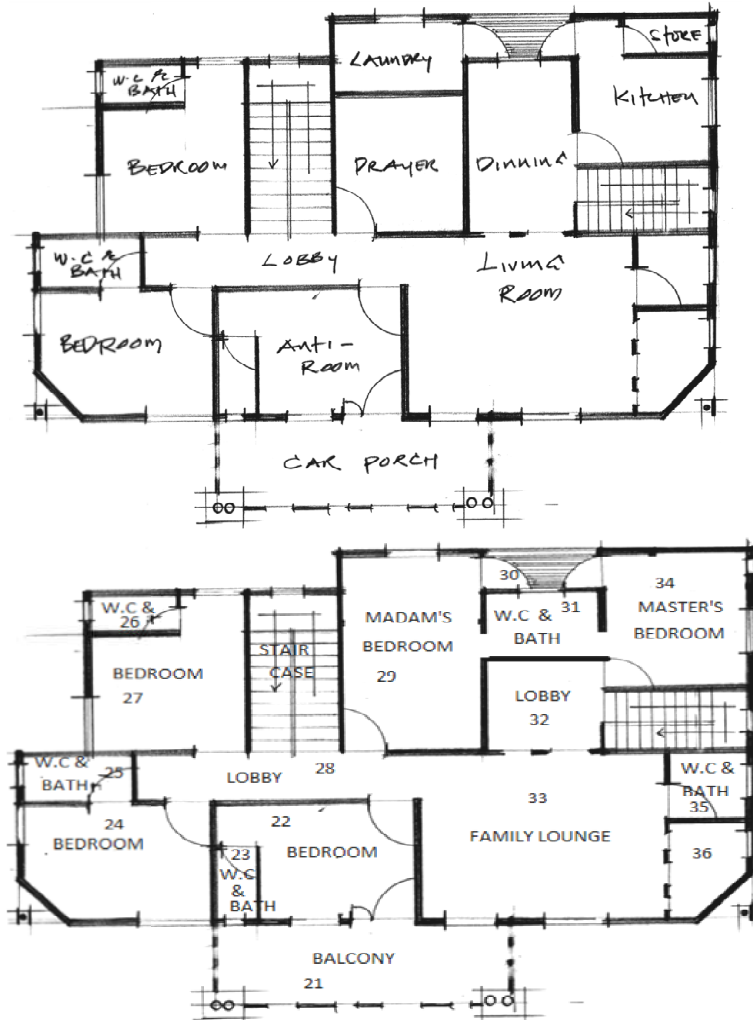


Figure 14a & 14b: Floor Plan of a Typical Maisonette House-type

Source: Ekhaese, (2011)

Synthesis of Transition in Domestic Spaces

Report and result of analyses done so far reveal that some spaces have changed over the years in the different house-types across the entire Benin and other spaces have remained and continued. For instance an observation of the space segments like space for cooking and eating, storage of household goods, space for visitors, space for toilet and bath has remained and continued as part of a Benin house but the position, location, organization, size and meaning has slightly changed thus affecting the house pattern and design. The Edos “builders’ guild system” has helped preserved the traditional building style. But with time and development, the architecture in Benin

has undergone transition over the years, specifically, the organization, use and meaning of domestic spaces, resulting in the need to design for family and tenants, and re-organize the different sections in the house. Furthermore, the size, shape, pattern and design of houses were affected by the transition in space use, meaning and organization. Some spaces, fixtures, elements and even some form of organizational pattern continued. Accordingly some factors were responsible for the transition apart from the introduction of tenant. This research has documented domestic spaces that have changed or continued/remained in the domestic architecture in Benin.

Transition Path and the Significance Changes

Through a topological analysis of Edo house plans and settings, collected from the City of Benin, this study detects a shift in the house-types desired and developed by people during the last five centuries. The traditional courtyard house with its spread out rooms is no longer the prevailing trend neither is its modified patterns nor the institutional house. People today build a compact concrete frame house that encloses all spaces, activities, and people in a built unit. Despite the new design trends some of the traditional house features, such as ornamented doors, ornamented columns, fluted wall and the segregation between male and female domains have continued to exist in the newly developed types of houses in Benin. Information technology has shown that a particular society's norm is not to be viewed as the sole influencing factor in the behaviour of its people. Consequently any cultural artefact including houses, are to be examined as multi-cultural by product. Any observer would detect Western/European influence in architecture around the world and most architectural schools and practitioners adopted the Western design paradigm entrenched in the theoretical concept of modern and postmodern movement of architecture. However, the paradigm shift is creating changes in the way people around the world use and view domestic spaces, In Benin, the effect of Western norms on planning and designing buildings is still apparent. The findings of this study were examined with a view to measuring the degree of transition from traditional to contemporary house-types as well as other cultural and technological aspects that influenced the design. The idea was to detect traditional morphological patterns of relationship as they continue to appear in today's house settings and to identify other influencing factors. It was after independence (1960) that mass construction of contemporary-style houses began. In a little above half century, the house forms and culture in Benin have been radically transformed. Among the new house-types were: "the semi-detached flat house-types" and "face me I face house-type" that proved economically and culturally to be the healthiest in adapting to the middle class need. In the 1990s, they became the most dominant house-types in the City. The traditional courtyard house-type, prototyped to be the typical domestic life of Benin until the 60s, has now been overshadowed by the contemporary house-types which have taken the prime position. On the surface, morphologically, the two house types are completely different. From Fig 5, 6 and Fig 11a, 11b, it can be seen that the traditional courtyard house-type, which is inward looking, has now turned into all-space-enclosed-outward looking contemporary house-type. What has changed is not only the overall form, but some spaces like the courtyard

have disappeared and other spaces have emerged. Those multi-functional rooms like “Egun and Ugha” of the old house have been given new names like master’s bedroom and living room, due to their more specialized functions in the contemporary period. This is a situation where the transition cannot be measured simply by integration values. To deal with the subtle problem, the study has focused on documentation, (i.e. how the activities in each section are preserved, migrated, and finally re-grouped to form new spatial frameworks). In Benin, the study examined the three major categories of houses which includes, traditional courtyard house-type (palace courtyard house, family courtyard house, modified family courtyard house, adapted family courtyard house and hybrid family courtyard house) institutional house-type (single, double and multi-floor type, single and double floor central corridor house i.e. ‘face me I face you’) and contemporary house types (detached bungalows, maisonette, duplexes and villa house types).

Conclusions

Traditional courtyard houses that shaped the typical home life of Benin for centuries have been replaced by contemporary houses in the twentieth century. On the surface, morphologically, the two are so different and there seems to be no gradual process for the transition. This study, however, reveals that there were continuous and deliberate efforts to re-adapt the traditional living into the new frame of space. The approach was used to measure the varying degrees of transition at each stage of the evolution. Here, the ‘space-activity’ interaction is the main idea that enables us to see what underlies the process. As the old rooms take different names and functions in the new setting, they bring about the recombination of their activities, and when this occurs repeatedly at each stage, it leaves behind ‘topological paths’ from which the direction of the transition can be measured. Further examinations reveal that the space-activity interaction arises not only at each section level, but also at the collective-space level that is closely related to the traditional concept of dual opposition, i.e., ‘elevated clean space’ versus ‘earthen-floored dirty space’. Finally, it is concluded that even the domestic culture that is engaged in a fast and intense transition process still tries to preserve, underneath its surface, its old inherited value and in the course of change there exist conscious and unconscious efforts to direct it.

References

- Abakare, E., (2013) Benin City Walls and Moat Outline Action plan, Catech Consultants (*Abakare & Partners*), pg. 1-9, 28-30
- Aimiuwu, L.E.A., (2005) Edonimose: Regenerating a Great Civilization, Lecture Delivered at *the Annual Egharevba Memorial Lecture*, Published by Institute of Benin Studies.
- Aisien, E, (2001) The Benin City Pilgrimage Stations, Benin, By Aisien publishers, Benin City, Nigeria, 145-147.

- Amole, S.A. et al (1994) House and Dwelling, Family and Household: Towards Defining. Housing Units in West Africa, *Journal of Third World Planning Review*, Liverpool University Press, vol. 11(2), 367
- Dapper, O., (1686) *Description de l'Afrique... Traduit de Flamand*. Amsterdam: Wolfgang, Waesberge, Boom and van Someren, Amsterdam Press
- Dyne L. V., Vandewalle, D., Kostova, T., Latham M. E. and Cummings, L. L. (2000) Collectivism, Propensity To Trust And Self-Esteem As Predictors Of Organizational Citizenship In A Non-Work Setting, *Journal of Organizational Behaviour* vol. 21, 3±23, John Wiley & Sons, Ltd, USA.
- Ekhaese E. N. (2011) Domestic Architecture in Benin City: A Study of Continuity and Change, an unpublished Ph.D. Thesis in the Department of Architecture, School of Environmental Science, Covenant University, Ota, Ogun, Nigeria.
- Foyle, A. M. (1953) Some Aspects of Nigerian Architecture *Man*, Vol. 53, 1-3.
- Kazimee, K., Bashir D.A. and Mcquillan, J. (2002) Living Traditions of the Afghan Courtyard and Aiwan in Traditional Dwellings and Settlements Review, *Emerld* Vol. 13(2)
- Ogu, V.I. (1995), Private Sector Participation and Municipal Waste Management in Benin, Nigeria, *Environment and Urbanization*, Sage, Vol. 12 (2), 103-117
- Ogu, V.I. (2001) Enabling Strategy and Sustainable Urban Housing in Nigeria; Focus on Benin-City, *NISER Monograph Series*, Ibadan, New World Press, vol. 8, 37
- Omoigui, I. (2005) How To Improve Youth Development In Edo State, a key note presentation on Excellence in Education and Culture for the New Millennium, *14th Annual National Convention of the Edo National Association of USA and Canada*, On the first report of the SFHA, (1911): (San Francisco Housing Association), vol. 13, 6.
- Onokerhoraye, A.G.(1995) Benin; a traditional African city in transition, *Benin social science series for Africa* , university of Benin Benin-City, Kraft books limited, pp.6-9, 42-43. Nigeria
- Osadolor, B.O (2001) The Military System of Benin Kingdom, C.1440 – 1897, Ph.D Thesis, University of Hamburg Press, Hamburg, Germany.
- USAID/Rwanda, (2002), Lake Kivu methane gas triggers high hopes, available at http://www.usaid.gov/regions/afr/success_stories/rwanda.html
- Zchang, S., (1994); Kang et al., (1999) “A Study on the Transition of the ‘60~70s’ Apartment Houses in Korea”, History of Korean Apartment House Planning, Ph.D. Dissertation of Seoul National University, Sejinsa, Seoul