

Architectural Elements as Determinants of Material Cultural History of Traditional Architecture in Arochukwu, Abia State Nigeria

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Abstract

The work examined the architectural elements of material cultural history of traditional architecture in the Arochukwu Cross River Igbo. Descriptive survey statistical method was adopted to collect and process data. Results identified 14 architectural elements in the Arochukwu Cross River Igbo architecture, which include; cluster settlement pattern, high pitch roof and very low eave and existence of Azoforo in the male houses among others. It was also recommended that at design stage, Architects should consider security of the residential buildings as a key element.

Keywords: Architectural elements, Traditional architecture, high pitch roof.

Introduction

Art historians are especially preoccupied with defining or interpreting the nature and behavior of architectural products anywhere and anytime. For history to be written at all, we must find in what we study factors which are consistent enough to be distinguishable and changeable enough to have a story. In socio-political history, these factors are sometimes institutions, sometimes persons or some other retain their identity over time or locality, yet change and develop as they react to their units which environment and its consequent changes. (Ackerman and Terry, 1980) In the study of the art works, not institutions or people are the primary data; in them we must find certain characteristics which are more or less stable, in the sense that they appear in other products of the same artist(s), era or locale and flexible; In the sense that they change according to a definable pattern when observed in instances chosen from sufficiently extensive spans of time or geographical distance (Ackerman and Terry, 1980). The study of architecture as a material culture of a place and people, from time, has raised more dust than it has settled when assigning values or identity (symbol or language) to such architecture. There has been a lot of controversy which is centered on lack of clarity whether architecture is art or not. If adjudged as an art work alone, such study of architecture will lose its value criteria, which is, seeking to have bearing and relevance to the value system of the place and people who produced it. It will have no meaning (Edem and Okonkwo, 2010). Architecture abounds, but its status is unusual, while we may visit a work of architecture to view it much as we would visit a statue in a plaza or a painting in a museum, we usually can enter the architecture and move inside it. In such a building, we may conduct the full range of human activities. The traditional aesthetic attitude of a viewer observing an object should be balanced by seeking to know its meaning, but in architecture, the object shapes and facilitates our activities. This is with a view to fulfilling our functions and goals, which are not limited to the aesthetic realm alone. Architecture is considered as an art because of its primary social service, and then it may yet make its place in the art of

living. It contributes and expresses the shaping values of people and cultures. It may do this as a symbol or as a language. Communities often affirm their identity and vitality through architectural works they love. The pyramids in Egypt, the Tag Mahal in India, the Acropolis in Athens, the capitol in Washington, the Eiffel tower in Paris and the Dome in Hiroshima are architectural works in history. They endure even when altered and ruined and they become invested with changing communal significance. While history does things to them, and with them, works of architecture also have a hand in the making of history.

Events take shape in buildings and environments take shape around buildings. Since works of architecture are permanently sited, they have a way of creatively organizing their surrounding over the passage of time (Obasi, 2016).

However, not all buildings are works of art some are and some are not: and when a building is viewed as a work of art, we tend to qualify it by the expression "architectural work". Equally, great works of architecture or architecture of great buildings may slip out of the category of works of arts as they work for other human purposes. A building belongs to a specific place. It is an integral part of a natural and socio-cultural environment. It plays a vital role in the life of a people (Mitias, 1994).

The earliest surviving treatise on architecture, that of Vitruvius Pollio in the first century, is already concerned with the supposed origin of architecture in the dimensions of the human need for shelter (Sparshott, 1994). Sparshott (1994), maintains that it is at the point where a dwelling, (whether of a family or of a larger group), can be seen to symbolize the way of life (of a people) which it both reflects and sustains. It is at that point that the philosophers of architecture begin to take an interest. Langer (1983) claimed that it was the function of architecture as a distinctive symbolic form to express and symbolize the "ethic domain". Part of what she meant, certainly, was that in the building of a community, its way of life found expression, and once this was inarticulately felt to be so, buildings would be found immediately moving and beautiful. This is so because their forms in one way or another symbolized some deep aspects of the communal life.

But no doubt, Langer (1983), also had in mind Heidegger's readings of architecture and art generally as a more comprehensive revelation of what it is to live on the earth and under the sky (Heidegger, 1971). In using the word domain", Langer (1983) was also acknowledging, that the way a community occupies space represents nothing more clearly than its politics, power relations that obtain within the place of the architecture of the people.

In recent years, the issue of reflecting local culture in contemporary architecture has attracted more attention. Many nations have started to review their own cultural features by carrying out studies in their "own" traditional values and principles. This process has exerted influence on the production of contemporary architecture and ignited heated debates (Nguyen, 2007: Mitias, 1994). The built environment is at the very center of the identity of a community. It reflects the lifestyle, social organization, artistic practices, and the architectural adaptation to cultural and religious factors (WTO, 2005). It is a representation of a society's values and aspirations. Architecture, which is part of the built environment, is created for a number of reasons which includes: communication of information; establishment of identify, and encoding of value system (Rapport, 1979).

During the last decade, creation of local profiles and attempts to define the identity of the place was a major concern in many aspects of development. In line with the deliberate strategy, architecture constitutes an important component in a long-term ambition to create a profile of one's own and to shape an intentional narrative about the place of destination (Stromberg, 2008). Baudrillard (2003), states that architecture is a means of story-telling and narration, and provides the basis for understanding the identity of a people.

In non-social usage, 'a people' is synonymous with the term 'nation'. However, sociologically,

a people can be a nation, an ethnic group, a tribe but with a peculiar enduring interaction over time supported by a common culture. Though this definition may tend to overlap with the definition of social interaction, it is distinct in that the Arochukwu People.

Arochukwu is referred to as Aro-Okigbo and is believed to be the third largest city in Abia State after Aba and Umuahia, in the south-east geopolitical zone. It is composed of 19 villages which are the following:

Agbagwu
Amuvi
Amasu
Atani
Amsaga
Amankwu
Amaukwa
Amaoha
Amannagwu
Ibom
Obinkita
Oroh
Ugbo
Ujari
Utughugwu
Isimkpu
Ugwuavo
Ugwuakuma
Amannagwu

Arochukwu is one of the few Igbo communities in Nigeria that presently practices monarchical system of government. The king of Arochukwu Kingdom is known as Eze Aro. The name of the present Eze Aro is Eze Ogbonnya Okoro. Arochukwu is a principal historic town in Igbo land. There are several historic tourist sites that exist in the city, such as the mystic Ibina Ukpabi shrine, the slave routes and other relics of the slave trade era which are frequently visited by tourists. (Umozurike, 2000).

Arochukwu has been made up of Igbo, Ibibio and the Akpa, the main language is Igbo but Ibibio is also spoken. The people of Aro (as they are popularly called) are the most traveled Igbo race. They are the pioneer source of commerce and education in the Cross-River Igbo of the south-eastern Nigeria. They are scattered all over the Igbo land but always maintaining their culture and language wherever they settle. They love to call themselves, "Nwa-mazi" and are very proud of their root (Umozurike, 2000).

Tradition had it that the present location of Arochukwu was first occupied by semi-Bantu group known as: the Ibibios who arrived there in 300 AD from the Benue Valley. The Ibibios had founded states like Obong Okon Ita and Ibom. After many years the Igbo immigrants came along and pressed into the Ibibio occupied territory and founded several cities. According to Umozurike, (2000), the leader of the Ezeagwu group (the Igbo group) was Nna Uru; they were the first to arrive at the Ibibio occupied territory. It was not long the Ibibios felt threatened by the migrating Igbos and Ibibio-Aro war started. At a time during the war, there was a stalemate and Nna Uru, as tradition had it, invited Nnachi, a native doctor from Edda to proffer solution to the stalemate through mystic means. But he didn't proffer a positive solution which made him to settle in the conquered territory. This was after 1600 AD when he first migrated to the territory.

The Arochukwu people were successful merchants, land hungry and go-getters in whatever

they wanted and this aggressive attitude of the new arrivals put so much pressure on the Ibibios that they could not bear it any more, war gradually erupted. There was no outright winner in the wars, until Nnachi's son, Oke Nnachi invited other settlers of Igbo origin North of Arochukwu, probably the Nkporo and the Ohafia warriors who came to help for the conquest of the Ibibios. As the war still raging, an Igbo group from the Calabar area came to help the Aros in the war. They were Akpa merchant princes, led by Osim and Akuma Nnubi, with the arrival of the Akpa princes, the Ibibios were overwhelmed by their Igbo adversaries, so they were defeated in the war. But during the war, Osim, one of the leaders of the Akpa princes, lost his life, this was at the beginning of the 18th century. After the victory, the Akpa and the Igbo founded the Arochukwu kingdom and their king was given the name and title Eze Aro (Umozurike, 2000). In 1720, Akuma died and the Igbo took over the throne, with Nnachi 's son Oke Nnachi became the next Eze Aro. With the increase in populations many changes occurred as 19 city states were formed to be known as Arochukwu kingdom. The kingdom began to found colonies outside the Aro territory from the Niger Delta to as far as Equatorial Guinea.

The activities of the Aros helped coastal Niger Delta city-states to become important centres for the export of palm oil and slaves. Such cities include Opobo, Bonny, and Brass, and Calabar, as well as other slave trading city-states controlled by the Ijaw, Efik and Igbo. The Aros formed a strong trading network, colonies and incorporated hundred of communities that formed into the powerful Arochukwu kingdom. They included the Ajalli, Arondizuogu and Bende. Although the Aros were avowed commercial people, their main trade was in slaves, although they were also the main distributors of the goods brought in by the whites (colonialists) even before the occupation of Nigeria by the colonialists. As Obasi (2007) posited; the Aros exploited the head-taking culture of the Ohafia and other Cross River Igbos to expand their slave trade. Any community in the bibio area that gave them formidable resistance to carry out their trade was first of all given opportunity to have a peaceful settlement, but where such overtures were turned down, the Aros will invoke the Ikwuzi treaty with other Cross-River Igbo neighbors the Ohafia, Abam, Nkporo, Abiriba and Edda who serve as their mercenaries to invade such community. While the warriors are contented with their loots-slaves and heads – the Aros will establish themselves into that community and carry on their trade and in most cases, establish a colony of slave market which their mercenaries will have access to sell their own war loots.

Family and household headship

Of the various peculiar cultures practiced by the Cross-River Igbos; Matrilineaty and age grade system stands out as distinct. Most Igbo cultures are patrilineal in descent but matrilineal is engrained in the culture and tradition of the Cross-River Igbos. This people have double descent orientation which is not territory based, but each community has a means of bringing its members together periodically to discuss matters of common interest in each 'Ikwunne' (Matrilineal clan).

Area of Study:

Arochukwu belongs to the Eastern or Cross River Igbo, which include other areas like Ohafia, Abiriba, Nkporo, Abam and Edda. Arochukwu has a population of 169,339, (FGN Gazet 2009). Arochukwu forms the boundary town between Abia, Cross River and Akwa Ibom States. In terms of climate, Arochukwu experiences intense rainfall in the months of April to early November with a short break in August. Dry season takes effect in the months of November to early March. However, the months of January and February are the direst months in the year. Average annual temperature hover around 27°C, while mean minimum

temperature is about 26oC. The area is moderately hilly and well-watered but broken in places by narrow and steep valleys. (Obasi, 2016).

Methodology:

The research design adopted in the work is descriptive survey design to retrieve data relevant to the research and subsequently analyze them.

The Evaluation Process:

This work is to study the consistency of the architectural elements of the traditional residential and Obu (meeting halls) houses that will be used to elaborate the architectural history of the Cross-River Igbo. This study involves field survey through observations, measurements and photographs of consistent architectural elements in the features and the architectural environments of the study area. The process of evaluation involved five steps (adapted from Voordt, and Wegen, 2005). The initial step involved establishing and visiting the geographical locations of the villages randomly selected from the one hundred and twenty villages in the study area as listed above. The second step was to determine the compounds that have good number of buildings that still have the features of the traditional residential characteristics and elements. This was based on literature review of related studies. The elements were categorized according to the design factors proposed by Vitruvius which are; function, structure and aesthetic. The elements sought for were group under functional elements, structural elements and aesthetic elements. The third step was to prepare the observation criteria and measurement instruments which was used by the ten post graduate students of the Department of Architecture, Abia State University, Uturu. They were grouped in twos the research adopted in this work in describe survey method. We applied both description and quantitative statistics. Making five groups, each group made independent documentation of data which were analyzed at the end. The fourth step was the actual execution of the planned programme the study through observations, photographic records and measurements. They were to observe the listed elements that were seen in the buildings being studied and document their consistency in the various compounds of various villages, their occurrence in the various residential buildings and Obu houses.

The fifth and final step was the presentation of results by the five groups; the findings were then analyzed and synthesized.

Population of Study

Population of study is part of the Research Methods that consists of collection of group individuals or object of interest with a common characteristic which the researcher is interested in (Uji, 2009). This was further defined by Kenner and Taylor (1979) as the aggregate of elements from which the sample is actually selected. In this research, the target population is the people of Arochukwu which comprised of 18 villages.

Results and Discussion:

Design solutions usually employed in the study area to counter problems associated with relative humidity include provision of proper ventilation in the buildings to enhance air flow. This will help to maintain the comfort zone in heavy humid periods.

In every style of architecture, there exists a common problem that necessitates the development of an architectural element for its solution (Banham, 1975). This is in consonance with the postulations of Mitias (1988) who posited that the primary function of architectures is the solution of problems. Elucidating on the importance of architectural elements, Mitias (1988) posited that every style in architecture has its peculiar treatment and

organization of their elements to give it its peculiar vocabulary and distinct character. As far as elements relate to architecture, it is the unique details and component parts that come together to form the architecture of the people. Architectural elements are the means by which the history of any style can be transferred from one generation to another (Metias, 1988). In this study of the consistent characteristic architectural elements of the traditional residential architecture of the Cross-River Igbo, the author held discussions with the focused group members of the communities that make-up the area. He held several weeks of interviews with the elderly members of those communities, observed and conducted several measurements on the peculiar architectural elements observed in this area.

The questionnaires distributed and collected by the team of M.Sc. 1 students in the Department of Architecture, Abia State University, were to confirm that the elements observed during this study were actually consistent in their communities. In some communities the observation was confirmed; in others they were said to have disappeared although they had existed in the pre-colonial period. The discussants were able to trace the consistency of the elements from the pre-colonial period to the present-day architecture of the people of Cross River Igbos. They were also able to give the reasons for the use of those architectural elements observed in their residential houses.

Identified Architectural elements in the Arochukwu (Cross River Igbo)

The general characteristics architectural elements observed in all the community's studies, are listed below:

- ❖ The cluster settlements pattern
- ❖ High pitch roof and very low eave
- ❖ Existence of Azoforo in the male houses
- ❖ Non-existence of window openings at the approach elevations of male and female residential houses.
- ❖ Use of in-built mud beds as the sitting and sleeping furniture in the residential houses.
- ❖ Concentric form of the female houses and rectangular form of male houses
- ❖ Gradation of relaxation spaces according to gender and time of use.

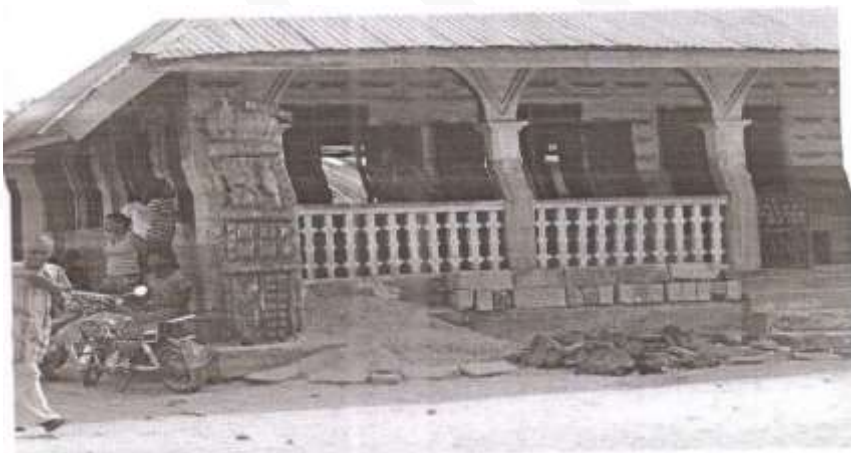


PLATE 1: A KINDRED COMPOUND OBU (MEETING HALL) IN MODERN TIME

TABLE 1: USE OF RELAXATION OPEN SPACES

	RELAXATION SPACE	PEOPLE WHO USE IT	TIME OF USE
1.	Patrilineal Relaxation Space (Amasiefi-Utuga Ezi)	Female members and children	Night time
2.	Kindred Relaxation space (Amasiefi-Ezi)	Male members	Evening time
3.	Village square (Onu-ogoo)	Male and female members	Morning and Afternoon

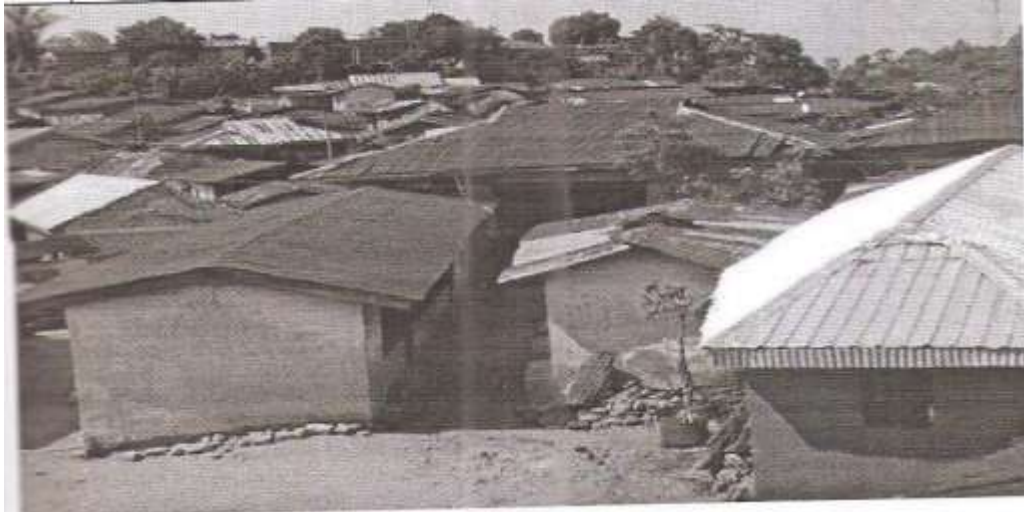


PLATE 2: A PATRILINEAL OBU NTA (MINOR MEETING HALL) AT THE ENTRANCE OF THE COMPOUND

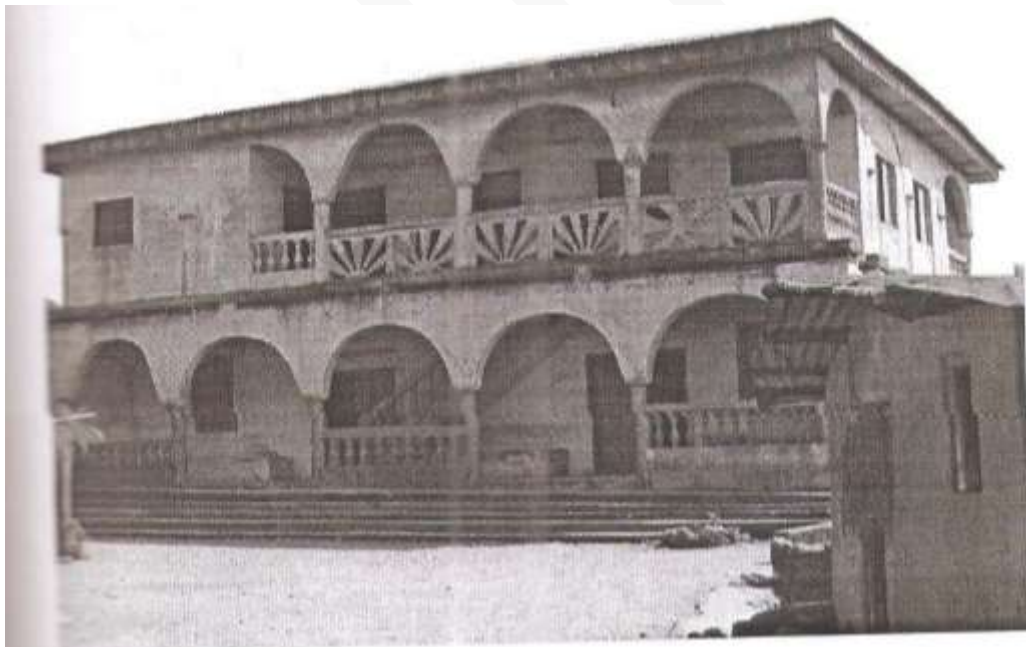


PLATE 3: A SECTIONAL COMOUND OBU (MEETING HALL AT AKANU OHAFIA-OBU NDI ODO)



PLATE 4: SECTIONAL COMOUND OBU (OBU UKWU MAIN MEETING HALL) AT THE ENTRANCE OF THE COMPOUND

- ❖ The sharing of living spaces with fauna in the female houses
- ❖ Construction of typical 3-bed room house for the male house
- ❖ Use of black herbal paints for the floor of all buildings and white or yellow paints on the walls.

Reasons for the low eave of the Residential houses

- ❖ From the interviews conducted during the study with the Focused Group discussants, it was Use of the sitting room as a burial ground.
- ❖ Construction of Ulue-oku (strong room) in most male houses.
- ❖ Small window openings at the rear of the male houses for lighting.
- ❖ Use of carved tree trunks (Nkwa) as King posts in the meeting halls (Obu).
- ❖ Use of carved doors for the main entrance door of the male sitting room (Ogbiti).

discovered that the reasons for the low eave of the residential and Obu houses, was for Security reasons, and for the protection of the walls from the torrential rains of the rainforest climate of the area. In the pre-colonial period, the eve of the roof was purposely built to be so low to prevent any assailant from free entrance into the houses. It is the same reasons that made the entrance doors to be low (18m high), As the assailant will take pains to bend so low, the person inside the house will see him and attack him before he gains his composure, The second reason was the protection of the walls from rain. As Dmoschowski, (1990) posited, the large extension of the eave roof covering the verandah, which was much exposed to the wind and rain, was strengthened by an additional purlin placed between the ridge beam and the middle purlins (plate 107). Although there were no more inter-tribal wars during the colonial period, the eve of the roof continued to be low because the people had adopted it as an element of their roof construction. Even in this modern period, thatch houses with palm leave mat roof covering still maintain the high pitch roof and low eave covering.

It was observed that in Arochukwu the eve of the residential houses were not as low as that of Ohafia, Abiriba, Nkporo and Abam people. The pitch of their houses was moderately high but they maintained the compound streets. It was also observed that as the traditional roofs

are being replaced with modern roofing, materials, and the pitch of



PLATE 5: THE LOW EAVE OF THE VERANDAH OF THE MALE HOUSES



PLATE 6: THE LOW EAVE OF THE FEMALE HOUSES PROTECT THE WALLS FROM WASHING AWAY

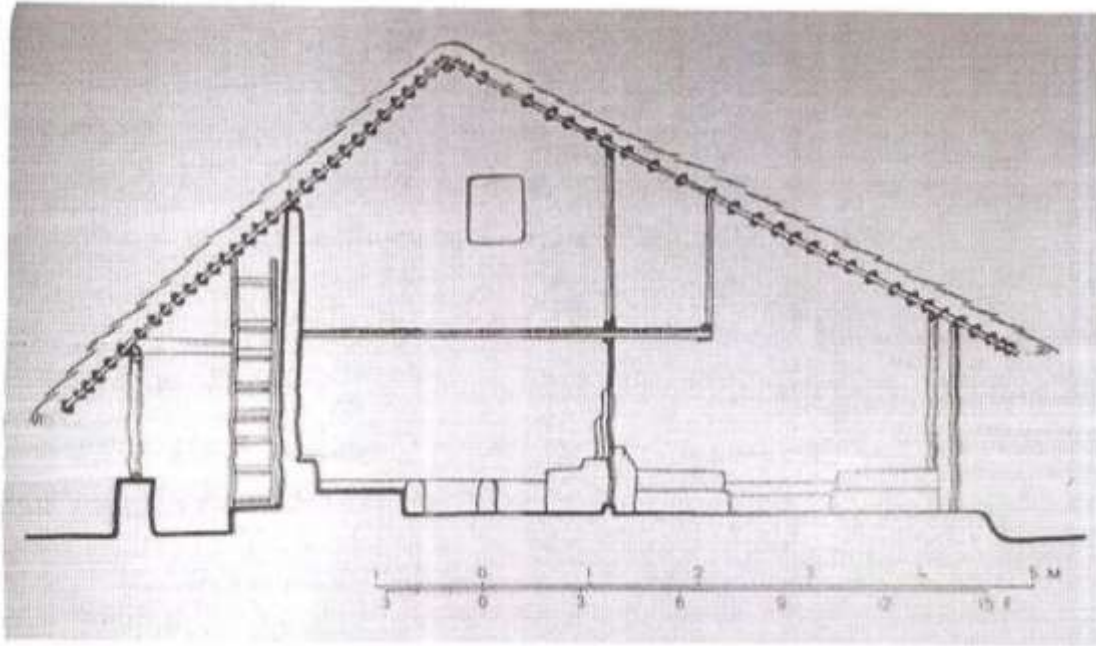


FIGURE 1: THE MEZZANINE FLOOR CREATED IN THE MALE HOUSE FOR SECURITY

SOURCE: Dmoschowski, 1990

Reasons for High Pitch Roof and Eave of the Residential Houses

(a) Security Reasons

In the pre-colonial architecture of the cross-river Igbo, the high pitch roof creates a space at the ceiling area where a mezzanine wall is built. In some male houses, the lower part is used as a storage space or strong room where precious materials of the man stored especially during fire outbreaks. On this mezzanine floor is a hiding place in any invasion of the compound by the enemies.

(B) Storage Reason for High Pitch Roof

In the female houses the alcove is built by crossing timber logs from one side of the roof to the other as in the position of a tie-beam. On this log of wood, a bamboo box is placed on top of the hearth. The box normally contains corn and other farm seeds for storage for the next planting season. The bamboo box is called Ukogo. Traditional architecture being the architecture that is congenial to the people that produce it is transferred from generation to generation. It is controlled by the climate of the area and the culture of the people. Thus, having been adopted as the prevailing form of roof structure, subsequent generations continue with it even when the security season had become non-existent. Till date the agricultural reason still subsists. The high pitch roof could be seen in most residential buildings and the meeting halls (Obu). Some female houses that have not been reconstructed with sandcrete blocks, still retain the Cross-beam construction for the storage of agricultural products for the next planting season (figure 28) Low eave of the roof over the front and back verandahs are still seen in some houses. From the pre-colonial period to the colonial period, the low eave of the roof continued but in the modern architecture of the Cross-river Igbo, the low eave over the verandah is gradually becoming extinct, except in mud houses built in the modern times.

The reason for the use of the sitting room as burial ground in the Cross-River Igbo Architecture

One of the elements of the architecture of the Cross-River Igbo is the consistent elements of burying their dead in the sitting room of the dead person. It is also the most important reasons for the consistency of the Cluster settlement pattern of the Area. From the Pre-Colonial period – 1805 to 1900, to the colonial period 1900 – 1960, the practice of burying the dead in his or her sitting room prevailed unhindered. According to the Focused Group Discussants, it was only the people suspended by the community or a person who died as a result of mysterious disease or a person killed by the gods, were buried evil in forest. It was an honour for a man or woman to be buried in his or her house. When the Church came with the Colonial masters, they introduced burial Grounds in the church premises. The Cross-River Igbo resisted this practice so much that sometimes, according to the Focused Group discussants, families fought the church to retrieve the corpse of their relative so that they will not be buried like an outcast. But in most cases the Church won. From the Colonial period till date many bury their dead in their compounds but in traditional compounds, the practice is still very consistent. burying the dead in the Ogbiti (sitting room) of the dead is one of the motivating factors consistency of the cluster settlement pattern. If a man dies, it is believed by the people that he still has control over the destiny of his people, so the effort to take good of his final resting place on Earth in order to make him kindly disposed towards the living.

Reasons consistency of the use of mud beds as sleeping and sitting furniture the houses (inside and outside)

(Uduma, 2009) the people were using the mud bed instead of wood to sit and of One consistent the Cross-River Igbo Architecture is the of use of mud beds as sitting and sleeping furniture. Although the Area is well wooded.

On inquiry from the Focused Group Discussants, the use of mud bed was as a result of two reasons; first, was because mud was one of the most available building material the Area, secondly, the use was as a result of the therapeutic effect of the mud beds on the health of the people. According to the Discussants, when the elderly people sleep on these mud beds, they wake up strong and refreshed for the day's work without any pain on their back or waist.

This second reason is the motivation for its continuous use till date. Mud beds are still being used in their residential houses and in their Obu house because of its therapeutic effect on their health. To ascertain the veracity of this information the Researcher investigated the effect of hard surfaces on the bodies of elderly people and discovered that the same reasons the people of Cross River Igbo use mud beds to sleep on are the very reasons Physiotherapists recommend. It is therefore, the suggestion of this researcher that since the Cross-River zone had been studied: a similar study should be carried out in the other Igbo zones in order to have a holistic and authentic architectural history of the Igbo. Other ethnic groups should also carry out similar studies in their Ethnic zones to be able to produce a holistic and authentic architectural history of Nigeria, which is today lacking Secondly, there should be studies on how to modernize the cluster settlement pattern in the modern housing planning, in such a way that security could be provided by 'the architectural planning and not by incurring extra cost in providing, for external security gadgets.

Recommendations

The recommendations to isolate consistent elements that will form the indices for an authentic and holistic architectural history elaboration in Nigeria include the following;

A) At the design stage, Architects designing residential buildings should be so security

conscious that they will use architecture to provide adequate security in their designs, in the face of the increasing terrorism in the country now

B) Some of the buildings in this study Area that has a lot of historical significance and information about the concept of life and world view of the people should be made “**listed buildings**” under the control of the Nigerian museum and monuments, which will make it easier for researchers to have freer access to these building during research projects. Such buildings include; Obu Nkwa Asaga (Omukwu hall) in Asaga Ohafia, Ibina Ukpabi in Arochukwu and Obu Ikoro in Akanu Ohafa.

C) That the proposed satellite town being planned by the Abia State Government for the People of Ohafia, should make use of this research report during the briefing of the Architects that will design the town, this will help the Government achieve her aim of providing affordable accommodation for the people and not build houses that do not take into cognizance the cultural values and traditions of the consumers of such buildings, which will become another economic waste by Government.

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