

## ABSTRACT

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### ARCHITECTURAL RETENTION AND THE DEVELOPMENT OF MODERN AFRICAN DESIGN IN THE WORKS OF ARCHITECT DEMAS NWOKO

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The purpose of this research was to examine elements of traditional African architectural design in the works of Demas Nwoko. These elements remain aesthetically and functionally valuable; hence, their inclusion in the development of modern African residential architecture. The research simultaneously explores the methodology Nwoko has created to apply his theory of comfort design in architecture, as well as the impact of traditional African culture and European culture on modern African residential design.

The methodology used is visual analysis, as several of Nwoko's buildings were visited, photographed and analyzed for the application of his design ideology of New Culture. The three elements of design examined are his approach to space design that supports lifestyle and achieves comfort; artistic application that reflects African aesthetic values in color, motif and design patterns; and his use of building materials, that not only provide comfortable interiors in a tropical climate, but are affordable and durable.

The research concludes with recommendations and contributions to the discourse on modern African design and offers the findings for further research and development of African and Diaspora communities. The findings expose the intrinsic value of culture and architectural retention in the evolution of modern architecture in Africa and the Diaspora.

ARCHITECTURAL RETENTION AND THE DEVELOPMENT  
OF MODERN AFRICAN DESIGN IN THE WORKS OF  
ARCHITECT DEMAS NWOKO

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# **CHAPTER 1**

## **INTRODUCTION**

### **Statement of Purpose**

The purpose of this research is to examine elements of traditional African architectural design in the works of Demas Nwoko. These elements continue to be aesthetically and functionally valuable; thus, their inclusion in the development of modern African residential architecture. The research simultaneously explores the methodology Nwoko has created to apply his theory of comfort design in architecture, as well as the impact of traditional African culture and European culture on modern African residential design. Furthermore, the research includes an examination of the intrinsic value of architectural retention in the future development of Africa's built environment. In the fall of 2005, Nwoko hosted a retrospective exhibition of his life's work, which the researcher attended. This commemorative event provided research data that was crucial to the development of the thesis.

The theoretical framework of this study is guided by Nwoko's concept of design for comfort, which he named New Culture. This research is significant because it considers the development of a design paradigm for architects with the purpose of creating architecture that responds to the culture and lifestyle of people of African descent.

Moreover, the research reveals approaches to architecture and urban development in the African community that current Eurocentric design models have failed to do. The contribution of this research to both academia and professional practice will fulfill an overdue need for scholarship and documentation in the area of architecture and urban development from an African-centered perspective. Professors of architecture and urban development can impart this knowledge to their students as they are the future shapers of Africa's built environment. Policy makers could also utilize this research to create development policy for local and international agencies preparing to embark on urban development projects in African and also in diasporan communities.

This research primarily focuses on residential design. The region of study was limited to Delta State Nigeria, as this is the location of the works being evaluated in this study. This study uses visual analysis for examining the comfort design elements in Nwoko's architecture. Also guiding this study are theories developed by two leading scholars of modern African architecture, Nnamdi Elleh and David Hughes. These contemporary theorists claim that African architects must coordinate their work with African artists if they are to achieve meaningful levels of authentic indigenous architectural expression.<sup>1</sup> Architect and art historian Nnamdi Elleh stresses the importance of the African aesthetic value in the creation of successful modern African architecture. Fellow architect David Hughes goes still further to articulate the critical importance of space, form, and aesthetic derived from the historical, cultural, and environmental origins of Africans when creating a modern architectural expression. He

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<sup>1</sup>Nnamdi Elleh, *African Architecture: Evolution and Transformation* (New York: McGraw Hill, 1996), 354.

emphasizes that a distinct architecture should result from the African cultural experience or heritage evident in their use of space, form, art and material.<sup>2</sup> On the other hand, Nwoko advocates Joseph Baldwin's theory of the Africentric Personality, which states that the Africans worldview is that of "man in harmony with nature," a conceptual approach he uses in the creation of his architecture.<sup>3</sup> These theories form the lens through which this research examines the architecture of Demas Nwoko, world-renowned Nigerian artist and architect.

### **Statement of Problem**

Many aspects of African culture and society were underdeveloped as a result of colonial rule in the mid twentieth century. In architecture and the built environment, the methods by which homes were designed and communities were planned no longer reflected African culture and aesthetics, as European building style and materials set the official standard for building in Africa. This arrested development of indigenous African architecture resulted in extremely uncomfortable living conditions experienced by the inhabitants. The buildings designed did not properly address the lifestyle of the inhabitants, which for example, resulted in homes that did not celebrate communal living, homes that were too small to accommodate the large extended family, and homes that were designed with inappropriate kitchens for the preparation of African foods. Many building designs were not responsive to the climate of Africa, and resulted in buildings

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<sup>2</sup>David Hughes, *Afrocentric Architecture: A Design Primer* (Ohio: Greydon Press, 1994), 6.

<sup>3</sup>Joseph A. Baldwin, "Notes on an Africentric Theory of Black Personality." *Journal of Black Studies* (1981): 172-179.

that were too hot for comfortable sleep at night. For those who could afford air conditioners, the nights were plagued with noise pollution from the loud sounds of generators. Many buildings were not designed to celebrate the aesthetic values of the people because a majority of the architecture constructed was western in style. This meant that design patterns and motifs, normally used to decorate the interior and exterior of the home, were no longer a part of home decor. The advent of colonial rule and the interaction with western countries dictated the reverence of all things western, which in turn devalued any appreciation of Africa's architectural heritage. It was Nwoko's response to these problems that encouraged the development of his architectural New Culture theory, which posits that the challenges of functionality and aesthetics in architecture are resolved when buildings are designed with the comfort of its occupants in mind.

Thus, Demas Nwoko's own concept of New Culture is the conceptual framework that guides his own work. His belief system of a new African culture stresses that modern African architecture will evolve once architects begin to design for the comfort of African people. The research question thus posed is: *What is the applicability of Demas Nwoko's theory of New Culture in his own architectural work?* Furthermore, using Elleh and Hughes' theories as a lens, this research focuses on whether or not Demas Nwoko was successful at developing a new language of design by addressing historical precedents and contemporary culture in his work. Therefore, the problem is whether or not the floor plans designed by Nwoko reflect and compliment the modern lifestyle of the 21st century African (architectural or spatial design), celebrate the beauty

of African aesthetics (symbolic or purely decorative patterns and motifs) and address the impact of climate and geography on sustainable design (technologically advanced local building materials).

### **Conceptual Framework**

Nwoko created his belief system as a way to resolve design challenges that plagued Africa's built environment. He co-developed the theory of Natural Synthesis with former classmate, Uche Okeke, which calls for blending African traditions with elements of foreign culture that are beneficial to contemporary African lifestyle. Nwoko's own theory of New Culture Ideology calls for the evolution of a new African culture that reflects the way Africans live their lives today. It is founded on the premise that culture evolves out of the necessity to provide comfort for the members of a society. Nwoko subsequently created elements of "comfort design" to translate his theory in buildings: a new style of Impluvium courtyard, new expressions of African aesthetic in interior décor and modern materials for building in Africa.

The conceptual framework of this study tests the application and the significance of an ideology of modern African architecture by examining three aspects or elements of design. Those elements are based on the influences of culture, aesthetics and geo-climate of the African continent, Nigeria in particular. Culture influences the way architects design buildings, particularly in the arrangement of the functional spaces. An example is how the living room relates to the bedrooms and the dining room or if there is a dining room at all. Other examples could determine placement and location of kitchens and toilet facilities, ownership of the master suite for both husband and wife or the husband

only. Provisions for aged parents and extended family members could challenge design concepts otherwise created for the nuclear family. These design considerations respond to the culture of a people, and when taken into account by the architect, will greatly influence the floor plan or room layout of the house or building.

Methods and concerns in the area of architectural space organization differ by profession.<sup>4</sup> For example, social scientists often emphasize the power of architectural spaces as they relate to activities and the behavior patterns of user within the architectural setting. However, they often place less emphasis on visual and structural analysis of the settings. This research addresses the visual and structural analysis of the built environment.

It is said that the most visible sign of a great civilization is its architectural accomplishments. In Africa, art and architecture are inexorably linked to aesthetics. The creative process and subtle articulation of diverse forms and spaces as well as aesthetics and design elements embody the complex ideologies of the cultures and peoples that produce them. Aesthetics, or in other words, the “beauty factor” of the architecture, is determined by what the people value as being pleasing to the eye. The aesthetics determine what colors and textures are commonly applied to the buildings of a region or country; the decorative patterns and motifs used most often by a people to beautify their buildings; how people choose to decorate their buildings; and if the design motifs have symbolic meaning or are purely decorative. The aesthetic value lies in what the people

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<sup>4</sup>Olubisi E. Oluyemi, “Space and Socio-Cultural Transformation: A Diachronic Study of Yoruba Urban Housing and User Responses to the Changes in its Spatial Organization,” (Ph.D. diss, Georgia Institute of Technology, 1992), 46.

perceive as beautiful. Materials and colors are also determined by what is natural and locally available in the regions. Imported materials also may influence what is built, if they are affordable. These are the issues that influence the visual element of architecture, and they are critical because aesthetics is the first identifier of the architecture of a people.

Moreover, the climate and geography of a region play a major role in the final shape and character of architecture. Designers and builders must always take into consideration the topography as well as the climate in which they build. Such considerations as the contours of the land and its affect on the placement of the building; the elevation of buildings on structural supports in riverside areas, or on thick slabs of stone or concrete in tropical areas with heavy rainfall and flooding; the particular effects of climate in the design and construction of buildings; the abundance of windows and vents in hot regions or the use of climate control systems like air-conditioning and heating systems; the use of materials that breathe, like adobe, which keeps buildings cool during the day, and warm during the night; the design of buildings with high ceilings, with clerestories allowing heat to rise and exit the spaces; the use of Impluvium systems that collect and create running streams inside the home for cooling effects; and finally the design of interior courtyards, that are open to the sky, from which all other rooms radiate. Climate and topography are extremely important considerations for architects who want to build successful edifices.



## Methodology

The research uses as its research methodology visual analysis, which by its description and definition requires an evaluation of space, size, composition, technique and medium. Thus, Nwoko's buildings were visually examined using these criteria for evidence of the application of architectural ideology in his designs. The evaluation of space, size and composition is to determine the layout of living spaces, bedrooms, public and private spaces in accordance to use and comfort. The evaluation of technique examines aesthetic décor of buildings designed by Nwoko: and the evaluation of medium is used to identify specific building materials and technology that Nwoko developed to build his structures. The subject matter of this thesis is also viewed from an African-centered perspective and therefore investigated how architectural retention shapes the perception of appropriate criteria and of contemporary and future styles of African design. The research fieldwork was conducted during a review of Nwoko's architecture at the exhibition titled "Proof We Can" in Abuja and Lagos Nigeria, 2005. This exhibition featured photographs of buildings and architectural literature by Nwoko spanning his entire life's career. Using the criteria for visual analysis, the researcher critically determined the correlation between Nwoko's theory and his buildings. This exploratory research specifically illustrates but does not validate the architectural component of the New Culture theory, leaving the process of validation for future studies.

## Limitations

Texts published in the United States, featuring Demas Nwoko, have mostly focused on his accomplishments in the plastic and theatrical arts. Therefore, his architectural works featured in this study are limited to texts and magazines published in Nigeria, and visual data gathered from the buildings he designed. While this study acknowledges urban planning and community development issues that are implicit to the understanding of housing development in Africa, most urban planning issues will remain outside of the scope of this research.

## Chapter Organization

- Chapter One: *Introduction* Provides the statement of purpose, significance of the research, statement of problem, and research questions.
- Chapter Two: *Review of Literature and Conceptual / Theoretical Framework and Methodology*. Literature reviews to include books by architects and research work of environmental design professionals such as Nnamdi Elleh, David Hughes and Demas Nwoko and Olubisi Oluyemi whose theories articulate and guide the subject matter of the thesis. The literature reviews highlight the contributions of the thesis to the discourse of modern African architecture and highlights what relevant research has been done on the topic. There is a discussion of the conceptual framework guiding the research and lastly, an analysis of the methodological design chosen to carry out the research.

- Chapter Three: *Historical Overview and Context of the Problem*. This chapter provides a chronological evolution of traditional African architecture pre-1850 and post-1850: colonial era through independence. Most importantly, this chapter identifies historical precedent in Nwoko's architecture.
- Chapter Four: *Analysis of the Demas Nwoko Architectural Ideology*. This chapter opens with a biographical introduction to Demas Nwoko, his educational background and professional accomplishments. The latter section of this chapter exposes the reader to the evolution of his concepts, ideologies, theories, and analysis on New Culture. The overall findings relate to the application of his architectural theory in his buildings.
- Chapter Five: *Findings and Discussion*. This chapter presents the authors' identification of particular elements of design Nwoko creates to translate his ideology into architecture. These findings provide evidence of the applicability of Nwoko's theory to his architecture via design, aesthetics and building materials. The findings also suggest the importance of architectural retention in solving contemporary design problems.
- Chapter Six: *Conclusion & Recommendations*. In conclusion, the thesis offers recommendations to the future developers of Africa's built environment.
- Bibliography.

## Summary

In summary, this study exposes those social, traditional, religious, political and economic elements, both historical and contemporary, that have spatial and organizational affects on the design of modern African housing as defined by Demas Nwoko. Academia stands to gain a new and largely unfamiliar body of knowledge, particularly professors of architecture; professionals in the areas of urban planning, real estate development, art and art history can impart this research to the future shapers of Africa's built environment. Departments of Housing and Urban Development as well as international development agencies (United States Agency for International Development and Habitat for Humanity) can utilize this data when master-planning for housing development in African countries. Professionals such as African architects, urban planners and real estate developers could further utilize the results of this research for public and private development in Africa.

## Definition of Terms

1. Aesthetics: The artistic aspects of a building, based on a people's cultural definition of beauty, applied on or as the shape of the building. Aesthetics may include, symbolic patterns, decorative motifs, abstract forms, particular hues of color and building materials.
2. African Triple Heritage Theory: A theory propounded by Ali Mazrui, which states that the African identity is influenced by the triple heritage of the indigenous African identity, an Islamic/Arab identity, and a Christian/European identity.
3. Afrocentric Architecture: A theory by David Hughes that states "Afrocentric architecture is a theory which provides a methodological format for identification, analysis, critique and design in the modern built environment which manifests distinct elements in space, form and aesthetic derived from the historical, cultural, environmental origins of the continent of Africa."<sup>5</sup>
4. Architecture: According to Oxford Dictionary, architecture is defined as the art and science of designing and constructing buildings. It is further described as a particular style or fashion of building, especially one that is typical of a period of history or of a particular place. In lay terms, architecture could be described as the marriage between art and the science of building construction.

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<sup>5</sup>David Hughes, *Afrocentric Architecture: A Design Primer* (Ohio: Greydon Press, 1994), 6.

5. Architectural Elements: Features that combine to produce architecture, such as cultural characteristics which are based on organization of space; aesthetic characteristics which are based on symbolic and decorative design; and the use of particular building materials.
6. Built Environment: All aspects of improvements made to land, inclusive of buildings, infrastructure and landscape design.
7. Functional Design: The spatial organization of a building, based on the use and function of the structure.
8. Courtyard Style Home (with Impluvium): The courtyard style house is designed as a collection of buildings arranged in a way to enclose an open space in the middle. This space is open to the elements and may be designed with certain features to collect rainwater for consumption (then called Impluvium Courtyard).
9. Modern African Architecture: A style of architecture that celebrates the New Culture of African people, embodies their aesthetic values, and addresses the geo-climatic effects in their building technologies.
10. New Culture: The evolution of a new African culture that reflects the way Africans live their lives today. It is founded on the premise that culture evolves out of the necessity to provide comfort for the members of a society.<sup>6</sup>

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<sup>6</sup>Demas Nwoko, *The Culture Option* (Lagos: New Culture Foundation for African Arts and Culture, 2004), 67-68.

11. Nigerian Modern Style: Modern African architecture that is particular to Nigeria, which uses modern materials and technology inclusive of design elements and space organization produced from traditional Nigerian architecture.
12. Non-Residential or Monumental Architecture: Inclusive of all architecture that is not used for residential purposes such as Religious, Governmental Buildings, Commercial and Hospital Facilities, Schools, Museums etc.
13. Residential Design: The manner in which the elements of architecture are organized for habitation.
14. Traditional Contemporary Style: Contemporary rural Nigerian architecture built using local building materials and traditional organization of spatial layout and that is void of western architectural influence.
15. Urban Planning and Development: The characteristics by which the city is organized and development planned.

## CHAPTER 2

### REVIEW OF THE LITERATURE

#### **Review of the Literature**

This chapter provides a review of literature on previous scholarship conducted on the subject of African architecture. The literature review provides the interdisciplinary background for the study, as architecture is the culmination of urban and environmental planning, and the evolution of its society's culture, religion, politics, economy and its history. Articles and texts will be examined that attest to the evidence of highly evolved societies in Africa that produced advanced civilizations and contributed to the birth and evolution of world architecture.

*African Architecture: Evolution and Transformation* by Nnamdi Elleh lays the groundwork for understanding modern African architecture and the work of Demas Nwoko. This academic study presents the first complete and definitive study of African architecture from antiquity to the present. Elleh defines the indigenous, Islamic, and Western roots of African architecture and examines how these experiences influence the architecture of each region in Africa by changing the appearance and functionality of the buildings. The author evaluates historical, traditional, and contemporary architecture by examining the various cultural groups of North, Central, East, South, and Western Africa from ethnic, climatic, political, regional, economic, religious, and historical perspectives.



In addition, a final chapter takes a revealing look at modern architecture, urbanism, and urbanization throughout Africa and provides documentation of modern African architecture and urban design.

The text follows the theme of Ali Mazrui's theory and traces African architecture from its indigenous African beginnings through its transformation after exposure to Islam and Christianity (Europe). This very evolution is the premise upon which Demas Nwoko creates his architecture, a premise which also led to the belief that modern African architecture must reflect the cultures of the African people, not just foreign architectural constructs. The shortcomings, however, of this text is that Elleh does not provide adequate and in-depth examples of how contemporary architects in Africa have begun to address the design development issues he highlights.

In his book *Afrocentric Architecture: A Design Primer*, architect and author David Hughes rises to Elleh's challenge and identifies those elements that could be classified as true modern interpretations of traditional African architecture. Hughes challenges all architects of the African continent and especially those in the Diaspora, to critically evaluate the definition and practice of contemporary African or black architecture. Hughes states that "Afrocentric architecture is a theory which provides a methodological format for identification, analysis, critique and design in the modern built environment which manifests distinct elements in space, form and aesthetic derived from the historical, cultural, environmental origins of the continent of Africa."<sup>1</sup> Hughes further comments that a distinct architecture should result from the African cultural

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<sup>1</sup>David Hughes, *Afrocentric Architecture: A Design Primer* (Greydon Press, 1994), 71.

experience or heritage as is evident in the functional and aesthetic uses of space, form, art and material. David Hughes offers a design guide or code of practice for African architects, artists and planners alike. Some of these guidelines are reflected in Nwoko's designs. Nwoko had already built most of his works before Hughes published his book.

Hannah Le Roux, in her article "The Networks of Tropical Architecture"<sup>2</sup> gives an interesting perspective into the development of African architecture during the years immediately following colonization in Africa. This post independence study narrates the development of a design paradigm, named Tropical Architecture, by European architects rushing to secure building contracts in developing nations. These nations were all former colonies, and included the majority of African nations, India and the nations of South America. Tropical Architecture was the European response to designing in countries with humid, tropical climates and limited access to modern building technologies. Penned by Europeans, with limited input from indigenous architects, this style of design was taught in schools, and built through the African continent. Although its goals and ideals were noble, the resultant buildings failed to capture the holistic approach to African dwellings because it ignored the cultural and traditional use of space. Functionality and aesthetics were rarely if ever incorporated into the design, and this eventually caused the decline of the style. Reaction to Le Roux's research facilitated the development of later architectural theories, including Nwoko's supposition that culture and not just climate

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<sup>2</sup>Hannah Le Roux, "The Networks of Tropical Architecture." *The Journal of Architecture* (Autumn 2003): 337-343.

should be a part of design ideology, a belief which ultimately lead to his concept of design for comfort.

In his book, *The Culture Option*, Demas Nwoko introduces his theory, The New Culture Foundation for African Arts and Culture. Nwoko reveals the events that shaped his ideologies on design origins, focusing on the Elleh and Hughes texts and further, defines a new architectural language based on the indigenous African identity by creating design concepts that reflect African culture, aesthetics and geo-climate. In his book, Nwoko states that, “culturally and therefore in all things, Africa has drifted too long . . . for self dignity, we should now clothe our exposed body with the garb of our God-given cultural identity to settle down as one of the recognizable peoples of the world.”<sup>3</sup> Nwoko indicates that Africa needs a cultural rehabilitation, because culture dictates the truly relevant needs in life, needs that are based on patterns of living evolved over an extended period of time.

Chika Okeke, in his dissertation *The Modernist Experience: Nigerian Art In The Independence Decades; 1957-1967*, addresses the African renaissance and aesthetic expressionism. His dissertation delineates the African perspective vis-à-vis definitions of modern African architecture while highlighting, from an artist’s perspective, the development of Nwoko’s career in the arts and building technologies.<sup>4</sup> He states that the result of artistic developments between 1957 and 1967 was a clear, conscious attempt by

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<sup>3</sup>Demas Nwoko, *The Culture Option* (Lagos: New Culture Foundation for African Arts and Culture, 2004), 50.

<sup>4</sup>Chika Okeke, “*The Modernist Experience: Nigerian Art in the Independence Decades; 1957 – 1967*.” (Ph.D. diss, Emory University, 2002), 16.

that generation of artists to create a modern art largely inspired by indigenous Nigerian art forms. Yet, as implied by the principal of Natural Synthesis (Demas Nwoko and the Zaria Art Society), their response was not so much a reaction against Western art as a dedicated resolve to appropriate aspects of it deemed beneficial to their project of artistic subject formation in the post-colonial era. Their response also meant taking a position on the value and significance of indigenous art forms and ideas, which they all agreed was of extreme importance. These Nigerian architects merged architectural elements which were considered African with what was perceived as architecturally beneficial from the West, thereby creating a modern African style. However, initially they had to decide on the importance of the indigenous African form. This last part of the design model was extremely important because if the African component was considered neither culturally significant in general nor architecturally important in particular, then the would-be innovators might as well retain all colonial art forms.

In his book, *The Africans: A Triple Heritage*, Ali Mazrui provides both the cultural and sociological insight needed to fully understand the African approach to architecture utilizing indigenous forms. Because of his obvious expertise in African history and sociology, Mazrui has become the expert Africanist of African identity. Ali Mazrui states that Africa's cultural history is reflected in the transition from the triple ancient personality of North Africa and Ethiopia to the triple modern personality of Niger and Sudan.<sup>5</sup> Mazrui's theory states that a true identity of contemporary Africa cannot be defined unless one clearly understands the marriage among indigenous African, Islamic

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<sup>5</sup>Ali Mazrui, *The Africans: A Triple Heritage* (Boston: Little Brown & Co, 1987), 54.

and European cultures. Understanding how indigenous architecture translates and transforms into a modern vernacular architecture can be accomplished through consideration of the major points stressed in this text. Both Elleh and Hughes develop theories in accordance with Mazruis' concept, and stress the importance of a triple African identity when designing solutions for any of Africa's issues.

Richard Hull, in his text *African Towns and Cities before the European Conquest*, explores issues that led to urban growth and development in Africa pre-1850. He traces the evolution of African communities in response to traditional perceptions of urbanization, political and strategies social organization. Hull describes in detail the difference between the factors that shaped development in the urban areas and the rural settlements as the result of organization of institutions of authority. He stresses that the reason some societies developed in a fragmented and loosely unified method was a result of political strategy and the formation of independent states. Although his work is more historical than contemporary, it sets the stage for modern urban dilemmas that affect housing and urban development today. Nwoko references urban events that evolved during Hull's period of research and creates design parameters as a natural progression of African inspired approach to the African urban renewal paradigm.

*The Lost Cities of Africa* by Basil Davidson provides yet another perspective on the evolution of towns and cities on the African continent. Written from a historical perspective, Davidson explores the origins of cities that rose and fell nearly fifteen hundred years before the arrival of Europeans. His text notes cities whose names and contribution to mankind have been erased both on purpose and by accident from the

pages of history books. Davidson's research becomes a trusted source for defending the argument of Africa as a continent with a history, as well as a continent with civilizations as great as or greater than what existed in European cities. The text supports Nwoko's challenge that African inventors are not inferior to their architecturally accomplished ancestors, but are capable of finding the solutions to particular urbanization issues, just as their forbearers did. Nwoko posits that many solutions to contemporary urbanization issues can be found by simply looking to the past for design resolutions used by Africa's ancient city builders.

In her text *African Traditional Architecture*, Susan Denyer conducts research similar to that of Richard Hull and Basil Davidson, but instead of town and urban planning, she focuses on traditional African architecture, interior design and construction.<sup>6</sup> Although she speaks broadly on all forms of architecture, Denyer provides some of the most in depth research done to date on African house and building forms, spanning the entire width and breadth of the continent. Her illustrations and narrative of design development provide information no longer available in African public records or on the physical landscape, as most of her findings have been destroyed or left to deteriorate over time. As well, many of the buildings featured in her research have since been demolished by both Africans and Europeans, as the era of colonization set a new standard in architecture and urban development. Like many areas of imperialist indoctrination which literally brainwashed the indigenous people, the supposed superiority of European architectural models became a part of the African ethos. African

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<sup>6</sup>Susan Denyer, *African Traditional Architecture* (New York: Heinemann, 1978), 44.

appreciation for all things European included home aesthetics, floor plan layouts and materials at the expense of functionality, comfort and affordability. Denyer concludes her text with a challenge to Africans to continue to design buildings that are functional to their everyday lives, just as they did before colonization. She posits that the resulting architecture would reflect modernity, advance building technologies and ultimately demonstrate the influence of a positive exposure to other cultures. This thesis brings Denyer's research into the present by introducing Demas Nwoko's response to her challenge. Subsequently, the idea of designing for the comfort of African people becomes his answer to the evolution of architecture in Africa.

In his book, *Africa: Cultures and Societies before 1985*, Toyin Falola provides the cultural, religious, political and economic history of the peoples of Africa. This history sets the background upon which Nwoko references his ideology of New Culture. A society's culture influences the use of space, which in turn impacts the shape of buildings.<sup>7</sup> The very basic unit of African society was the extended family and every member of society was expected to play one of the roles within the family structure: husband, wife or child. Through the practice of polygamy, and the culture of extended family units (via the senior male lineage), African families easily became very large requiring extensive family compounds. Women had their own social and political meetings during which they met and resolved issues not only particular to women and children, but to the economic, religious and political concerns of their towns. This

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<sup>7</sup>Toyin Falola, *Africa: Cultures and Societies Before 1885* (North Carolina: Carolina Academic Press, 2000), 61.

division of gender roles also affected the development of architecture:

sometimes husbands and wives shared separate bedrooms or even houses.

*African Designs from Traditional Sources* by Geoffrey Williams is one of the earliest documented texts on the patterns, motifs and form of African aesthetics. Presented as a series of illustrations, Williams' text depicts isolated African forms located throughout the continent, and categorized according to abstract and geometric form, human and animal forms, repetitive and textural forms and symbolic and purely decorative forms.<sup>8</sup> Williams provides the reader with images, descriptions, symbolic meanings, ethnic origin and location of hundreds of African forms that created not only visual patterns and motifs of African art, but created the foundation upon which western art developed after being discovered by Pablo Picasso and his fellow cubist (artists) in the 19<sup>th</sup> century. This landmark text provides a source for Nwoko's students to reference images of the African aesthetic, which he defines as the expression of both inner and spiritual beauty, which are in turn defined by the African concept of goodness.

In his book *West African Traditional Religion*, Asare Kofi Opoku explores African spirituality and the ways in which it was reflected in the design of housing, places of worship, community gathering places, markets, palaces and the layout of the towns and villages.<sup>9</sup> This monumental text recounts the many profound ways in which architecture developed in Africa and explains why the most notable structures on the

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<sup>8</sup>Geoffrey Williams, *African Designs from Traditional Sources* (New York: Dover Publications, 1971), 23.

<sup>9</sup>Kofi Asare Opoku, *West African Traditional Religion* (Singapore: FEP International Limited, 1978), 39.



African landscape are spiritual in design concept and use. For example, Africans believed it was impossible to build a temple that would meet the exact criterion of the Creator, for God was all things and everywhere. They believed it would be impossible to capture the creator in a mere building or depiction; thus, they built shrines to the spirit intermediaries (divinities), and decorated them with wooden columns, mud pillars, iron staffs, and symbolic patterns and motifs. Buildings designed for the deities, became the prototype building design for political leaders, priests and eventually wealthy merchants and the masses.

African spirituality continued to influence the use and hierarchy of public and private space, and by the era of colonization, evolved to reflect the impact of Islam and Christianity. Islam called for strict isolation and privacy of spaces occupied by women, while Christianity erased compound design that was based on the non-Christian practice of polygamy. This research by Opoku provides the background for what eventually had the most lasting impact on the development of modern African architecture. With the elimination of compound architecture due to the change of religion or spirituality, all that nurtured the extended family as a direct result of polygamy, came to an end. Nwoko notes this change in the African design paradigm, and argues the value of reintroducing compound design via the courtyard concept. The courtyard concept is still based on the African concept of communal living, which has not been eliminated with the demise of polygamy. This deliberate action by Nwoko connects the very essence of his ideology of New Culture design and reflects the way Africans live their lives today, that is, emphasizing a living and continuous culture.

## **CHAPTER 3**

### **HISTORICAL OVERVIEW**

This chapter provides a historical overview of the development of Demas Nwoko's architectural style and sets the background for the evolution of his design ideology. It explores how Nigerian living spaces have evolved independently and how also, as a result of the incorporation of a multiplicity of historical, local and international artistic styles, continue to influence the work of contemporary architects today. The dominant themes of transformation and movement are critical in understanding the process through which traditional architecture has evolved. This section highlights the diversity, mastery of skill, and the integration of art from traditional rural space to contemporary urban and quasi-urban dwellings.

The historical overview is presented in chronological order, starting with the history of design development in Nigeria prior to the era of colonization and concludes with current practices of post independence architecture. Developments made in both traditional and contemporary African architecture show that contrary to popular belief, Africans have created architecture that has not been stagnant in time, but is characterized by dynamic forms, spatial organization, art, science and technology. The region of study will be limited to the Eastern Ibo areas of Nigeria, as this is the location of the Nwoko buildings being evaluated in this study. The chapter establishes first the origin of the Ibo peoples of Nigeria. A brief description of Ibo society will provide the details of their

culture, political systems, religion, economy, and urban planning. This background provides an understanding of the context from which their architecture developed. Although residential design is the focus of this study, nonresidential design is referenced as it relates to the origins of residential architecture and construction. Town planning and urban development policy are discussed as they relate to urban expansion and development of family compounds (residential design).

### **History of Architecture Pre-1850**

The Ibo settlement originated at the conflux of the Benue and Niger rivers five thousand years ago. Ibo civilization flourished at its peak during the 9th century, and archeological research has uncovered artifacts dating back to 900 AD. The Ibos share linguistic and cultural ties with the surrounding Benin, Yoruba, Igala and Idoma peoples who inhabit what is now the Federal Republic of Nigeria. Their main economy was based on agriculture and trade. Politically, the Ibo consisted of hundreds of towns populated by clans of families.<sup>1</sup> The very basic unit of Ibo society was the extended family. Every member of society was expected to play one of the roles within the family structure: husband, wife or child. Through the practice of polygamy, and culture of extended family units (via the senior male lineage), Ibo families easily became very large requiring extensive family compounds. The Ibos lived in a self-ruled democratic society.<sup>2</sup> Ibo land consisted of over two thousand separate towns, made up of groups of

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<sup>1</sup>Richard W. Hull, *African Cities and Towns before the European Conquest* (New York: W.W Norton and Company, Inc. 1976), 25.

<sup>2</sup>Phyllis Martin and Patrick O'Meara, *Africa* (Indiana: Indiana University Press, 1995), 75.

family clans. The towns were independently ruled by chiefs and by a council of elders, which consisted of the heads of the family clans. In general, a town consisted of fifteen to twenty family compounds. The Ibos believed in a supreme God who ruled through his favorite daughter, Ani (Ala, Ana, Ale). She was the goddess, Mother Earth.<sup>3</sup> Ibos believed they could also reach God through their ancestors who had gone before them. Thus, family members were buried in the house or compound, continually remembered and respected and communicated with libation offerings. There was no need for imposing public structures because the population was kept small. Festivals and celebrations were grand outdoor affairs and so opened “un-built” public spaces were perfect for festive celebrations. To understand who the Ibo people were, in terms of their cultural, economic and political identity, requires an exploration with clear understanding of how they developed their architecture, and the design and development of their urban environment.

### **Origins of Traditional Residential Architecture**

The Ibo traditional housing unit was a compound in which all members of the extended family lived together.<sup>4</sup> Families were large due to the nature of their family unit makeup. The family did not just consist of the father, mother and children, but a number of extended family members related through the male head of household. Also, the Ibos practiced polygamy; thus, the average family home required many rooms and spaces for

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<sup>3</sup>Kofi Asare Opoku, *West African Traditional Religion* (Singapore: FEP International Limited, 1978), 57.

<sup>4</sup>Susan Denyer, *African Traditional Architecture* (New York: Heinemann, 1978), 74.

wives, children and communal living spaces, resulting in family homes that were designed as a collection of “houses” enclosing an open courtyard, which was termed the family compound (once secured by a gated wall). A decorated covered porch would usually characterize this entrance gate. Thus space was created for wives and their small children, their sons and daughters as well as their families, the head of the household, his sisters and other immediate relatives. According to Denyer, these massive compounds, as they could sometimes be, were designed and built by the homeowner and his townsmen. Once a man was prepared to move from his father’s compound with his family and into a home of his own, word was sent requesting the participation of the neighbors. At the time designated, the family and neighbors gathered to mix adobe and construct the new home according to wishes of the family. Upon completion, a big feast was sponsored by the family for the neighborhood to show their appreciation for participating in building their new family home. As the family grew, more houses or rooms were added to the compound.

There were also climate and other physical factors that influenced the design and construction of their architecture.<sup>5</sup> Ibo land is located in the forest zone, a humid tropical climate that naturally influences not only the design of the buildings, but the materials used and methods of construction. There are two distinct seasons: the rainy season (April to October) and the dry harmattan (November to March). The region experiences heavy downpour during the rainy season, causing severe erosion and heavy flooding. During the dry season, water is scarce and the nights are very cool. According to Denyer, these

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<sup>5</sup>Susan Denyer, *African Traditional Architecture* (New York: Heinemann, 1978), 138.

conditions helped to influence the spatial organization such as courtyard, impluvium, and the square and rectangle styles that became popular in Ibo residential architecture.

### **Styles and Floor Plans**

Courtyard Style. The Courtyard Style was designed by constructing four separate, rectangular buildings and creating a courtyard, with interior walls either closed or open to courtyard space. If the walls were left open to the courtyard, they would often have clay or wooden columns serving as decorative and structural support. Bedroom walls were always closed on all four sides. This design type allowed humid air to flow through the rooms to the courtyard, up and out through the open roof (See figure 1).

Impluvium Style. The Impluvium Style was the same as the courtyard style but with additional features designed to collect water in the courtyard enclosure. The indoor water collecting systems were designed to guarantee sufficient water supply during the harmattan season. Shallow pools were also situated in the center of the courtyard to collect rainwater. Rain was also channeled in grooves along the roof and collected in pots placed in the four corners of the courtyard (See figure 1).

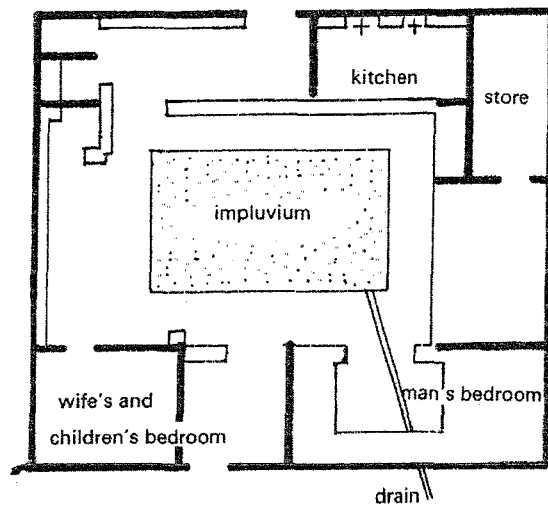


Figure 1. Courtyard Layout, Traditional African Architecture Diagram.

Source: Nnamdi Elleh. *African Architecture: Evolution and Transformation*. New York: McGraw Hill, 1996.

Square and Rectangular Style. This style was the most simple of the three, consisting of a single square or rectangular freestanding building with a saddleback roof. Some had round conical roofs and some had square pitched roofs. Like the other two styles, a smooth plaster finish was given to the walls. This required a maintenance re-plastering every five to ten years (See figure 2).



Figure 2. Rectangular House Style with pitched roof.

Source: Susan Denyer. *African Traditional Architecture*. New York: Heinemann, 1978.

### **Materials and Technique**

Walls were made of puddled mud or clay, often coupled with palm fronds for bonding.<sup>6</sup> Walls were also made of timber, bamboo, cane matting or bamboo and cane matted together. Raffia palm ribs and poles are woven into a lattice of square grids and plastered over with clay. This leaves an impressive smooth surface for decorative wall finishes.

Roofs were made of palm leaf mats, thatched and plaited stiff. Its close texture and durability made it perfect for a climate of heavy rainfall, high humidity and low sunshine. Grass was not used due to its tendency to mold in such climate. Palm fronds and reeds were also matted for roofing materials. The same raffia latticework used in wall

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<sup>6</sup>Nnamdi Elleh, *African Architecture: Evolution and Transformation* (New York: McGraw Hill, 1996), 305.



construction was used for roofing, but without the clay finishing. Floors were of polished mud and might be inset with palm nuts. Mats were also a popular choice of floor covering.

### **Interior Décor: Motifs, Millwork**

Wall Treatment. Ibo women were the interior decorators of their homes. They actually participated, along with their children, in the construction of the home.<sup>7</sup> Once the home was completed, it was the sole responsibility of the women to provide the exterior and interior finishing. According to Elleh, they painted mural scenes of everyday life and scenes of nature on the exterior walls of the home. Mural designs were also made of intricate interlacing linear and curvilinear designs (called Uli), against a neutral colored background. Elaborate geometric designs were painted on the walls with clay plaster. Mural decoration designed around the doorframes was also popular. These designs were often thought of as Islamic, but this artistic tradition was actually carried to the northern Islamic parts of Africa by captured sub-Saharan women, many of whom were of Ibo descent.<sup>8</sup>

The clay native to Ibo land is found in many shades. It is typically dissolved with water to the right consistency and applied with a sponge. Walls were commonly decorated with mural paintings in colors of black, white, red, ochre, blue and green. The latter two colors were applied during a much later time frame, even though the Ibo

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<sup>7</sup>Nnamdi Elleh, *African Architecture: Evolution and Transformation* (New York: McGraw Hill, 1996), 305.

<sup>8</sup>Susan Denyer, *African Traditional Architecture* (New York: Heinemann, 1978), 163.

already had early on an indigo that produced these colors. Walls were sometimes simply whitewashed and the borders trimmed in a darker color for contrast. Another popular form of decorative finish on interior walls was the use of cowry shells, inset into the surface of the wall to create beautiful design work.

Millwork. Common features of Ibo homes were carved columns and portals (gates, doors and windows). The Iroko tree, a popular wood local to Ibo land, was used for most of their millwork. Elleh lists animals, masks, ancestor portraits, mythical creatures, branches and geometrical patterns as part of the designs created on these Iroko works.

Massive compound doors that swung on pivots were popular in Ibo land, especially in the town of Awka. The Awka people were known for their imposing carved door panels that they used as front doors and compound gates. They called them “Mgbo Eze” meaning the protector of the compound.<sup>9</sup> These massive doors-portals served as spiritual and physical protectors from evil. The designs on these portals were unique to the Awka, and consisted of geometric shapes, diamonds, triangles, circles, and other shapes and images. Ordained men learned these skills from their ancestors who also specialized in carving these elaborate doors. Furniture was simple, and usually dressers, tables, seating or bedding was formed out of raised clay or earth. Skins, calico and

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<sup>9</sup>Nnamdi Elleh, *African Architecture: Evolution and Transformation* (New York: McGraw Hill, 1996), 306.

muslin were used as coverings.<sup>10</sup> Sometimes seating was fashioned out of logs that were perfumed when guests came to visit.

### **Architectural Development During The Colonial Era**

This section highlights some of those traditional design elements that have significantly influenced residential architecture built in Nigeria since the colonial era. This section first examines architecture and urban design advancements made in Ibo land, originating during the colonial period. These innovative designs were made as a result of colonization and its impact on Ibo culture, their political systems, economies and religion. A thorough analysis will then be conducted as to how development was planned after independence, as a new national identity was created and reflected in the built environment. This architectural evolution resulted in three distinct styles of residential design, characterized by the status, education, location and even religion of the homeowner.

The negative impact of European conquest on Africa's built environment is clearly evident in the changes on the spatial organization of Ibo architecture. Susan Denyer states that European imposed architecture and urban planning practices and policies are maintained today, at the expense of an underdeveloped and all but abandoned African system of design. It could be argued that African architecture and town planning might have developed to respond more harmoniously to the environment if Africans and the colonizers worked in collaboration to build an Africa that functioned for the benefit of

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<sup>10</sup>Susan Denyer, *African Traditional Architecture* (New York: Heinemann, 1978), 163.

Africans. Denyer says what exists today is the result of deliberate efforts made by the colonizers to arrest African development in all areas that would benefit Africa, and “fashion” it for the benefit of Europe and the West. One example she uses references the mandatory use of European imported building materials in Africa that generated new business and profits in British building and construction industries. As to the design of buildings, some scholars argue that Europeans did work successfully with Africans to develop contemporary forms of architecture that responded well to both African and European cultural constructs. They argue further that current forms of architecture built both in Africa and the West are actually modern African architecture because the original design principles were founded on African expressionism. Edouard Din posits that if Europeans developed their art of construction and building technology on a foundation of all they stole after “discovering” Africa, then all modern Western architecture built today is simply modern African architecture. Some scholars would argue otherwise, stating that the creation of true modern African architecture comes from the cultural experience and heritage of the African person.<sup>11</sup>

Since the colonial era, formally trained African designers (educated in the Western architectural paradigms) have in most part designed what they were told was true architecture, and copied what was built in Europe. Today, a few contemporary African architects are beginning to establish a new design imagery, which characterizes the socio-cultural values distinct to specific regions. They are producing forms and format for building that allows for the preservation of cultural elements and environment

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<sup>11</sup>David Hughes, *Afrocentric Architecture: A Design Primer* (Ohio: Greydon Press, 1994), 7.

characteristics.<sup>12</sup> Across the Continent, designers are building monuments comparable in splendor and scientific genius to the temples and sacred complexes of ancient African societies.

### **The Impact of Colonization on Culture, Economics and Politics**

Before the arrival of Europeans, cultured people, powerful empires and nations rose and fell, many immortalized, and yet many forever forgotten.<sup>13</sup> The arrival of Europeans in the 14th century, who like the Arabs, came for commodity exchange as part of the long distance trading between countries, marked the beginning of a cultural and economic transformation in Africa. Trading in commodities changed to trading in captured human beings, many of who were Ibo. Unfortunately, they were transported along the trade routes that the Ibo themselves had established many years before. The effects of slave trading interrupted an Ibo way of life that had been stable, civil and prosperous for many centuries. During the 1800's, the abolition of the slave trade was followed by the introduction of Imperialism. Armed with the principles of European superiority, gun diplomacy and manifest destiny, the foreigners extracted the mineral and agricultural resources of the African land.

Recognizing their economic, political, but most importantly their military might, Europeans realized it would be even more beneficial if they were to set up colonies on the African continent, govern via indirect rule, and siphon its resources to Europe without

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<sup>12</sup>David Hughes, *Afrocentric Architecture A Design Primer* (Ohio: Greydon Press, 1994), 7.

<sup>13</sup>Frederick Cooper, *Africa since 1940. The Past of the Present* (London: Cambridge University Press, 2002), 16.

remuneration. This set Africa on a path that led to near total colonization by Western nations. The advent of the colonial era set off a catastrophic set of events that shaped social, political and urban development in Nigeria, setting Ibo architecture and urbanization on a particular course of evolution.<sup>14</sup> Therefore, between 1900 and 1914, the British established and settled in the new protectorate: The Protectorate of Southern Nigeria. This included all of Ibo land as defined on the maps provided in figure 3.

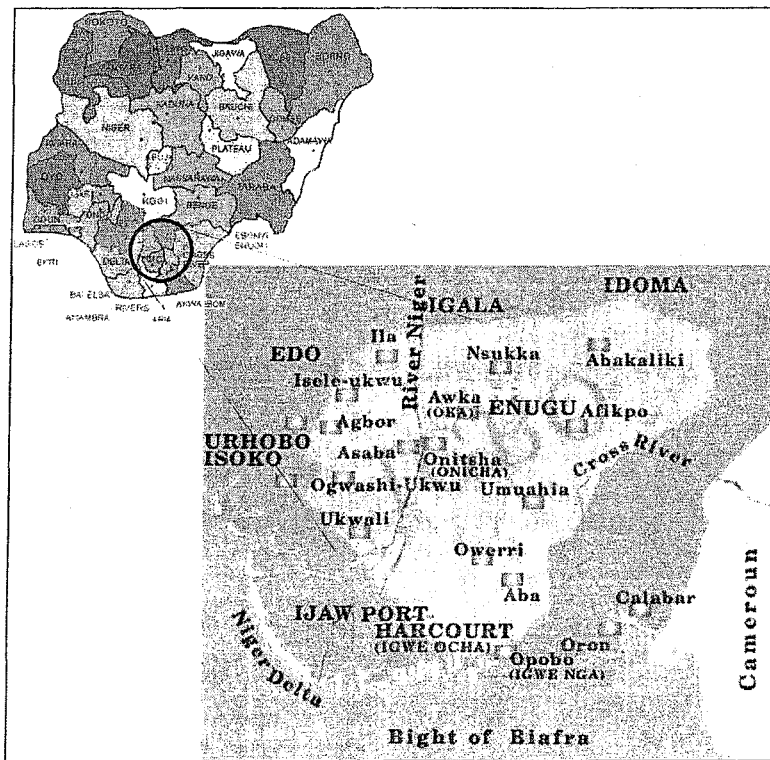


Figure 3. Map of Ibo Land, Nigeria.

Source: African Maps: [www.africanmaps.com](http://www.africanmaps.com)

This new and foreign rule established by the British quickly disrupted the social and political structure of Ibo society, and culminated in the 1928 to 1929 Aba revolts and resistance against taxation. It was the Ibo women of Aba that led one of the most widely

<sup>14</sup>Susan Denyer, *African Traditional Architecture* (New York: Heinemann, 1978), 39.

known revolts against the British during this era.<sup>15</sup> Continued African resistance and the weakening of the imperial power of Great Britain during World War II led to the independence of the Nigerian Protectorate. The Republic of Nigeria was established on October 1st, 1960.

### **Planning and Urban Development during Colonial Rule**

It is during the era of colonial rule that the effect of Africa's Triple Heritage on the Ibo landscape becomes apparent. European (British) and Christian ideals begin to influence and modify Ibo architecture, urban planning and development strategies. Susan Denyer comments that Ibo towns amongst others appear to have frozen in time with the arrival of the British.<sup>16</sup> Further she says that within a few more years, Africans would have developed a wider range of urban characteristics and for this reason must diligently study the relationships between architecture, history and urbanization. The intrusion of the British was so severe that it halted the progress of traditional Ibo architectural design philosophy and style and re-directed it towards the "double edged" manner in which architecture has developed today. The double-edged characterization shows progress in the form of a western and not African sense of modernity, which does not take into consideration the comfort and lifestyle of the African. The British chose cities that they used as their government headquarters. Sometimes, they settled in these existing towns or built new ones and developed them according to their own methods of city planning.

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<sup>15</sup>Frederick Cooper, *Africa since 1940. The Past of the Present* (London: Cambridge University Press, 2002), 16.

<sup>16</sup>Susan Denyer, *African Traditional Architecture* (New York: Heinemann, 1978), 39.

Enugu, located in the eastern part of Ibo country, was such a city used for British settlement. The most open and vicious act on the part of the colonizers to change the face of traditional architecture and urban planning practices was the force tactics they used to get Africans to leave their towns and settle in the new cities. The British felt it was easier to control the Africans via government policies if they lived in jurisdictions where colonial law and culture were established and enforced. Denyer writes that whole towns were burned and bulldozed to force the citizens into the new cities. In some towns and cities, it was illegal for Africans to construct any building using their traditional design or materials. Towns such as Enugu, in Anambra State were occupied by the colonizers and were built in “traditionally void” areas as well as locales where no chiefs or culture existed. They also occupied existing towns, and created quarters and zones where only they were allowed to live. The quarters were known as Government Residential Areas. The Africans saw these cities as lands of no culture. The negative impact in community planning and development during this period is clearly seen as family members, especially young men, move to the cities of the foreign government for economic opportunity. The population of rural towns slowly began to consist of the very young and the very old who upon retirement, returned home to live out their lives and then be buried with their ancestors.<sup>17</sup>

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<sup>17</sup>Nnamdi Elleh, *African Architecture: Evolution and Transformation* (New York: McGraw Hill, 1996), 345.



## Characteristics of Colonial Era Residential Architecture

### Culture and Lifestyle Reflected in Architecture

Susan Denyer comments that social and cultural lifestyle reflected in neighborhoods and communities, which served as the foundation for productive and successful families (via strong family clans), began to erode.<sup>18</sup> The “colonial” mentality was born, as European culture was idolized, emulated, and valued over African culture, religion and civil law.

In the urban areas, the Christian religion encouraged the small home and nuclear family unit (father, mother and children) as opposed to the polygamous family setup, thereby nullifying the architectural features required to support a large number of family members. In polygamous families, the family compound became one large home (connected via the courtyard), with the wives’ bedrooms designed with doors connecting them to their shared husband. Other rooms in the house still surrounded a centrally placed living room, where kitchens and toilets continued to be housed in separate buildings behind the main house. Retired civil servants returning to their hometowns to build their retirement homes introduced gradual changes in residential design, materials and construction into Ibo cities. These buildings were constructed out of concrete with roofs of zinc, similar in style to what they occupied in the new urban centers. The British settlers had their trained architects design these homes in styles popular in England.

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<sup>18</sup>Susan Denyer, *African Traditional Architecture* (New York: Heinemann, 1978), 39.

In the urban areas, function, size and relevance in residential design were greatly reduced as the roles of family members or home occupants changed. The role of head of household was diminished as other family members moved out. The strength of the family structure was reduced in the cities as success was not determined by family strength and numbers but by the ability to sustain life as an individual. Residential design was reduced to “one room and a parlor.”<sup>19</sup> Construction of these tiny “one room and a parlor” homes exploded, and led to overcrowded conditions as family members migrating from the villages moved in with relatives in the city with hopes of living the better life. This affordable, but tightly spaced design approach, coupled with poor building materials and lack of density control, created unpleasant and over-crowded situations. The repeated cycle of mass migration from the villages contributed to the break-down of family and community values.

### **New Aesthetic Values Define Style and Form**

Aesthetic preference in rural areas continued to exist according to traditional Ibo standards, with contemporary influences showing first in the artistic subject matter captured in the murals and motifs done at that time. In these rural towns, images of items such as cars, bicycles and airplanes would be included in murals, as part of a narrative or symbolic stories (a style known as New Function Art). These New Function art images existed harmoniously alongside the traditional patterns, motifs and abstract art aesthetics.

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<sup>19</sup>Nnamdi Elleh, *African Architecture: Evolution and Transformation* (New York: McGraw Hill, 1996), 345.

Decorative and symbolic patterns or motifs in the urban areas, however, became highly unpopular, as colonial design was usually void of heavy décor. Natural earth tones and sometimes brilliant paints, however, were used to decorate buildings. Freed Africans, who returned and settled in both urban and rural areas of the country, introduced the “Brazilian” style of residential design (see Fig. 4). This style became popular among Africans who liked the decorative balustrades, columns and two-story structures.<sup>20</sup>



Figure 4. “Brazilian” Architecture.

Source: Kevin Carroll. *Architectures of Nigeria*. London: Lester Crook Academic Publishing, 1992.

<sup>20</sup>Kevin Carroll, *Architectures of Nigeria* (London: Lester Crook Academic Publishing, 1992), 73.

### **Geo-Climate Addressed with New Building Technique**

Abundant windows, shutters, interior vents and windows and high ceilings became a popular method for heat control, due to building with cement, a material not very good for the climate. Buildings were built on raised pedestals of cement, almost two feet above ground level, to address floods and erosion. The resulting wrap around ledge became a celebrated veranda, serving as an exterior courtyard, where the family gathered and enjoyed the cool evenings.

### **Architectural Practices in the Post Independence Era**

#### **Social and Environmental Impact of Modernity**

Ibo architecture, art, culture, religion, economy and politics have now evolved and are incorporated into contemporary life. Modernity affects contemporary lifestyles all over the world, and the Ibo people of West Africa were no different. In Ibo culture and society today, life has changed due to the effects of Western culture and Christianity. Marriage and children are still extremely important. Even though most Ibos are Christian (Roman Catholic) they still practice polygamy and give reverence to God through their ancestors and traditional divinities. The economy is based more on trade than agriculture. Yam is still a main crop grown for consumption and trade. Revenues from the sale of crude oil go to the Federal Government, and the Ibo receive the amount allocated to their States (according to population). Traditional political systems are still in place, but are used mainly in rural communities in cases where the Western courts are not as effective. The Eze (King) rules the rural towns, and the title is passed down from

father to first son. Towns and cities are governed according to governmental urban policy created by the local departments of urban planning and development. It is, however, critical to understand the dynamics in the rural environment. A significant number of the rural population still lives very much as their ancestors did, in self sufficient, well-planned and civil communities. This demography represents a large percentage of the total population, demanding a unique type of modern design to fit their needs. In the urban centers, Ibo architects have begun to create innovative structures in the art of building construction, as they participate and are influenced by a vast, global culture.

The evolution of African architecture includes several residential styles constructed since 1960. Three styles evaluated in this study are: 1) Contemporary Vernacular Style, 2) Nigerian Modern Style and 3) Nigerian International style. These styles are evaluated using three major defining characteristics: 1) how they architecturally reflect African culture and lifestyle, 2) how they promote African architectural aesthetic values and 3) how climate and geography are addressed with modern construction techniques. The researcher has defined these styles and designed a methodology for identifying and categorizing modern Nigerian residential design constructed since 1960. The elements listed as style identifiers have only been assembled this way in this research. The era of modern African architecture is defined as starting in the year of independence for Nigeria (the same for other African countries) as it was at that time African people began to create their new identities based on a combination of who they had been and who they had become as a result of colonization. For the West, modernism

in the arts and architecture starts in the year 1945, when artists such as Picasso and Rembrandt discovered African art.<sup>21</sup>

### **Residential Architecture in Rural and Urban Neighborhoods**

The evolution of architecture is presented in terms of its impact on both urban and rural neighborhoods. Design developed in both African community types are part of the styles explored here in detail.

**Contemporary Vernacular Style:** Homeowners most likely to build this style of architecture are generally residents of small rural towns. They may also live in large cities, though in the less affluent neighborhoods and communities. They are usually not educated in the Western educational systems and they tend to identify more with their own traditions and culture. They are businessmen and tradesmen and work hard for a living. Consisting mostly of the less affluent segment of the population, they tend to live lives that have not changed much from how their forefathers lived. It is important to note that this segment of the population makes up a large percentage of the population of Nigeria. The effects of Christianity and Western culture have limited affect on the daily lives of the people. The residents exist in a country ruled by Africans using a foreign governmental system, but they do not regularly participate in its operations. They are marginalized by the modern systems, and exist in their own “contemporary traditional” society.

The impact of culture, aesthetics and climate was translated architecturally in Contemporary Vernacular Style. The residents of this style of architecture tend to still

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<sup>21</sup>Sidney Littlefield Kasfir, *Contemporary African Art* (London: Thames & Hudson, 2000), 68.

design and construct their homes with help from neighbors and local laborers. These homes are usually built in the simple circular or rectangular forms, with sloped roofs. The impact of culture and lifestyle on how they utilize space is reflected in ways such as the location of kitchens, baths and toilets in separate structures built behind the house. Electricity and indoor plumbing are not common features because these homeowners are not affluent enough to afford such modern comforts. Walled gates which enclosed compounds also provide protection for their livestock. The extended family defines family structure in this group of homeowners, and it is reflected in the family compound layouts and design. The influence of polygamy in their architecture is seen in the provision of multiple roomed family compounds that house the husband, his many wives and their children. The celebration of communal living and the extended family is represented in large interior courtyards (See figure 5).

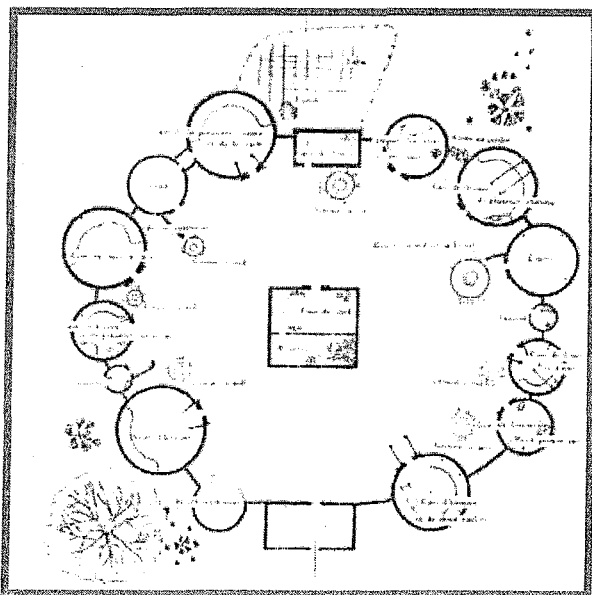


Figure 5. Compound Layout.

Source: Susan Denyer. *African Traditional Architecture*. New York: Heinemann, 1978.

Aesthetic values are represented in the forms of their buildings, the craftsmanship of their millwork, furniture, cabinetry, portals and structural columns. These aesthetics are represented with the use of traditional patterns and motifs that usually carry symbolic meanings. Religious artifacts reserved for worship are ceremoniously placed in special areas in the home. Women are sometimes still responsible for interior and exterior décor, supervising and applying decorative application to walls and other surfaces. Even though women have traditionally participated during the entire construction process, final aesthetic applications to the home have been reserved for them alone.

Climate and topography influence the design of buildings with the use of steep sloped roofs, which control torrential tropical rainfall and collect the water for household use. Materials such as thatch and zinc are used for the roofs and adobe or concrete block for the walls. These natural materials are ideal because they act as a natural form of heat control, keeping the house cool during the day and warm during the night. The concrete and zinc used today, however, absorb and trap the heat within the home, causing extremely hot and uncomfortable living conditions.

**Modern Nigerian Style:** Homeowners proud of their heritage and culture normally commission the Modern Nigerian Style for their personal homes. These homeowners are eager to portray and advertise their success by commissioning a home incorporating the traditional designs of a culture of which they are proud. These homeowners are successful professionals, businessmen and politicians. They are also Christian but incorporate a healthy amount of their own religious and cultural practice



into their everyday lives. They are educated and are influenced by popular western aesthetic values, but also hold their own culture, traditions and aesthetic values in very high regard. Formally trained architects are not always the designer of choice amongst this group of homeowners, as most formally trained architects have been educated to create European style buildings; indeed, most architectural contracts are given only to architects that design in the European style. In this case, the homeowner specifically requests a house designed predominantly with traditional aesthetics. It is popular to involve the participation of an artist to work with the architect as he designs the home, because the artist brings an African aesthetic flare to the project. This union of professionals creates the architectural characteristics particular to this modern and innovative style.

The impact of culture, aesthetics and climate is also translated architecturally in Modern Nigerian Style. Influenced by both nuclear and extended family relationships, homes in this style are built mostly in the hometowns and ancestral villages. They are designed by people who are exposed to modernity but maintain value in their culture and heritage. This is reflected more in the aesthetics and sculptural form of the buildings than in the floor plan of the house (See figure 6). Floor plans are modern and include indoor plumbing, interior kitchens and toilet facilities. Kitchens, however, are small and not very functional. The reason for this is that husbands rarely consult their wives during the design and construction of the family home. As a result, spaces normally associated with women's work, are typically inefficient and inadequate.

It should be noted that polygamy is still practiced, but it is not as popular practice among this group (or class); hence, a medium-sized house can easily accommodate the nuclear family unit. This choice to be monogamous influenced the reduction of the once expansive family compounds. Nonetheless, it is important to note that for those in this socio economic bracket who wish to engage in polygamy, husbands purchase or build separate homes for the different wives and her children. These individual homes are located in different parts of town, which further de-emphasizes the need or value for the large family home and compound.

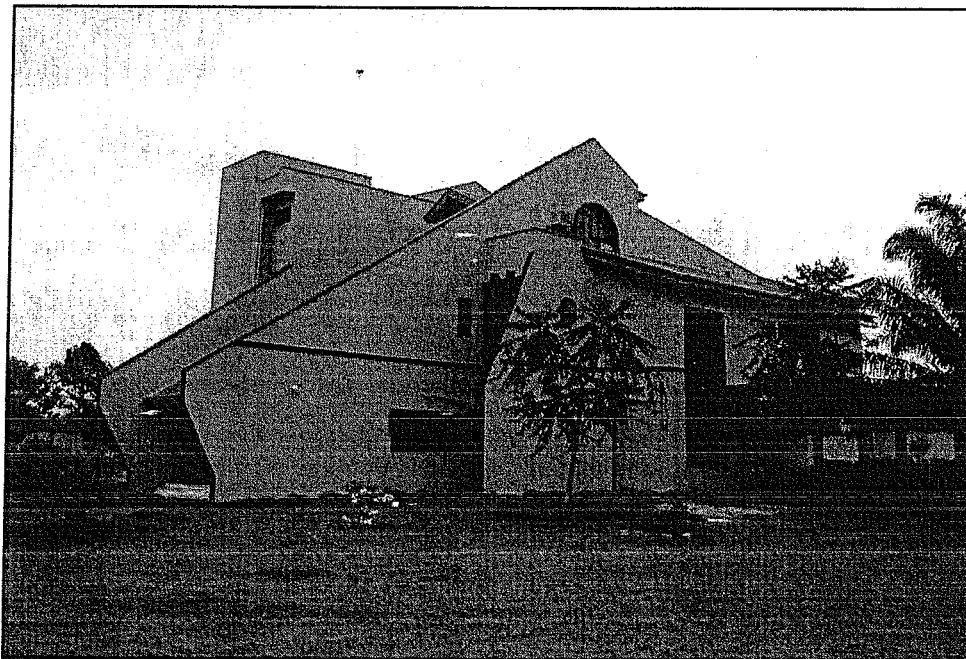


Figure 6. Modern Nigerian Style.  
Source: Nmadili Okwumabua. Private Collection, 2000.

Financing for these homes is done through family savings. Mortgage institutions do exist, but they are dysfunctional because of the chronic instability of government, political and economic structures. Homeowners in this group normally live in rented

apartments in the city during their working years. For the duration of this time frame, they save money for their retirement homes, typically located in their hometowns. It is there that these exotic structures are built, in the land of their ancestors. By locating these African inspired modern masterpieces in their native villages or hometowns, these homeowners give testimony and value to the culture and tradition of their native homeland. A very important point is that there is a near absence of the traditional Courtyard or Impluvium within the home. Although still extremely functional and contemporary, these design elements have been almost completely abandoned. Traditional floor plans and local building materials are still functional, and climate conducive, but the most popular style from antiquity which is still used is the Rectangular Style.

This building type (the rectangular style) is usually designed as a simple rectangular shaped home and is usually considered a form of affordable housing, built by a majority of the population. Now constructed out of concrete block walls and zinc roofing, the most decorative aspect is in the bright colors used for the exterior paintwork. Where and when included, double courtyards (formal and informal) serve as space for family gatherings and hosting of local meetings, and include double kitchens: one used for the preparation of Western foods and the other for traditional food preparation. These are two distinct types of kitchens as the food preparation processes are considerably different.

Aesthetic features in the Modern Nigerian Style include “bronzing” which is a sculptural technique using cement. Artists create natural and abstract forms on the

facades or front elevation of buildings before the cement dries, which are then painted. Circular or rectilinear forms are created as the overall structural forms of the dwellings. Colors ranging from natural earth tones to bright primary colors popular to Africa and Africans are used for the finishing touches. Vegetation is also included as a decorative accent. Symbolic and decorative patterns are displayed in motifs for millwork, columns, and stained glass, most in earth tones and brilliant colors. Although many of the patterns and motifs are designed for purely decorative value, the original symbolic purpose is still valued by those who understand the significance and celebrate their meanings. Skilled artisans create gates out of wrought iron, decorating them with abstract and symbolic designs. It is in this style that architects exhibit the most freedom to incorporate elements of a rich aesthetic heritage.

Homes built in Modern Nigerian Style may showcase the most elaborate display of African architectural aesthetics, but they fail to properly address the effects of climate and geography in their design. Here, the materials of choice consist of concrete cement blocks and zinc-corrugated metal for the roofs. The use of these particular building materials in areas with hot tropical climate, results in homes with unbearably hot interior temperatures. Operable windows with louvers and or sliding glass panes worsen the situation as hot air flows in and maintains the heat and humidity. The need for electricity is now magnified as air-conditioning units and electric fans promise the only source of relief. This source as a means of climate control is an option that can be afforded mostly by the wealthy. A successful methodology for addressing climate control without power is achieved by designing homes with high ceilings, where the heat is allowed to rise and

exit via vents. Architects also design for shuttered roof vents windows to provide natural lighting. Sustainable design of sloped roofs continues to be used for rain control, with occasional Impluvium style functionality for the collection of consumable water and interior temperature control.

**Nigerian International Style:** The Nigerian International Style is actually a version of the International Style, a type of architecture created in America during the 1950's. Noted by its "concrete box with a roof and pierced with windows" appearance, the style was void of heavy ornamentation and celebrated minimalism at its best. Regrettably, the style was void of any cultural identity and thus, was easily replicated all over the world. The only way to identify the location of a building built in this style was if the architect included any signature or cultural design on the building. For example, in Nigeria, bright or vibrant colors would sometimes be applied on the exterior to give a tropical character to the building.

The Nigerian International Style is mainly commissioned and built by those residents who are well traveled or well exposed to Western culture. The residents are usually Christian, educated and are successful professionals and businessmen, who identify mainly with Western cultural aesthetic, represent the ruling class and are a minority of the population. They commission trained architects to design and to build homes that are almost purely European in nature or that could fit well in any European city (See figure 7). These often extravagant homes are built out of imported materials from Europe and constructed on the grandest of scale. Finally, they are often financed by

private wealth and/or funds from housing allowance from the federal government. In addition, the homes operate off their own privately sponsored utility services.

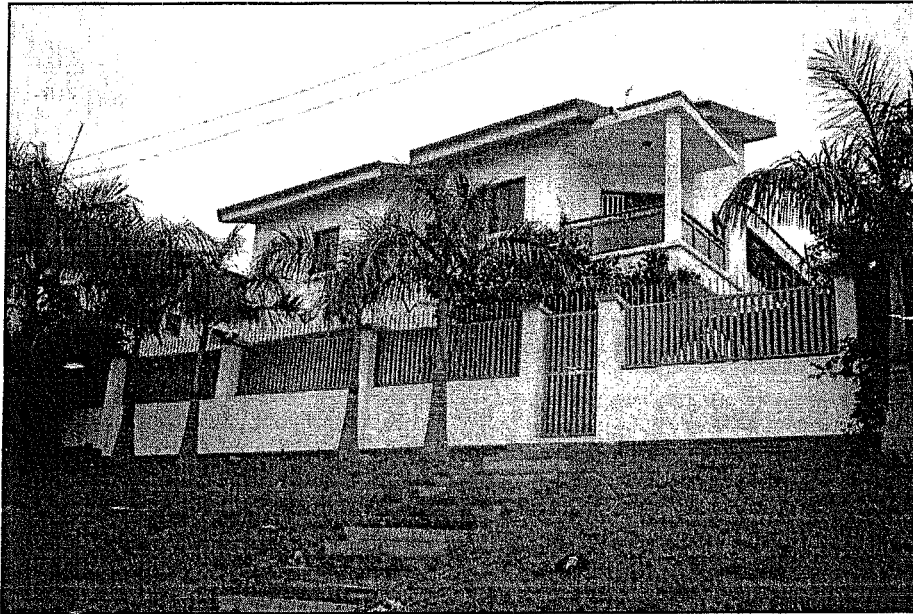


Figure 7. Nigerian International Style.  
Source: Nmadili Okwumabua. Private Collection, 2000.

Culture Reflected in Architecture: These homes do not represent any design influence from traditional sources, but are revered by the owners as the symbol of ultimate success and having “arrived.” The homeowners believe that prestige, class and the ultimate sign of “civility” are conveyed through these western architectural structures. Homes like these are built all over the country in the cities where the status conscious work and in their hometowns as retirement homes. Influenced by both nuclear and extended family relationships, these homes sometimes are of mixed-use design for live-

work opportunities. In general, the home functions much the same as a home in any contemporary society in that parents spend most time out of the home at work, children spend their time at school, there is a master suite for the parents, individual bedrooms for the children, and family time is spent at the dinner table and watching television in the living room.

In Nigerian International style, visual taste is influenced more by international trends and void of much ornamentation. The colors, however, are bold and colorful, thus more reflective of the African aesthetic. Climate and geography is poorly resolved in this style of architecture as sliding glass windows are used in all the homes. Although it is not the best ventilation system to use in this climate, sliding glass windows are consistently found in homes of the wealthy. Constant access to electricity, supplied by private generators, makes this climate control system possible.

### **Challenges Facing Housing Design and Development**

Since gaining independence from Great Britain in 1960, Nigeria has been challenged to resolve the particular issues plaguing all aspects of the development of its communities. An interview featured in New Culture magazine in 1979 by David Aradeon, a faculty member in the Department of Architecture and Environmental Design, University of Lagos, Nigeria, inadvertently exposed the importance of traditional building practices and the challenges faced by contemporary architects. In the schools, it was Western architecture that was taught and not traditional design, yet nearly all the buildings going up around the country called for the traditional design-builder and not the university trained architect.

The traditional design-builder was a non-formally trained person, who developed his expertise as an apprentice under the tutelage of a local master builder. This traditional design-builder was in fact an architect, but was not be recognized as one under contemporary rules and regulations of the profession set by university-trained architects. This was most likely the point many of Aradeon's students raised in their efforts to have traditional architecture classes offered in their school curriculum. The students realized the future value of being trained in traditional design-build skills once they entered the work force. Twenty-five years later, the local design-builder continues to design and build a majority of the buildings constructed not only in the rural areas, but in the urban areas as well. As Aradeon has suggested, the trained architect has to find the best way to work out his own importance to society, a situation now critical for contemporary practicing architects, as it is painfully obvious that if they are to work, they must offer their services in the way that works for the culture. The majority of Africans reside in rural communities. It is this majority that still request the services of a design-builder, who supervises from start to finish the homes they need built, reflect the way they utilize space, recognize their aesthetic values, and most importantly, take into consideration their financial capabilities.

The modern African architect must be equipped with all these tools in order to achieve professional relevance and success at his trade. The fact that some of the most successful and effective architecture (traditional family compounds) is built in the rural areas by traditional design-builders, and not the formally trained architect, shows that the trained architect must equip himself to do traditional design-build work if he is to feed



himself as an architect.<sup>22</sup> This situation is compounded by the fact that not all homeowners can afford the professional fees incurred at the cost of hiring a university-trained architect.

Another post independence design development was the concept of Tropical Architecture, created by former colonizers and practicing architects in Africa.<sup>23</sup> The first element of Tropical Design was the concept of cross ventilation, which did not work for urban high density housing because placing windows in every surface in an attempt to create cool air flow, simply brought in the hot air from outside. There is very little airflow as the buildings are closely located. Wide-open windows everywhere also allowed easy access for mosquitoes. Another negative effect of the cross ventilation windows was the violation of the African need for privacy in the home. The homeowners' solution was to cover the windows with thick or heavy curtains, which now trapped the hot air that had been let into the home. Yet, another negative outcome of this same design element was the excess amount of bright sunlight that entered the home through the numerous louvered windows. These overly brightly lit rooms produced uncomfortable experiences, especially in rooms like the bedrooms, rooms that normally would be used for resting or sleeping. The solutions to all these newly created problems could easily be found in the past, utilizing the simple use of building materials that kept the heat out of the interiors.

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<sup>22</sup>Demas Nwoko, "Architecture and Environmental Design." *New Culture: A Review of Contemporary African Arts*, New Culture Studio Publication. 1, no 6 (1979): 29

<sup>23</sup>Hannah Le Roux, "The Networks of Tropical Architecture," *The Journal of Architecture* 8, (Autumn 2003): 337-343.

Another problem that arose during the post independence era was the severe problem of home ownership. Before foreign conquest, every Nigerian had the opportunity of owning a home, because building materials were local and free, while labor and workmanship was a community effort. Under foreign domination, most homebuilders could not afford expensive materials and labor; only the wealthy could afford homes while the masses were forced into perpetual tenancy in the most horrid conditions. That such conditions still exist today is one of the many negative vestiges of colonialism. In order to resolve the problem, the government stepped in to produce Sandcrete blocks as the standard material for building. When first introduced, architects and builders would not use the new material because they claimed it was too expensive, in both the creation of the material and the time it took to put the blocks together. As a result, that government initiative failed and the use of cement blocks remained popular. Planners noted that if architects played a more active role in construction and project management they could influence the use of better materials and appropriate building prototypes, thereby introducing change at the root of the problem.<sup>24</sup>

Apart from establishing historical precedence in African architecture, this chapter is intended to show that contrary to popular belief, African architecture has developed throughout the years into a dynamic and robust form of art. Like other architectures of the world, it has not been stagnant, but ever changing with the times and exposure to foreign culture, design and building practices. It could be argued that the difference in the case

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<sup>24</sup>Demas Nwoko, *Proof We Can: Demas Nwoko Retrospective @ 70*, An Exhibition of Plastic Arts, Theatre Arts, Architecture and Industrial Design 1959-2005, Catalogue (Lagos: Krislink Press Ltd. 2005), 101-102.

of African architecture is that Africans were the originators of design in their built environment; while Western societies copied this fundamental design from Africa (via North Africa), and then developed it into their own signature styles. It could further be argued that Africans, on the other hand, were the originators of their architecture, but its evolution came as a result of contact with European culture and building technology. However, it is important that in order for modern African architects to create a truly functional modern style of design, the social and cultural lifestyle of its inhabitants must be taken into consideration. Today this will include Africa's triple heritage as seen in the description of the three distinct design style commissioned by Ibo homeowners. Some styles will hardly exhibit architectural retention, while others will proudly reflect an African aesthetic deeply steeped in historical precedence. According to Nwoko's New Culture ideology, these elements of modern African design will be created when the comfort of African people is addressed in their architecture.

## **CHAPTER 4**

### **DEMAS NWOKO AND HIS ARCHITECTURAL IDEOLOGY**

#### **Demas Nwoko: Biography**

Demas Nwoko was born on 20th December 1935, into the royal family in the town of Idumuje-Ugboko, Aniocha North LGA, Delta State Nigeria. His father, the Obi (king) of the town, was also a Master Builder and inspired the creative arts in his son. In his early twenties, Demas left to work for the Ministry of Works, Ibadan as a draftsman. In 1956, he pursued private studies in creative architecture at Ibadan, Nigeria. He later attended the Nigerian College of Arts, Science and Technology, Zaria (1959-1961), which today is Ahmadu Bello University Zaria, to study Architecture, but changed to Art because the architecture school was not teaching design, but basic drafting which he already knew. In 1962, he spent a year in Paris studying Fresco Painting and architectural decoration at the Ecole des Beaux School of Arts as a guest of the French government. He also studied Theatre Architecture and Design for the stage (Scenography) at center Francis Du Theatre. He stayed only a year and left to accept a position at the School of Drama, University of Ibadan, developing a new African Centered perspective to producing African theatre arts. He moved back to Nigeria to become a pioneer staff of the School of Drama, University of Ibadan Nigeria, teaching

Design Directing and Applied Aesthetics from 1963 to 1978. In 1964, he traveled to the United States and the Far East on a Rockefeller Grant. He returned to later participate in art and theatre production during Nigeria's Independence celebrations and the second World Art Festival for the Black World, FESTAC 77'. Since then, Nwoko has worked tirelessly on research and development for modern African architecture, and has embarked on a new company called Artwood, a design and production outfit located in his hometown, for making highly stylized Nigerian furniture, mill and iron work.<sup>1</sup> As part of the development of contemporary African Theatre, he carried out experimental production styles, which he also reflected in his development of art and architecture. The following table chronicles his accomplishments over a lifetime of creativity.

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<sup>1</sup>P.C. Dike and P. Oyelola, *The Zaria Art Society: A New Consciousness*, (Lagos: National Gallery of Art, 1998), 103.

TABLE 1. THEATRICAL WORKS OF DEMAS NWOKO

<b>1963</b>	"The Palm Wine Drinkard": created for a traveling theater troupe and also presented as the Nigerian entry at the Pan African Cultural Festival held in Algeria in 1969
<b>1966</b>	"DANDA": a dance play presented at the First Negro Art Festival
<b>1968</b>	"Olympic Dance": a pure dance production which was the Nigerian cultural presentation at the Olympic games of Mexico 1968
<b>1977</b>	"Children of Paradise": a dance play presented during the Black and African Festival of Arts and Culture (FESTAC) in Nigeria in 1977

*Source: Demas Nwoko. Proof We Can: Demas Nwoko Retrospective @ 70, An Exhibition of Plastic Arts, Theatre Arts, Architecture and Industrial Design 1959-2005, Catalogue. Lagos: Krislink Press Ltd, 2005*

TABLE 2. DEMAS NWOKO RESEARCH AND DEVELOPMENT OF AFRICAN ARCHITECTURE

<b>1956</b>	He privately pursued the study of creative architecture with great interest in Traditional Architecture of Africa, the Arab world and the Far East
<b>1960</b>	He won his first National architecture commission to design and build the National Arts and Craft Pavilion during the Nigerian Independence celebration in Lagos
<b>1978</b>	Nwoko established a building and materials development center in Idumuje-Ugboko. All theatre props including structural steel, wood works, theatre seats and some lighting fixtures for the Benin Cultural Center were manufactured in this design factory-studio

*Source: Demas Nwoko. Proof We Can: Demas Nwoko Retrospective @ 70, An Exhibition of Plastic Arts, Theatre Arts, Architecture and Industrial Design 1959-2005, Catalogue. Lagos: Krislink Press Ltd, 2005*

TABLE 3. DEMAS NWOKO PUBLIC PAINTING AND PUBLIC SCULPTURE COMMISSIONS

<b>1960</b>	The Mural "The Blacksmiths" at Nigerian College of Arts and Technology, Zaria
<b>1961</b>	The Mural "Talents" at University of Ibadan
<b>1967</b>	Nwoko carried out experimentations on the improvement of mud as a viable contemporary building with the introduction of an ad-mix of ten percent Portland cement. The resultant mix was used to construct his studios the New Culture Studios, located in Ibadan
<b>1980</b>	Designed the sculpture "TOTEMS" at Murtala Mohammed Airport Lagos

*Source: Demas Nwoko. Proof We Can: Demas Nwoko Retrospective @ 70, An Exhibition of Plastic Arts, Theatre Arts, Architecture and Industrial Design 1959-2005, Catalogue. Lagos: Krislink Press Ltd, 2005*

TABLE 4. DEMAS NWOKO ARCHITECTURAL WORKS

<b>1966</b>	New Culture Studios Ibadan
<b>1970-1975</b>	The Dominican Monastery, Ibadan
<b>1973-1975</b>	Benin Cultural Center Benin
<b>1975</b>	Ibadan Cultural Center
<b>1977-1978</b>	Demas Nwoko Private Home, Idumuje-Ugboko
<b>1984</b>	Chapel At Bishops Court, Issele-Uku
<b>1986-1997</b>	Benedictine Monastery, Ewu
<b>Undetermined</b>	Cottage At Ugboko
<b>Undetermined</b>	Onobrakpeya Gallery, Agbara Otof
<b>Undetermined</b>	Chapel for Daughters of Devine Love, Enugu
<b>1998</b>	Martin Nwoko Family Residence, Idumuje-Ugboko

*Source: Demas Nwoko. Proof We Can: Demas Nwoko Retrospective @ 70, An Exhibition of Plastic Arts, Theatre Arts, Architecture and Industrial Design 1959-2005, Catalogue. Lagos: Krislink Press Ltd, 2005*

TABLE 5. DESIGN AND MANUFACTURE OF CRAFT FURNITURE AND LITERARY WORKS

1978	Nwoko converted the New Culture Studios Ibadan from his private studios into a training center for the performing arts and a design center. The facilities in the studio include an amphitheatre, dance studio, music studio, design studio and a cinematographic film laboratory.
1979	A publication section in the studio published New CULTURE, and art and culture magazine as well as other arts related books, such as "The Children of Paradise."

Source: Demas Nwoko. *Proof We Can: Demas Nwoko Retrospective @ 70, An Exhibition of Plastic Arts, Theatre Arts, Architecture and Industrial Design 1959-2005, Catalogue*. Lagos: Krislink Press Ltd, 2005.

### Development of Demas Nwoko's Belief System

Our people say that if the dwarf child attains the age of maturity he will be made to wear clothes despite his childlike stature.

Culturally and therefore in all things, Africa has drifted along for too long a time to the tune of the whole world not caring to have an identity locus as every other people of the world exist on. We are dwarfed and are now an embarrassment to the world. For self-dignity, we should now cloth our exposed body with the garb if our God given cultural identity to settle down as one, recognizable peoples of the world.<sup>1</sup>

This powerful quote by Demas Nwoko was made during the launching of his New Culture Foundation for African Arts and Culture in the fall of 2005. It exemplified the passion of one of Nigeria's most creative personalities: an artist, sculptor, playwright, poet, architect, builder and industrial designer. He launched his foundation to ensure the continuation of Africa's ideologies and ways of life way after his generation has passed. His belief is that Africa needs a cultural rehabilitation to bring her back to the right track

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<sup>1</sup>Demas Nwoko, *The Culture Option* (Lagos: New Culture Foundation for African Arts and Culture, 2004), 50.



of human civilization. For far too long, Africans have sought after foreign models to copy for their architectural development and those models have always failed. The failures stem from the fact that these models, which were uprooted from their unique cultural milieu, were transplanted on to a non-viable cultural environment.<sup>3</sup>

In another quote, Demas says. . .

Culture is the author and receiver of all human redevelopment programs and without an indigenous relevant culture to receive and cultivate a program to fruition; all efforts are wasted, as is our experience since independence. We have tried out all foreign options thrown at us or sought out by us and they have failed us because they had no fertile soil to fall on. It is time we go to the basics of our life, which is our culture to found a solid foundation to build on. Let us try the Culture Option. To rediscover what we had before our contact with the outside world because the aesthetics and philosophy of our indigenous culture dictates our true relevant needs in life, which are, evolved patterns of living over time. After satisfying our basic needs for comfortable living, every other consumption is an exotic icing on the cake of life.<sup>4</sup>

In order to institutionalize Nigerian philosophy, Nwoko believes it is important to create physical structures such as buildings. This way, when the elders and teachers die, there is a place to go that will remind and teach Africans of their legacy. He had never planned on becoming an academic or lecturer but decided that teaching would provide the platform for which future generations would have the opportunity of learning African design. The colonial educational system, which was designed primarily to promote Western architectural ideologies, did not encourage such African centered pioneering

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<sup>3</sup>Demas Nwoko, *The Culture Option* (Lagos: New Culture Foundation for African Arts and Culture, 2004), 50.

<sup>4</sup>Ibid., 50.

work. For this reason, Nwoko left academia in 1978, to continue his pioneering work in his village.

### **The Beginning: The Zaria Art Society**

In 1959, Nwoko won a government scholarship from the Ministry of Works to study architecture. He gained admission to the Nigeria College of Arts, Science and Technology, Zaria (now Ahmadu Bello University) to pursue his studies in design however he later changed his study to art, a discipline he felt allowed for more creativity. Zaria's architectural approach was to teach the subject more like draftsmanship, without creativity. He believed draftsmanship could be studied through apprenticeship, therefore it was not necessary to spend seven years in school training to be a draftsman. In Europe, architecture was one of the most creative forms of expression (Gothic, Romanesque) and Nwoko believed it should be the same in Africa.<sup>5</sup> When he changed to art, he lost the scholarship and had to pay that year out of pocket. He later gained a Federal scholarship for the second year.

In an interview for the exhibition catalogue, sponsored by the National Art Gallery titled, *The Zaria Art Society: A New Consciousness*, Nwoko chronicles the origins of the Art Society and the development of the concepts of Natural Synthesis that later gave birth to his ideology of New Culture. Nwoko narrates how both he and Uche Okeke were already award winning artists and draftsmen when they gained admission to the Nigerian College of Art Science and Technology. They entered the Art program to

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<sup>5</sup>Demas Nwoko, *The Culture Option* (Lagos: New Culture Foundation for African Arts and Culture, 2004), 56.

learn the cultural arts of the West, as that knowledge was all the young expatriate lecturers had to offer. Both he and Okeke felt lucky that they already had an in-depth knowledge of African arts and culture from growing up in their culture. This was an opportunity soon to be lost by future students raised in the urban cities with no knowledge of their culture and no hope of learning of it in the Euro-centered educational system. For Nwoko and the students who would later become the Art Society, they worked on their European art assignments in the day, and at night, they began to create the style of art that would later be defined as Modern Nigerian Art. The way of teaching art was the English academy way, and the students complained bitterly. According to Society members, "The head of department became sympathetic and allowed them to practice their own African art after hours with full access to the department tools and equipment."<sup>6</sup> The teachers, aware of their groundbreaking efforts, encouraged them and recommended them to produce the national arts projects commissioned during the country's independence celebrations in 1960. These were the circumstances and founding fathers that birthed Modern Nigerian art, architecture and the performing arts.<sup>7</sup>

### **Origins of Natural Synthesis and New Culture Ideologies**

The concept of Natural Synthesis was created by Uche Okeke as a means by which Nigerians could take the essence of what was needed from any culture they was exposed to, and synthesize it with elements of their own culture. The approach called for

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<sup>6</sup>Demas Nwoko, *The Culture Option* (Lagos: New Culture Foundation for African Arts and Culture, 2004), 56.

<sup>7</sup>P.C. Dike and P. Oyelola, *The Zaria Art Society: A New Consciousness* (Lagos: National Gallery of Art, 1998), 54-56.

blending African traditions with elements of foreign culture in a way that was beneficial to contemporary African lifestyle. The Art Society students developed the Natural Synthesis ideology and created the works they did while in school at Zaria. After graduation, Nwoko took the concept of a synthesis of cultures, and began to apply it in every form of art he produced. The ideology evolved into what Demas would later call "New Culture."

Nwoko's architectural work began in 1967 with his New Culture Studios, a building that actualizes his ideas in design, construction and the use of local materials. In 1971, Nwoko established the African Design Center, for the development of a Nigerian design industry. The aesthetics of technology bestows a value on its products that distinguishes one from another based on the culture from which they are created. This in turn reflects a people's level of aesthetic awareness and ultimately their culture. Thus, the Design Center was dedicated to the development of time proven traditional materials through the aid of modern day technology, and the production of top quality African utility ware. The Center dedicated itself to training architects, artists, designers of African aesthetics and design concepts and the application of modern technology to the related fields of the decorative arts, performing arts with emphasis of the African art synthesis.<sup>8</sup>

As written about him in the *Zaria Art Society: A New Consciousness*:

The quest for a perfect creative climate is central to Nwoko's philosophy, which exhibits profound respect for and belief in African culture. Africanisms, as we are inclined to call

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<sup>8</sup>P.C. Dike and P. Oyelola, *The Zaria Art Society: A New Consciousness* (Lagos: National Gallery of Art, 1998), 114-116.

philosophy, has been responsible for turning Nwoko into a human machine with appropriate self adjusting mechanisms and an encyclopedic mind. Nwoko is a multidimensional, polytechnic entity whose fertile imagination can only be appreciated in stages depending on the level of understanding demonstrated by the perceiver, for he is many things to many people: painter, sculptor, architect, builder, interior decorator, set and costume designer, play director, teacher, printer, publisher, philosopher and experimentalist.<sup>9</sup>

### **Nwoko's Architectural Ideology**

In the architecture and environmental design section of the journal, *New Culture: A Review of Contemporary African Arts*, Nwoko aims to accomplish several goals: (1) to highlight on the success Africans have made in their own design solutions to African Architecture, (2) to encourage collective efforts to solve Africa's unique environmental problems and (3) to publish work notes and techniques on how to build a house for all those seeking to build their homes. It was his belief that with coordinated efforts, Africans would find solutions to the problems in their immediate and surrounding environment. Nwoko ultimately believed the source for lasting solutions to Africa's urban design issues lay in past traditional methodologies.<sup>10</sup> He states:

It is a fact that once upon a time, our ancestors created architectural solutions that resolved their natural environmental problems without any form of dependence on an outside source. It is our belief that we, their accredited descendants are capable of developing aesthetic solutions to our contemporary environmental situations without the type of outside aid we are getting now. . . surely Africans are not inferior to their ancestors.<sup>11</sup>

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<sup>9</sup>Ibid., 115.

<sup>10</sup>Demas Nwoko, "Architecture and Environmental Design." *New Culture: A Review of Contemporary African Arts* New Culture Studio Publication, 1, no 1 (1979): 26.

<sup>11</sup>Ibid., 26.

Demas Nwoko's architecture developed in order to reflect nature, as it is nature that inspires all creativity. His style of architecture is for the comfort of human habitation, in whatever culture or climate.<sup>12</sup> He realized that the first step was building the type of comfortable dwellings that addressed African climate, culture and environment. If he could, as one man design and build contemporary versions of all Nigerian ethnic architecture to prove that it is not inferior, but appropriate and viable It would change African architecture. He comments:

Our architects are not doing well because they are not grounded in the best of what had happened thousands of years ago that served our people well without electricity. Now we build the modern house, and if there is no electricity or air conditioner, you suffer in your house. So why not build from what was comfortable? The creative one does not create works simply to be housed in museums. The creative one takes from what has been done and moves the society forward.<sup>13</sup>

He has since become even more aware that the architecture of the buildings he grew up in as a child has always been superior to the European models that have been adapted to African climate and environment.<sup>14</sup>

Stating first and foremost that the object of any design exercise is man himself (his health, comfort and happiness are paramount), the client becomes most interested in his comfort and aesthetic pleasure.<sup>15</sup> The land was always home, because through

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<sup>12</sup>Demas Nwoko, *The Culture Option* (Lagos: New Culture Foundation for African Arts and Culture, 2004), 67-68.

<sup>13</sup>Ibid., 67-68.

<sup>14</sup>Demas Nwoko, *The Culture Option* (Lagos: New Culture Foundation for African Arts and Culture, 2004), 67-68.

reincarnation, the African would continue to return to the land. It was, therefore, in his best interest to keep the land beautiful and well maintained, in both private and public areas, build homes that accommodated his immediate and extended family members, and build homes that were comfortable, by keeping the home warm during the night and sheltering it from heat during the day.

Nwoko responded to these issues with his own ideology of New Culture. It called for the evolution of a new African culture that reflects the way Africans live their lives today. It was founded on the premise that culture evolves out of the necessity to provide comfort for the members of a society. His works are powerful, expressive and African. His incursion in architecture has intrigued his clients and contemporaries alike, as a result of the thoroughness of his designs, the soundness of his structures and the elegance of his finishes. Nwoko ranks high among Nigeria's avant-garde architects, being one of the very few architects to have successfully created a purely modern style of Nigerian architecture.<sup>16</sup> His approach to architecture has been a dedicated journey to design a comfortable living and working cell for man, which he believes is almost as effective as the traditional models.<sup>17</sup>

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<sup>15</sup>Demas Nwoko, "Architecture and Environmental Design." *New Culture: A Review of Contemporary African Arts*. New Culture Studio Publication, 1, no 1 (1979): 27.

<sup>16</sup>P. C. Dike and P. Oyelola, *The Zaria Art Society: A New Consciousness* (Lagos: National Gallery of Art, 1998), 109.

<sup>17</sup>Demas Nwoko, *Proof We Can: Demas Nwoko Retrospective @ 70, An Exhibition of Plastic Arts, Theatre Arts, Architecture and Industrial Design 1959-2005*, Catalogue (Lagos: Krislink Press Ltd. 2005), 65.

## **CHAPTER 5**

### **FINDINGS AND DISCUSSION**

#### **Findings**

This chapter provides an examination of several design elements featured in Nwoko's residential architecture assessing his belief that design for comfort of African people. The analysis also examines the relationship between the design elements of comfort architecture in Nwoko's New Culture ideology, and the design elements of culture, historical precedence and geography in Elleh and Hughes theories.

This chapter examines the methodology Nwoko has created to apply his theory of comfort design in his architecture. The three identified elements of design encapsulate (1) his approach to a use of space that supports lifestyle and achieves comfort, (2) artistic application that reflects African aesthetic values in color, motif and design patterns, and (3) his use of building materials that not only provide comfortable interiors in a tropical climate, but are affordable and durable. It must be noted that the study is limited to the visual analysis and not a survey of building end users (occupants). In addition, the research only examines single-family residential buildings, located in both rural and urban areas, and not apartment buildings or other such multi-family dwellings, as Nwoko has not designed such structures.



### **New Culture Theory on African Architectural Elements**

The home is man's shelter from the environment but also his comfort castle.

Nwoko believes that traditionally in house design, form followed function, and function followed the use of space according to culture and lifestyle (See figure 8). Historically and in contemporary rural settings, the courtyard was a standard element in home design. The family enjoyed the courtyard for social gatherings, not disturbed by heat, or rain in its smartly designed, weather controlled environment. Nwoko was determined not to let this feature be lost with other signature elements of African design, so he re-introduces it in all his buildings. As the heart of the family home, the courtyard served as a transitional space utilized to access any and every space within the home. Courtyards act both as a conductor and conveyor of the elements. Trees were often planted in the courtyard to provide shade on sunny days. Nwoko decided to use the courtyard as the design element through which his ideology could be translated architecturally in response to lifestyle and use of space. Nwoko uses the courtyard in the following ways to implement his ideology.



Figure 8. Nwoko Private Residence Idumjue-Ugboko, Nigeria.  
Source: Nmadili Okwumabua. Private Collection, 2001.

### **Application of Theory: The Impluvium Courtyard**

- Nwoko designs a modern version of the Impluvium Courtyard that features a fiberglass downspout, (See figure 9) with an opening of about 1.2 meters, instead of the complete opening typical in traditional courtyards. The miniature court is placed in the center of the average sized house, or larger versions in non-residential

buildings.

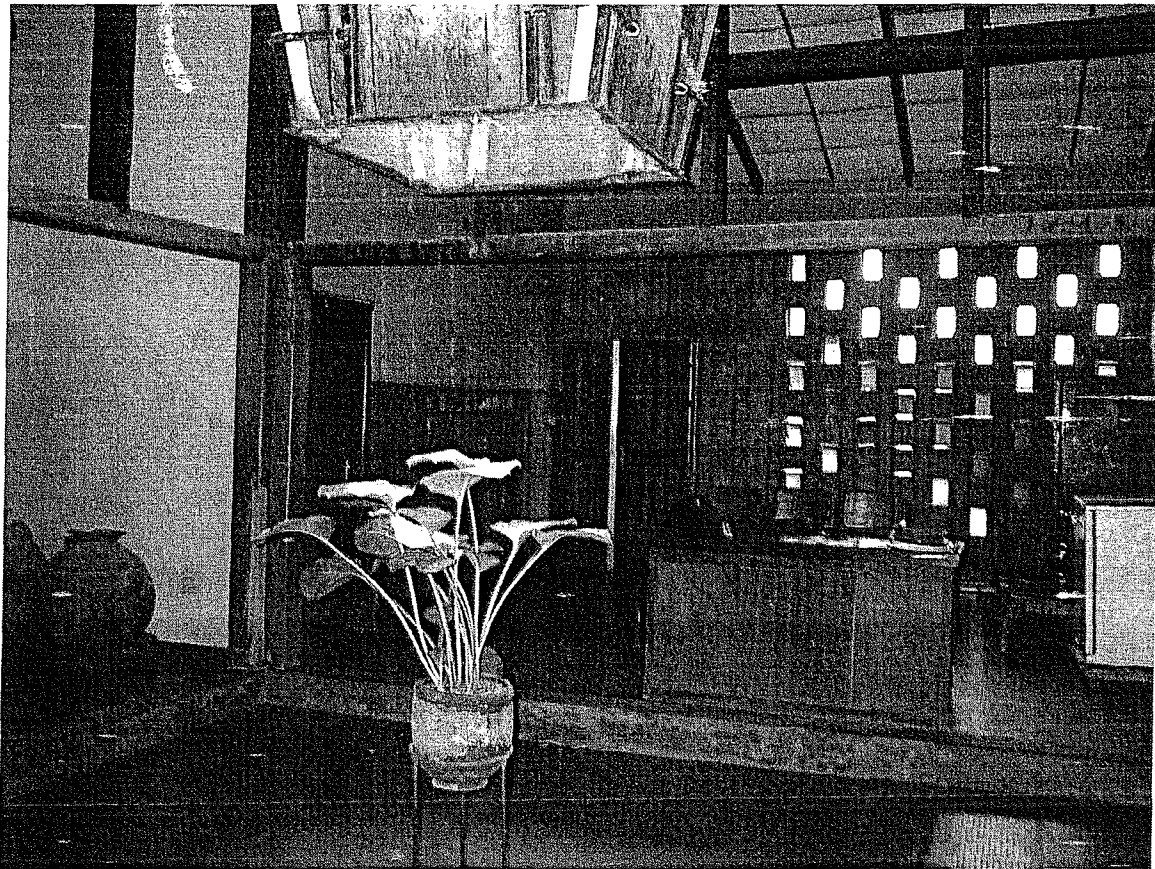


Figure 9. Private Courtyard, Nwoko Private Residence Idumuje-Ugboko, Nigeria.  
Source: Nmadili Okwumabua, 2001

- In response to the different uses of the courtyard (based on traditional and contemporary practices), Nwoko designs the “double” courtyard. Guests are led to either of the courtyards, depending on the nature of the visit and their relationship to the family. An example is featured in his private home in Idumuje-Ugboko. The first courtyard is a modern version that features the inverted downspout. It is a private courtyard used mostly by his family and special visitors as a place of entertainment. The second courtyard is designed in the more traditional way, with the whole roof

open to the sky. Its finishing is very limited (See figure 10) as it is used primarily to host the local guests, who often use the space for traditional meetings. Such meetings include the pouring of libations on the ground as offerings to the ancestors, an act that would or would not be permitted on carpeted or other expensively finished flooring.

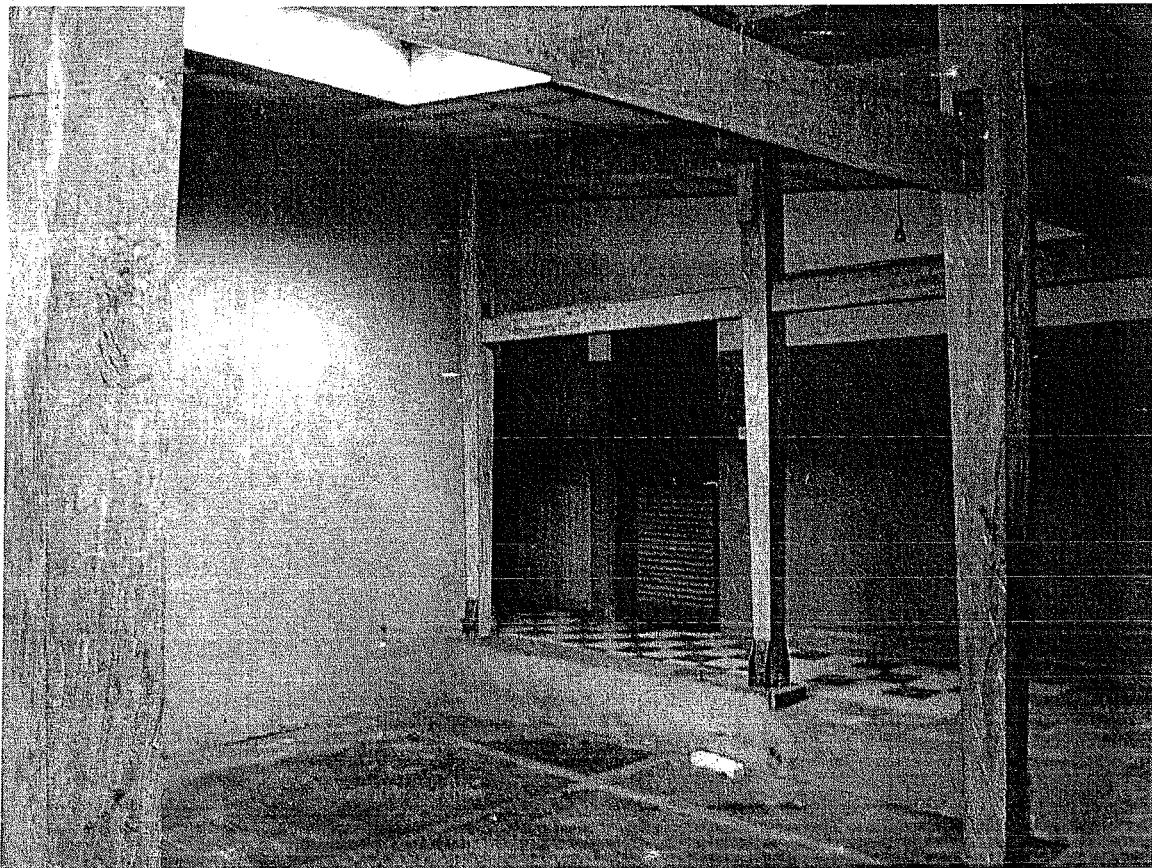


Figure 10. Public Courtyard, Nwoko Private Residence Idumuje-Ugboko, Nigeria.  
Source: Nmadili Okwumabua, Private Collection, 2001.

- To maintain the openness of the courtyard design, furniture is designed within the walls of the home as much as possible, for example, bookshelves, wardrobes and

even seating. When freestanding, furniture is arranged along the walls, leaving the courtyard or other spaces within the middle for free flow and gatherings of people. The courtyard achieves an aesthetic element as the cascading waterfall of rain into the open downspout provides soothing sounds and a visual play of light, shade and water. The funnel shape roof opening reduces water flow to a gentle cascade, allowing only a limited space (1.2-meters) for ground water contact.

- The courtyard also responds to the effect of geo-climate, as it provides cool interiors when it is hot outside and warmer temperatures when it is cold outside. The courtyard feature helps maintain a comfortable and constant interior temperature of approximately 25 degrees centigrade all year round. The traditional method controlling temperature results in a much cooler environment because of the building technology used: insulating mud for walls and leaves for roofs.

### **Application of Theory: Decorative Arts**

Nwoko reflects that “In art, man has created an ideal form of beauty which, when successful, is infinitely valid aesthetically.”<sup>1</sup> Further, Noel Moffett praises Nwoko’s architectural accomplishments by comparing him to Gaudi (in the June 1977 issue of Architectural Journal of the Royal Institute of British Architects), “Here under a tropical sun, architecture and sculpture combine in a way in which only Gaudi perhaps, among

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<sup>1</sup>Demas Nwoko, “The Aesthetics of African Art and Culture.” *New Culture: A Review of Contemporary African Arts*. New Culture Studio Publication, 1, no 1 (1979): 6.

architects, has been able to do so convincingly.”<sup>2</sup> This quote attests to Nwoko’s success at achieving the aesthetic translation of art in his architecture. In the past, African houses were decorated with the elements of beauty; however, their modern counterparts are void of embellishment. Nwoko says those who experience his buildings claim them as theirs because they feel the buildings remind them of those their parents built; the buildings were modern but “they looked like their buildings.”<sup>3</sup> He has also noted that people accepted designs that resulted in comfortable living but were not blatantly traditional in appearance. He further stated that clients were not bold enough to accept the stigmatized shape, so he altered the forms to fit what clients believed was in style today.<sup>4</sup>

Nwoko believed that the primary objective of a house was to provide comfort and pleasure, which could only be truly enhanced by visual aesthetics or art. Aesthetics provide environments that are satisfying, expressive, pleasurable, and give a feeling of joy and peace. Throughout time, man has lived with and created art, which must be an integral part of architecture to make home a worthwhile place to live and work in.<sup>5</sup>

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<sup>2</sup>Demas Nwoko, “Architecture and Environmental Design.” *New Culture: A Review of Contemporary African Arts*. New Culture Studio Publication, 1, no 12 (1979): 27.

<sup>3</sup>Demas Nwoko, *Proof We Can: Demas Nwoko Retrospective @ 70, An Exhibition of Plastic Arts, Theatre Arts, Architecture and Industrial Design 1959-2005*, Catalogue (Lagos: Krislink Press Ltd. 2005), 101.

<sup>4</sup>Demas Nwoko, *The Culture Option* (Lagos: New Culture Foundation for African Arts and Culture, 2004), 67-68.

<sup>5</sup>Demas Nwoko, “The Aesthetics of African Art and Culture.” *New Culture: A Review of Contemporary African Arts*. New Culture Studio Publication, 1, no 5 (1979): 1-2.

Nwoko believed all within the home should be aesthetically embellished, such as the furniture, arts, and even utensils. Nwoko comments, "The house should carry art and artistic works, man's best efforts at the recreation of nature's infinite goodness to demonstrate that it is first in his applied aesthetic endeavor."<sup>6</sup>

People's aesthetic tastes are determined by their natural environment, the society in which they find themselves and by their intangible spiritual orientation. What Africans find pleasing to the eye, touch and the soul will naturally influence what is designed in the built environment. The African individual and communal aesthetic experience should control what he produces.<sup>7</sup> To reflect this belief and ideology of African aesthetics in his architecture, Nwoko invites artists and sculptors to participate in the design process and gives them freewill to express their creativity through a multitude of media. These contributions are evident in the carved doors, columns, fencing, gates and other millwork and wrought iron work features. Nwoko uses African aesthetics in the following ways to implement his ideology:

- **Building Form as Sculpture:** The overall shape of a building is a form of art itself, and placed aesthetically within its manicured lawn it can be described as "a beautiful sculpture sitting in a park." A building is as much a grand expression of art, as it is the careful assemblage of a collection of decorative parts such as millwork, wrought ironwork, wall and floor finishing, lighting, art and furniture. Nwoko argues the

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<sup>6</sup>Demas Nwoko, "The Aesthetics of African Art and Culture." *New Culture: A Review of Contemporary African Arts*. New Culture Studio Publication, Vol:1 Issue 15 (1979): 1-2.

<sup>7</sup>Demas Nwoko, "The Aesthetics of African Art and Culture." *New Culture: A Review of Contemporary African Arts*. New Culture Studio Publication, Vol:1 Issue 15 (1979): 3-6.

importance of applying aesthetics to these components, turning each into a work of art (See figure 11).

- Millwork: Demas Nwoko designs columns for public and private sector buildings, sometimes as structural support but also as purely decorative forms of artistic expression (See figure 11). He engages the artist, the master craftsman, the architect and the building engineer to collaborate on these spectacular columns. A carved column will always give more pleasure to the beholder than a plain one. As seen in this example, the columns have been decorated in both symbolic and purely decorative patterns. Millwork is often decorated with traditional or contemporary patterns. Sometimes, homeowners have a family portrait finely carved on the celebrated front door of their home.



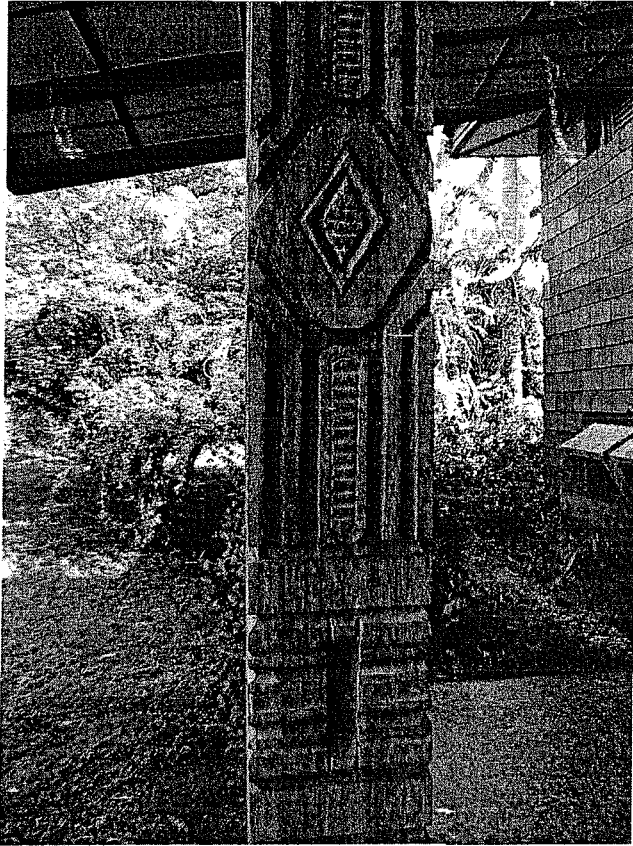


Figure 11. Decorative Column. Martin Nwoko Residence, Udumuje-Ugboko. Nigeria.  
Source: Nmadili Okwumabua, Private Collection, 2005.

- Wrought Ironwork: Nwoko works with artists to create wrought iron doors that serve as security screen doors and compound gates (See figure 12). The decorative forms represented on these doors are African in origin and some of the designs expressed in the metalwork evoke spiritual powers of protection. Some designs symbolize the homeowner's power or status in the community. Some designs are purely decorative.



Figure 12. Wrought Iron Door. Nwoko Private Residence, Idumuje-Ugboko, Nigeria.  
Source: Nmadili Okwumabua. Private Collection, 2001.

- Furniture: Nwoko's newest art is displayed in his furniture line, a commodity he currently manufactures for commercial and residential markets throughout Africa (See figure 13). He has designed contemporary furniture inspired from traditional sources, evident in the stylized chair legs and interlocking patterns on the end tables. These pieces are part of a suite of furniture, hand-made by local master craftsmen. The set consists of several chairs, sofas and end tables.



Figure 13. Furniture, Nwoko Private Residence, Idumuje-Ugboko, Nigeria.  
Source: Nmadili Okwumabua. Private Collection, 2001.

- Art: Nwoko also believes in African inspired interior décor, and has decorated his home with traditional and contemporary art forms, both symbolic and purely decorative. Most of the African art displayed in his home are paintings and wooden and terracotta sculpture he has created (See figure 14). The paintings depict scenes from his childhood, portraits of loved ones and pictorial narratives of Nigeria's colonial era. Painted mostly during his college days in Zaria, the paintings also include his impressions of Europe during his travels. His endeavor in the plastic arts was inspired by a desire to revive ancient Nok and Ife terra cotta works. On exterior painting and finishing, Nwoko advises that homes should be painted and maintained

as a beautiful house contributes to a beautiful environment. A warmly painted wall surface will create a soothing atmosphere and give ambience where a plain wall would not. Emulsion paint is used for interior and exterior finishing on concrete, cement, plaster, block work, brickwork, and other finishing.



Figure 14. Adam and Eve Wood Carving. Nwoko Private Collection.  
Source: Nmadili Okwumabua. Private Collection, 2005.

#### **Application of Theory: Laterete**

Arguably the most important comfort-providing feature of African architectural elements is the materials used in building. Africans used adobe bricks for the construction of their homes. Adobe brick is a natural earthen brick that not only protected the people in their residences from the heat and humidity, but also addressed the concern of

affordability. The modern version of this adobe brick is the Latcrete block, which Nwoko invented by mixing ten percent cement to laterite. Invented in 1966, the Latcrete block was used on the Ibadan Culture Center and in all his buildings since then (See figure 15). Nwoko, thus, responded to the challenges of climate and cost in all of his buildings with the use of Latcrete, which was simply a new interpretation of all that had come before it: adobe mud walls, sun backed mud blocks with mud mortar, fire backed mud bricks with cement mortar, and river bed Sandcrete blocks. Latcrete possessed most of the treasured qualities of the original adobe brick and also possessed an aesthetic that was more acceptable to modern Nigerians than the original mud brick look. This feature was key in gaining product acceptance by clients. Nwoko also believed that how building materials were used was as important as what was used. Thus, the following examples highlight Nwoko's final application of comfort design elements via building materials and technique.

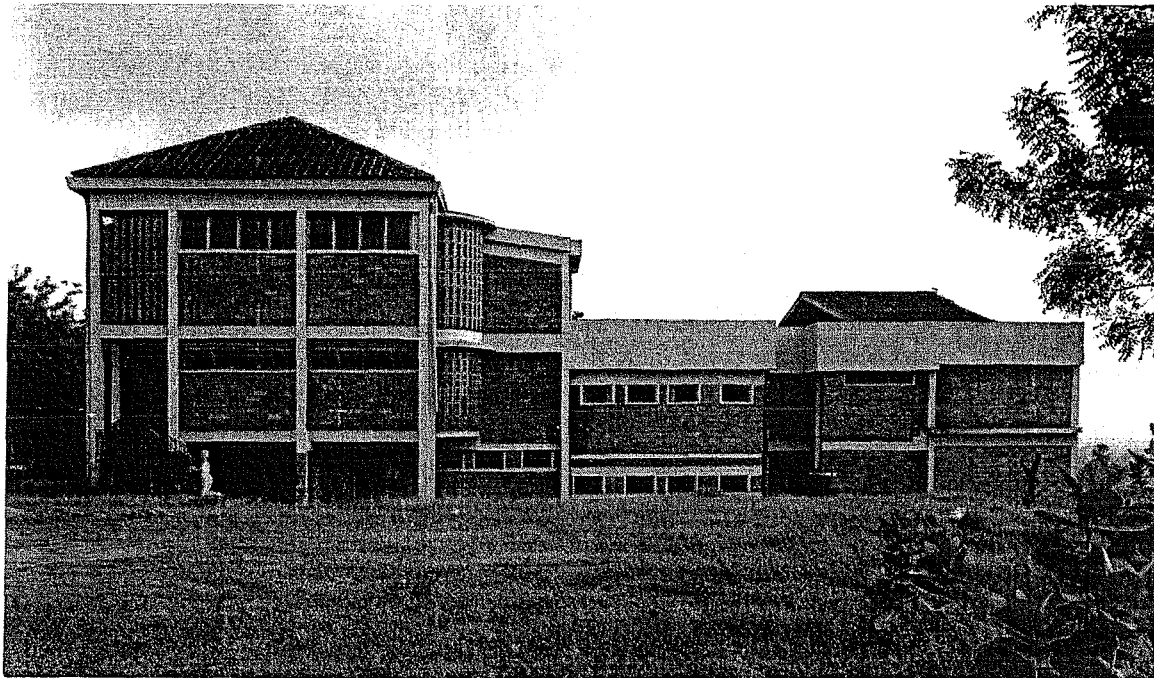


Figure 15. Ibadan Cultural Center, Ibadan, Nigeria.  
Source: Kelechi Amadi. Private Collection, 2005.

- Nwoko designs exterior walls with the middle of the walls without openings and provides these openings for the entry and exit of air in the appropriate places: at ground level and above the head level. This way, the cool air is pulled up at ground level and escapes out at head level. Every measure should be taken to maintain a constant temperature within the house year round. Airflow patterns become a top down process, as air slowly enters through the small windows atop the walls, and exit through the open roof. This chimney “down draft” effect is better than the cross ventilation method preached by the Tropical Architecture school.
- The final issue concerns building materials and how one could design for light control. It was determined that windows should be placed at nearly ceiling height for

an indirect source of light. The source of light should also be controlled with shutter devices to control light flow especially in private areas such as the bedrooms where subdued lighting was preferred.

- Latcrete breathes and thus controls temperature within the buildings. Latcrete is cost efficient. Due to its pleasant aesthetic in natural block form, exterior painting or finishing is not required (See figure 16). The main difference between Latcrete and Sandcrete is that the river washed sand has to be transported from the streams and rivers, while Latcrete laterite is dug up from the construction site itself and washed, if at all, with rainwater.

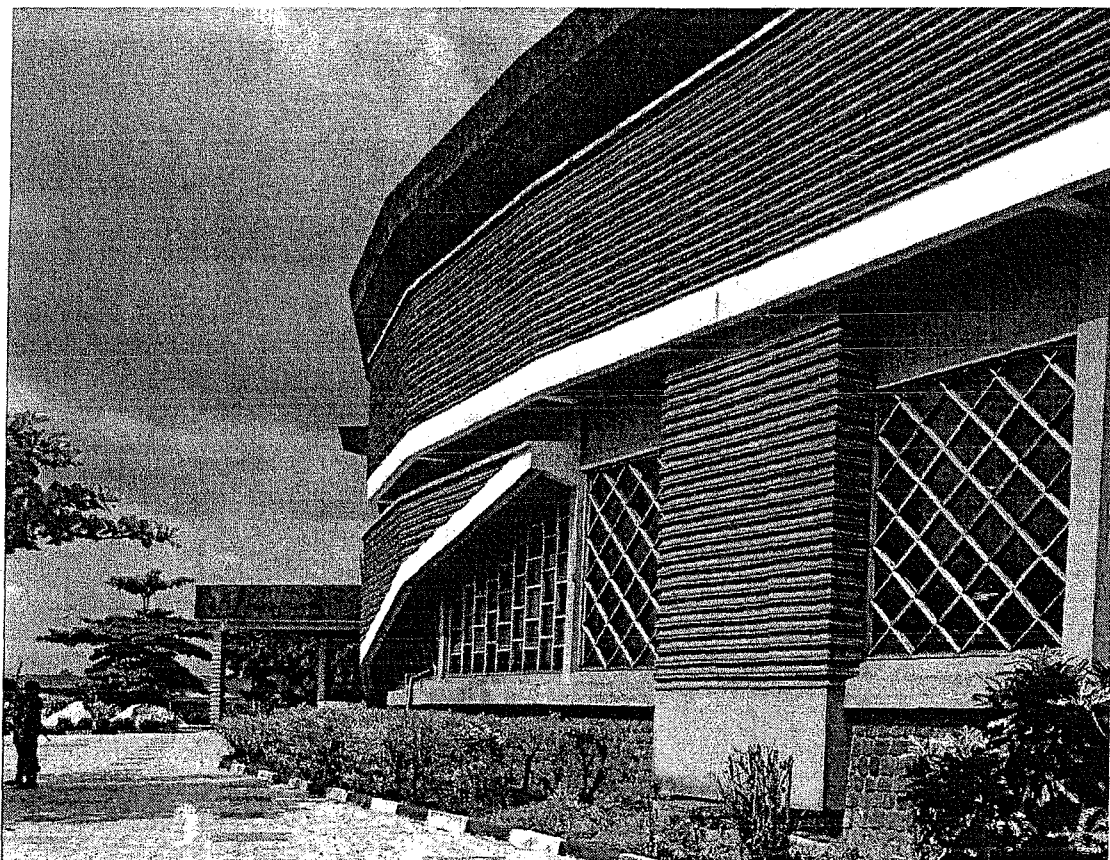


Figure 16. Akenzua Cultural Center Benin City, Nigeria.  
Source: Kelechi Amadi. Private Collection, 2005.



- The Latcrete wall maintains its integrity and needs little maintenance, unlike the pure laterite wall, which needs frequent re-plastering. It comes in different hues and earth-tones depending on the color of the laterite used (See figure 17). In figure 17, a variety of different color blocks were used, to create a multi toned effect. As it is the same color of the earth, it hides dust and mud stains easily.



Figure 17. Nwoko Private Residence, Udumuje-Ugboko, Nigeria.  
Source: Nmadili Okwumabua. Private Collection, 2001.

- Latcrete is cost efficient as it is made from earth on the construction site; thus, it cuts down on transportation fees. Latcrete is used as full load bearing blocks, and the



buildings have shown no signs of deterioration since being built over 40 years ago. Nwoko uses reinforced concrete beams for structural support where needed and boulder stone and Sandcrete blocks for improved foundations. Unlike pure Adobe, the Latcrete block works well with cement plaster if desired. They can be stacked in a perforated manner to allow for light and airflow as well (See figure 18).

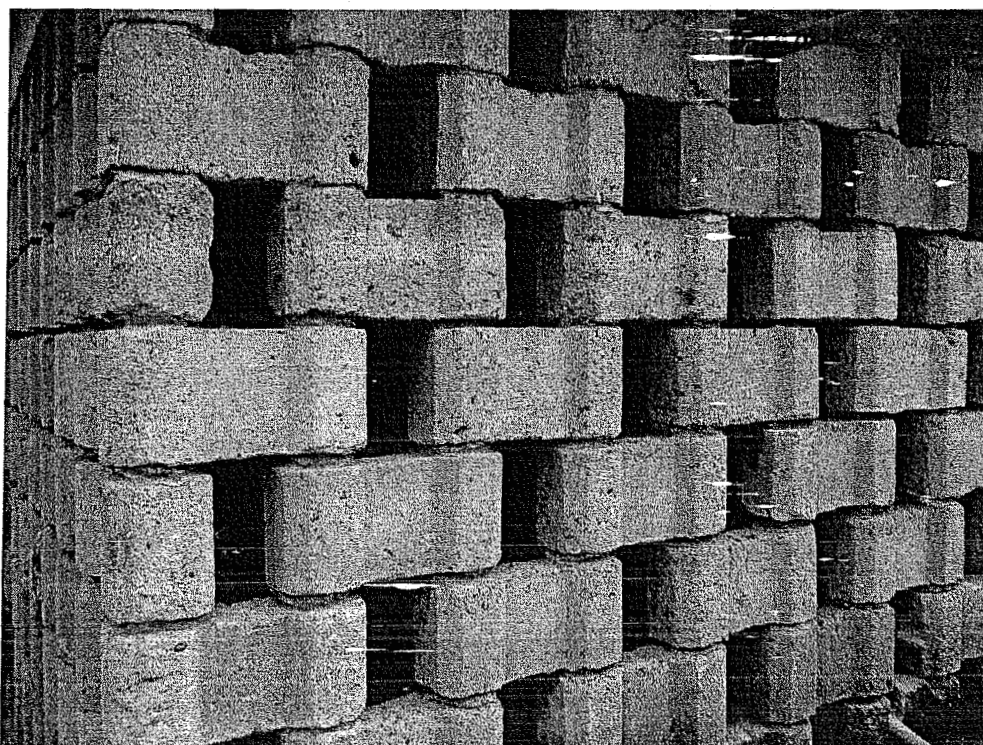


Figure 18. Latcrete Block Wall, Nwoko Private Residence. Idumuje-Ugboko. Nigeria.  
Source: Nmadili Okwumabua. Private Collection, 2001.

## CHAPTER 6

### CONCLUSION

#### Conclusion

The architecture featured in this study exemplifies elements of Nwoko's idea of comfort design that recognizes the value of retention of tradition and attests to an evolution of modern African architecture. He critically analyzes the past and applies the use of theory to create unique design concepts that respond to the social, cultural and environmental concerns of the communities in which he has constructed homes and public buildings. Ultimately, he creates bold and dynamic architectural forms that challenge antiquated notions of what constitutes African architecture. Nwoko centers his work on the creation of contemporary urban design, based on history, culture and comfort; and on the relevance of urbanization and development in Africa. Nwoko was introduced during the launching of his foundation with the following words:

Demas Nwoko is one of the few architects in Nigeria who has developed a corpus of theoretical works by which their output can be judged. His work stands as a bridge between our past and our future. His works present us with a clear signpost to our destination, they lay before us, the architectural philosophy and achievement of our past.<sup>1</sup>

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<sup>1</sup>Demas Nwoko, Proof We Can: Demas Nwoko Retrospective @ 70, An Exhibition of Plastic Arts, Theatre Arts, Architecture and Industrial Design 1959-2005, Catalogue (Lagos: Krislink Press Ltd. 2005), 83.

Nwoko has succeeded to emphasize the importance of space, form and aesthetics derived from historical precedents as well as culturally and environmentally sensitive designs when creating his buildings. He has used his buildings as instruments in the argument that successful architecture can only be created if the cultural identity and aesthetic values of a people are included in the design as promoted in both theories by Nnamdi Elleh and David Hughes. As a result, many of his buildings are culturally familiar for the inhabitants and their extended family members, thus promoting ease of use.

Finally, the research proves the anticipated results as the findings reveal that Nwoko's theory and design ideology was reflected in his buildings. His development of a new architectural language that successfully provided African inspired solutions to contemporary design challenges confirmed the value of retention in modern African design practices. His theory emerges as a test for a new architectural paradigm as he steps beyond theory and manifests his ideology into physical structures. Nwoko stands out from the rest of Africa's leading architects because he was successful at translating his theory to the built form, which not only proved his ideology was sound, but created the physical manifestation of his vision that will inspire the future shapers of the African continent.

## **Recommendations**

First, it is my recommendation that the findings noted here be used as the basis of further research. The value of architectural research and development cannot be underestimated at institutions of higher learning, for it is their duty to research, document

and train designers and developers as the future shapers of the African built environment. Educators in institutions of higher learning could include these findings in curriculum for teaching future architects and planners how to design more effectively for Africans both in the urban and rural areas. Students can use Nwoko's ideology and methodology to develop new design techniques and invent technologically advanced local building materials that derive their fundamental elements from contemporary African lifestyle. Architectural retention, however, is crucial in the development of Africa's built environment, as many of today's design challenges have been resolved in traditional design practices.

African architects and builders could incorporate these findings in their work for the development and delivery of superior housing product. The success of their business and the degree of customer satisfaction highly depends on how well the architecture reflects the end user's lifestyle or use of space, incorporates indigenous aesthetic designs and adheres to the cultures and climate of Nigeria. Urban Planners can incorporate these findings as public policy for the development of building codes and architectural standards for building in Africa. Variables such as ethnicity, class and location will dictate codes and standards to be introduced in the diverse regions of Africa. And finally, departments of housing and urban development as well as international development agencies (such as United States Agency for International Development and Habitat for Humanity) could utilize this research when master-planning for housing development in Africa.

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