

A Comparative Study of Igbo Traditional Building Finishings; precolonial, colonial and post-colonial

Ikenna Michael Onuorah*, Agbonome P.C. and Bons N. Obiadi

Department of Architecture, Faculty of Environmental Sciences, Nnamdi Azikiwe University, Awka, Anambra state, Nigeria.

**Corresponding Author*

Abstract: Buildings are cultural expressions of people's identity as well as their material culture. In recent decades, Igbo traditional architecture has also seen changes in building typology and morphology. It has made a number of architectural claims based on how people perceive modern or traditional or modern contemporary buildings. One of Nigeria's three main cultural groups, Igbo society can be found in the southeast, south-south, and some areas of the west of the country. Most traditional Igbo buildings from the turn of the century were designed and built with three basic architectural qualities: durability, utility, and beauty (public admiration).

These Igbo-speaking states, Anambra, Abia, Imo, Ebonyi, and Enugu are the primary Igbo states in Nigeria.

Building finishes in Igbo traditional architecture, despite their aesthetic and cultural value, are beginning to disappear due to the influence of the western style of architecture. This is leading to the loss in the cultural values and the beauty of the original Igbo community architecture.

This work intends to compare the building finishings used by the Igbo people in precolonial, colonial and post-colonial eras. The disciplinary area of focus is building finishings in Igbo-speaking areas of Nigeria. The author will be careful with the analytical instruments and tools used. Survey method, Qualitative method and Content analysis will be deployed.

Traditional Igbo building finishes observed includes mud (called aja uno or aja oto), bamboo stick (called achara or otosi), timber (called osisi), palm midrib (known as ofolo), timber (known as osisi), thatch (known as akanya, ata, aju, akilika, ejo etc), dye (uli, urie) used for colouring and rope/ strings (elili, udo, ekwele) were being used as fasteners for the joints in place of nails.

Keywords: Building, Finishings, Culture, Building finishes, Housing Transformation

I. INTRODUCTION

Housing changes as a result of the environment, culture, and politics, as well as the accessibility of building materials and technology.

In the past, the lifestyles and cultural values of people are reflected in their buildings. Locals construct traditional buildings, and the terrain, climate, customs, cultures, and building materials they use have an impact on their building methods (Misra 2016). These strategies have been developed by locals with in-depth knowledge of their area via extensive experience (Anna-Maria 2009; Zhai & Previtali 2010).

Since a few decades ago, the distinctive pattern and the dynamics of the traditional Igbo society's architecture have evolved. not just in the Igbo community, but also in all of Nigeria. The post-modern structures of the 1990s and a vast new design idea engaged with new building materials, mostly imported from China, are what define Nigerian architecture at the moment (Tofa and Nigeria, 2011: Umar et.al, 2019). In contrast to the traits of earlier styles, or building principles and processes, architectural expression is frequently growing into new forms and materials.

The ones that are still relevant are taken into the present, while the ones that are still out of date are abandoned. In recent decades, Igbo traditional architecture has also seen changes in building typology and morphology, as well as in building materials and finishings. As a result, it has made a number of architectural claims based on how people perceive traditional or modern contemporary buildings, also known as "Trado-Modern" buildings. One needs to comprehend the Igbo traditional building in order to contemplate and analyse this sudden quick and its alterations.

Buildings serve as cultural expressions. It is a component of a people's cultural identity as well as their material culture.

The majority of archaeological findings today take the shape of buildings, making it easier and more possible to gain insight into the cultures of the people who once resided there. Real methods of cultural recording and preservation are buildings.

Igbo traditional building finishings have a distinctive look and high quality historically. The finishings in Igbo land were dominated by motifs, decorations, and ornaments in the past and at the turn of the century that symbolised and identified what each of the zones in the region was renowned for and their specialty, particularly when it comes to carvings, bronze work, and general arts. The ornamental and finished works provided chances for people all around the world to learn about, comprehend, and advance Igbo traditional traditions. One of Nigeria's three main cultural groups, Igbo society can be found in the southeast, south-south, and in some areas of the west of the country.

According to Umu Igbo Unity, Los Angeles (2018), One of the biggest ethnic groupings in Africa is the Igbo, often known as the Ibo. The majority of Igbo speakers reside in southeast Nigeria, where they account for over 17% of the

population. They are also widely spoken in Cameroon and Equatorial Guinea. Nigeria's five most populous Igbo states are Anambra, Abia, Imo, Ebonyi, and Enugu.

Additionally, the Igbos make up over 25% of the population in various states of Nigeria, including Delta State and Rivers State. Cross River, Akwa Ibom, and Bayelsa States all have remnants of the Igbo language and culture. Cities like Onitsha, Aba, Owerri, Enugu, Nnewi, Nsukka, Awka, Umuahia, and Asaba, among others, are dominated by the Igbo language.

According to Vitruvius, most traditional Igbo buildings from the turn of the century were designed and built with three basic architectural qualities: durability, utility, and most importantly, beauty and public admiration. As a result, most of these buildings are still standing and are physically strong. The traditional Igbo structures that were created at the turn of the century and are still standing were created to withstand changes in climate, material, and culture over time.

The traditional Igbo buildings, which were classically built and ornamented around the turn of the century, are what these Igbo communities have in common most fundamentally. Despite the fact that they did not record their contributions, the Igbos had a significant influence in Nigeria's architecture, particularly in terms of the use of construction materials and their aptitude and talents in creative works. In addition to studying buildings, architectural history also examines the circumstances in which they were built. The people's way of life and culture are reflected in both aesthetic and spatial representations.

Statement Of Problem

Globalization and western colonialism have led to the destruction of the principle of original Igbo traditional architecture as well as their cultural significance. As a result, architecture in Igbo land now lacks its unique identity.

Building finishes in Igbo traditional architecture, despite their aesthetic and cultural value, are beginning to disappear due to the influence of the western style of architecture and this is leading to the loss in the cultural values and the beauty of the original Igbo community architecture.

Aim

The aim of this study is a comparative study of Igbo traditional building finishing used during precolonial, colonial, and post-colonial.

Objectives

The objectives of this study are to:

1. To review the literature on traditional building materials used by the Igbos.
2. To describe building finishings.
3. To embark on a survey and document the Igbo building finishings used during precolonial, colonial and post-colonial.
4. To classify the results collected from the fieldwork.

II. LITERATURE REVIEW

Urban Housing Configuration Adaptation to Culture

The cultural elements included into urban dwelling form continue to show the natural tendency of urban dwellers who have strong ties to their roots to behave in a specific way (Gopinath & Kulkarni 2014). However, such a building culture includes all coordinated information outlines as well as the process of building homes in a specific period of time and circumstance (Davis 2000). As a result, housing patterns are seen as socio-cultural frameworks and social formations that were created to express social meaning and that consistently incorporate ideological content into both their structural and social components (Isah, 2016).

Layout adjustment regulation is necessary in urban dwelling regions in order to protect household rights and promote healthy urban growth. Consequently, maintaining cultural aspirations and ensuring housing pleasure in a harmonious built environment.

Urbanization and Housing Transformation

Without certain references and a connected comprehension of globalization and urbanization and their processes, it is impossible to discuss the patterns of housing and neighbourhood alteration in terms of their forms and structures. Extensive literature has been written to both clarify and obfuscate the highly contentious words and definitions of urbanization. The following definition is provided by Held and McGrew (2000): Ezennia, Onuorah & Uwajeh (2021) in their large collection on the cultural, social, political, and economic components of urbanization. "Simply expressed, urbanization refers to the patterns of social interaction and flow that are regional or interregional that are developing in size, intensity, speed, and depth.

It describes a change in or alteration of the size of human social organisation that connects remote communities and broadens the scope of power relations across the major world regions and continents. In all societies, shifts in population structure are a major pressure on housing systems and are certain to become more marked and pressing in the near future. The advent of globalisation as an idea to be considered in one's perspective of things has in no small measure caused a demographic shift from one place to another. Existing housing stock and systems must adapt to rapid demographic changes brought on by changes in social and behavioural norms and, in some situations, by large-scale in or out-migration.

Urbanization is viewed as a process that can lead to discord as well as harmony, divergence as well as convergence. McGee (2002): Ezennia, Onuorah & Uwajeh (2021) however, argued against this assumption, stressing the importance of understanding the local embeddedness of these so-called globalising processes as well as, in particular, the varying patterns of regional integration into the global system.

Cities have been able to emphasise elements of their local culture that are relatively unique in their desire for economic development in rivalry with other regions as a result of globalisation and following the 1980s. The rapidity with which culture-driven policies have been promoted by governments and local development organisations as a way of boosting the urban economy is noteworthy, but so is the way in which their spread has become worldwide.

Building Finishes

Building finishes refer to the materials and techniques used to complete the interior and exterior surfaces of a building. They can be described as the materials and finishes that are applied to the interior and exterior surfaces of a building. These finishes can include paint, wallpaper, flooring materials, plaster, tiles, and other decorative elements.

1. Interior finishes can include:

- a) Wall finishes: Paint, wallpaper, plaster, paneling, and tiles are all common wall finishes.
- b) Floor finishes: Flooring materials such as carpet, tile, hardwood, and vinyl are used to finish the floor of a building.
- c) Ceiling finishes: Ceiling finishes can include paint, plaster, tiles, and other decorative elements.

2. Exterior finishes can include:

- a) Wall finishes: Exterior wall finishes can include brick, stone, siding, stucco, and other materials.
- b) Roof finishes: Roof finishes can include shingles, tiles, metal, and other materials.
- c) Window finishes: These include materials such as blinds, curtains, and shutters that are used to cover windows and provide privacy and insulation.
- d) Door finishes: These include materials such as paint, wood veneer, and hardware that are used to finish the surface of doors and enhance their functionality and appearance.

Housing as a Cultural Development

In all societies, housing traditions have long been established alongside other community traditions. These traditions inform settlement planning which is symptomatic of the attitudes and values of such communities. Housing, as a cultural phenomenon, has a major part to play in ensuring the continuity of community life.

Housing is therefore a cultural phenomenon since it reflects what the community considers appropriate and is constructed in the context of the community (Olotuah & Olotuah, 2016).

A people's home style developed as a result of their purpose, surroundings, and numerous socioeconomic conditions.

III. RESEARCH METHODOLOGY

The choice of a research strategy is governed by different factors which dictate its suitability to the approach which is

most appropriate to address the research question. Multiple research strategies can be used and referred to as mixed methods.

This work intends to compare the building finishings used by the Igbo people in precolonial, colonial and post-colonial eras. The author will be careful with the analytical instruments and tools used. The disciplinary area of focus is architecture, or better said, the urban and rural architecture of the past in Igbo-speaking areas of Nigeria.

As such, the instrument of more than three research strategies; survey research, qualitative research and content analysis methods and their tactics were used.

a. Survey research focuses more on what things are like than necessarily on why they are the way they are. It only records events in their natural environment, gathering data on phenomena in their natural state without attempting to change any of the variables. Thus, social surveys are the most well-known types of survey research. These surveys include a wide range of topics, including market research, public opinion polling, media research (rating surveys), voter intention studies, case studies, evaluative studies, and corrective studies. Governments have frequently funded a large amount of survey research, including censuses, surveys of the unemployment rate, household spending habits, housing conditions, inventories of infrastructure, and assessments of public services in metropolitan areas. Results of such surveys usually coalesce into statistical indices such as 'gross domestic product, 'per capita income, 'public services growth index' etc. (Onokhaoraye, 1982), and sometimes serve towards the fashioning of government policies in the establishment of standards, building codes, land use density stipulations, and limits of physical development, as the case may be.

b. Qualitative method investigates the why and how of decision making, not just what, where, when, or "who" (Qualitative research, 2015). Qualitative research is a type of research method that involves collecting, interpreting, and analyzing non-numerical data, such as words, images, and sounds (Creswell, 2013). It is often used to explore and understand people's subjective experiences, perspectives, and behaviors, and to gain insight into social and cultural phenomena (Creswell, 2013).

c. Content analysis, according to Moser and Kalton (1974), is a specific kind of coding, presented as a descriptive tool, that systematically groups answers to questions into useful categories in order to highlight their key links and patterns. It is a useful tool for describing the content of a piece of writing. It can be used with data from communication media, like as newspapers, to examine how attention to a particular political issue change. It can also be used with data from books or newspapers to reveal how different countries' viewpoints on a subject or their methods for spreading propaganda differ.

IV. RESULTS

As indicated earlier, the primary Igbo states in Nigeria are Anambra, Abia, Imo, Ebonyi, and Enugu States. The Igbos also are more than 25% of the population in some Nigerian States like Delta State and Rivers State. This research dwells extensively on the comparative analysis of data collected from the study area.

Although this work covers the Igbo-speaking states in Nigeria, it primarily, focused and zeroed in on the existing traditional Igbo building finishings including, on the walls, ceilings, floors, and fenestration (doors and windows).

The following traditional Igbo building finishings were observed in the area of study during my survey; mud (called aja uno or aja oto), bamboo stick (called achara or otosi), wood (called osisi), palm midrib (known as ofolo), timber (known as osisi), thatch (known as ata, aju, akilika), raffia palm (known as akanya, atani) and dye (uli, urie) used for colouring.

MUD (called aja uno or aja oto),

Building finishing materials as used in the olden days incorporated a lot of components including Mud (soil). According to Firszt (2018), Mud is a fascinating substance. The term "mud" is not used unless the mixture is significantly thicker than pure water and has a slimy or sticky consistency. The consistency depends on the contents of the soil as well as the amount of water that is been added (plate 1:00.).



Plate 4.00: Mud been mixed for use

Source: Firszt (retrieved October 5, 2022)

building material is usually a mixture of clay, sand and silt (plate 1:01.). The clay content determines its structural strength, cohesiveness and plasticity while its sand content provides resistance to abrasion and water damage. It is used for foundations, floors, walls and sometimes roof. Mud is

used in varying thickness and is sometimes reinforced with timber. It is also known as earth or Adobe.



Figure 4.01: Sand, Silt and Clay soil

Source: Ur Rahunan (retrieved October 5, 2022)

Soil Usability

1. **Gravel:** alone is not good for mud wall buildings as the tiny lumps of stone found in them have nothing to bind them together.
2. **Sand:** similar to gravel, it is equally not good in wall making by itself, however, if mixed with clay, it will be ideal for mud wall building.
3. **Silt:** by itself is also not good for building walls. It will hold together, but will not be strong. Furthermore, it will not compact so it is also not good to be used for pressed blocks or rammed earthwork.
4. **Clay:** can be rammed or compressed, but in drying out, they often shrink. However, during the monsoon, they get damp and expand again and crack forms.
5. **Organic Soils:** are mainly useless for wall buildings (Baker and Rauch, 2008).

BAMBOO (called achara or otosi)

There has not been a truly correct definition of Bamboo. Different authors and communities have defined it differently and according to Types of Bamboo (2021), and it is true, bamboo is not technically a tree, but planting and cultivating it is no less beneficial for people and the environment. Indeed, as the fastest-growing grass on the planet, bamboo has incredible potential as a sustainable resource. Its woody stem makes it very tree-like and has unique properties (plate 1.02).

The real bamboo stick species Bambusa and Osytanthu [male and female respectively] grow in Igbo land and are

mostly used for roofing (plate 4.02) and ceiling finish (plate 4.03 – 4.04).



Plate 4.02: Bamboo plants

Source: Onuorah (July 20, 2022)



Plate 4.03: Bamboo Stick harvested for use.

Source: Onuorah (July 20, 2022)



Plate 4.04: Stacked Bamboo used for ceiling

Source: Source: Onuorah (July 20, 2022)

PALM MIDRIB (known as ofolo) used as rafters and for ceiling

In a traditional Igbo society, ceiling was built mostly in multi-storey houses (uno enu means upper floor) and sometimes also in bungalow. Apart from its function of concealing the roof members and aesthetics, the Igbo people used ceiling as a form of shelter for women and children when the men are not around and for storage (*oku*). In a bungalow, the ceiling were made from palm midribs (*ofolo*) closely packed together and fastened with robe (*elili*) to achieve the desired aesthetics and shelter and storage 1.05 - 1.07. Bamboo stick are also used for ceiling, see plate 1.02 - 1.04.



Plate: 4.05 Palm frond (*ofolo*) and palm mid rib

Source: Author's fieldwork 2022

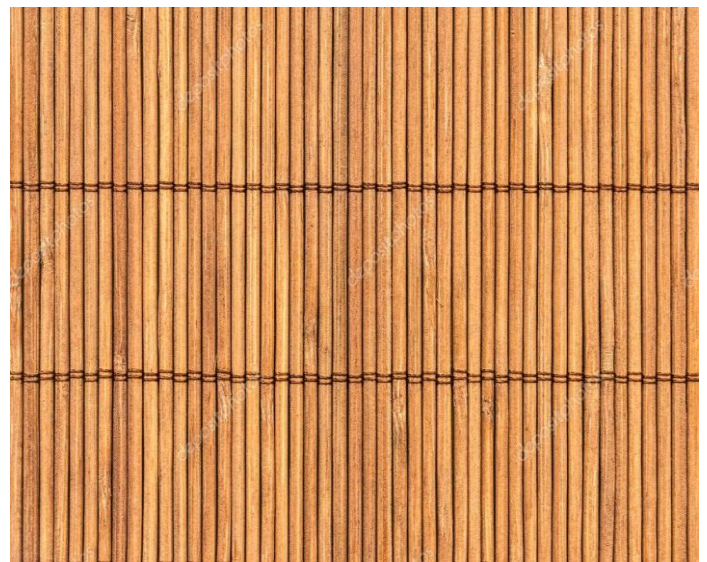


Plate: 4.06 palm mid rib stacked and fastened with ekwele for ceiling

Source: Author's fieldwork 2022



Plate 4.07: Showing a ceiling finished with palm midrib at Nri, Anaocha L.G.A Anambra

Source: Author's fieldwork 2022

WOOD (called osisi)

Wood according to Neufeldt and Guralnik (1994), is a thick growth of tree; forest or grove. The hard, fibrous substance beneath the bark in the stems and branches of trees and shrubs; xylem. Tree cut and prepared for use in making things; lumber or timber. Short for firewood and something made of wood. Depending on the region and area, woods are practically the same all over the world however, every region or area has different names and identifications for their wood and the same thing is applicable in Nigeria. It is however, understandable that because of the dominance of the economy of the world by the waster world, most of the woods are named and made popular by the western world's classifications and markets. In Nigeria, while there are different types of woods, the most popular are: mahogany, afara (white and black mostly used in furniture and roofing), iroko (general purpose use), ukpi, ubili (ubulu from both palm and coconut), opepe (used in door framing), uku, (used in door framing), walnut, cedar, avizia, obeche, ciebe (akpu), inyi, etc.

The vegetation map of Igbo land divides the country into two main areas, roughly parallel to the Atlantic coast. The southern belt of rain forest is separated from the sea by mangrove and freshwater swamps. At its southernmost limit the rain forest almost reaches Onitsha. The rain forest abounds in excellent hardwoods, valuable mahogany (plate 1.08), mostly harvested and cutted into lumber (plate 1.11 to 1.13). used for furniture, boats, doors, windows, etc. Iroko and Ukpi are hardwoods used in beams and columns in the olden days (plate 1.10). The Ubili palm (*Borassus flabellifer*), also called ubulu (plate 1.09). and palm tree, depending on one's area, are widely used in mud buildings in the olden days because of their excellent properties. Timber has been a very popular building material in Igboland as a result of the abundance of vegetation with trees that produce hardwood.



Plate 4.08: Mahogany trees

Source: Source> <https://www.woodworkerssource.com/santos-mahogany/santos-mahogany-lumber-pack.html> (Retrieved October 20th, 2022).



Plate 4.09: Ubili palm (*Borassus flabellifer*)

Source: <https://www.flickr.com/photos/adaduitokla/10405523283> (Retrieved 31ST July, 2022).

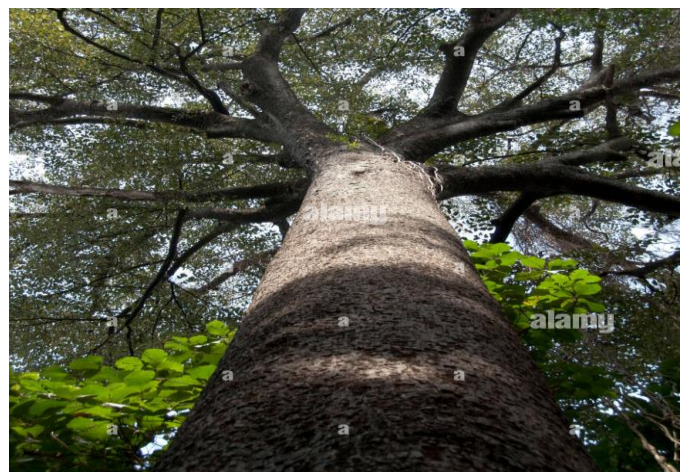


Plate 4.10: Iroko tree

Source: <https://www.alamy.com/large-iroko-tree-milicia-excelsa-mulberry-plant-root-and-crown-from-image60295736.html?imageid> (Retrieved 31ST July, 2022).



Plate 4.11: Lumber of Mahogany tree

Source: <https://www.woodworkerssource.com/santos-mahogany/santos-mahogany-lumber-pack.html> (Retrieved 31ST July, 2022).



Plate 4.12 Lumber of Mahogany tree

Source: <https://www.woodworkerssource.com/santos-mahogany/santos-mahogany-lumber-pack.html> (Retrieved 30th July, 2022).



Plate 4.13: The wood deck of the original late chief ojiako ezenne's house

Source: Onuorah (2022)

THATCH (known as ata, aju, akilika) / **RAFFIA PALM** (known as akanya, atani)

This is the material traditionally used by the Igbo as a roof cover. The two main types of thatch in use are; grass (straw) see plate 1.14 & 1.15 and Raphia palm leaflets. Two main species of grass locally known as ata or aju are popular for this purpose see plate 1.17 and 1.18. There was a common pattern of roofing traditional Igbo buildings in the pre-colonial period. Pitch roofing was the commonest design at that time, see plate 1.20.

Roof construction was covered in two different ways, depending on whether the material used was palm fronds (see plate 1.14 to 1.15). or grasses (see plate 1.16 to 1.18). Sometimes the frond were laid horizontally along the roof with their midribs nearly touching each other. The superior and laborious method, was making rectangular panels, sometimes called bamboo mats, see plate. 1.19.



Plate 4.14: weaved palm frond for thatch roof.

Source: Authors field work 2022



Plate 4.15: weaved palm frond for thatch roof.

Source: Authors field work 2022



Plate 4.16: Grasses (straw) for making thatch roof.

Source: Authors field work 2022



Plate 4.19: Showing a building roofed with thatch roof (palm leaflets) at Ihiagwa ancient Kingdom in Owerri west L.G.A, Imo State

Source: Authors fieldwork 2022



Plate 4.17: harvested grasses (ata)

Source: Authors field work 2022



Plate 4.20: Ute (woven mat) used to cover door and window ways on display at the University of Ibadan Odunani Museum, Nri, Anocha local government area, Anambra state

Source: Onuorah (2022)

Globalization and western colonialism have caused these locally available building materials to fizzle and caused traditional architectural principles as well as their cultural value to change (see table 4.0 for comparison).

TABLE 1.0: FINISHING MATERIALS USED IN SOUTHEASTERN NIGERIA IN PRE-COLONIAL, COLONIAL AND POST-COLONIAL ERA

S/N	ITEM	PRECOLONIAL	COLONIAL	POST COLONIAL
1	Wall Finish a. Exterior	Mud	plastered with cement	painted / tiles/ stone
	b. Interior	Mud with dyes, motifs, artwork	plastered with cement, motifs	painted



Plate 4.18: Showing a building with thatch roof at Ugwulangwu, Ohaozara Local Government Area, Ebonyi State

Source: Authors field work 2022

2	Floor Finish	mud, shells of palm kernel, wood for suspended floor	screeded with cement, wood for suspended floor	tiles
3	Ceiling Finish	midrib of palm frond (ofolo), bamboo stick	Timber	asbestos ceiling, pop ceiling, pvc ceiling
4	Roof Covering	Mud, Thatch roof (known as ata, aju, akilika), raffia palm (known as akanya, atani)	Thatch roof and corrugated aluminum roofing sheets	Corrugated aluminum sheets, asbestos, aluminum stone coated tiles
5	Fenestration: a. Door Ways b. Window Opening	weaved mat from raffia palm, wooden door. weaved mat from raffia palm, wooden window	wooden door, metal door. wooden jalousie window,	wooden door, metal door, pvc doors. louvre blades, aluminum window

Source: Author's fieldwork 2022

V. CONCLUSION

From the author's fieldwork, it was observed that before the advent of the colonial masters, traditional Igbo buildings, be it in Anambra State, Delta or Ebonyi States, were finished with locally available materials including, but not limited to, mud (called aja uno or aja oto), bamboo stick (called achara or otosi), wood (called osisi), palm midrib (known as ofolo), timber (known as osisi), thatch (known as ata, aju, akilika), raffia palm (known as akanya, atani) and dye (uli, urie) used for colouring.

Globalization and western colonialism have caused these locally available building materials to fizzle and caused traditional architectural principles as well as their cultural value to change. As a result, Igbo land's architecture has lost its distinctive character and cultural value.

This study has taken time to document these finishings used during precolonial, colonial and post colonial era.

REFERENCES

- [1]. Anna-Maria, V. 2009. "Evaluation of a Sustainable Greek Vernacular Settlement and Its Landscape: Architectural Typology and Building Physics." *Building and Environment* 44: 1095–1106.
- [2]. Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: Sage.
- [3]. Ezennia, Onuorah & Uwajeh (2021). Understanding the influence of culture-based experiences on urban housing fabric: example of the Igbo area of Nigeria, *A Journal of the Faculty of environmental sciences Vol. 8 No. 2, 2021. www.erjournal.net*
- [4]. Gopinath G, & Kulkarni, S. (2014). The Impact of socio-cultural factors on the transformation of the residential architecture of Kerala. *Int J Res* 1(5):526–530.
- [5]. Isah, A. D. (2016). *Urban Public Housing in Northern Nigeria: The Search for Indigeneity and Cultural Practices in Design*. Springer.
- [6]. Olotuah, Abiodun Olukayode & Olotuah, Damilola Esther. (2016). Space and Cultural Development In Hausa Traditional Housing. *International Journal of Engineering Sciences & Research Technology*. Pp. 654 – 659.
- [7]. Umu Igbo Unity, Los Angeles (2018). IgboLand.
- [8]. The Igbo People & The Igbo Speaking States of Nigeria (uiulosangeles.org) Retrieved September 24, 2022
- [9]. Ur Rahunan Fasi (2020). The Constructor, Building Ideas. Different Types of Soil, Sand, Silt, Clau and Loam://settings/content/siteDetails?site=https%3A%2F%2Ftheconstructor.org Retrieved October 2, 2022