

The U-shaped Bungalow: A Vernacular Evolution in Post-Colonial Port-Harcourt, Nigeria

Warebi Gabriel Brisibe¹ and Ibama Brown²

¹Department of Architecture, Rivers State University, Port-Harcourt

²Department of Urban and Regional Planning, Rivers State University

¹Corresponding author: warebi.brisibe@ust.edu.ng

Abstract

The U-shaped bungalow is a vernacular archetype that was popularized from the 1960s through to the early 1970s in Port-Harcourt, Nigeria. It is one of the many forms of multi-family living developed to cater for the increasing population in the oil-rich city. Also known as the 'rooming house', it was found across most of the Diobu areas and layouts in Port-Harcourt, which is made up of a series of high density neighbourhoods teaming with the lower income cadre demographics of the population. Although originally a colonial conception in planning, the eventual turn-out in design is essentially indigenous. Using secondary data from a documentary survey method and case study research, this study examines the evolution, generative concepts for the design, its purpose and the population demographic it serves.

In conclusion, this paper argues that the village compound-style social living for the labor class is what inspired the evolution of this unique archetype.

Keywords: Bungalow, Courtyard, Architecture, Post-colonial, Vernacular

Introduction: The Bungalow Concept

The word 'Bungalow' is of Anglo-Indian origin and was introduced by the British as a habitation for the foreign service personnel during the colonial era; first in India, then across all British colonies and then the entire English speaking world. Although there are several variations, a bungalow still refers to a detached, generally single-storey dwelling, occasionally with a verandah (Desai et al, 2016). Many previous scholars, such as King (1974, 1976, 1995 & 2004), Pott (1977), Home (1997) and the Desai (1997, 2005) have examined the bungalow and its urban design implications.

The British introduced not just the bungalow concept as it is now known, but also conceived the plan for the entire Diobu layout, as a low income residential development for families of the labor class with no proviso for development as commercial property and letting. However, the final design outcome of the area shows not only a building type that allows for social and communal living but combines both family dwelling and commercial activities all in one. In addition, this

building type was not developed by the colonial Public Works Department (PWD) as other old buildings were, even though the entire Diobu and Port-Harcourt Township area where these buildings were planned by the PWD.

The aim of this study is to analyze the generative concept of the U-shaped bungalow design based on the village-compound style earlier postulated by Ogionwo (1973). The following objectives form part of the study

1. To investigate the socio-cultural arrangement of spaces in the design of the dwelling.
2. To examine the commercial and family living implications of the design and spatial layout of the dwelling.

Review of Literature

Home (1997) traced the origin of this British-inspired bungalow in the making of British colonial cities. He states that the bungalow, derived from the word 'Bengali' in India where it was first built, became the main residential unit of the white colonial community in the 19th century. It eventually became a feature of colonial and settler housing found all over the empire as the other designs were either too expensive or unsuitable for the tropical climes. He describes the bungalow as "a reminder of the frailty of white European occupation. Its thinness on the ground, an almost defiant acknowledgement signaling an unwillingness to be more deeply rooted in the country....a somewhat covert form of nomadism" (1997:101).

In essence, the development of this bungalow structure came as a result of the colonialists' apparent unwillingness to invest much in permanent housing, but rather in simple functional dwellings that will suffice for the expansion of the empire and extraction of resources therefrom.

Kramer (2014), on the other hand, shows that the traditional Bengali building served as a model for the British bungalow designs that were eventually developed. She posits that it was the traditional buildings that were called 'Bangla' or 'Banggolo' from which the term 'Bungalow' was then derived. The original English model adapted many traditional Indian strategies from the Bangla for improving climatic responses. Some of the main features borrowed include the extended roof overhang to provide additional shelter from the rains; the frontal extension of the roof creating a verandah, the use of a clerestory, and the insistence on small cottage-like repetitive units as opposed to single large buildings. Nilsson (1968) presents a quote from an early English settler who described the abode in this way: "Englishmen live in what are really stationary tents which have run aground on low brick platforms. They are 'Bungalows' a word I know not how to render unless by a cottage" (Nilsson, 1968:187).

Although there is a general consensus of the history based on its linguistic and geographic root, its archetypical classification has found less common ground. Descriptions such as 'cottage-like' (Nilsson, 1968), villa-like (King, 1995), two-storey country house in the United States or similar to the New Mexican hacienda (Reeves, 1988), or the more recent 'free-standing dwelling built within a plot' as perceived in India and Southeast Asia (Desai et. al., 2012) makes simple classification somewhat difficult. Purser states that the "bungalow as a form defies simple classification as a product of either colonialist syncretism or expatriate vernacular" (2003:295).

However, based on its undisputed roots, it can be concluded that the bungalow as a colonial administrative form moved out from India to encircle the globe and by the mid-19th and early 20th century. Several former British colonies all had their bungalow types deemed to have evolved from the British bungalow. Examples are the Levuka bungalow (Purser 2003), the Indian colonial bungalows (King, 1984, Desai & Desai,1997), and the Australian 'variant' bungalow (Freeland, 1968; 1972). Nevertheless, some argue that Australia has its own unique type which

metamorphosed from the early miner huts to cottages and eventually to the bungalows (Summer 1978).

What they all seem to have in common was that it was a single family dwelling, the kitchens were often detached from the main buildings and situated at the rear end and had verandahs often fully or partially encircling the building (Freeland, 1968; King, 1984; Lawrence, 1982). This can be regarded as the core of what constitutes a bungalow, although with time, the evolution of culture and family structure would alter the building form practically in all locations it had been introduced to. With its growing popularity, zinc or iron roofing were exported from Britain to these former colonies to make bungalows even more visually distinct from the indigenous forms.

With time, other modifications started taking place such as raised posts, extended eaves and higher ceilings amongst other things, to alleviate the oppressive heat (Freeland, 1968; King, 1984). Alsayyad (1992) and Fraser (1990) conclude that these modifications added to the display of the new authority's claims of increasingly sophisticated knowledge of their acquired territory in a bid to justify their claims over it. Few other studies on the U-Shaped bungalow in Port-Harcourt, include those of Ogionwo (1973) and the Port-Harcourt Master Plan (1975).

Ogionwo has briefly discussed the village compound concept and socio-communal living as the underlying ideology behind the design of the bungalow as part of the findings of his social survey. In the Port-Harcourt Master Plan, the U-shaped bungalow was proposed as a possible solution to the housing shortage in Port-Harcourt due to its room qualities and flexibility from which other variations like the L-shaped bungalow could be derived. In this paper, these previous works in addition to actual case studies of the bungalow are examined to ascertain these claims and also to investigate why it is the most predominant housing type in the area.

Research Methodology

This study employs a documentary survey method combined with the use of actual case studies. From records, there is a dearth of literature on the U-shaped bungalow in Port-Harcourt and on the study of bungalows in Nigeria as a whole. The documents selected for this study include; A Social Survey of Port-Harcourt (1973); The City of Port-Harcourt (1979) and the Port-Harcourt Masterplan (1975). The first two documents were edited by the same author, Ogionwo and the third was a study commissioned by the Rivers State Government. All three documents were selected for their historical and socially insightful relevance, as well as the fact that they are the only existing material on the subject. Information obtained from these published works includes; survey analysis such as population statistics, projections and demographics; socio-cultural analysis of the ethnic groups and people of Port-Harcourt; other proposed layout, designs and planning based on the original U-shaped model.

For the case study method, the bungalows available are primarily of two types; a single floor type and a two floors or one-storey type, both embracing a central courtyard. For this study, the single floor type was selected as it is the most abundant and easily accessible of the two. Information obtained from the case studies include the spatial layout, use of space and spatial hierarchy in terms of owner/tenant and commercial/private spaces. These were obtained through onsite observations and measured drawings.

Findings

The Bungalow in Port-Harcourt

It is not clear when this bungalow structure arrived in the Niger Delta region of Nigeria or Port-Harcourt specifically, or which was the first copy built there.

However, an observation made in a previous study is that “many of the early copies of these buildings were located in rural communities, with a few located in townships owned by wealthy chiefs who wanted a second home in the township” (Brisibe, 2020). In that study, two different models (an early and a late model) and four different variations of the archetype have been discussed. The early model was introduced into the Port-Harcourt building scene in the late 1920s and was popularized with several variations until the early 1930s. Most early models consisted primarily of four bedrooms and a living area, but with no kitchen and toilet spaces. A summary of the description of the early model is given below based on this study.

According to Brisibe (2020), for some of the buildings, a kitchen area and toilets have been built at the rear of the compound as ancillary facilities in later years. For the early model, although the four bedrooms and a single room were a constant feature, there were several variations in the layout of the spaces. Each owner could create the spatial layout arbitrarily and connect the spaces in terms of depth as they desired. Some of the early designs have been constructed with external access to some bedrooms, while others had a connecting door between the two bedrooms. The bedrooms flank the living area on the left and the right, two on each side

Furthermore, verandah spaces were inclusive in all early models and those in Port-Harcourt came with elevated floor levels, which was characteristic of buildings in the flood prone regions of the Niger Delta. The preferred building material for walls were burnt bricks rendered over with cement mortar or finished concrete blocks painted over or finished with pointed dressing. The windows consist of traditional wooden shutters with jalousies and complimentary panel doors all of which have fixed clerestory panels above them (Brisibe 2020).

As reported by Dixon-Fyle (1999), in the old Port-Harcourt Township, the colonial administration adopted bungalow designs as standard buildings in their residential layouts and often insisted that all buildings must be carried out in conformity with the templates and building covenants.

Later bungalow models that came after the 1940s have used finished concrete blocks. Initially, more expensive personalized finished concrete blocks have been used but with the arrival of the mass-production technology, the blocks became plain, less ornamented, and cheaper due to the reduced cost of block molds and templates. Besides the change in the construction materials, another major difference observed in the later model is the inclusion of toilets and kitchen facilities in the detached or semi-detached form at the rear end of the plot, resulting in the creation of a courtyard by default. Moreover, ornamentations on column capitals, window hoods, and window sills have been gradually reduced by the late 1950s just as the roof designs have become less complex.

The late model popularized in the mid to late 1940s has borrowed one of the characteristic features of the 1930s British semi, which is the curved or three-sided bay window. The three-sided types are known as canted bay, with protrusions from the front rooms like half a hexagon or semi cylinders and each side having a window. The protrusions have a flat front and chamfered or angled sides. This feature helps increase the amount of natural light in the space, afford the occupants a lateral view, and make the interior room appear more spacious. In this model, the corridor has become the point of entry at one end, the point of distribution to other functional spaces and the point of exit at the other end. The symmetry being talked about exists only on the façade, while on the plan, three bedrooms are on one wing and a living room and another bedroom make up the other wing (Brisibe, 2020).

The Courtyard: A Universal and Time-honoured Feature

The U-shaped bungalow is typified and defined by one of its key features: the courtyard space, nestled in the heart of the building. This is one of the oldest, widespread and most recognizable features that cut across several vernacular cultures in the world. Zhang (2020) states that courtyard houses being one of the oldest dwellings in the world is a common heritage of humanity and has shared meanings across cultures. She shows that over 40 countries in the world have been identified with having traditional courtyard dwellings. Unsurprisingly, Nigeria is listed among the 40. Courtyard architecture in Nigeria was undoubtedly made famous by the ancient Bini kingdom as detailed in Olfert Dapper's writings (1668 as cited in Mueser 2021). It is also a key feature in Yoruba traditional architecture.

Zhang (2020) observed that besides regulating light, air flow, maintaining defense, family privacy and noise control, courtyard houses generally address four main areas of concern. These are; cosmic axis and architectural symbolism, favourable orientation, social organization and cultural activities (Zhang,2020).

In this article, it is argued that these four areas may not necessarily cut across all cultures. Rather, some cultures exhibit one or more of these areas in their vernacular courtyard dwellings. Whilst courtyard houses in China, India, the Islamic Middle East, Greece and the Mediterranean regions may embody cosmic symbolism and favourable orientation, translated into architectural forms, others in the Sub-Saharan Africa for instance, are more akin to display the social organization and cultural activities as key factors that gave birth to them. With the U-shaped bungalow being a form of a courtyard building, areas like social organization and cultural activities were also mentioned as key aspects of its design ideology (Ogionwo 1973, Port-Harcourt Master plan, 1975)

The U-Shaped Bungalow: a Vernacular Evolution

According to the Port-Harcourt Master plan (1975), the U-shaped bungalow was designed to contain a varying number of single rooms, ranging from 6 to 24 and occupied by many families. It embraces a courtyard design pattern based on an urban adaptation of the traditional village compound setting. Although fitted with inadequate kitchens and toilet spaces, this building type provided shelter for as much as 50% of the Port-Harcourt city population in the 1970s (Ogionwo, 1979). The Public Works Department (PWD) while commenting on the dwelling, observed that "these traditional houses seem to satisfy family lifestyle and if not overcrowded or insanitary, offer adequate conditions for the majority of the people"(PWD).

Although the largest numbers of U-Shaped bungalows are concentrated in the Diobu layout, the social survey of Port-Harcourt, conducted by Ogionwo (1973) revealed that many of the housing units were of the U-shaped type. They were located in other high density areas of the fast growing city, such as, Amadi-Ogunabali, Rumuomasi and the Township area. They were either one-storey buildings or bungalows "embracing a courtyard" in U-shape. The 'U' shape itself is derived from the aerial appearance given by the U which connects all the rooms in the dwelling and is roofed separately from the ancillary spaces like the kitchen, the store and the toilets (Fig 1.). A term known colloquially as the "yard" has been given birth out of this central courtyard or open communal area which serves more social purposes than the primary airflow and circulation it is designed to achieve.

This section obtained from the social survey earlier mentioned highlights the possible ideas behind the development of the u-shaped archetype. Ogionwo (1973) observed the U-shape dwelling to be an urban counterpart or adaptation of the popular traditional Pele or Wari (compound) obtainable in most village settings in old Rivers State. This adaptation is what Osasona refers to as the vernacular; a re-interpretation of the traditional using contemporary materials (Osasona 2009).

Ogionwo (1973) ties the compound setting and spatial layout to the family structure of most ethnic groups in the Rivers State. Units and spaces within the compound are arranged according to the status or membership of the compound and descent group or kinship. The wari as it is referred to amongst the larger Ijaw group, describes the composition of a compound layout. It constitutes a household head (often the man), his wife or wives, their children and perhaps his mother and unmarried younger siblings, as well as other siblings from his mother who may not be of the same father but may be dependent on him by virtue of being of the same mother. This structure also accommodates multiple generations of the same family. Often this constitutes the domestic extended family, typical amongst the groups in this region and could range from between 2 to 40 persons at any given time. This number supports the survey findings of Ogionwo (1973) and those of the Master Plan (1975) that the u-shaped dwelling may contain varying numbers of single rooms from 6 to 24 but is capable of providing accommodation for persons double the maximum number of rooms.

There are other larger versions of the wari concept like the 'iwo wari', 'opu wari' etc, each with their own effect on the spatial layout of the compound. This extended family system often allows room for expansion in space, sometimes growing into a nucleated settlement made up entirely of relatives within the larger village setting. The dwellings within this setting are often formed around a large central open space where events are staged and larger family gatherings are held. The 'yard' concept mentioned earlier arose out of this central open area. This area is reserved for communal gatherings and activities.

The courtyard of the U-shaped dwelling is simply a replication of the communal core in the pele setting. In this context, the courtyard serves as the open space for meetings, communal storage space and laundry and drying space, hair making, entertainment, board games, discussions, and children's play area etc. Ogionwo (1973) observed that this yard space when included in the U-shaped dwellings was often sufficient for outdoor recreation, breaking of firewood, outdoor cooking and laundry. This space is communally cleaned and maintained during sanitation days by all inhabitants or representatives of each household of working age.

In more recent times, however, factors such as migration have produced variations from the compound system created entirely by the membership status, descent group and kinship, to a more mixed inhabitants system. Unlike what happens in the original wari system, the rooms in the urban counterpart of the compound are shared by the small households or individuals of different ethnic backgrounds and heritage. As Ogionwo (1973) states, the "urban counterpart of the pele is not inhabited by blood relatives" but it is capable of providing a social pattern that most migrants from the rural areas are conversant with. Hence, it was observed that the compound design offered in a psychological sense, positive, familial vibes and could enhance relationship building and create an environment capable of fostering reciprocity.

In effect, the U-shaped design was meant to forge familial bonds and a support system for rural-urban migrants of that era, with a common goal of obtaining a better life in the city. The structure is thus designed to foster economic and social support among its users whilst providing opportunities for corporate activities similar to the original rural 'compound life'.



Fig 1: Diobu Layout: Hub of the U-Shaped Bungalow in Port-Harcourt
(Source: Port-Harcourt Master Plan 1975)

Field observations during the case study research has shown that the largest concentration of the U-Shaped bungalow is within the Diobu layout of Port-Harcourt. It was planned from inception to be one of the highest density locations in the city and to provide housing to cater to the lowest income demographics of the populace. Although this has always been the plan for the area, no specific prototype buildings have been proposed to house the expected teeming populace that would inhabit it over time. It therefore begs the question of how the design of the U-Shaped bungalow came about; and why is it the most predominant housing form in the area? To investigate these issues, it is pertinent to go back to history; hence, the need for archival data.

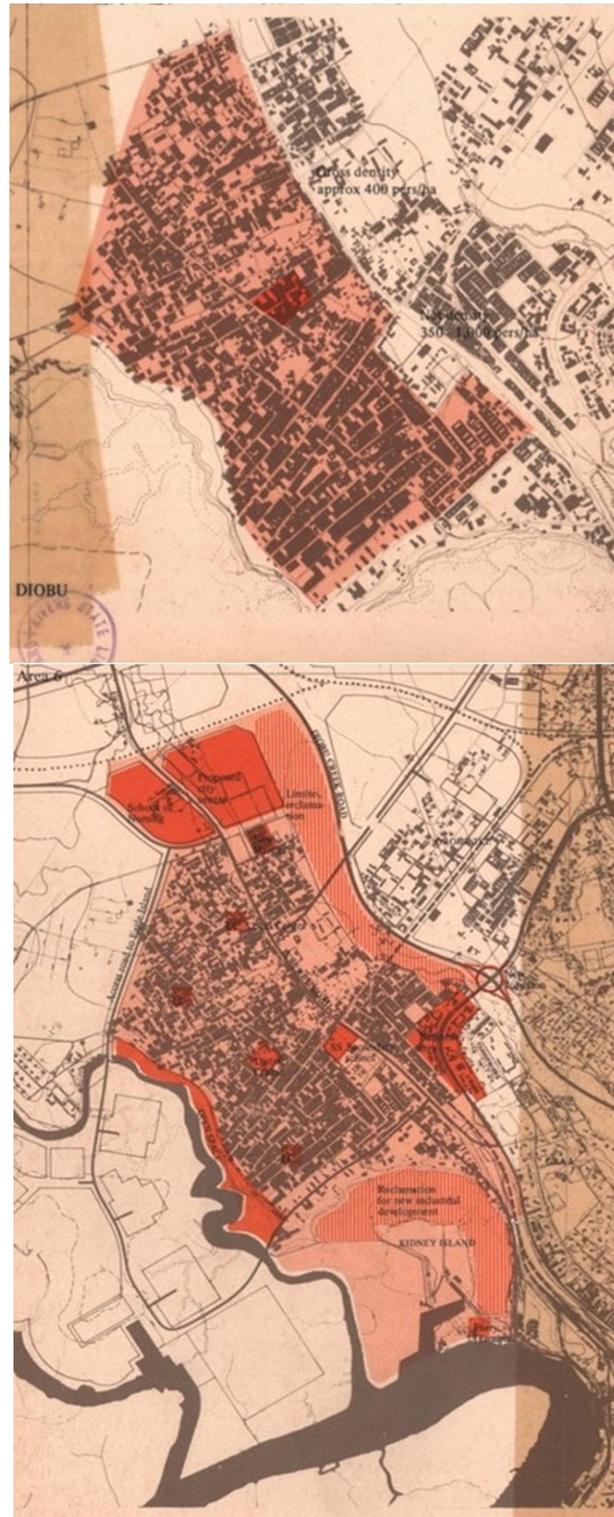


Fig 2: Diobu layout and the adjoining settlements
Source: PH Master plan 1975

At the National Archives, Enugu early records pertaining to the development of the area called 'Diobu layout' shows that in December 1946, the Eastern regional government under the colonial administration established the Port-Harcourt Planning Authority. Between 1947 and 1955, the planning authority introduced over a dozen planning schemes including the Diobu villages and the then

southern suburb of the Mile 2 Diobu. On the 1st of April, 1960, the boundaries of the Port-Harcourt Municipality has been extended southwards to embrace the whole of the Mile 2 and its environs as part of the Diobu layout. Further details of some early discussions of the Diobu layout was obtained from the minutes of a meeting of the Port-Harcourt Township Advisory Board, dated Tuesday 2nd March 1948, at the Local Authority's Office. The Township Board Chairman Mr. R. K. Floyer had raised the matter of a proposed residential layout for Diobu specifically for the labourers.

Although there was no proposed building prototype, they insisted that no building in the layout should exceed one third coverage on a 100ft x 50ft plot. Two of the few native Africans on the Board argued for half coverage as the land was already small but they lost the motion by four votes to seven which was the usual scenario in the majority white-colonial biased Board. The reason was that they did not want a commercialization of the dwelling units in Diobu (File number RP: 6852. Port-Harcourt Township Advisory Board – Minutes of meetings 1948-1949).

Regardless of the one third coverage bye-law, when development commenced from the late 1950s, majority of the homeowners adopted between half to three-quarter coverage on the plots. Many could not afford buildings over a single storey and development of commercial properties was prohibited. In the minutes of the meeting, Mr. R.K Floyer had specifically emphasized that housing units in this layout were to be strictly family dwellings and as such no permissions for commercial buildings or buildings developed solely as rental dwellings would be given. Although, one of the Board members Mr. Eronini argued that “there was nothing to prevent commercial landlords in Port-Harcourt seeking to acquire land and buildings in the Diobu Layout.

However, since Diobu was the receptacle for most of the inter-city migrants many of whom were either skilled or unskilled labourers as the archival data reveals, most developers intended to cash-in on the income from the rental of rentable spaces from labour migrants as well as own their own houses in the city. Thus, an innovative bungalow-styled structure that was easy to build, cheaper and could accommodate both the owner's family and still have sufficient spaces to be given out on rent for the other people was adopted and popularized. The building was expected to still look entirely single-family residential in form, while providing sufficient rentable spaces, as well as common areas for communal living and activities. This structure was what was later referred to as the U-Shaped bungalow by the likes of Ogionwo in his sociological survey of 1973.

Case Study of the U-Shaped Bungalow

Oral history obtained during fieldwork for the case study shows that from the early 1960s to 1967, when all residential construction seized until 1970 due to the outbreak and duration of the Nigerian civil war, to the peak of its construction from the early to the mid-1970s, two variations of the U-shaped bungalow have been developed. They include the completely enclosed courtyard design and the courtyard design with a back or side exit.

The typical 1960s U-shaped bungalow contained about 16 standard spaces of which 12 were rooms for rent. Two rooms centrally located at the entrance of the unit, with a connecting door were reserved for the landlord or his caretaker and these rooms were often the largest in size. Two other spaces on either side of the entrance verandah are designed as commercial spaces for shops, while the other ancillary spaces in the facility include a large kitchen and four smaller cubicles designed as shower spaces and water closet spaces respectively.

The typical room measures about 3.6m by 3m on average, and is considered sufficient for a double bed, a small wardrobe, a reading table and a chair with extra space for circulation. This space accommodates an average of two persons but has

been known on several occasions to house a family of four persons in most Diobu neighbourhoods. The rentable shops at both sides of the entrance also measure 3.6m by 3m and were in earlier times used by the landlord for his other businesses.

The landlord's residence is made up of two large rooms in the front, sometimes designed with its own bathroom and kitchen. The typical landlord's room measures 4.8m by 3.6m and has a connecting door between both spaces as well as exit doors to the corridors on either side. In recent times, landlords choose to live away from their tenants but may still use the shops or rent them out altogether.

The kitchen measures about the same as the landlord's space and is one of the three shared spaces. The other two shared spaces include the toilets (shower and the water closet spaces) totaling a miserly four numbers. It's not quite clear if the two spaces apiece were originally divided according to gender but for the most part, both spaces provided for shower and water closets are used by all and sundry without recourse to that fact. The open courtyard which gives the u-shaped bungalow its form, is the third and most widely used of the shared spaces. It measures about 7.5m by 15m on average and serves as a common area, meeting area for the compound, utility space, social space, laundry/ drying area, storage area, work area etc. by all tenants and the landlords alike. The human and domestic wastes generated by all the users of the bungalow are channeled towards the septic tank and soakaway pit in the courtyard.

Design Differences between the U-Shape Bungalows in Diobu and Old Port-Harcourt Township



Fig. 4: Typical floor plans showing differences in design between bungalows in Diobu and Old Port-Harcourt Township

Source: Brisibe, 2022



Fig. 5: Approach elevation of typical bungalow in Diobu (the canopy in the front with a shop is an unauthorized addition)
Source: Ibama, 2022



Fig. 6 & 7: Courtyard space and items depicting how it's used
Source: Ibama, 2022



Fig. 8: Entrance corridor – Diobu **Fig. 9:** Entrance corridor – Old Township
Source: Ibama, 2022

Proposed Adaptive Use of the U-shaped Bungalows in Post-Colonial Port-Harcourt

By 1973, the estimated population of Port-Harcourt was at 231,000 and an average family size of 6-7 persons would require at least 35,000 units of housing to effectively reduce the deficit. Following the findings of the survey, Ogionwo (1973) recommended the possibilities of adapting the pele (compound) concept in the design of future housing developments in Port-Harcourt but with better technical and sanitary standards. This became a major part of the proposal contained in the 1975 Port-Harcourt Master Plan. One of the three key parameters for housing requirement (5.2) of the master plan was—housing quality and space standards and this was discussed under the sub-heading—Housing standards (5.2.2). Basic requirement of 4-5 square meters of sheltered floor space per person was considered adequate and outdoor space commensurate to it as well.

Based on the projected increased population density in the residential areas, the number of bedrooms and family sizes were to be considered and the house construction and layout were to be flexible enough to allow for extensions due to the changing family needs. Following these considerations, the developers of the master plan suggested that “the traditional houses seem to satisfy family lifestyles, and if not overcrowded or insanitary, offer adequate conditions for the majority of people” (1975:77). They proposed the typical U-Shaped house plan in preference to the more European styled housing to cater to the housing needs of the average family. The

appeal of the former was in its practicality in accommodating all income levels and flexibility in change of use, evident in most high-density areas of Port-Harcourt at the time. The U-Shaped bungalow could serve as a single-family unit, extended or multi-generational family units or leased out to the tenants per room.

This proposal as an offshoot of the master plan project was intended to serve as a background study to initiate a state-sponsored high-density housing scheme, utilizing the U-shaped bungalow design and its derivative variations as prototypes (Fig. 4 and 5 below). If the proposal was considered, it seemed a viable housing option, having evolved socio-culturally to become the popular architectural culture it currently is - architecture by the working class and for the working class.

Nonetheless, this was not the case as all other state sponsored housing schemes had undertaken in the late 1970s and early 1980s. The Rumueme housing estate adopted the more conventional 2 and 3 bedroom semi-detached and 4 bedroom detached bungalows. Apparently, the concept of a labour or working class layout with a self-developed bungalow styled design commensurate to the living and housing needs of most of the demographics of that class did not sit well with the pro colonial garden city indigenous elite who were in power. This is regardless of the fact that based on the Ogionwo's survey (1973), a larger percentage of the population in Port-Harcourt at the time were made up of the indigenous and immigrants: working or labor class. This was supported by the projected population demographics as observed from the of Port-Harcourt master plan study of 1975.

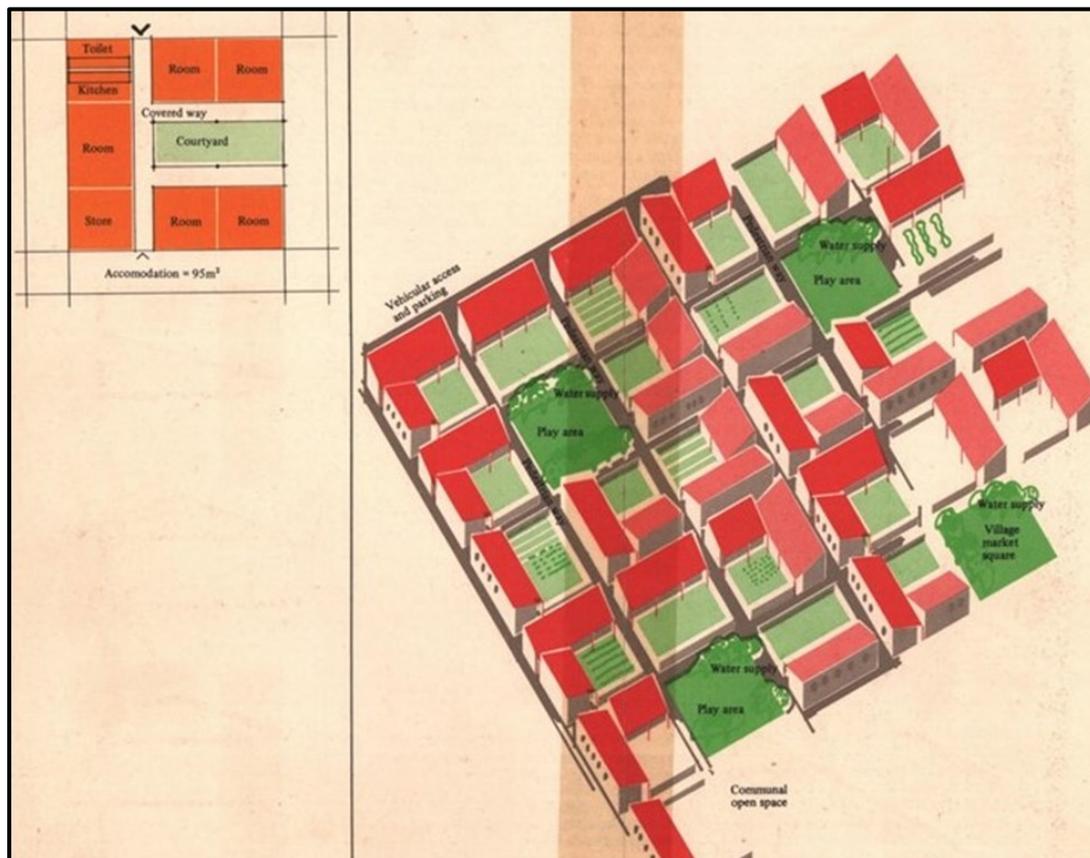


Fig 4: Proposed high density residential layout using the U and L-shape variation bungalow (Inset is the original u-shaped bungalow design)

Source: Port-Harcourt Master Plan 1975

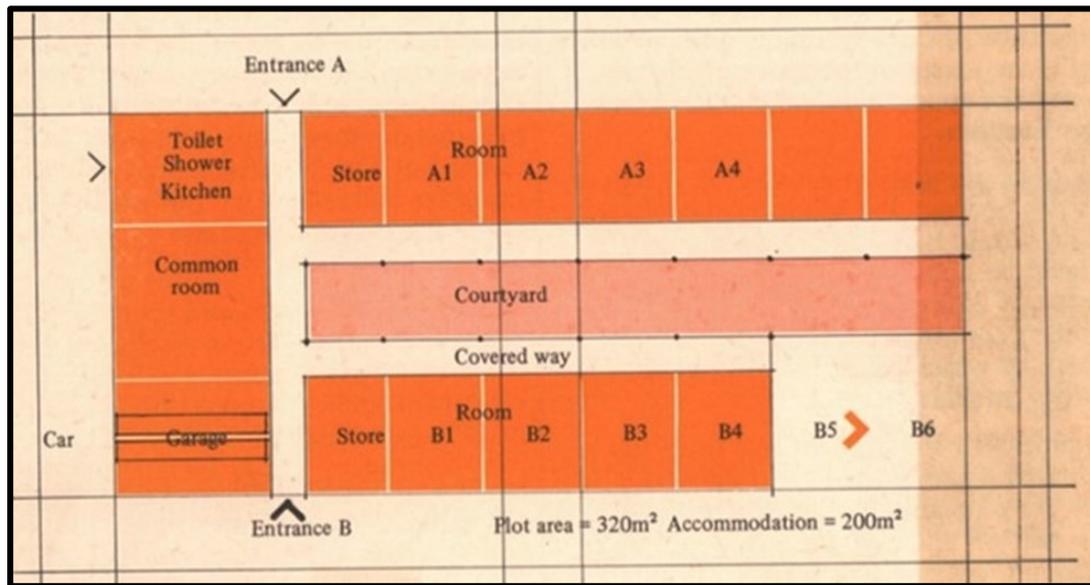


Fig 5: The spatial incremental advantages of the u-shaped bungalow design
Source: PH Master plan 1975

Discussion and Conclusions

It is clear from the study that besides being an area designated for the labourers or working class, the Diobu layout became exactly what the colonial administrators had hoped to avoid and what the indigenous groups had hoped to achieve. Even though Mr. R.K Floyer had specifically emphasized as stated earlier, that housing units in this layout were to be strictly family dwellings and not for commercial rentals, the other Board member Mr. Eronini had apparently foreseen the future when he argued that there was nothing to prevent commercial landlords in Port-Harcourt seeking to acquire land and buildings in the Diobu Layout.

The pioneering residents of Diobu, in seeking to abide by the approved building ordinance of family dwellings but still creating commercially viable rental spaces, had to exercise some form of legislative disobedience. To do that, they sought inspiration from their culture in the spatial layouts and compound systems of the *wari* compound setting and thus the innovative U-shaped bungalows were born.

Units and spaces in the U-shaped bungalow are arranged according to the status or membership of the compound setting and spatial layout based on the village family structure of most ethnic groups in the Rivers State. Prime spaces in the *wari* setting are reserved for the household head (often the man), followed by his wives and other members of the family according to ranking. The role and consequently the prime space of the household head in the urban counterpart of the dwelling was aptly assumed by the landlord and his family and all other spaces are given out for their rental value.

The other unique selling point of the U-shaped bungalow is the 'yard' concept mentioned earlier. Design is based on the central open area reserved for communal gatherings and activities in the village compound setting. This simple replication of the communal core in the *pele* setting was first meant to serve the all-important social purpose but soon became the utility hub of the dwelling where all external and some internal household activities were carried out. The open courtyard space constantly evolves, metamorphoses and expands to accommodate all known and neoteric activities required to keep pace with the dynamics of culture.

Spaces for meetings, communal storage, laundry and drying space, hair making, entertainment, board games, out-door cooking, discussions, and children's

play area amongst other things will always be an integral part of the socio-cultural requirements as indigenous Africans. What the U-shaped bungalow offers is the opportunity to still enjoy them but on an affordable budget.

What can be ascertained from this study is that the U-shaped bungalow is not a metamorph of the British styled bungalow creolized to fit the cultural complexities of Nigeria. Rather, and by all indications, it is an architectural material culture of a socially inclined people. Its' over-sixty-year existence has shown that it has served and still continues to serve that need which is; as a rooming house offering adequate living conditions for the majority of the labor class in Port-Harcourt.

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