Red Earth: Shaping the Igbo family compound

by

Chinenye Ogbu

A thesis
presented to the University of Waterloo
in fulfillment of the
thesis requirement for the degree of
Master of Architecture

Author's Declaration

I hereby declare that I am the sole author of this thesis.

This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Abstract

Like many other African indigenous peoples, the Igbo of Nigeria established multi-generational compound homes. Many of these family compounds remain in southeastern Nigeria's rural communities, although not as originally constructed. The transformative effects of British colonialism, post-colonial restructuring, and time have changed their appearance. Despite this, the family compound remains a cornerstone of Igbo life. Culturally it is the ancestral hearth, and increasingly, it is a place of retreat from the fast-paced realities of modern urban life.

When presented with the opportunity to design a family compound in the Igboland region, I began the task of understanding the typology by further investigating my maternal family's compound, which stands almost a century old. Through an accumulation of archival evidence, on-site research, and oral histories, I begin to illustrate a story of place. This story is about how one site has been adapted for changing family needs and how the compound's shifting architectural expression reflects societal shifts and evolving expressions of Igbo identity. Within my maternal family compound, I identify several characteristic features of the typology. The built enclosure, the house of the compound head, the central courtyard, and the material and cultivated landscape help to define the compound's built and unbuilt domain. These features act as a frame through which I may highlight the effects of time on the compound while also representing elements that can be adapted for contemporary compound design.

This thesis examines how a regional typology is adapted to a shifting context. It proposes an alternate methodology for learning from the vernacular by layering all its meaning of language, culture, and architecture to provide a lens through time. This work is also an exercise in preserving and illustrating oral histories, a tradition that defines much of African architectural history and one that sustainable contemporary design requires. It asks how we may contemplate the past in service of the future.

Acknowledgements

Thank you to my advisor, John McMinn, who directed this thesis, and to Jane Mah Hutton and Joseph Conteh for their mentorship and contributions to the development of this thesis.

Special thanks to my friends and colleagues for their creative and emotional support.

Finally, this work is dedicated to my family and to all those who seek to engage with and illustrate African cultural heritage through their own personal narratives.

Table of Contents

II	Author's Dec	CLARATION
III	Abstract	
IV	Acknowledge	EMENTS
VII	List of Figur	ES
1	Introduction	T
9	1. Chronolog	GIES OF IMPACT
12	1.1	Igboland
18	1.2	The Igbo Family Compound
22	1.3	Igbo Traditional Settlement Patterns
33	1.4	Igbo identity, status, and architecture
35	1.5	Colonial disruption to traditional Igbo settlement
43	1.6	The impacts of colonialism and westernization on Igbo society and architecture
61	1.7	Drawing Impact
63	2. Affecting of	CHANGE
65	2.1	Home - Diasporic connections to the Igbo indigenous homeland
67	2.2	The family compound as site
71	2.3	Affecting change to the Igbo family compound
79	2.4	Method and Medium
86	3. Matters of time	
87	3.1	Key features of the Igbo family compound
98	3.2	The nuclear family domain: The compound enclosure
107	3.3	The private domestic zone: Compound head's house
123	3.4	The social and cultural zone: the courtyard
127	3.5	The occupational zone: The material and cultivated landscape
142	3.6	Circumstance and evolution
146	4 The Matte	O OF THIS TIME

147	4.1	The matter of this time
153	4.2	Reflecting on the study of Igbo traditional architecture
155	4.3	Speculating on adaptation
159	4.4	Taxonomies of space and time
163	4.5	Conclusion: Red Earth
166	Bibliography	

List of Figures

Figure 1.1	Aerial view over Enugu, Nigeria, showing geograpic conditions	10
	image by author	
Figure 1.2	Aerial view over rural Enugu southeastern Nigeria, showing compound settlements	11
	image by author	
Figure 1.3	Locating Igboland	13
	image by author	
Figure 1.4	Research site, Nigeria's southeastern region	15
	image by author	
Figure 1.5	Isiekenesi community is made up of 6 villages	17
	image by author, google imagery	
Figure 1.6	"Compound of Mazi Igwesi in Nri, Single Court Compound"	19
	The Traditional Architecture of the Igbo, Godwin Chikwendu Nsude	
Figure 1.7	My father's sketch of his (Ogbu) family compound, c.1975	20
	sketch by author's father	
Figure 1.8	The three world Igbo universe	23
	image by author	
Figure 1.9	Diagrams of spatial ordering	24
	image by author	
Figure 1.10	Scales of settlement	26
	image by author	
Figure 1.11	Spatial ordering at the village level, Awalla village, Isiekenesi	28
	image by author	
Figure 1.12	Village commons	29
	image by author	
Figure 1.13	Aerial of compound settlements	29
	image by author	
Figure 1.14	"Yam heaps on farming land, near Okpoha Village-Group, Nigeria", Simon Ottenberg	29
	Eliot Elisofon Photographic Archives	
Figure 1.15	Village road	29
	image by author	
Figure 1.16	Spatial ordering at the family compound level	30
	image by author	
Figure 1.17	Isiekenesi, Imo State	39
	image by author	
Figure 1.18	Enugu, Enugu State capital	40
	image by author	
Figure 1.19	Thatching a house with palm leaf mats	48
	Photographer unknown, possibly G. T. Basden, Among the Ibos of Nigeria. Philadelphia:	J.B.
Lippincott,	1921, pg. 168.	

Figure 1.20	"Recently built Afikpo District Council Hall", Afikpo Village-Group, Nigeria,	Simon
Ottenberg,	1959-60	51
	Eliot Elisofon Photographic Archives	
Figure 1.21	A mix of the old and new, "Government Rest House", Afikpo Village-Group, Simon Otte	enberg,
1959-60		53
	Eliot Elisofon Photographic Archives	
Figure 1.22	New urban development, Uwani layout, Enugu, Nigeria, Simon Ottenberg, 1959-60	56
	Eliot Elisofon Photographic Archives	
Figure 1.23	House under construction in Isiekenesi community, 2021	59
	image by author	
Figure 2.1	Approaching the Obialo family compound, 2021	64
	image by author	
Figure 2.2	Site plan of maternal family compound, Isiekenesi	68
	image by author	
Figure 2.3	The Obialo compound interior, panoramic collage, 2021	70
	image by author	
Figure 2.4	Compound as spatial diagram of familial relationships	72
	image by author	
Figure 2.5	Chronological Timeline of the family compound	74
	image by author	
Figure 2.6	1930 Obialo family compound plan	76
	image by author	
Figure 2.7	1975 Obialo family compound plan	78
	image by author	
Figure 2.8	2021 Obialo family compound plan	80
	image by author	
Figure 2.9	Sites of historic anthropological research	84
	image by author	
Figure 3.1	The primary functional zones of the compound	88
	image by author.	
Figure 3.2	Key diagrams of compound features	89
	images by author.	
Figure 3.3	Compound section diagram 2021	90
	image by author.	
Figure 3.4	Family compound plan, 1930	94
	image by author.	
Figure 3.5	Family compound, 1930	95
	image by author.	
Figure 3.6	Composite drawing of the compound enclosure	96

	image by author.	
Figure 3.7	The compound enclosure, 2021	10
	image by author.	
Figure 3.8	Compound enclosure, 1930	102
	image by author.	
Figure 3.9	Compound gate and wall, 1975	10
	image by author.	
Figure 3.10	compound gate and wall, 2021	10
	image by author.	
Figure 3.11	Elaborate metalwork features prominently in photographs of gates taken from travels	10
	image collage by author.	
Figure 3.12	Composite drawing of compound head's house	11
	image by author.	
Figure 3.13	My uncle's house in the compound, completed 2008	11.
	image by author	
Figure 3.14	Compound head's house circa 1930	11.
	image by author.	
Figure 3.15	Compound head's house circa 1975	11
	image by author.	
Figure 3.16	Compound head's house circa 2021	11
	image by author.	
Figure 3.17	Compound head's house structural details	12.
	image by author.	
Figure 3.18	The boys' quarters	123
	image by author.	
Figure 3.19	composite drawing of courtyard activities	12
	image by author.	
Figure 3.20	the compound courtyard in the morning, view from the main house balcony	12
	image by author.	
Figure 3.21	composite section through the occupational zone	13.
	image by author.	
Figure 3.22	Site section, 2021	13
	image by author.	
Figure 3.23	Compound gardens	13.
	image by author.	
Figure 3.24	sections through the occupational zone	13
	image by author.	
Figure 3.25	the cooking area	13
	image by author.	

Figure 3.26	Conditions for water storage	140
	image by author.	
Figure 3.27	composite section showing cultivation and storage	143
	image by author.	
Figure 4.1	Diagrams of the spatial order in Non-Reservation Compounds	148
	Godwin Chikwendu Nsude, The Traditional Architecture of the Igbo	
Figure 4.2	Comparing the traditional layout with typical new compound layouts	150
	images by the author	
Figure 4.3	Sketching adaptations	160
Figure 4.4	Village road, Isiekenesi	165
	image by author	

Introduction



Tracing origins

Last year, my family purchased a piece of land in southeastern Nigeria's Igboland region with the intention of developing the plot into a family compound. Isiekenesi community, the site of this purchase, is in the cultural, political, and social heart of Nigeria's Igbo ethnic community in northern Imo State. As I will be involved in the future planning of the family compound, I took it upon myself to first seek a greater understanding of typology through its traditional, colonial, and current manifestation by selecting my maternal family compound as a point of reference. I began my research by collecting archival research and academic texts on Igbo traditional settlements and architecture. For the portions of my study where I encountered community-specific information gaps, I relied on my parents' memories to complete the picture. The practice of drawing from various sources led to the act of physically drawing to reconstruct space from personal and collective memory. My proximity to this work puts me in a position to filter anthropological evidence through personal experience. By tracing the story of my family compound across nine decades and four generations, I can identify tectonic features and functions of the compound that endure despite undergoing immense physical change influenced by the shifts in Nigeria's social and cultural climates. Through illustrative vignettes and the use of established architectural drawing conventions, I link the characteristics of the traditional compound typology to its current expression. Combined with understanding the present physical context and cultural value systems, these consistent defining typological elements will help establish guiding principles for designing a contemporary compound.

Learning from the vernacular

Western catalogues of architectural history are most often preoccupied with the noble architecture of a few ancient civilizations. Sub-Saharan African architecture is generally missing from western architectural academia, first, because it is often difficult to find extensive documentation on specific regions and, secondly, due to the impermanence of the largely earthen structures that defined the pre-colonial era and lastly due to the violent destruction of ancient settlements.1 The exoticism of ancient European monuments and the standards of beauty and exceptionalism they have borne directly contrasts with the impermanent nature of Africa's mud and thatch structures. Within Nigeria, European styles are privileged over indigenous traditions, primarily attributed to colonialism and the pervasive nature of westernization. To many Nigerians, the indigenous earth-building tradition connotes inferiority because of its associations with the past and poverty. The use of earth and local materials like bamboo is discouraged and considered regressive or low-tech while having the means to import materials is associated with progress and economic success. Decades of this thinking manifested in the delegitimization of indigenous knowledge and the broad adoption of western building typologies.² In the past few decades, many African architects and designers have documented and experimented with indigenous craft to preserve and share the narratives of little-known societies. Within the African diaspora, the interest in vernacular architecture comes from a desire to re-contextualize pre-colonial identities and spotlight African contributions to the global architectural dialogue. The continued practice of largely abandoned customs in rural regions, notably, tells us that "traditional" does not equal "past".3 To clarify my use of language, in this work, I consider traditional to be pre-colonial indigenous knowledge, modern as existing under British colonial influence, and contemporary as the post-modern, the exploration of identity post-independence, and the confluence of various forces in a globalized world. What we often refer to as vernacular architecture (local) maps intangible heritage. By understanding it, new

¹ Bernard Rudofsky 1905-1988., Architecture without Architects: An Introduction to Nonpedigreed Architecture (Garden City, N.Y.; New York: Doubleday 1964]; Doubleday, 1964).

^{2 &}quot;Why African Vernacular Architecture is Overdue for a Renaissance," last modified -02-20T09:30:00+00:00, accessed Feb 7, 2020, https://www.archdaily.com/889350/why-african-vernacular-architecture-is-overdue-for-a-renaissance.

³ Maxwell Fry 1899-1987., Tropical Architecture in the Dry and Humid Zones (London: B. T. Batsford, 1964).

ideas surrounding sustainability, impermanence, culture, identity, and progress can emerge.

Identity through design

One of the most frequent criticisms of new architectural projects is their apparent ignorance of physical site and cultural context. At first glance, this appears to be the case for many new homes being built within the traditional villages of southeastern Nigeria. The popular, preferred aesthetic is multi-story suburban homes that might blend into European suburbs. Due to their style, these new buildings stand in contrast to their rural surroundings, towering over the older homes of the traditional compounds. In the primary pursuit of a "modern" aesthetic, these large houses often face premature deterioration due to the humid climate and poor craftsmanship. Tracing a recent history of the context will provide some insight into the origins of these houses while exploring how architecture reflects Igbo perceptions of progress, values, and a changing cultural context. This work seeks to link the traditional compound to the present one through the story of my own maternal family's compound.

Chapter one establishes the site, introducing the geography, settlement patterns, and the general traditional context of Igboland. It introduces the family compound and gives a brief history of significant pre-colonial, post-colonial and contemporary events that have influenced Igbo cultural and architectural identity. Chapter two introduces a case study of one such compound in the region- the one established by my second great-grandfather in the early twentieth century- which chapter three will expound upon through an exploration of its distinct typological features. The significance of these features is predicated on the fact that they can be traced to the pre-early colonial expressions of the compound typology and have remained identifiable elements of the present compound. These characteristics frame an illustrated investigation into the visible transformation of the compound at three points in time throughout its existence. They reflect the compound as a palimpsest, altered by time yet retaining traces of its

origin. Chapter four discusses the current socio-economic climate and construction trends affecting the establishment of new compounds. It proposes contemporary solutions to existing climatic, sustainability, and cost concerns. It addresses the theme of vernacular adaption through modern design work and discourse. It explores how cultural motifs and compound principles can be adapted for the conceptual design of a new family compound. Through studying a traditional Igbo housing typology, this thesis explores how contemporary architecture might draw from indigenous knowledge systems and cultural landscapes to address sustainable design issues. It explores the identity of the Igbo people through their architecture by examining the family compound's materials, methods, techniques, and structure.

Methodology

Examining archival, anthropological, and editorial research (people, history, and landscape)

In 1978, in service of an art history doctorate, Chike Cyril Aniakor published *Igbo architecture: A Study of Forms, Functions and Typology*. In 1987, Godwin Chikwendu Nsude published a similar work entitled *The Traditional Architecture of the Igbo of Nigeria*, which expanded on the work of Aniakor and other researchers. Both works constitute a comprehensive exploration of the social and ecological origins of Igbo settlement and architecture, which I consulted as the base of my historical research. Fortunately, I discovered I could trace some of this history through my maternal family's compound. Chapter two's case study provides a way to dive into the specificities of the Igbo family compound typology, developing a more nuanced understanding of the Igbo compound through a personal narrative. Although there is little physical evidence of the compound as it originally stood, oral history and on-site knowledge have greatly supported the development of this thesis.

On-site observation

The on-site portion of this research was conducted during a

visit to the site during the summer of 2021. A two-week stay within my maternal family compound in Isiekenesi in southeastern Nigeria gave me the opportunity to photograph the site, examine buildings and functions, and be enmeshed in daily activities and spatial use in and immediately around the family compound. Within the quiet, rural landscape, time slows down. It was while ruminating under the shade of the trees in that compound that I began to consider how I was retracing steps on land that had been tread by my ancestors for centuries prior.

Oral history and the collective memory: A case study

As my 2021 stay in the village was short, and much of my onsite knowledge is limited to what still stands on the site, I relied heavily on the recollections of my parents. Through my parents, who were children in Nigeria's post-independence era, I sourced memory to produce the family compound narratives. Their recollections of the villages they grew up in provided stories that I linked back to the collective history gathered from the writings of other Igbo scholars, artists, and anthropologists. Through the memories of their involvement in their elders' daily routines, they provided additional context to my academic research.

Case Study: establishing and illustrating key features of typology and factors affecting change

A chronological study of my maternal family compound outlines a key set of features arranged in specific programmatic zones that can be drawn upon to identify the compound vernacular. The organization of the plan and landscape, defined by the form and orientation of the compound enclosure, the compound head's house, the courtyard, the cultivated landscape, and all other storage and resource management artifacts, are tenets that distinguish the typology as unique to the region. This thesis provides glimpses at moments in time to demonstrate the evolution of the Igbo architectural identity through domestic architecture.

Future considerations and exploring the work of African Contemporaries

This work concludes with a reflection on the current context of Igbo domestic architecture. It reflects on the methodology applied in this work, and questions how it is applicable to the future development of the family compound. I speculate on how this work can guide my future involvement in designing a new family compound through the principles and values cultivated through this study.

1. Chronologies of impact



Figure 1.1 Aerial view over Enugu, Nigeria, showing geograpic conditions



Figure 1.2 Aerial view over rural Enugu southeastern Nigeria, showing compound settlements image by author

1.1 Igboland

Geography and Climate

Although they can be found all over the country, Nigeria's Igbo people are the primary occupants of its southeastern region. Igboland is the moniker given to the indigenous land within this region where they have lived for centuries. The Igbo ethnic group is linked by the Igbo language and shared customs. Geographically, this cultural area exists both east and west of the Niger river, with the bulk of its population settled in its east. Over 30 million Igbo people are spread across several states: Imo, Anambra, Eastern Delta, Enugu, Ebonyi, Northern River, and Abia State. Much of southeastern Nigeria lies in a densely forested region. Its lush tropical landscape and iron-rich soils provide the backdrop for traditionally sedentary peoples heavily reliant on their agricultural production.¹

There are several Igbo cultural subgroups, with varying dialects and rituals owed to generational population dispersal. The varying landscapes, microclimatic conditions, and architectural styles of the Igbo people are owed to the estimated 40,000km area that Igboland encompasses.² The various conditions are reflected in the material structure, forms, and styles of the family compound housing typology. The natural abundance of lumber and clay in this region contributes to the indigenous practice of earth and post-and-beam architecture. Isiekenesi, the community at the center of this thesis, is in the Local government Area of Ideato South, within the historical heartland of Igboland. [Figure 1.2] By focusing on this specific rural community, one I am intimately familiar with, this thesis explores nuances of Igbo domestic architecture in a way that has not previously been surveyed.

Southeastern Nigeria experiences a dry season and a wet

¹ Chike Cyril Aniakor, *Igbo Architecture: A Study of Forms, Function and Typology*, Volume 1 ed. (Indiana University: .

² *Igboland*, 2020a). https://en.wikipedia.org/w/index.php?title=Igboland&oldid=949301724.

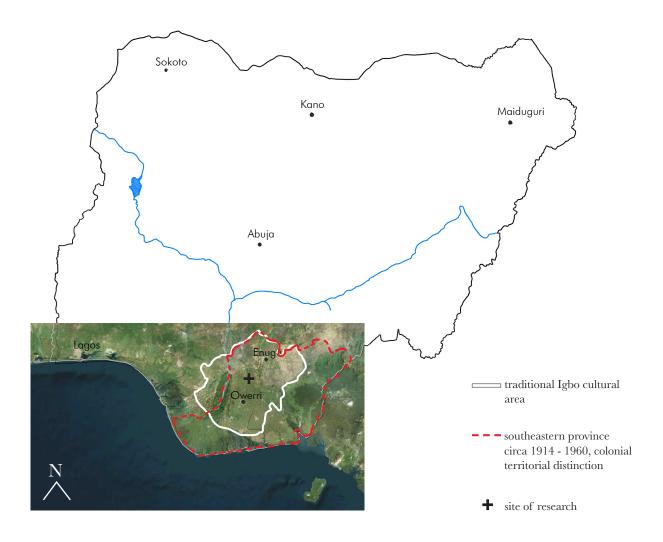


Figure 1.3 Locating Igboland

season, a condition created by the Intertropical Convergence Zone (ITCZ). Northeastern Atlantic and Southeastern Saharan trade winds converge, producing wet and dry seasons in equatorial nations instead of the summer and winter seasons in the northern hemisphere.3 December through February are the driest months, while April through September is the rainy season which receives up to 1700 mm of rainfall annually.⁴ Temperatures throughout the year generally remain between 20 and 30 degrees Celsius, while the highest temperatures are experienced in September near the end of the rainy season. Humidity remains well over fifty percent, reaching highs of 90 percent at the peak of the rainy season. The Igboland region spans two main ecological zones: the lowland rainforest region and the derived savannah. 5 The Lowland Rainforest Ecological Zone is characterized by its dense forest and undergrowth. At the same time, the Derived Savannah Ecological Zone is a more extensive vegetation belt with a mix of trees and grass which has sprung up in the vestiges of the forest that have been cleared for cultivation.6

³ Intertropical Convergence Zone, 2021b). https://en.wikipedia.org/w/index.php?title=Intertropical Convergence Zone&oldid=1061607329.

^{4 &}quot;Owerri Climate, Weather by Month, Average Temperature (Nigeria) - Weather Spark,", accessed Mar 2, 2022, https://weatherspark.com/y/54994/Average-Weather-in-Owerri-Nigeria-Year-Round.

^{5 .} National Forest Reference Emission Level (FREL) for the Federal Republic of Nigeria (January 2019: Federal Republic of Nigeria, [a]).

^{6 &}quot;The Grassland Biome,"

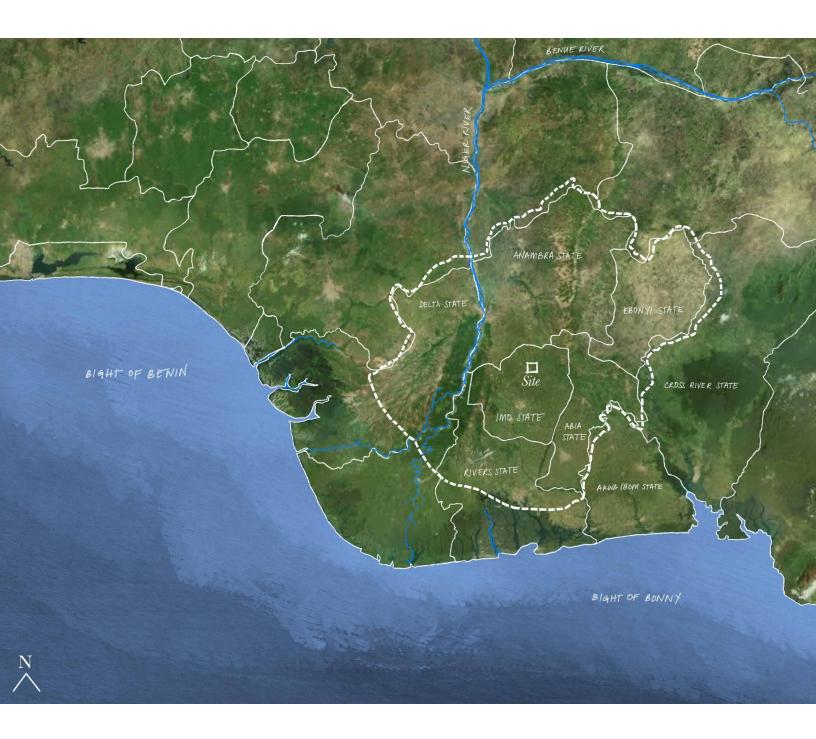


Figure 1.4 Research site, Nigeria's southeastern region

Research site

The estimated population of Ideato South, the Local Government Area in which the Isiekenesi community lies is 160,000. With an area of 88km2, the population density is 1818 persons/sqm. To the Southeast of the community, the Urashi river runs by. Isiekenesi: "Isi" (six) "eke"(market) "nesi"(head). It is said that the community began with a man who had six sons to whom he granted land, which eventually became six villages: Okohia, Awalla, Isieke, Dimagu, Umuaghobe, and Ojisi. These villages can be identified by their central nodes outlined on the map in [Figure 1.4]. My maternal family compound is in Awalla village. The Igbo family compound trends I refer to are from within the community, with additional examples drawn from third-party site research around this region, in Imo, Enugu and Anambra States.

⁷ Interview with my father, November 2021

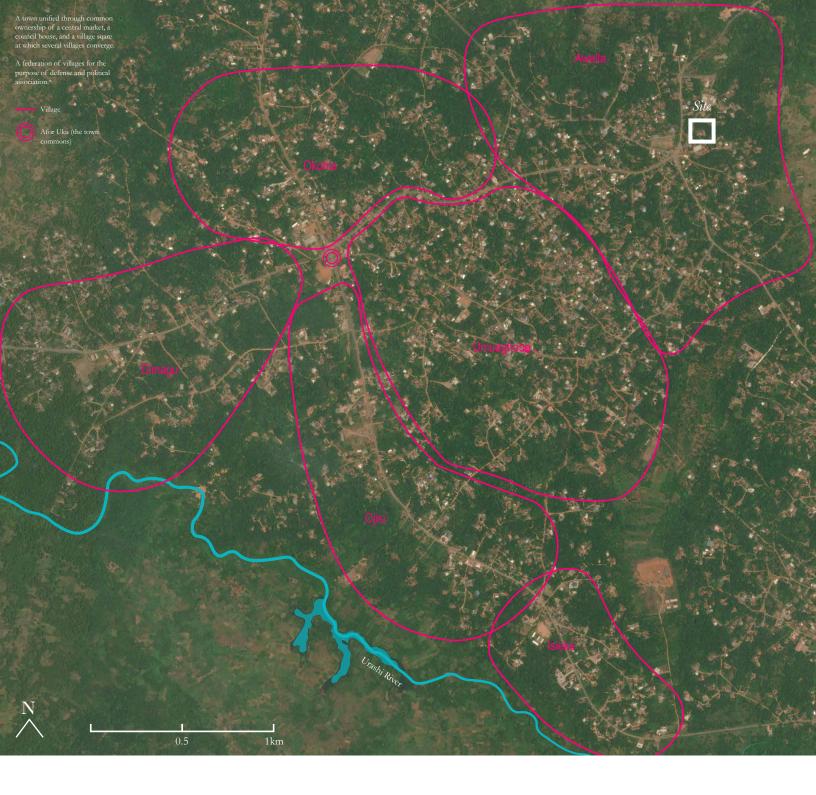


Figure 1.5 Isiekenesi community is made up of 6 villages

image by author, google imagery

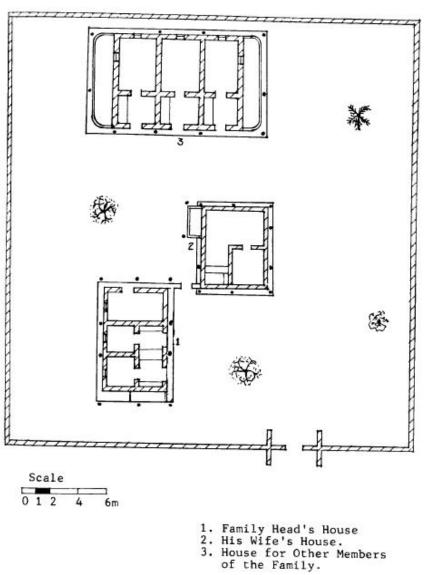
1.2 The Igbo Family Compound

Architecture and composition

The Igbo family compound is the nuclear family home. A perimeter fence or wall marks the rectangular boundary of private domestic life. These walls are a physical expression of the nuclear family. In Igbo tradition, a man founds his compound as the realm for the activities of his family. Thus, the man is the family and compound head, with sole ownership of the land on which his compound is built. Eventually, he may split this land amongst his sons. Ownership of the uncleared land surrounding it is common land shared with the village community. The compound enclosure facilitates a contained and adaptable homestead. The interior components of the compound reflect the size, growth, and routines of the family.

Within the enclosure, rectangular houses are loosely arranged around a central courtyard. Despite local variants to their interior layout [Figures 1.5 and 1.6], the compound enclosure links the compounds under a common housing typology. The arrangement of the homes within the compound is dependent on the shape of the compound and the location of the compound's main entry gate, although, in some ways, their arrangement is spatially reflective of relational ties and standing within the family. For example, the house of the first wife or eldest son may be positioned on the right side of the family head.8 The family head's house stands in line with the gate and his wives' houses stand to either side of his house. The simple cellular structure of each traditional house was easily adaptable to accommodate the natural expansion (or contraction) of the nuclear family. The addition of children, a male's coming of age, marriage, absence, and prolonged occupancy by distant relatives define the occupancy of the houses within the compound. Units for the family head's wife (or wives) and

⁸ Aniakor, Igbo Architecture: A Study of Forms, Function and Typology



of the Family.

Figure 1.6 "Compound of Mazi Igwesi in Nri, Single Court Compound"

The Traditional Architecture of the Igbo, Godwin Chikwendu Nsude

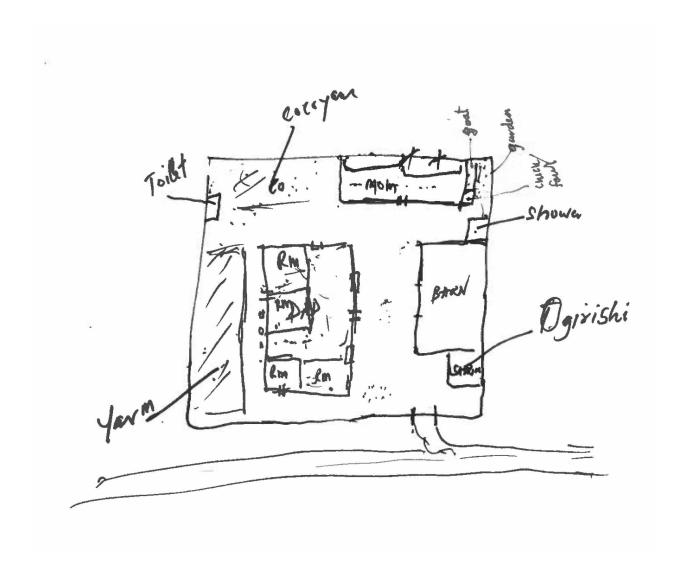


Figure 1.7 My father's sketch of his (Ogbu) family compound, c.1975

sketch by author's father

adult sons are built on either side of the head's house along the adjacent sides of the compound walls, framing a type of forecourt or the *public* area within the compound. The compound head establishes the public orientation of the compound, which aligns with the gate across the courtyard. Igbo cultural tradition follows a patrilineage, meaning the eldest male inherits the compound from his father. His son or grandson inherits the title of the compound head which is spatially expressed through this primary axial relationship. Collectively, the homes of the family head, his wife/wives, sons, and all other domestic constitute the major elements of the traditional Igbo compound.

Igboland's natural landscape affords the laterite earth, and mass timber used in traditional compound construction. Due to the arduous nature of the earth-building process, the construction of the compound was a communal enterprise. The umunna, extended family who lived within proximity of one another could be called upon to help a man build his house and were compensated through the sharing of meals. Preparation for construction would begin in at the end of the rainy season because this was the most appropriate time to collect and form the clay necessary for wall construction. The bulk of the construction process takes place during the dry season. Regarding the shape of the family compound, there is little evidence for the significance of the rectangular form as its origin cannot be directly traced to any specific region in Igboland. Inter-ethnic contact has contributed to a long history of borrowing from neighbouring groups, although some suggest a relation to Igbo interactions with neighbouring northern groups9, while others simply have implied a spiritual adherence to the four cardinal points in the indigenous tradition of Odinala [it is in the earth 7.10

^{9~} Godwin Chikwendu Nsude, "The Traditional Architecture of the Igbo of Nigeria" Thames Polytechnic School of Architecture and Landscape Dartford, 1987), .

¹⁰ Aniakor, Igbo Architecture: A Study of Forms, Function and Typology

1.3 Igbo Traditional Settlement Patterns

The structure of settlement

Igbo architectural practices provide a glimpse into their worldview. The family compound is the base unit of settlement in Igboland. It lies at the core of a larger settlement pattern that can be identified in aerials of the rural landscape. As mentioned previously, Igbo culture follows a tradition of patrimony; men inherent and distribute land. A man's compound is to be occupied by his immediate family and passed on to his eldest son upon his passing. Younger sons are either given space within the compound in which to construct a house or granted land nearby on which to establish their own compounds. The sons who found their own compounds, together with their father's compound and the ensuing generations, form the kindred or umunnaa group linked by common ancestry. The physical expression of this link is through the obi structure of the eldest family patriarch, where members of the kindred meet to commune and conduct political affairs. Several kindreds form a village and are connected through a central village square, market, and town council buildings. A community is the agglomeration of multiple villages linked by a major market, central square and council buildings. This is the village group. These scales of settlement predate the late and post-colonial establishment of the local government areas, states, and the Federal Republic of Nigeria. 11

The universe made evident through settlement and architecture

The family compound lies at the core of a larger spatial logic derived from traditional Igbo spirituality. The spatial relationship between the hierarchical levels of settlement is concentric. The cosmological model that defines much of the Igbo worldview, originates

¹¹ Aniakor, Igbo Architecture: A Study of Forms, Function and Typology

Cosmological diagram: Cosmic balance is achieved through the continuous interaction between three worlds

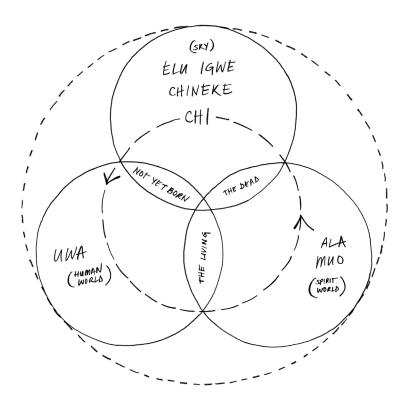


Figure 1.8 The three world Igbo universe

The universe: Chineke is the point of orgin with which all Igbo may identify and everything extends from him beyond the physical world into the unseen world. The physical world: the Igbo settlement logic is a microcosm of the cosmological universe. The central core is the spiritual and physical centre of settlement.

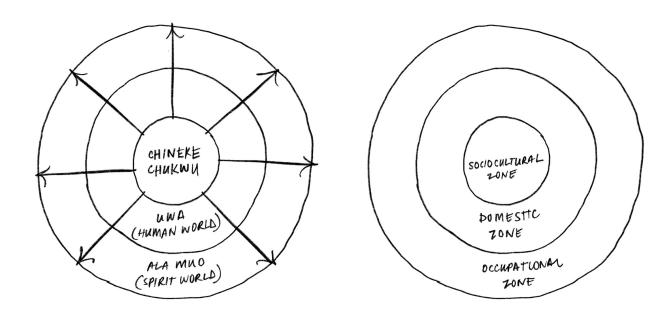


Figure 1.9 Diagrams of spatial ordering

from and revolves around Chineke, the Creator, God: everything originates from him. Emanating from the core is Chi, the individual spirit and guiding personal god of every individual, male or female. Beyond this lies the family and then the village, the extension of it.¹² In a similar way, the compound lies at the center of the hierarchy of settlement, with the consecutive outer levels of the concentric order being the kindred, the village, and the village group. This spatial pattern is not laid out in a perfect geometric form but instead takes on a clustered arrangement.¹³ Nonetheless, it reflects the centrality of the individual and by extension the nuclear family in Igbo traditional culture. Within these levels of settlement, there exist three zones of spatial organization: the socio-cultural, domestic, and occupational/ economic zones. These three zones represent an idealized spatial order that exists in some form at every level of settlement. These zones identify degrees of openness and privacy as they relate to Igboland use patterns. When modelled concentrically, the socio-cultural zone can be found at the core. This zone is open, facilitating communal activity. At the village level, the socio-culture core lies at its center, defined by those elements which connect the various kindreds- the open village square, the council building, and the market (later, the church, school, hospital, etc.). At the compound level, this zone is the courtyard. The second zone in this spatial diagram is the domestic zone occupied by the private domestic domain. At the village level, this refers to the distribution of the various compounds, but within the compound, this exists at the scale of the individual buildings. The houses within a compound are the most private manifestation of the domestic zone. The outermost level of a settlement is the occupational zone which is distinguished in site aerials as being overwhelming green. This zone refers to the permanently cultivated gardens within the family compound, the extensive farmland beyond the compound enclosure, and the tracts of bush or forest land which separate the two. The permanent cultivation

¹² Edmund Ilogu, *Christianity and Igbo Culture : A Study of the Interaction of Christianity and Igbo Culture*New York : NOK Publishers, 1974). http://archive.org/details/christianityigbo0000ilog.

¹³ Nsude, "The Traditional Architecture of the Igbo of Nigeria"

Isiekenesi community Awalla



Figure 1.10 Scales of settlement

village Obialo compound







Figure 1.11 Spatial ordering at the village level, Awalla village, Isiekenesi

a.



Figure 1.12 Village commons

image by author

b.



Figure 1.13 Aerial of compound settlements

image by author

c.



Figure 1.14 "Yam heaps on farming land, near Okpoha Village-Group, Nigeria", Simon Ottenberg

Eliot Elisofon Photographic Archives

d.



Figure 1.15 Village road



Figure 1.16 Spatial ordering at the family compound level

of the compound offsets the alternate seasons of the year in which farmland would be left to lie fallow. In the aerial presented, [Figure 1.4] large distinctive patches of tree cover and farmland can be seen along the edge of the community, where the topography begins to drop off and the Urashi river flows. This bush or forested land mediates between compounds and villages, acting as a buffer zone allowing villages to expand outwards over time.

"The world is considered safe and orderly in the compound or village, but not necessarily so among 'strangers' in nearby communities, and certainly not in the bush or forest, a place of darkness, mystery, and danger. Farmlands and certain pathways constitute an intermediate zone between the familiar and the strange." (Cole et al., 18)¹⁴

The circles often depicted in Uli designs (traditional decorative motifs) could be reflective of this cyclical idea of the universe. ¹⁵ Later in this thesis, these concentric zonal models proposed by Nsude in his *The Traditional Architecture of the Igbo of Nigeria* are the basis for my interpretation of the composition, function, and development of compound architecture.

Traditional land tenure practices

Land tenure traditions are based on patrilineal kinship groups. ¹⁶ Lineage relationships formed the structure of society. The compound as the base unit of housing is reflective of the family unit as the base functional unit of society. The nuclear and extended family own land and relate to that land via shared societal rules and values. The houses within the family compound act as rooms in the collective homestead.

¹⁴ Herbert M. Cole et al., *Igbo Arts : Community and Cosmos*Los Angeles : Museum of Cultural History, University of California, 1984). http://archive.org/details/igboartscommunit00cole.

¹⁵ Chukwuemeka M. Ikebude, "Identity in Igbo Architecture: Ekwuru, Obi, and the African Continental Bank Building" Ohio University, 2009), . http://rave.ohiolink.edu/etdc/view?acc_num=ohiou1250885407.

¹⁶ Athanasius Onwusaka Njoku, "Perspectives on the Nigerian Tragedy," *Negro Digest*, January, 1969, 19.

The compound is inward-facing emphasizing communal involvement. The family head has a central role (as a living symbol of the lineage) as the designator of place within the family and the physical structure of the compound.

The family compound typology is directly attributed to the agrarian society upon which traditional Igbo society was based. This traditional system of land tenure was. Cultivating staples like yam and cassava was laborious and so large families and polygynous households proved beneficial for the practice of subsistence farming. The role of the family head was to designate tasks within the family organization, a position represented in the prominence and orientation of his house within the compound. Individual land and houses on it belonged to the head and passed onto his eldest son, and onwards in perpetuity. If there were no more descendants to take ownership of the land, it was transferred back to the community as common land. The land on which the compound stood "belonged not only its present cultivators but to their ancestors and their descendants" 17 and so by extension the kindred. This kinship ownership structure meant that traditionally, the sale of land was not recognized.¹⁸ Because the compound land also belongs to the dead, deceased family members are also buried within the compound. Since the location of buried ancestors is considered sacred land the family compound and its houses cannot be bought or rented. Ultimately, the Igbo traditional system of land tenure developed in a setting where free land was perpetually available to house a steadily expanding populace.19

¹⁷ Anthony D. King, *The Bungalow: The Production of a Global Culture* (London; Boston: Routledge & Kegan Paul, 1984), 193-223.

¹⁸ Ibid., 203.

¹⁹ Nsude, "The Traditional Architecture of the Igbo of Nigeria"

1.4 Igbo identity, status, and architecture

Igbo traditional society was largely acephalous and para democratic. Decision-making was communal and political power rested with the patrilineal heads and men who ascended in authority due to their talents. Although these heads may hold prestige, their authority is largely limited to their village group. ²⁰ Igbo society is egalitarian with a belief that anyone can improve their status in society. Wealth, prestige and status are distinct variables. Status placement is influenced by wealth and prestige, while prestige can be acquired through the use, distribution, and expressions of wealth. ²¹

One's status is determined by their position in society. The first determinant of status placement was generally determined by age and kinship. Seniority regulates social placement and outranks other distinctions, with precedence given to the first born and oldest ranking male. The other determinants of status are wealth and prestige. Wealth is tied to economic success. Many Igbo traditionally held multiple occupations (blacksmith, tradesman, farmer, artisan), so an occupational-based system of ranking would be imprecise. Prestige is garnered by holding an ofo position, a titled position, or political authority. Generally, a titled position in the Igbo title system officializes leadership. It can be achieved or bought into order to gain prestige and political influence through membership in a titled society. Regarding the ofo, this position is assigned; held by the oldest ranking male who acts as both opinion and spiritual leaders in their lineage ("politico-religious").22 It is a ritual authority. An Igbo "Big Man" may be wealthy but without any prestige, although his wealth can be converted to prestige through prestigious acts like "taking a title, owning a country house" or providing for his relatives and contributing

²⁰ Njoku, "Perspectives on the Nigerian Tragedy," 19

²¹ Victor Chikezie Uchendu, *The Igbo of Southeast Nigeria* New York: Holt, Rinehart and Winston, 1965). http://archive.org/details/igboofsoutheastn0000uche_f6e3.

²² Uchendu, The Igbo of Southeast Nigeria

to his community.²³

The traditional value system is tied to the societal status structure. "Access to farmland" ²⁴, a growing family, and agricultural success are status objects signifying prestige, and thus a higher social status within the community. The Igbo family compound and its architecture provide a way through which this status can be relayed to the public. The scale of the compound enclosure and houses and the extravagance of their finished surfaces provided clues to social standing. The prominence and complexity of the houses (especially the family head's house) spoke to the size and capabilities of the kindred. The ability to afford work from skilled craftsmen for ornate furniture or surface ornamentation indicated wealth. Well-kept and verdant surroundings and a well-stocked yam barn prominently displayed near the compound entrance marked a successful agricultural enterprise and a diligent family head.

²³ Ibid., 93.

Dmitri van den Bersselaar, "Imagining Home: Migration and the Igbo Village in Colonial Nigeria," *The Journal of African History* 46, no. 1 (2005), 51-73. http://www.jstor.org/stable/4100829.

1.5 Colonial disruption to traditional Igbo settlement

"At first, it seems, the arrival of Europeans did little to affect art and architecture. As an inland people, the Igbo were rarely directly affected by the coastal European presence between the fifteenth and nineteenth centuries. We may thus surmise that forms, styles, and iconographic programs evolved rather slowly prior to about 1900, and more rapidly after that due to major social, political, economic, and religious changes wrought by the more direct and forceful European presence, in person, material form, and ideology." (Cole et al., 9) 25

The development of urban centres

Initial Igbo contact with the Europeans was restricted to the trade along the southern coast. Early explorers found Igboland very difficult to penetrate due to its dense forests and the threat of insect-borne illness. Typical trading activities, including slave trading in the seventeenth and eighteenth centuries, were conducted through middlemen and focused on Igboland's riverine areas. "The end of the slave trade in the mid-nineteenth century created a more favourable ground for the development of other trades between European and West Africans." For unfettered access to the land and its material resources, the British established strongholds in the region. This led to the establishment of urban administrative enclaves and townships built on cleared land or around existing trading posts. The urban centres, the new British administrative headquarters, were developed to cultivate the "ideal conditions for colonial economic production." The establishment of the colonial administration in Igboland led

²⁵ Cole, Igbo Arts: Community and Cosmos

²⁶ Nsude, "The Traditional Architecture of the Igbo of Nigeria"

²⁷ King, The Bungalow: The Production of a Global Culture, 193-223

to the construction of major roadways to connect administrative headquarters with smaller villages. The tracts of bushland or buffer zone that had separated village clusters and made it possible for population-driven settlement expansion, were disrupted by connecting roads. The construction of these roads led to the growth of ribbon developments where new houses and compounds were constructed along the roads and later new villages sprang up around them.²⁸ The cultural shift initiated by the missionaries and colonialists brought churches, schools, and market buildings to the rural communities, supporting, and expanding the activity and function of the traditional village centres.

Since the urban centres were set as an expansionary tactic for the colonial government, new "specialized ministries and executive departments" were required to assume some of the civic functions that were traditionally provided by the kinship group. The colonial urban planning initiatives did not align with indigenous settlement logic.

"A good example is the violation of the general flow pattern of people and activities that exists in the traditional layout. Following, the traditional pattern, people move inwards to the centre for cultural activities, and outwards beyond the residential for their economic activities. Other important elements of the towns, such as the markets, are fewer than would have been the case in the traditional settlements. They are also usually located either too close to, or too far from, the residential area." (Nsude, 395) 29

The urban towns were inspired by gridiron and garden city plans which pushed the social spaces to the periphery, centralizing services and divvying up the land into specific zones. European Reservation Areas were established separately from non-European reservation areas; therefore, from their inception, Igbo towns were defined by segregation. These reservations contained recreational clubs and European-style homes and garden landscapes meant to resemble the English countryside. The non-European reservations

²⁸ Aniakor, Igbo Architecture: A Study of Forms, Function and Typology

²⁹ Nsude, "The Traditional Architecture of the Igbo of Nigeria"

were for native migrants working under the colonial administration. The explicit purpose of segregation was for minimal disturbance to the indigenous way of life and the health of both populations. Implicitly, segregation limited indigenous disruption of the European standards. The urban centres were sites of novel industries, and facilitated by new road and rail networks during the 1920s and 1930s; "people from villages with poor soils or relatively high population densities" were drawn to the cities. 30 The establishment of an "urban existence" and the opportunities cities provided, affected the social and physical relationship that Igbo people had with their rural communities.³¹ New tools, materials, and technologies became available, and so certain conveniences of urban life and imported markers of social class were adopted by the Igbo and began to make their way inland. Increasingly mobile urban Igbo migrants brought the ideas and trinkets of the urban towns back to their rural communities. Colonial urban planning initiatives, like lot sizes and construction standards, began to influence the rural settlements, disrupting the architectural fabric of Igboland.

Certain Igboland regions have seen more drastic transformations due to the impact of colonialism. Colonial planning activities marked the advent of an increasingly urban existence in Igbo life. ³² In an aerial comparison between Enugu, Enugu State's capital city and Isiekenesi community, one can see the differences between the dispersed settlement logic and a distinctly urban logic. Regions like Enugu were identified as a key economic stronghold for their coal supply. ³³ Enugu and Port Harcourt are examples of colonially established towns, while Aba, and Umuahia are examples of transformed traditional settlements. Although Isiekenesi has been spared such direct planning interventions, foreign land practices obstructed certain land tenure

³⁰ van den Bersselaar, "Imagining Home: Migration and the Igbo Village in Colonial Nigeria," , 51-73

³¹ Ikebude, "Identity in Igbo Architecture: Ekwuru, Obi, and the African Continental Bank Building"

³² Nsude, "The Traditional Architecture of the Igbo of Nigeria", 389

³³ Enugu, 2022a). https://en.wikipedia.org/w/index.php?title=Enugu&oldid=1066883290.

patterns and spurred ribbon settlements along connecting roads and outside the initial boundaries of certain villages. Despite this, the region has largely retained its rural impression. Even though its landmarks and fabric have changed dramatically, the socio-cultural element of the village core helps to reorient even those who may return to it even after decades of living abroad. Other major cities like Owerri, Imo State's capital, 40km south of Isiekenesi, sprouted up with the oil boom of the 1980s and grew in a similar trend as the colonial strongholds.

Urban development: Colonial town planning

Lord Frederick Lugard, High Commissioner, governor of the Northern and Southern Protectorates of Nigeria (1914), was responsible for laying down some of the foundations for Nigeria's modern urban system. In his township ordinance of 1917, Lugard gave a series of implementations that were to be considered in the development of the European Reservation Areas where colonial administration was to be settled. The model for their development was bungalow-compound based, with established lot sizes and standards for bungalow construction. Townships were to be laid out with compounds of

"100 yards in depth, 70 to 100 yards wide, and be enclosed by a live hedge, mud wall or substantial fence. Within this area, ornamental and shade tress and dhub grass were to be planted...Servants quarters and stables would be at least 50 yards to the rear and near a backline, along which a sanitary lane was provided. The European reservation was surrounded by a non-residential area 440 yards broad separating it from a non-European or Native Reservation...Overcrowding should, for reasons of health, be prevented and not more than ten occupants should be on any plot." (King, 214)³⁴

Within the plot, bungalows were to be detached for singlefamily occupancy and built with non-flammable roofing and cement,

³⁴ King, The Bungalow: The Production of a Global Culture, 193-223



Figure 1.17 Isiekenesi, Imo State



Figure 1.18 Enugu, Enugu State capital

and with generous accommodations and service quarters.³⁵ Clusters of these bungalow-compound models were to be the standard for model dwellings. During the colonial period, the Public Works Department (PWD) was responsible for the building and maintenance of public infrastructure.³⁶ The PWD introduced high-density public housing models for Igbo urban migrant workers, while low-density models were still provisional for government officials. Eventually, the European and Non-European reservations were merged, although in many cities, post-independence, the European reservations were resettled by the Nigerian political elite. The segregated settlement strategy of the colonists slowed and made indirect the impact that European architecture had on some rural villages.

Land Tenure

Colonial sovereignty gave the state ownership over all land which clashed with established kinship-based land tenure systems. The urban structure of settlement was ideal for the British model of "administrative and commercial legislation" (Nsude, 393). British Colonialism and urbanism were tied to an "introduction of capitalist modes of production" to Western Africa. The introduction of the capitalist system of production meant that the control of land transferred from common to individual ownership. In this societal model, land and labour became commodities to be bought and sold. As these urban centres grew, undeveloped common land was needed for the growing populace and so land tenure transferred from the collective to the individual.³⁷ Imported zoning systems transferred collective land to the crown so it could be developed for commercial and service functions and distinguished between European and Indigenous residential areas. Colonial legislation resulted in the land becoming private property

³⁵ Ibid., 213-215.

³⁶ Public Works Department (Nigeria), 2022b). https://en.wikipedia.org/w/index.php?title=Public Works Department (Nigeria)&oldid=1067112019.

³⁷ King, The Bungalow: The Production of a Global Culture, 193-223

and in turn, commodifying it as wealth building asset.³⁸ Although most undeveloped lands had transferred to state property, individual land rights attributed to the traditional settlements were retained. Individual occupancy could continue to be passed on to heirs. Consequently, "family land did persist."³⁹ Thus, the family compound has become the primary vestige of the traditional Igbo settlement structure.

Lugard's lasting influence on Nigerian urban development and township planning can still be found in land tenure policies that followed independence. The Nigerian federal government released a Land Use Decree in 1978 with the purpose of opening all undeveloped land to encourage and regulate the use of land for government development projects for social transformation. Like the colonial land policies before, this act was meant to establish a consistent tenure system across Nigeria by nationalizing

"all land by requiring certificates of occupancy from the government for land held under customary and statutory rights and the payment of rent to the government. However, the decree stipulated that anyone in a rural or urban area who normally occupied land and developed it would continue to enjoy the right of occupancy and could sell or transfer his interest in the development of land."

³⁸ Nsude, "The Traditional Architecture of the Igbo of Nigeria"

³⁹ King, The Bungalow: The Production of a Global Culture, 193-223

⁴⁰ Ibid., 206-207.

⁴¹ Helen Chapin Metz, ed., *Nigeria: A Country Study*, Fifth Edition, First Printing ed. (Washington, D.C.: Federal Research Division, Library of Congress, 1991).

1.6 The impacts of colonialism and westernization on Igbo society and architecture

The colonial bungalow: imported culture

The establishment of European reservations saw the first real construction activities in the Igboland interior. The first European officials who settled in the 1890s built in styles they were accustomed to with materials imported from Europe. The foreign compositions, design and construction of European homes were representative of the social and cultural gap between the European and indigenous populations. The bungalow, a housing type the English brought with them from India, was considered the ideal typology of the tropics. It was the standardized pre-industrial answer to the European desire to preserve certain familiar standards of health and comfort. By the time European reserves were established in Igboland, "the term bungalow had become synonymous with tropical housing for Europeans...in the colonies."

The homes erected for colonial administrators were single or double-storey structures wrapped by spacious verandahs from which they could enjoy the tamed "English" landscape beyond. They were constructed with prefabricated imported housing models and materials, and specifically designed for an individual or nuclear family, plus servants. The verandah was central to the bungalow design and was to be 8'-12' ft (2.4 - 3.7m) wide and wrap around the house as a way of shading the home's walls and providing an area for outdoor living. They were planned with specialized rooms with exclusive functions (i.e., Dining, drawing, bathroom, storeroom) which were rare in Igbo indigenous houses. To allow for optimum cross-ventilation, the

⁴² Nsude, "The Traditional Architecture of the Igbo of Nigeria"

⁴³ King, The Bungalow: The Production of a Global Culture, 193-223

⁴⁴ Ibid., 200-203.

bungalows were planned one room deep. In storey houses, the living quarters were on the upper level, while office or storage space occupied the lower level or arcade below. The bungalows were constructed from brick or cement blocks and capped with corrugated metal roofs. They were perched on piers above ground and featured large, shuttered windows to encourage air movement for cooling.

In *Bungalow: The Production of a Global Culture*, Anthony King identifies the bungalows association with both pre-industrial Africa and rapidly industrializing metropolitan Britain.⁴⁵ This dwelling type was distinctly "related to the form of economic activity" that had come to define European culture, one increasingly based on access to the global market economy. The material developments of "over two centuries of capitalist industrial development" provided the economic, historic, and cultural context for the bungalow's form. European sentiments and standards of comfort, privacy, and aesthetics dictated the size, height, and function of bungalow rooms. The bungalow developed from "both western technology and social philosophy." The European colonial administration came from a society of single-family dwellings subdivided into

"separate and distinct specialized rooms to accommodate both different domestic activities and functions (cooking eating, sleeping, bathing, relaxation), differences of social rank, age and gender (with spaces for servants, children and different sexes), but more especially to accommodate the accumulation of consumer goods made available through the mass market which industrial capitalism had created: soft furnishing specialised equipment, a variety of clothes, cooking utensils and the general accountrements of living." (King, 209)⁴⁸

"The spatial division into separate rooms encouraged the acquisition of goods to fill them". Besides this, bungalow size alluded to status, and bungalows were thought to provide better comfort because

⁴⁵ Ibid.

⁴⁶ King, The Bungalow: The Production of a Global Culture, 193-223

⁴⁷ King, The Bungalow: The Production of a Global Culture, 193-223

⁴⁸ Ibid., 209.

of their spacious rooms. The bungalows' composition and location, in European Reservation Areas away from surrounding indigenous communities, reinforced their social and cultural alienation from the indigenous people. Bungalows were most notably a technological departure from native buildings. In the pre-colonial period of the the 1850s, corrugated iron had already become one of the first and most ubiquitous features of new house construction. Despite the heat that metal roofs often trapped inside a house, they proved to be the most durable solution. The construction of railways at the turn of the twentieth century helped to transport new materials and technology inland making them available for the construction of new buildings across the urban towns. Baked brick construction emerged in the the 1860s, and in the early 1900s, cement for blocks and plastering over mud and brick houses and reinforced concrete structures became common. Post-WWII, asbestos tiles, pipes, metal doors, glazed windows, plywood, and paints became popular as well. The bungalow compound model was the model to be emulated, a low-density symbol of the first step towards progress.

Progress and status: Catalysts for architectural hybridity

Colonial planning and architecture played a major role in the social, cultural, and spatial transformation of Igboland. The nature of the indirect colonial rule allowed the Igbo to pick and choose aspects of this foreign influence, which they could reconcile with their own social, economic, and political traditions. This colonial contact condition created the hybrid and varied appearances of Igbo settlement and architecture that continues today.⁴⁹ It is significant to acknowledge that the transformative effects of the foreign impact on Igbo society are largely tied to status and achievement as defined by westernization. Colonial contact expanded the scope and opportunities for success in Igbo society.⁵⁰ The integration of aspects of the foreign culture was and continues to be driven by western influence. To become a member of "modern" or "developed" society involved the need to pass certain established metrics of progress.⁵¹ The importation of "European architectural styles were a major colonizing tool used by the colonists in conveying a message of superiority and difference, which they needed for empire building."52 Participation in the new order required engagement with and an understanding of the European language, social structure, and behaviour. The contention between various identities and interpretations of culture is manifested in the various periods of Igbo architecture defined by hybridity. To explore this, I apply Chukwuemeka Ikebude's art history thesis entitled *Identity in* Igbo Architecture where he establishes several periods of hybridity which exist in the Igbo architectural narrative. From the indigenous built structures of the early missionaries to the Igbo mansions of today, this section follows the emergence of hybrid Igbo architectural identities as

⁴⁹ Uchendu, The Igbo of Southeast Nigeria

⁵⁰ Nsude, "The Traditional Architecture of the Igbo of Nigeria"

⁵¹ Okwui Enwezor, "Modernity and Postcolonial Ambivalence," *South Atlantic Quarterly* (Summer, 2010), 596-620.

⁵² Ikebude, "Identity in Igbo Architecture: Ekwuru, Obi, and the African Continental Bank Building"

the transformative impact of colonialism and westernization. During these different stages of "architectural hybridity", various material and ideological imports were used to convey a message of western superiority.

PRE-COLONIAL ERA

In the late nineteenth century, Christian missionaries led the charge into the Igbo heartlands. The first explorers and missionaries who arrived in Igboland occupied buildings that were built by the natives. As the church and settlement efforts garnered more followers, they used indigenous materials and labour to build churches, schools, and residential quarters in slightly alternate forms. They updated these traditional forms with the addition of interior rooms, extended roof awnings, and "opposite-window setting for cross-ventilation".⁵³ The imported ideological tools of church and school were supported by "imported architectural elements" to provide physical evidence of European cultural superiority. ⁵⁴ Traditional activities were branded as "idolatrous and primitive," and European culture was conveyed as existing on a higher plane of human development, one that the Igbo should aspire to. Part of their civilizing mission was to convince the indigenous peoples of their need for intervention.

COLONIAL-ERA

Role Specialization

The early twentieth-century expansion of urban centres and transportation networks encouraged Igbo people to migrate from the rural villages for work. In the urban centres, the colonial administration established new institutions of church, school, business, and politics, marking role specialization as the significant mark between rural and urban existence.⁵⁵ The urban environment provided the Igbo with new avenues of achieving wealth (through role specialization) and new

⁵³ Ibid., 38.

⁵⁴ Ikebude, "Identity in Igbo Architecture: Ekwuru, Obi, and the African Continental Bank Building"

⁵⁵ Uchendu, The Igbo of Southeast Nigeria



Figure 1.19 Thatching a house with palm leaf mats

Photographer unknown, possibly G. T. Basden, Among the Ibos of Nigeria. Philadelphia: J.B. Lippincott, 1921, pg. 168.

status positions through leadership roles in these institutions, becoming merchants, clerks, landlords, priests, and local governors.⁵⁶ The Igbo man could then convert his newfound wealth into prestige through the development of his home community. Ethnic institutions like hometown associations and unions developed in the urban centers to support Igbo migrants and as part of the formalization of the Igbo identity driven by the confrontation with the colonial "other". Participating in unions and politics allowed Igbo migrants greater influence on policies in their home villages.⁵⁷ Political and social mobility were tied to "kinship, place, and ethnicity".⁵⁸

Engagement in the markets

New industries forced engagement with emerging markets; to buy things, the Igbo needed to engage in the wage economy. Igbo society was drawn into the markets of the quickly industrializing Europe. ⁵⁹ Role specialization led to commodified labour and produced class distinctions tied to occupation. The accumulation of capital increased Igbo involvement in urban growth. The burgeoning building contracting industry meant that specialists could be hired for the role of construction. With labour losses to the urban centres, the traditionally collaborative nature of the traditional building process suffered. The new industrial networks produced through colonial enterprise required a market for their imported materials, and natives quickly became primary consumers. The Europeans used imported materials to build colonial homes, conceivably providing examples of incorporating new materials and technologies into their construction projects.

Nsude, "The Traditional Architecture of the Igbo of Nigeria"

⁵⁷ van den Bersselaar, "Imagining Home: Migration and the Igbo Village in Colonial Nigeria," , 51-73

Daniel Jordan Smith, "Legacies of Biafra: Marriage, 'Home People' and Reproduction among the Igbo of Nigeria," *Africa: Journal of the International African Institute* 75, no. 1 (2005), 30-45. http://www.istor.org/stable/3556715.

⁵⁹ King, The Bungalow: The Production of a Global Culture, 193-223

Contrasting models of settlement

The European bungalow was not just a form of shelter, but a tool used to allude to the inferiority of indigenous materials, methods, and technology.⁶⁰ Despite the capacity the British had to research and assimilate indigenous knowledge into their developments, they settled on transplanted adaptations of classical English homes and bungalow dwellings used in India. Although, Lugard called the urban reservations "a segregation of social standards and not of races"61, the European reservations were meant to be "a model to be emulated". 62 The homes which were often raised on concrete piers above the ground to keep the house ventilated, also allowed the "white man's house" to stand above all others.⁶³ They defined the appearance of social status, housing the new ruling class. Their multistorey composition with complex floorplans, and foreign fixtures, ornamentation and paint set them apart from the traditional earthen homes of the Igbo. The segregation built into the town planning further increased the prestige of the reservations. 64 The European reservations and bungalows were occupied by district commissioners, medical officers, school administrators, judges, and government officers. Bungalows were of various sizes and were commensurate with rank. This tied the singlefamily bungalow compound typology to an occupation-based measure of status.

A hybrid housing form developed in response to the clash between traditional and foreign colonial identities. In the late 1920s and 1930s, different regions were experiencing Westernization with varying levels of resistance which contributed to political clashes. ⁶⁵ There were conflicts amongst different communities due to the preference some groups received and the impacts of European land policy on formally

⁶⁰ King, The Bungalow: The Production of a Global Culture, 193-223

⁶¹ Ibid.,

⁶² Nsude, "The Traditional Architecture of the Igbo of Nigeria"

⁶³ King, The Bungalow: The Production of a Global Culture, 193-223

Nsude, "The Traditional Architecture of the Igbo of Nigeria"

⁶⁵ Ikebude, "Identity in Igbo Architecture: Ekwuru, Obi, and the African Continental Bank Building"



Figure 1.20 "Recently built Afikpo District Council Hall", Afikpo Village-Group, Nigeria, Simon Ottenberg, 1959-60

Eliot Elisofon Photographic Archives

communal lands. Architecture became a physical indicator of their level of assimilation or cultural progress. Greater opportunities could be made available if one became extremely knowledgeable in the European way of life including their expertise in taming the physical environment through science and technology. Engineered materials like "cement, corrugated metal and asbestos sheets, fibre board and imported paints" became associated with achievement. For those Igbo who could afford to build new homes, the ability to import the newest materials and incorporate them into construction symbolized their proximity to progress and reflected their position in the new social structure — mirroring the status structure of society's elite class. Though colonialism forced many social and economic changes onto Igbo communities, the Igbo people did appropriate certain aspects of European culture by exploiting the new economic situation and resources for their benefit.

NIGERIAN INDEPENDENCE AND POSTCOLONIAL RESTRUCTURING

Independence (the 1940s-60s)

A third period of hybrid architecture emerged as Nigeria drew closer to Independence. The mid-century institutional buildings built in Modernist styles were used to communicate progress and unity. They were part of an effort to form new national identities, that did not alienate any one of Nigeria's many ethnic groups. Meanwhile, European architects were also experimenting in British West Africa on tropical adaptations of modernism. Styles like Tropical Modernism were most preoccupied with confronting climate extremes. Ultimately, modernist designs prioritized the use of industrial materials—corrugated metal asbestos sheets, fiberboard, imported paints and mechanical air conditioning to temper the effects of the climate. The expense of such features, reliance on consistent electricity for mechanical cooling, and perhaps their austerity, contributed to their unpopularity in residential architecture. Ikebude suggests that the adoption of International

⁶⁶ Ibid., 46.



Figure 1.21 A mix of the old and new, "Government Rest House", Afikpo Village-Group, Simon Ottenberg, 1959-60 Eliot Elisofon Photographic Archives

or Modern styles by the African political elite was due to its formal reflection of European architecture. He notes that the presence of this architecture in the cities evoked past colonial stability, reaffirming the validity of European standards.⁶⁷ The use of these styles in the cities cemented the colonial cultural impact and "the 'triumph' of European architecture over Igbo traditional architecture".⁶⁸ Ultimately, the adoption of modernism was the least successful form of Nigerian-European hybrid architecture and it mainly remained relegated to the urban centres.

After Nigeria's 1960 independence, pre-established colonial standards and institutions became the inspiration for both urban and rural development. The trend towards transplanted solutions for local problems (through both postcolonial development programs and policy) reinforced the notion of pre-colonial "primitiveness". Ikebude describes "the paradox of hybridity arising from independence" which arose because the Nigerian identity was still in formation. Architecture (especially public) played a critical role in the promulgation of a new image for Nigerians. Ironically, European architecture, a former sign of dominance was adopted by Nigerian leaders as a symbol of democracy and progress. ⁶⁹ The main reason for this was because of an established familiarity with colonial standards, upheld by the British training that much of the Nigerian elite had received. Implementing "modern" planning and design and the need to catch up to the global economy put the newly independent African nation in contention with western progress. Western-educated Nigerians assumed most positions of power and took cues from the former colonial elite regarding their language, tastes, fashion, behaviour, and assets. For the new elite, progress and modernization became synonymous with westernization.⁷⁰ As a further

⁶⁷ Ikebude, "Identity in Igbo Architecture: Ekwuru, Obi, and the African Continental Bank Building"

⁶⁸ Ibid., 43.

⁶⁹ Ibid., 17.

Daniel Jordan Smith, "Legacies of Biafra: Marriage, 'Home People' and Reproduction among the Igbo of Nigeria," *Africa: Journal of the International African Institute* 75, no. 1 (2005b), 30-45. http://www.jstor.org/stable/3556715.

example of this, post-independence, members of the Nigerian political elite moved into the European residential areas. The trend of influence that commenced with colonial impact persisted in the ideological and cultural impact on Igbo society, extending even into the ethnic conflicts that spurred the Biafran war.

POST-WAR

The 1970s-1980s

The Political and institutional instability of the late century reinforced the need for self-sufficiency. Higher education was synonymous with modernization, seen as the way to improve the circumstances and status of the family. 71 Education was also seen as a way for Igbo people to "do for themselves" in a context in which the Igbo had little faith in the political administration and where social systems remained fragmented or unstable. This encouraged many of the young Igbos to move to cities and abroad for schooling. Strengthening ties to Igboland through the construction and maintenance of the family home was deemed necessary after the property seizures many Igbo had experienced during other major Nigerian cities in the Biafran war. The post-war expansion of transportation networks further linked the rural agricultural regions with the urban markets.⁷² This era of economic abundance provided Igbo people with additional opportunities to succeed and the means to transfer their successes back to the rural environment, manifesting itself in a major construction boom following this period of growth. Building a home reflected this newfound success and symbolized a "continued connectedness to place of origin." Even if the house remained empty for much of the year as its occupants primarily lived in the cities, having a home to return to in case of future conflict was considered essential.

The 1970s oil boom, economic growth, and import market

⁷¹ Smith, "Legacies of Biafra: Marriage, 'Home People' and Reproduction among the Igbo of Nigeria," , 30-45

⁷² Chapin Metz, ed., Nigeria: A Country Study

⁷³ Smith, "Legacies of Biafra: Marriage, 'Home People' and Reproduction among the Igbo of Nigeria,", 30-45



Figure 1.22 New urban development, Uwani layout, Enugu, Nigeria, Simon Ottenberg, 1959-60

Eliot Elisofon Photographic Archives

increased the production and availability of new materials and technological devices, like electric generators and mechanical air conditioning. Those who could afford to and had gained wealth in the cities outfitted their family homes with electricity and replaced thatched roofs with sheet metal, and coated earth walls with concrete. On a smaller scale, the home began to reflect the growth and capital accumulation of the city. Domestic imports increased with the postwar housing boom.⁷⁴ Houses could be outfitted with all the trinkets of modern life- televisions, couches, appliances- that one could afford.

"Aku ruo ulo" (Wealth reaches/returns home) ~Igbo proverb

CONTEMPORARY

"Modern housing in Igboland is very expensive because the majority of the building materials are imported from Western countries and Asia.... "Even more so because of the cost to transport materials and to remote rural regions. Igbo building was cheap to build. European building is more durable but more expensive — in some ways, hybridity is simply a matter of access, wherein "traditional materials are refined, using Western technology."

By the end of the twenty-first century, almost half of Nigeria's population was urban. That ratio is currently at about half⁷⁶, with Igbo people continuing to move to the cities and abroad for greater opportunities. Due to the rising costs of land, materials, transport, and labour in Nigeria, overall construction costs have risen. Constructing a house is something that can only be afforded much

⁷⁴ King, The Bungalow: The Production of a Global Culture, 193-223

⁷⁵ Ikebude, "Identity in Igbo Architecture: Ekwuru, Obi, and the African Continental Bank Building"

^{76 &}quot;Rural Population - Nigeria," 2022, https://data.worldbank.org/indicator/SPRUR.TOTL?locations=NG.

later in life and on smaller plots of land. Locally, there is less reliance on farmland agriculture and local economies and more support from foreign industries and imports. Some village residents forgo largescale cultivation for smaller enterprises and alternative trades with additional support coming from remittances sent from family members abroad. This has led to a trend in which village compounds are being transformed via a type of "remittance architecture" in which family members who reside permanently outside of the rural environment sponsor the production of rural architecture. In her research on The Remittance Landscape, built-environment historian Sarah Lopez uses the term to describe social change driving a landscape of architecture produced through a fusion of "disparate geographies"77. In this case, remittances are used for the construction and maintenance of rural family compounds. New "mansions" are built in traditional compounds, even though they may sit empty for most of the year. Remittances in conjunction with personal preference, and local availability dictate the styles of new homes. Likewise, Igbo remittances fuel the growth of villages where government initiatives fall short. Village centres continue to expand through the addition of market halls, hospitals, churches, and school facilities funded through external contributions.

The styles of these new homes offer some diversity owing to the globalized aesthetics and the socioeconomic status of their owners. Currently, in Igboland "it is possible to distinguish between four types of architecture existing side by side in rural areas". The various permutations of rural housing are wholly traditional which is disappearing due to its association with "poverty and backwardness", "a mixture of traditional and modern methods and materials", and finally European or Western-style homes, contracted by foreign workers, and built-in "contemporary" forms with non-local materials. By their proximity to either "traditional" or "modern" styles, these permutations of Igbo architecture have become synonymous with

^{77 &}quot;Building Ethnographies," , accessed Dec 30, 2021, https://www.cca.qc.ca/en/articles/issues/5/journeys-and-translation/76048/building-ethnographies.

⁷⁸ Nsude, "The Traditional Architecture of the Igbo of Nigeria"



Figure 1.23 House under construction in Isiekenesi community, 2021

social standing. Neocolonialism has prolonged lingering notions of Western superiority -systems, methods, class distinctions- in a way that is supported by western prominence in global media.⁷⁹

King, The Bungalow: The Production of a Global Culture, 193-223

1.7 Drawing Impact

"Of all Nigerian people, the Ibo have probably changed the least while changing the most'...Igbo receptivity to change is explained by their ideal of progress as expressed in their concept of 'getting up', the flexibility of their social structure, the cooperative yet competitive character which makes adjustment in the city easy, the nature of the contact situation in which they were not "overwhelmed," the long period of Euro-Igbo contact which developed trading partnerships collaboration while it introduced new "wants" — all this before the period of political domination and the relative impoverishment of the land by the demands of a growing population." (Uchendu, 105)⁸⁰

Western imperialism altered several facets of Igbo society. The early English missionaries were the first to introduce Christianity, initiating the development of an Igbo identity that existed beyond kinship ties. The British colonialism that followed inducted the Igbo into the global economy through European capitalism. They were introduced to an ideology, culture and value system tied to the market economy and backed by several centuries of established European tradition. European assumptions about social structure, domestic living, and status were based on imperialism and the supposed supremacy of Western values and therefore clashed with Igbo indigenous tradition. By the time Nigerians sought their independence from the British, the lasting impact of colonialism and westernization had affected indigenous society. This impact could still be felt in the tensions which had arisen due to the forced consolidation of major disparate ethnic groups. These differences eventually erupted in the civil war in which southeastern Nigerians (of which were 67% Igbo81) sought

https://en.wikipedia.org/w/index.

⁸⁰ Uchendu, *The Igbo of Southeast Nigeria* 81 *Biafra*, 2021a). php?title=Biafra&oldid=1046647518.

self-determination as the secessionist state of Biafra. The Biafran war and the forced migrations of many Igbo people experienced during the conflict reinforced the importance of having a collective home. This connection to the family homestead and rapid urbanization based on colonial models, altered the relationship Igbo migrants have to their traditional settlements. This complex relationship is evident in the coexistence of various styles and influences on the domestic architecture that can be found in Igboland today.

The traditional compound setting is a stage for analyzing the effects of the impact of social and economic change on Igbo domestic life. Although the "modern" house in the traditional compound may seem altogether unexpected or out of context, it speaks to the larger narrative of tradition, adaptation, and cultural resilience. The following chapters explore some of the broader questions of how the Igbo family compounds have transformed through time. Thus, the ensuing investigation provides an intimate perspective on modernization's material impact on Igboland through my family narrative.

2. Affecting change



Figure 2.1 Approaching the Obialo family compound, 2021

2.1 Home - Diasporic connections to the Igbo indigenous homeland

"Onye were madu were ike, Onye were madu were aku"

(Those/the person who has people has power, those who have people have wealth)

~ Igbo proverb, (Legacies of Biafra, pg.39)

In Igbo culture, having a home makes one "a legitimate member of the living community". Igboland is considered that home. The diasporic tie to the indigenous homestead is so great that Igbo people who may permanently reside outside the Igbo cultural area still consider their ancestral villages their home and seek to be buried in their ancestral village.² British colonialism supported the development of a distinct Igbo ethnic identity through an imposed Non-European designation. The "perceived marginalisation of Igbos as a result of Biafra" reinforced the importance of having a collective home.³

Today Igbo people are considered one of Nigeria's most migratory ethnic groups, making up a substantial population of migrant workers across Nigeria's cities. This contrasts with the early days of colonial settlement in which the Igbo remained largely unattached to the urban centres. The towns were seen as purely a site of commerce; there was little interest in permanent settlement. Urban Igbos eventually

¹ Chukwuemeka M. Ikebude, "Identity in Igbo Architecture: Ekwuru, Obi, and the African Continental Bank Building" Ohio University, 2009), . http://rave.ohiolink.edu/etdc/view?acc_num=ohiou1250885407.

^{2~} Smith, "Legacies of Biafra: Marriage, 'Home People' and Reproduction among the Igbo of Nigeria," , 30-45~

³ Daniel Jordan Smith, "Legacies of Biafra: Marriage, 'Home People' and Reproduction among the Igbo of Nigeria," *Africa: Journal of the International African Institute* 75, no. 1 (2005), 30-45. http://www.jstor.org/stable/3556715.

⁴ Ibid., 35.

institutionalized their continued connection to the rural communities by creating formal ethnic and tribal unions in the 1930s and 1940s.⁵ They provided a sense of group identity in the cities, helping migrants from neighbouring villages find work, school, comfort, and community even before the establishment of various other class, occupational, and religious unions that followed. These unions were formed through extended families and local village networks, reflecting a reliance on other Igbo people for social and economic support. With Nigerian independence as major cities expanded, Igbo people had established roots, building homes in the cities. During the Biafran war (1967-1970), many Igbos were forced back into the southeast after their homes had been ravaged or seized by the government and other opposing forces. This marginalization cemented the value of maintaining kinship ties to Igboland.⁶ This manifested in an obligation to build, maintain, and develop the Igbo homestead.

Igbo people place great importance on owning land and building a house within their home villages because it is a physical link to their cultural community and symbolic of a continued affinity towards ancestry. The migratory nature of the Igbo comes from the achievement orientation of the Igbo social structure, where anyone can strive to improve their status through industriousness. The primary objective of many Igbo people abroad (within Nigeria and beyond) is to contribute their earnings towards improving their home compounds and the welfare of their families. Most Igbo migrants build their first (and frequently their only) home in their village of origin, even if they live almost all their entire lives outside of it. The importance placed on the construction and appearance of the home reflects the changing status of Igbo individuals, the search for a post-colonial architectural identity, and the relationship migrant Igbos have with their rural communities.

2.2 The family compound as site

Due to its almost century-long existence, I have selected my maternal family compound, the Obialo compound as a case study subject of the Igbo compound typology. Since its establishment, its bounds and programmatic layout have remained consistent. This allows me to make one architectural drawing, for example, a section, that can provide the base frame of reference for the layering of several scenes. I am familiar with the compound's functions as the realm of domestic routine after spending many hours within the compound observing the daily routine. Although my maternal family compound has stood for almost a century, its original structures are no longer present. They require a visual reconstruction drawn from research and family narratives. Whereas the compound house land (ala ulo) is established for the family in perpetuity, the compound enclosure and houses within it are subject to change. This translates to an understanding that the house is not a rigid entity existing forever; instead, it is meant to reflect the lifestyle and status of its owner and occupants. F.Ph. Bijdendijk called this building culture an example of "extreme sustainability" where:

"Most buildings were never intended to last indefinitely. The cour" as the hearth of the family could last for many generations, but the cases intended for individuals were only to serve or a certain stage of life or for one generation. Buildings were optimally designed and built to serve this conscious temporality, as if they were cars or articles of clothing, with the difference that nothing remained of a building after it had been abandoned, while a lot of energy is required to recycle a car or a modern item of clothing." ¹⁰

^{9 *} the focus of family life

¹⁰ Antoni S. Folkers and van Buiten, Belinda A. C., *Modern Architecture in Africa Practical Encounters with Intricate African Modernity*, 1st ed. (Cham: Springer International Publishing, 2019). doi:10.1007/978-3-030-01075-1.



Figure 2.2 Site plan of maternal family compound, Isiekenesi

Although the impermanence of the indigenous earth-building tradition required constant maintenance, it aligns with the cultural propensity to establish a uniquely custom domain. The compound houses manifested as dispersed cells, meaning they could be torn down, rebuilt, or added to structures when needed. Particularly in the traditional context, the availability and temporality of these materials suit the "organic nature of the traditional family"11. The expected lifespan of earth buildings is short, and if buildings are not maintained regularly (after rainy seasons especially), they will begin to break down. The vulnerability of fibrous materials to moisture and vermin must have encouraged experimentation with other materials.¹² The participation of the umunna and collective community meant that family structure drove the feasibility of earth construction. When construction became contracted work, the reality of upkeep changed; the physical expense of labour primarily became a question of monetary expense. Durability rose in priority and was served by adding new materials like corrugated sheeting and cement into the construction process.

Modern building practices, with their multi-storey buildings, reinforced walls and rigid floor plans, have reduced the flexibility of the compound house. Current construction expenses have led to an alternative architecture of sustainability predicated on extending the house's lifespan. In Igbo tradition, individuals are buried within the compound domain, reinforcing the notion that the compound "exists for the living and the dead." Men are buried beside their homes within the compound, and specific cultural burial rights are followed so as not to insult the earth. This prevents the suggestion of purchasing a compound or a *cour* that has fallen out of use. Igbo domestic tradition speaks to a close relationship between the built environment and the cyclical structure of the natural world and human life.

¹¹ Nsude, "The Traditional Architecture of the Igbo of Nigeria"

¹² Ibid., 192.

¹³ Nsude, "The Traditional Architecture of the Igbo of Nigeria"



Figure 2.3 The Obialo compound interior, panoramic collage, 2021

2.3 Affecting change to the Igbo family compound

Working backwards from his death at 94 in the late 1990s, we have estimated that my great-grandfather must have founded his compound sometime in the late 1920s for himself and his first wife. Based on this projection, I have developed a timeline on which I have drawn up plans for three significant markers in the history of the compound. With intervals of about forty-five years, the compound plans show distinct transformation over several generations. [Figure 2.5] provides the accompanying visual representation of this timeline. It links my family compound with the colonial (1930), post-independence (1975), and current period (2021) in Igbo compound tradition. These periods in Nigeria's history intertwined with the story of the compound, providing the social context of its existence.

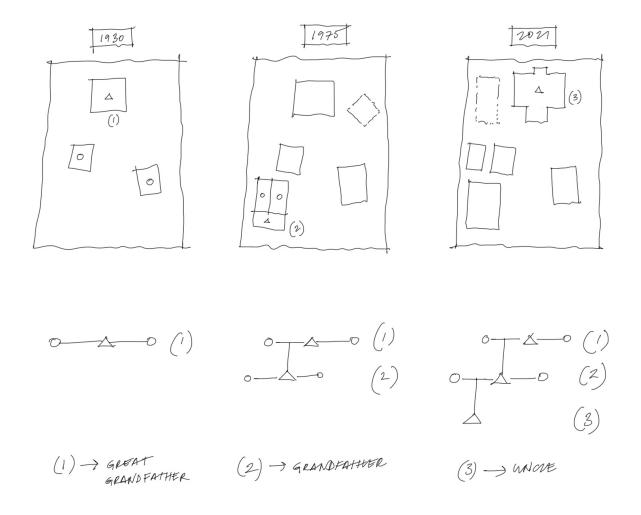


Figure 2.4 Compound as spatial diagram of familial relationships

[1930]

The compound plan drawing [Figure 2.6] is a reconstruction depicting my second great-grandfather's compound as it would have appeared in 1930. Direct colonial influence has not yet been felt in this part of the Igbo heartland, as colonial construction activities were focused on the urban centres. Until the mid-twentieth century late colonial period, village life continued in a tradition like that which had existed in the pre-colonial era. This means that the building tradition under which his compound was founded would have been broadly local and "traditional" in style.

Customarily, when land is selected to become the site of a compound, a live stick is planted in front of what is to be the location of the man's house. The survival of the plant christens the establishment of the family compound. It becomes the site of the family shrine where offerings are given for the health and longevity of the family and maintenance with *ala* and the ancestors. The shrine's location is marked at the centre of the plan in front of the house of the family head; in 1930, that was my great-grandfather. On either side of his house are the houses for his first and second wives to be shared with their children. To their rear are kitchen structures where meals are prepared. Surrounding the homes is a fenced enclosure with an entry gate that aligns with the courtyard and the compound head's house.



Figure 2.5 Chronological Timeline of the family compound

[1975]

My great-grandfather was known as a successful farmer. He had developed a large vam barn near the compound's entrance, a common practice in the region as it proudly displayed individual successes. The new colonial consumer markets and the post-independence availability of new materials likely influenced the update of my great grandfather's house from the traditional wattle and daub wall structure with a thatched roof to block walls and a sheet metal roof. My mother remembers that even though his house had been updated, his first wife's house still had a thatched roof. As the eldest son, her father, my grandfather, constructed a home within the compound for his own family. The house was planned with a corridor layout creating two distinct halves to accommodate his first and second wife and their children. During and immediately after the war, my mother remembers that for a short time, her great uncle lived within the compound in a house beside her grandfathers with his wife. By the mid-century, the communal rituals surrounding traditional objects of worship and the family shrine are becoming less popular as part of the transition towards Christianity. My mother still remembers her grandfather making sacrificial offerings at his shrine.¹⁴ Still, once her father built his house, he marked its position by planting an orange tree in front of it in a somewhat central location. This reflects the spiritual evolution of the Igbo family towards full adoption of Christianity, where spirituality grew further linked to the church's physical institution, which existed beyond the family home.

¹⁴ Interview with my mother, November 2021

- a. family head's house
- b. first wife's house
- c. second wife's house
- d. kitchen
- e. family shrine

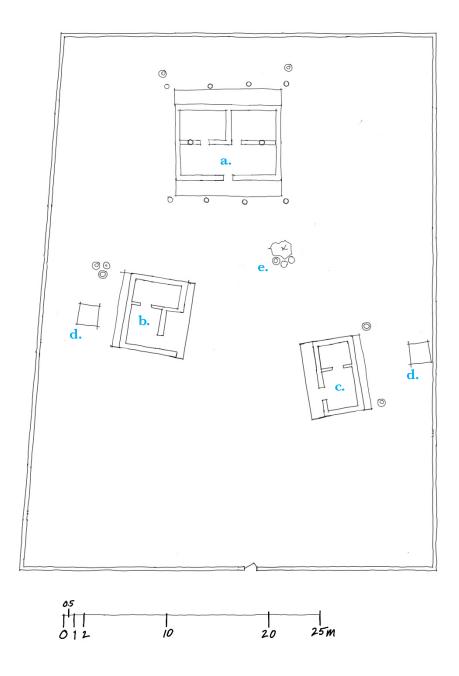


Figure 2.6 1930 Obialo family compound plan

[2021]

By 2008, my uncle had constructed a house and boys' quarters (guest house) in the compound. My great-uncles - younger sons of my great grandfather- had gone on to establish their compounds, but two have remained in the compound rebuilding transforming their mothers' homes with added rooms for their wives. To this day, the compound is primarily occupied by my grandmother, great uncles, and live-in extended cousins that help around the compound with various tasks. Shortly before my grandfather passed, my uncle, the eldest male, planned to construct his own house where my great-grandfathers had once stood. This house was completed in 2008, along with a boys' quarters or guest house where hired help, extended family or other guests can stay. My uncle spends much of his time in the other major cities where he works, so most of the year, no one occupies the house except during special ceremonies or holidays when much of the family returns to the village for a short stay.

- a. family head's house
- b. first wife's house
- c. second wife's house
- d. eldest son's house (grandfather's)
- e. grand-uncle's house
- f. kitchen
- g. bath/toilet
- h. yam barn

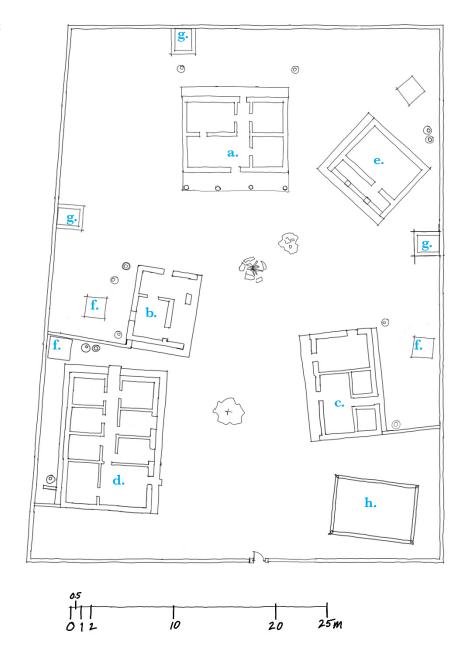


Figure 2.7 1975 Obialo family compound plan

2.4 Method and Medium

Illustrating narratives

Through my research process, I found it helpful to illustrate written anthropological and ethnographic information, not only as a visual aide for myself but as an aide for non-architects- people like my parents with whom the act of drawing together helped stir up memories. Where visual archives may be limited, drawing steps in as a suitable medium for relaying information. Through diagrams and drawings, data from various sources are compiled and assembled into a narrative that aids the overall argument. For their research entitled *Centering Africa: Postcolonial Perspectives on Architecture*, Warebi Gabriel Brisibe and Ramota Obagah-Stephen offer alternative methods of disseminating research in Africa. They propose that:

"For studies within and about sub-Saharan Africa to be non-Eurocentric, they ought to, as much as possible, be conducted and disseminated using the means of cultural expression and communication of pre-colonial societies. And text is certainly not the most well-established of these. Rather, the cultural heritage of sub-Saharan Africa has long been recorded and shared through various oral and visual media: including songs, stories, and chants; relief and round sculpture; motifs, signage, and patterns on textiles, walls, and skin; and sketch art." 15

In a series of drawings depicting the Somali markets in Cape Town, South Africa, Huda Tayob explores the spatial practices of migrants and refugees through the spaces they use. She chose to adopt architectural drawing conventions of plan and section as the base on which she could, in approximate detail, render the objects that are often excluded in conventional architectural drawings. Tayob's pictures include a density of detail through the goods and merchandise

^{15 &}quot;Pictorial Storytelling," , accessed Oct 31, 2021, https://www.cca.qc.ca/en/articles/78653/pictorial-storytelling.

- a. family head (uncle's house)
- b. great-uncle's house
- c. grand-father's house
- d. kitchen
- e. boys' quarters (guest house)
- f. water tower

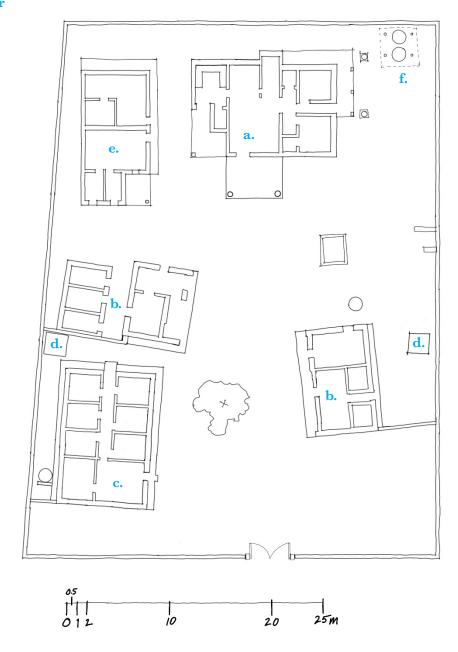


Figure 2.8 2021 Obialo family compound plan

that animate the drawings, offering a real sense of occupation and rendering routine visible.

"Drawing these markets asks us to consider them as spaces worthy of being drawn. In contrast to the emphasis often placed on the improvisatory nature of spaces for informal trade, these forms of representation point to the very real existence of physical built forms, and to the concrete spatial and material affordances of what may be glossed over as ad hoc." ¹¹⁶

Like Tayob, my architectural training lends itself to geometric* understandings of space. By adopting architectural drawing conventions, I contest the lingering colonial notion that this indigenous housing typology does not qualify as an actual architectural achievement. Research, inference, stories, and photographic evidence are formalized in plans, sections, and elevations. As Tayob writes, "pictorial storytelling is a process of experimentation in forming "other" methodologies." 17 Extensively diagramming the compound and the layering of information is an experiment in an alternate methodology. My proximity to and experience with the subject of the case study has given me the ability to depict the routine machinations of Igbo domestic life. Adopting the tools of western knowledge to define indigenous tradition offers credence to a disappearing context, celebrating the stories of a group who rarely sees their environment depicted in this way. Adding active figures in the foreground of architectonic illustrations expresses more about the socio-cultural context than unoccupied planar drawings allow. While including Igbo names and terminology as labels within the pictures is an additional act of decolonizing the architectural narrative.

In gathering information to supplement the narrative for this narrative, I relied heavily on the archaeological evidence and anthropological surveys conducted by a host of sociologists, historians,

^{16 &}quot;Architectures of Care," , accessed Dec 20, 2021, https://www.cca.qc.ca/en/articles/issues/30/of-migration/81159/architectures-of-care.

^{17 &}quot;Pictorial Storytelling,"

and explorers. While searching for archival images, I was led to the online blog called Ukpuru/ Ukpúrú, which is dedicated to collecting, consolidating, preserving, and sharing pictures and stories of Igbo history.¹⁸ This steered me toward the archives of several European anthropologists, scholars and photographers who toured Igboland, many of whom had been tasked with conducting anthropological surveys for the colonial government. The photographic archives of Herbert Wimberley (circa 1903-18), Northcote Thomas (circa 1910-11), Gustav Bolinder (circa 1930-31), G.I. Jones (1930s), and Simon Ottenberg (circa 1951-60) provided an immense visual reference for my depictions of the scale, material, and composition of the traditional landscape. Although their images were taken in other regions of Igboland beyond Isiekenesi (ex. westwards towards Onitsha, eastwards towards Afikpo) [Figure 2.9], they remained invaluable in completing the pictures of Igboland not so long forgotten. Additionally, my parents provided stories and childhood recollections of compound functions and building trends which they remember seeing in their early childhoods but which may have already been considered out of date by their teen years in the 1970s – like thatched roofing, for example.

¹⁸ Ųkpūrų, , <u>https://ukpuru.tumblr.com/</u>.

Compositional Style

A significant component of this case study is rendered by hand. The drawings are meant to be imperfect and irregular to reflect the quirks inherent in manipulating the earth by hand – a defining characteristic of traditional earth architecture. Digital software can often be uncompromising, but sketches can be less concrete; each stroke or sketch may still be left up to interpretation or added to in future, which I believe is an apt mode of representing stories of materials, culture, and influence, all of which are nonlinear and fluid. To offer a dynamic method of storytelling, I overlap multiple scenes with one another in a way that mimics collage. In the study, I experiment with relaying the experiential and material properties of the compound and its environs. The scenic juxtaposition of the old and new is meant to explore the dimensions of the transformation of the compound visually. They are intended to express the relationship between elements in space at various scales and levels of detail. They are the culmination of the consolidation of references, stories, and experiences brought together in vibrant scenes of domestic life. With the absence of significant photographic evidence, especially regarding the pre-colonial tradition, the illustrations are a way to reconcile related archival content with first-person experiences of the Igbo family compound typology. Ultimately, the illustrations tell a story of transformation, highlighting what has changed and what has stayed the same. In the following sections, I elaborate on traditional indigenous elements explaining their function and the socio-political, cultural, and environmental issues that affected typological change. Eventually, the current conditions of the compound are related to regional and contemporary trends. Through the illustrations, the simple categorization of compound elements can encompass a broader context and detailed specificity. They attempt to follow the nonlinear narrative of history and culture.

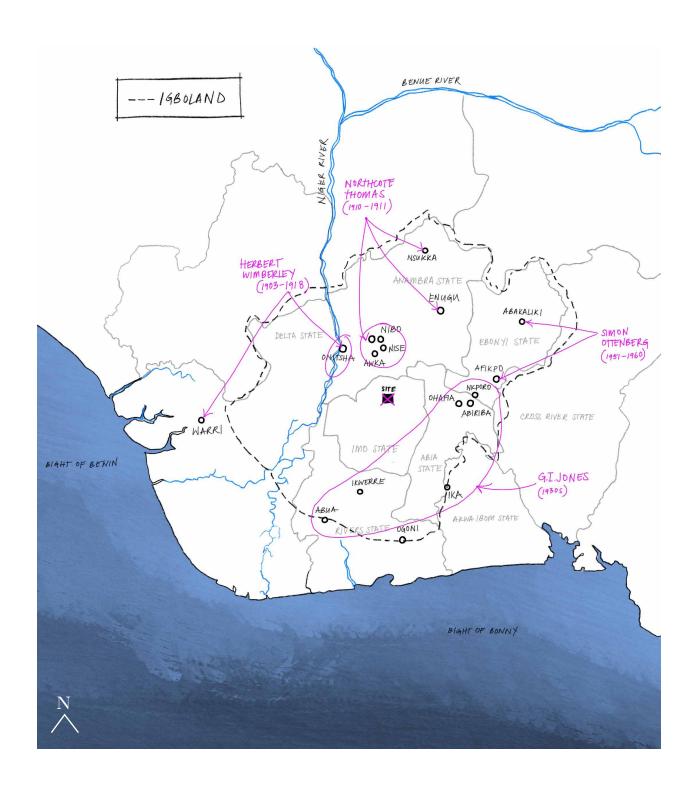


Figure 2.9 Sites of historic anthropological research

Continuity of Space, Discontinuity of Time

Initially conceived in 1989, *Here* by Richard McGuire is a comic book exploring the themes of human and environmental impact in a pop art style. McGuire establishes one setting- such as a living room- and repeats it across panels, then jumps between prehistory and the future depicting various stages of human development and scenes from realized and invented narratives. ¹⁹ By displaying several narratives unfolding within the confines of one space, McGuire shows time and space as infinite, where "the present is locked in a constant conversation with the past and the future" as the 2014 New York Public Library's exhibition described. ²⁰ McGuire's illustrations challenged the reader to complete the narrative and inspired the compositional style taken on in this work.

With these drawings, I seek to depict the discontinuity of time versus the continuity of space. Although the compound and landscape boundaries have remained relatively consistent through time, idiosyncrasies emerge once spaces are drawn across time. Multiple depictions of elements of space and time are superimposed onto one another. Certain scenes take precedent (through compositional scale and colour), and specific figures appear more prominent in the foreground or between time frames. Perspective, plan, and detail drawings come together to illustrate the discontinuity of time and space. The intention is that this composition's complexity coincides with the narrative's complexity. These drawings are speculative, exploratory drawings. They are a superimposition of elements, details, notes and narratives. Through them, I explore language, culture, and material, not definitive renderings of reality.

^{19 &}quot;Here,", accessed Jun 10, 2022, https://www.tcj.com/reviews/here/.

^{20 &}quot;Here, 2014,", accessed Jun 10, 2022, https://www.richard-mcguire.com/new-page-4.

3. Matters of time

3.1 Key features of the Igbo family compound

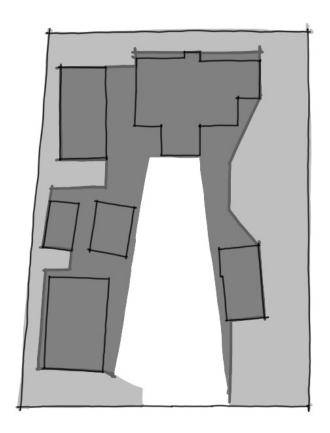
As previously mentioned, the Igbo family compound typology is defined as a rectangular enclosure in which individual houses are loosely arranged around a central open courtyard. The structures in the compound reflect the family's size and allude to its occupants' daily routines. The Igbo spatial pattern in the concentric settlement model is visible from the village to the compound scale. The family compound is within the domestic zone at the village level, but within it lies another hierarchy of space serving socio-cultural, domestic, and occupational functions simultaneously. [Figure 3.1] relates the location of the primary compound features to these functional zones. It is developed from Nsude's model in The Traditional Architecture of the Igbo of Nigeria, where he establishes the socio-cultural, domestic, and occupational zones of activity. In this work, I emphasize the enclosure, the houses (compound head, wives, and sons), the courtyard, and the material and cultivated landscape. By aligning these elements with the different functional zones, I can further explore the structural logic of compound space. Ultimately, I can illustrate the domestic activities which occur within and connect the zones of the family compound.

The nuclear family domain - THE ENCLOSURE

The wall and gate of the compound enclosure are boundary markers, outlining the realm of the family. Although it appears rigid as a spatial element, it facilitates a "container" of domestic life and flexibility. The family can carry out their lifestyle within the enclosure and arrange the interior to meet their needs. It mediates the boundary between the interior (the family compound) and the exterior (the village beyond), between the nuclear family and the extended family. Space is usually cleared in front of the compound, where a pathway leads back to the village proper.¹

The domestic zone - THE COMPOUND HEAD'S HOUSE

The first house built within the compound is that of the family



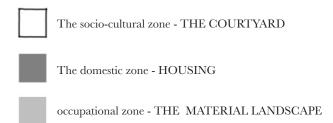


Figure 3.1 The primary functional zones of the compound

head. Its position in line with the compound gate establishes the public orientation of the compound and the setting of the forecourt. The house itself is part is the main feature of the private domestic realm. His and the homes of his wives and sons constitute the most intimate spaces within the compound.

The socio-cultural zone - THE COURTYARD

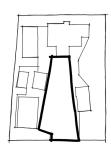
The open central courtyard is the family living room bounded by the compound head's house and all the other homes within the compound. It is the nucleus of the compound, a link between Igbo domesticity and occupation.²

The occupational and economic zone - THE MATERIAL AND CULTIVATED LANDSCAPE

No compound is cut off from the rural landscape's natural cover. The plants and trees within the compound blend into the forest and farmland beyond the enclosure, providing sustenance, shade, and privacy. The various species planted inside and immediately outside the compound support the domestic and economic routine while providing a buffer between the family compound and other compounds. This zone is most distinguishable behind the compound houses, providing a more private "rear-court" region to prepare food, store goods, and cultivate gardens.







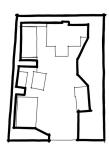
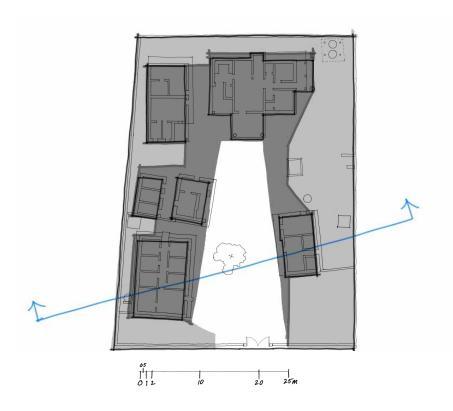


Figure 3.2 Key diagrams of compound features

² Nsude, "The Traditional Architecture of the Igbo of Nigeria"



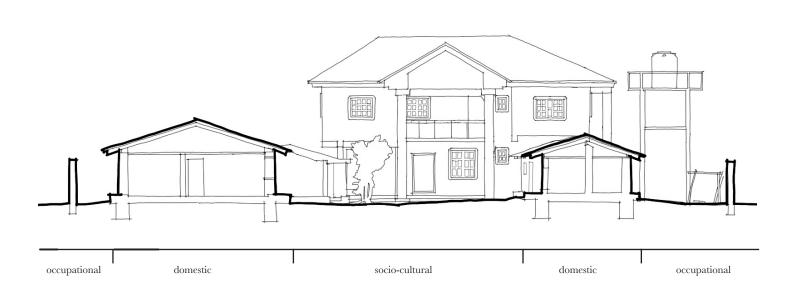


Figure 3.3 Compound section diagram 2021

The key principle of spatial organization: Degrees of openness

This spatial layout of the family compound follows a loose concentric pattern. The central positioning of the socio-cultural sphere in the form of the courtyard reflects the centrality of the family and collective unit in Igbo culture. The composition of the family compound creates different spaces for different activities—the private and public spheres of the compound overlap. Daily activities can be carried out between the house interior and the outdoors. "The different intensities of social interaction are conveyed by the degree of openness of the space." From the village to the compound scale, the intensity of social interaction is concentrated in the central core. At the village scale, this is the village commons and at the compound scale, this is the courtyard. Economic activity is concentrated in the surrounding gardens, with decreased intensity in the individual homes and towards the courtyard. These intensities support the multifunctional character of the compound interior and reflect a degree of privacy that increases from the compound gate through the courtyard and into the individual houses.

Openness is a fundamental design principle for hot-humid climates because space is required for air movement. With little cloud cover—especially throughout the dry season- the dispersion of buildings within the compound creates microclimates where regions of shadow and low-pressure breezeways help to facilitate passive cooling and the maintenance of comfort. Traditional houses were one or two-room cells with the primary purpose of sleep and personal storage. They were dark with low ceilings; by contrast, the outside environment was the place to carry out most of the daily routine. In this region, there is little change between night and daytime temperature (low diurnal temperature) and high levels of humidity; openness is a sensible strategy.

Enduring and identifiable

The compound enclosure, compound head's house, the

courtyard, and the landscape become the focus of investigation because their existence has remained largely unchallenged since they were first described in pre-colonial texts. They align with the established concentric model, and their analysis can speak to a broader cultural and historical change context. The compound is a living organism, and my maternal family compound speaks to its transformative nature. Despite structural and aesthetic changes to the compound, the larger programmatic zones have been maintained over time, which speaks to the dominance of Igbo cultural tradition. The images further elaborate on each element through an experiment in layered composition. Each feature is described and woven into the overall compound narrative. The descriptions are capped with a discussion on the current conditions and trends affecting each component. Through the illustrations and explanations provided here, this work explores the temporal dimension of the Igbo compound typology.

The planning rituals associated with the foundation of a family compound are more than simple pragmatic concerns governing the arrangement of houses. They serve a role in preserving the culture embedded in the ongoing use of rituals that take place in the family compound. The founding of a compound starts with the selection of land and is followed by the dedication of the land. In traditional spirituality, this was marked by a shrine to Igbo deities, but in recent times this is conducted through Christian blessings. This reflects a transformation of culture spurred by foreign influence and reconciled with customary notions which recognize the existence of the conceptual universe [The three-world universe as depicted in Figure 1.7]. The existence of this conceptual consistency emphasizes the necessity of figures and objects being included in the narrative of each compound feature. The establishment and continued existence of the compound is a time-based process. As it is updated it undergoes a certain renewal and reflects the durational nature of the Igbo family. This research manifest through illustrative exploration attempts to capture some of this intangible character and incorporate oral history into a layered methodology.

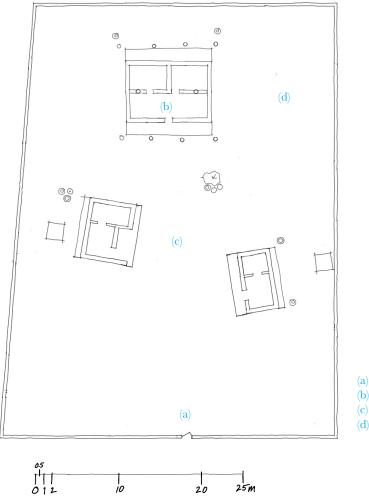
Form and Retention in the Igbo family compound typology

The Igbo achievement value encouraged receptivity to the change and adoption of technologies that improved the quality of life.4 In his work, Aniakor identifies several trends in the impact of modernization on Igbo house types. He suggests that typological adaptations can be observed through the tendency for forms to be retained while materials change and for greater emphasis to be placed on prestige through the scalar increase of elements such as room units, the accrual of new technologies and the integration of kitchens and bathrooms (formally exterior functions) into the house.⁵ Most of the changes to the housing typology can be categorized through these trends. Material change can be seen in the initial replacement of thatched roofing with the newly available corrugated metal sheets in the later colonial period or the replacement of earthen walls with cement blocks. 6 Changes to form are usually made through exaggerated features, while significant primary elements remain. Plans become more complex, moving from simple cell rectangular units to multi-cell homes with rooms designated for individual members of the family. Windows are widened for better ventilation, with multiple panes incorporated into their design to display expensive glass or louvres. In this work, I observe both form and structural change as they apply to built elements and the spatial logic of the compound. The following section describes the significance of each compound feature and explores the impacts of external influence on the typology. The construction styles of the older houses that still stand within the compound are evidence of the era in which they were initially built and allude to the infiltration of various styles, materials, and technology.

⁴ Stanley R. Barrett, "The Achievement Factor in Igbo Receptivity to Industrialization," *Canadian Review of Sociology/Revue Canadienne De Sociologie* 5, no. 2 (1968), 68-83. doi:10.1111/j.1755-618X.1968.tb01180.x. https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1755-618X.1968.tb01180.x.

⁵ Chike Cyril Aniakor, *Igbo Architecture: A Study of Forms, Function and Typology*, Volume 1 ed. (Indiana University: , 1978).

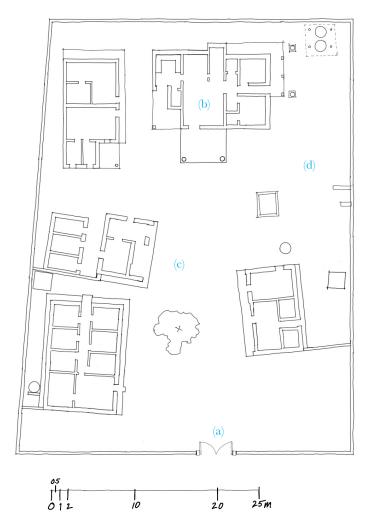
⁶ Aniakor, Igbo Architecture: A Study of Forms, Function and Typology



- (a) compound enclosure (b) compound head's house (c) courtyard
- (d) landscape

Figure 3.4 Family compound plan, 1930

20



- (a) compound enclosure (b) compound head's house
- (c) courtyard
- (d) landscape

Figure 3.5 Family compound, 1930



The nuclear family domain THE ENCLOSURE

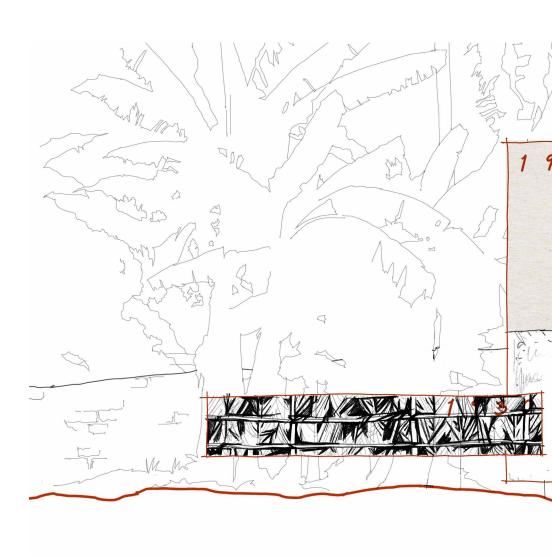
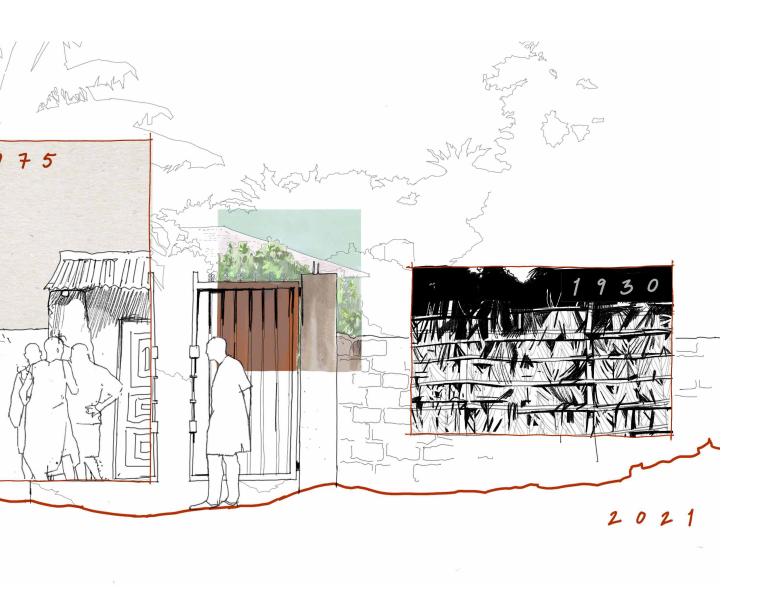


Figure 3.6 Composite drawing of the compound enclosure



3.2 The nuclear family domain: The compound enclosure

The compound wall physically separates the household from the outside world. It is social and protective, providing privacy for the family while keeping the dangers of the bush out. The compound walls denote flexibility and create the atmosphere of conducting activities out in the open while still being "inside the home." It is usually constructed before the erection of the house to demarcate the boundary of an individual's land. The entry gate's location in conjunction with the house of the family head establishes the male and, therefore, public orientation. While some pre-colonial Igbo communities initially employed bamboo and raffia for the construction of simple fenced enclosures mean to demarcate property bounds, the strength of subsequent earthen enclosures hints at greater defensive needs within the community. The most common depictions of the traditional enclosure attributed to the Igboland, are tall mud walls.

The compound gate is the point of marked entry, indicating the main entrance to the family domain. The gate acts as a portal, meditating spatially and functionally between the nuclear family and the village. Built into the compound wall, it is usually the sole entry to the compound. Through the gate, the first structure in your line of sight is the compound head's house. Therefore, it is meant to be reflective of the style and status of the compound head. As a point of marked entry, it has often been a point of ornamentation. This is especially for those of higher social status, who could afford the labour for the elaborately carved entry doors and panels that often appear in the African art collections of foreign museums. The gate links the compound with the village, through type, while hinting at the social

⁷ Nsude, "The Traditional Architecture of the Igbo of Nigeria"

⁸ G.I. jones photographic archive southeastern nigerian art & culture, a, https://jonesarchive.siu.edu/.

status of the occupants. Beyond that, "the main gate is used to confirm ownership of the compound itself. A new inheritor of a compound is expected to demolish the former compound gate and build his own. Until this is done, the compound is not yet regarded as his". For this reason, the compound gate is often the first feature of the compound to undergo structural change.

Compound houses are freestanding creating free space between the house and enclosure for other small structures like outhouses and bathing stalls. Low partition walls may be built inside the compound, perpendicular to the enclosure as privacy walls establish more defined rear and forecourt conditions. In some cases, interior partition walls are added beside the house to offer greater privacy to houses with sides exposed to the gate.

⁹ Nsude, "The Traditional Architecture of the Igbo of Nigeria"

The compound enclosure | 1930

An early interpretation of the compound enclosure was as a perimeter fence. Constructed with posts planted even distances apart, interwoven with malleable wood fibres or branches. The posts were usually bamboo poles, with smaller wooden members used as rails framing the fence. The fence frame is infilled with palm fronds positioned upright and packed tightly to create a screen and afford the family some privacy. A simple narrow opening in the compound fence would serve as the compound gate.



Figure 3.7 The compound enclosure, 2021 image by author.

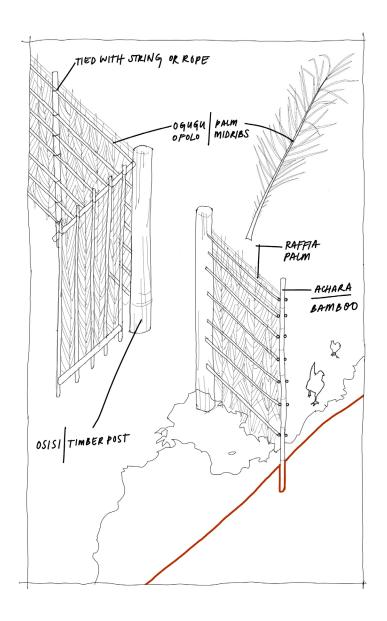
¹⁰ Interview with my mother, November 2021

The compound enclosure | 1975

By this point in the compound's life, there is a drastic change in the gate's scale and enclosure's scale and appearance. It reflects a general update in building material technology and expectations for domestic comfort. There was also influence from the urban areas that encouraged the replacement of fences with less flammable walls. Earthen walls were considered more durable, requiring less maintenance than the earlier fence. The construction of the enclosure walls reflected the house walls, with a lattice wattle-and-daub structure onto which puddled clay is applied. In some instances, once the wall was completed, the wall would be topped with palm fronds to shield it from the rain and spikes taken from the oil palm leaf base as an extra measure of security. At specific points in the wall, an opening may be made at the bottom of the wall to allow for water drainage or permit the wandering of domestic fowls.¹¹ In some parts of Igboland, the earthen enclosure was decorated with paint, but this practice did not seem common in Isiekenesi. 12 Two columns frame an opening enclosed by a chip-carved door for the compound entry. Igbo carved doors varied from simple to elaborate: an aperture with a latched wooden door is framed by posts and covered by an awning, a portion of the wall that is "built higher than the rest" with an entry porch and wooden door, the wooden door itself decorated to a level reflecting the economic status of the occupants. The awning provides a shaded reception to the compound, contributing to the imposing appearance of the main entry. The gate's width is narrow, primarily to suit pedestrian and bike traffic, the primary means of transportation in the village. Post-WWII, private car ownership rates continued to increase, meaning many households had at least one car. Foreign car imports and Nigeria's domestic automotive industry revved up in the 1970s, signalling that soon enough, the wall would need another structural adjustment.

¹¹ Nsude, "The Traditional Architecture of the Igbo of Nigeria"

¹² Interview with my mother, November 2021



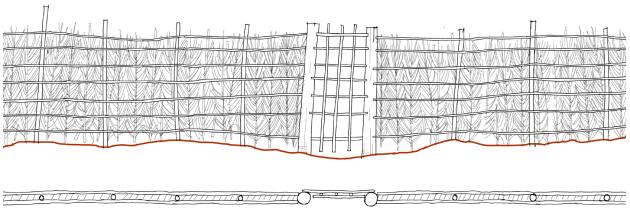
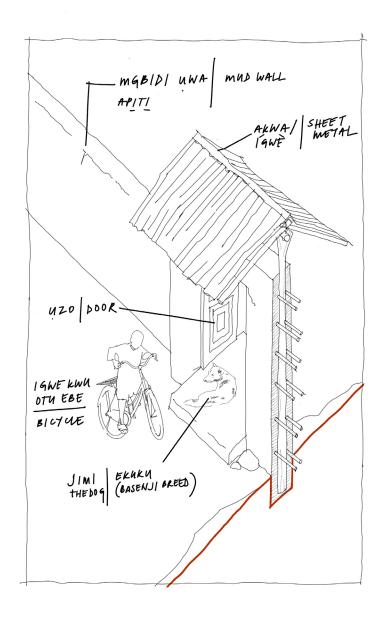


Figure 3.8 Compound enclosure, 1930

The compound enclosure | 2021

Increasing private car ownership trends drove the need for an enclosure update. As cement became a popular and widely available construction material, it was adopted to fortify the family compound enclosure. Cement blocks or sand supplemented blocks (sandcrete or compressed earth) make up the wall structure. Reinforced concrete pillars form the frame for approximately eight courses of compressed earth blocks stacked to create the walls. The 2-3 metre block wall with reinforced concrete posts frames an even taller wrought iron gate with decorative finials. As it currently stands, the compound gate is quite plain and utilitarian, but there are other cases in which the gate is embossed with geometric designs or topped with spiked finials. [Figure: 3.14] In a similar vein, there is a trend toward lining the top of the compound enclosure wall with metal spikes, barbed wire, or broken glass for added security. Like their predecessors, the more elaborate gates indicate the wealth of the compound occupants and provide clues to the overall aesthetic quality of the compound.



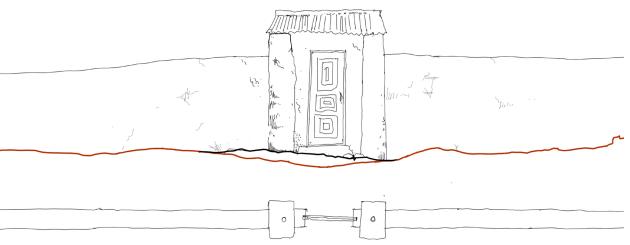
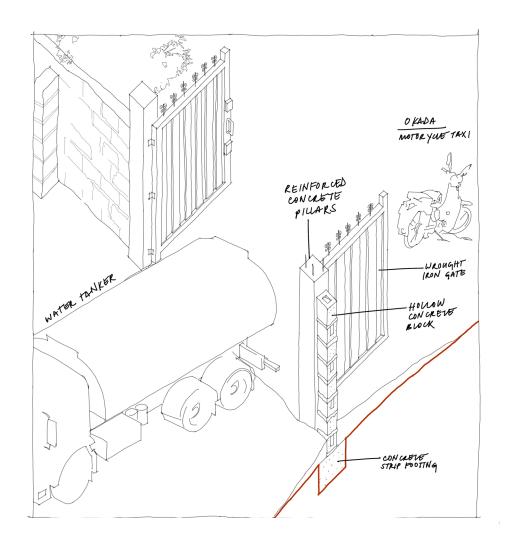


Figure 3.9 Compound gate and wall, 1975

Affecting change to the enclosure

It appears that in the pre and early colonial context, the compound gate or "fence" as it is often referred to did not exist as it does in its current form. The term fence refers to the original, less imposing fences constructed around the compound land boundary. Modernization has dramatically affected the physical presence of the enclosure in the rural context. Not only is there a trend toward increasingly rigid walls, but also an increase in the scale of the gate consistent with the changing modes of transportation. Once large enough to accommodate the entry of one or two figures, the gate grew to accommodate the automobiles and service trucks of a modern economy in which large quantities of water, fuel, and building materials are required to maintain the household. Beyond scalar differences, the durability of metal gates outperforms the previous aesthetic of carved wooden doors.

The gates visible across the region often include ornamental metalwork done by local craftsmen. Southern Nigeria, historically known for its bronze sculpture art, appears to have retained the tradition. While travelling through southern Nigeria, the capabilities of the metal craftsman are on constant display. Now more than ever, considering the expanding population, a sturdy compound closure is crucial in preserving the privacy and security of the family within its walls. The compound enclosure's evolution from a fence to a rigid mud wall and then a concrete block wall appears to reflect a function transition from boundary determination to status indication. There seems to be a slight cultural transition from a feature meant to reflect the individual and mark his domain to a structural barrier against intruders. The compound walls' scalar increase and structural stability reflect an increased desire for security. As in the traditional context, the compound enclosure remains a physical linkage to the village through type and outward-facing indicator of prestige. Its presence is attached to the compound house typology, so it is a critical feature in the rural context. The compound enclosure is the most frequently updated feature, as family heads seek to relay their identities through style.



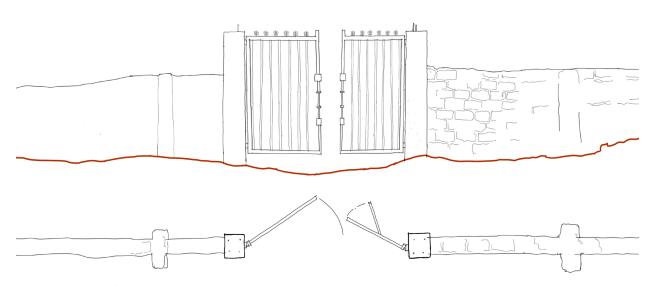


Figure 3.10 compound gate and wall, 2021

3.3 The private domestic zone: Compound head's house

The house of the compound head is placed at the head of the compound, in line with the gate. This alignment is a signifier of the status of the compound head as overseer of the compound and family lineage. Traditionally, this house was occupied solely by the male head of the family, with a layout comprised of a common area or parlour to entertain guests in the front, and his private rooms and storage to the rear. 13 In some cases, it might also include rooms for older male children to occupy. The family head's house is the most prominent feature of the compound and of the domestic sphere. Establishing a compound marked a coming of age and "the status of the head of an Igbo family rest on the fact that he is the man who either established or inherited the compound in which the family lives". 14 In the lifespan of this family compound, there have been three houses that have occupied the (original) position of the compound head. These can be used to chart three stages of development of the Igbo housing type. The original house, the updated structure and then my uncle's house which currently towers above the rest of the compound.

¹³ Aniakor, Igbo Architecture: A Study of Forms, Function and Typology

¹⁴ Nsude, "The Traditional Architecture of the Igbo of Nigeria"







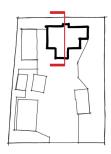
Figure 3.11 Elaborate metalwork features prominently in photographs of gates taken from travels image collage by author.







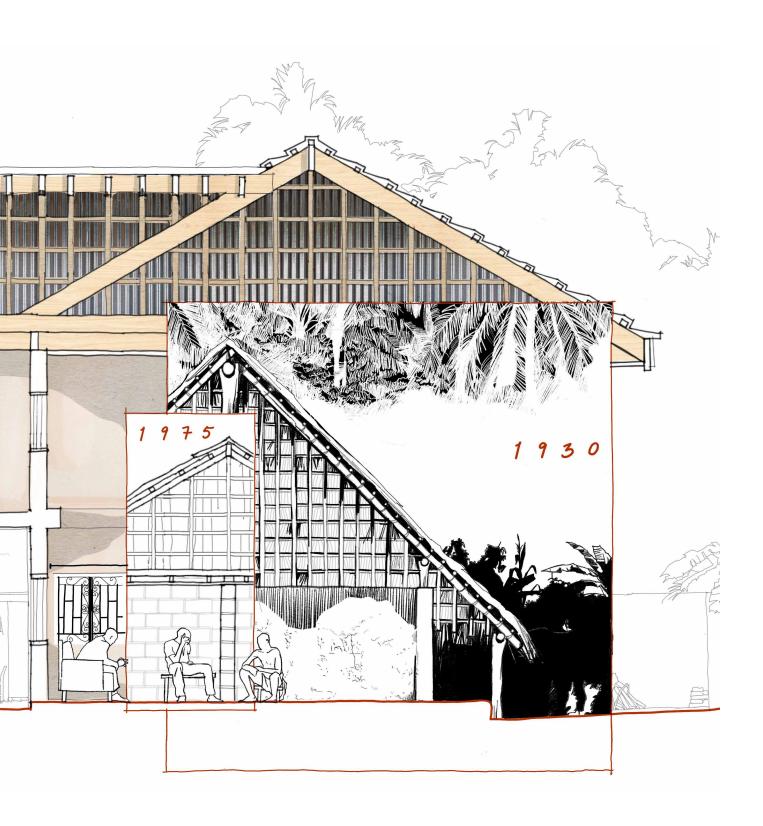




The domestic zone THE COMPOUND HEAD'S HOUSE



Figure 3.12 Composite drawing of compound head's house



The domestic zone | 1930

From the lush vegetation growing in this tropical forest region "man obtains the materials he requires "in order to fashion 'order'." From the forest, species come the builder's tools: structural timber from the palm and raffia trees, poles from bamboo, weaving fibres from raffia, and clay walls from the reddish laterite soils. These materials used for construction defined the character of the buildings. The sand was made for useful clays that could be moulded to define space. The height and abundance of the palm trees could be cut and used for support posts and beams. Wattle-and-daub structures were coated with layers of puddled clay and capped with a thatched roof. The preferred style of a pitched prominent roof meant opting for a timber structure, a choice which defined the post and beam structures of most homes.

Although the earth and vegetation of the traditional building defined the visual character of the traditional house, its composition conveyed certain specific qualities given to them by their occupants. Archival evidence shows that Igbo art history has a long tradition of carving and modelling. Talented carvers, metalworkers and craftsmen exist across Igboland, and their work is readily evident in the wrought iron gate designs and sculptures present across the towns and villages. Its composition, prominence, roof height, and use of carved panel doors would have spoken to the need for the family head to convey a sense of prestige through the home's appearance.¹⁶

¹⁵ Aniakor, Igbo Architecture: A Study of Forms, Function and Typology

¹⁶ Nsude, "The Traditional Architecture of the Igbo of Nigeria"



Figure 3.13 My uncle's house in the compound, completed 2008

The domestic zone | 1975

My great-grandfather's house was reconstructed sometime in the mid-twentieth century, possibly in the 1950s. The original thatched roofing was replaced with metal roofing sheets and cement block walls replaced the clay walls of the earlier house. Four wooden posts framed the front porch, and the floor plan was simple with a front room, a bedroom and two spare rooms for storage. ¹⁷ At the same time, his wives' houses were in various stages of transition. Even before the conversion of their structures to cement, clay walls were strengthened with stucco, and old thatch mats were replaced with galvanized iron sheets. ¹⁸

Related structures: My grandfather's house

By this period, my grandfather had constructed his own home with cement blocks and fitted the openings with glass jalousie windows and ornamental wrought iron gates and metal doors. The house is a single-story block structure with an interior parlour furnished with couches and a small tv where his family would watch films. ¹⁹ His room is beyond the parlour, something that is not a far departure from his own father's house. The floor plan follows a corridor layout with "wings" for his two wives, which may have been due to a lack of space in the compound. His house continues to be maintained with the plinth and exterior walls receiving new coats of cement screed or paint after each year post the rainy season, although the glass many of the glass jalousie slats have been broken or become lost altogether. As was typical, his home was located nearer to but not facing the compound gate. ²⁰

¹⁷ Interview with my mother, November 2021

¹⁸ Ibid., 294.

¹⁹ Interview with my mother, November 2021

²⁰ Nsude, "The Traditional Architecture of the Igbo of Nigeria"

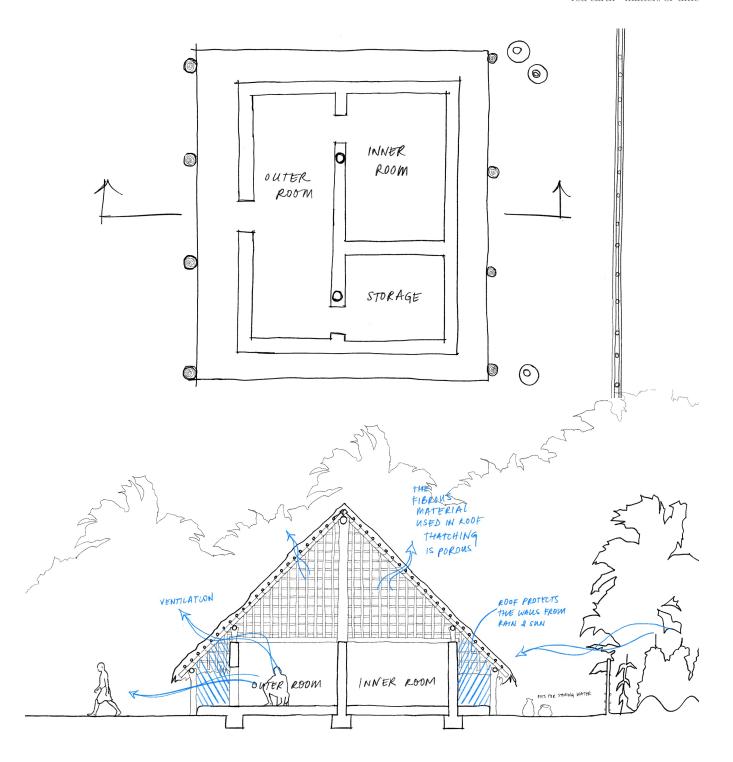


Figure 3.14 Compound head's house circa 1930

The domestic zone | 2021

The house that stands today was commissioned by my uncle and completed in 2008. It is the most "modern" house in the compound. It has assumed the position of the original family head's house and so maintains the axial relationship to the compound gate. This house is meant to subsume the role of the separate housing units of traditional compounds into a complex multi-storey plan. The two-storey house was constructed of reinforced concrete in a similar style to many of the other newer homes in Isiekenesi. It is the only multi-storey unit in the compound and therefore the most prominent, with care taken to window and balcony ornamentation and façade elements meant to reflect my uncle's status as a successful businessman.

The greatest distinction between this house and those of the previous eras is its scale. The house's layout is even more complex than the previous forms with a floor plan that incorporates features of modern urban housing and convenience, multiple bathrooms, pantry storage rooms, double-height living space, and upper floor balconies. The home's construction bears similarities to that of the previous eras with a rectangular form, a post and beam structure, gabled roofing, and a framed front porch. The trench foundations of the previous house have been updated with similar strip foundations, and large casement windows have been installed in every room. In the traditional setting, wall heights and door openings appeared "low to early European travellers" because their interior was used mainly for sitting and sleeping. Interior furniture like stools and benches, were also low to accommodate these functions.²¹ Even cooking was done sitting on low stools. In contrast, most activities are done while standing in the western kitchen. The modern house is meant to accommodate all "modern" social and domestic functions including cooking, dining, bathing, and entertaining. In following a common theme throughout the region, the upper level of the house extends a few feet out from the

²¹ Nsude, "The Traditional Architecture of the Igbo of Nigeria"

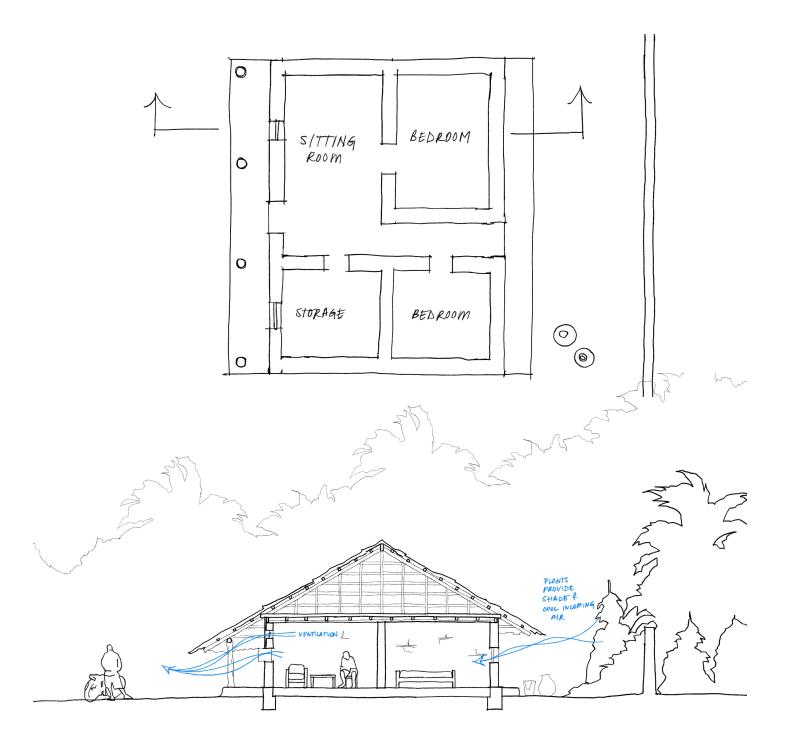


Figure 3.15 Compound head's house circa 1975

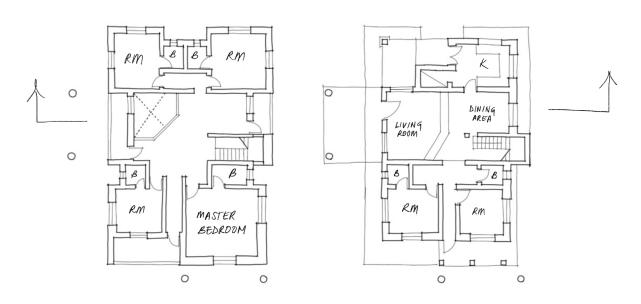
lower (ground) level to create more space for upper living spaces. Since the ceilings are dropped, room heights are exaggerated to produce a more accommodating interior atmosphere. They also contribute to making the entry or foyer feel grand. Stucco has been applied to the house's façade, while a cement paved surface extends from the porch to the center of the courtyard, offering a surface for parking his car.

Related structures: Wife's House

Within the Igbo traditional compound, women have their own separate houses. This configuration reflects the conventional practice of polygyny and the differences between men's and women's daily routines. Traditionally, her house was a rectangular structure located to the left or right of the compound head's house. It had a simple cellular plan with 1 or 2 rooms for storage (of utensils and furniture, especially during the rainy season) and sleeping (for her and her young children). Her house would most frequently be "adapted to accommodate" small children and young sons until they reached an age of maturity and built their own house or established their compound nearby. Like the man's house, the wife's house included a plinth surrounding its base. In front, the roof eave would extend over the plinth to create a covered porch area for sitting and socializing. In the rear, it provided a raised platform for utensils and cooking storage. Igbo women have always been entrepreneurial and so having their own gardens within the compound provided the family with additional income. Behind her house, a woman would have gardens where she cultivated <u>ugwu</u>, cassava, banana, plantain, corn, cocoyam, bitter leaf, and local vegetables. These gardens proved especially important when supply chains were cut off in certain parts of Igboland during the Biafran War. Women also participated in small-scale animal husbandry, keeping a pen behind her house for rearing chickens, fowls, or goats. Closer to the enclosure behind her house, a small bathing structure or stall would be erected for her use. During the day, animals were free to wander around the compound. The subordinate position of women in Igbo society (reflected in their inability to inherit property or land) is reflected by the positioning of her house so as not to face the compound entry directly.



UPPER LEVEL



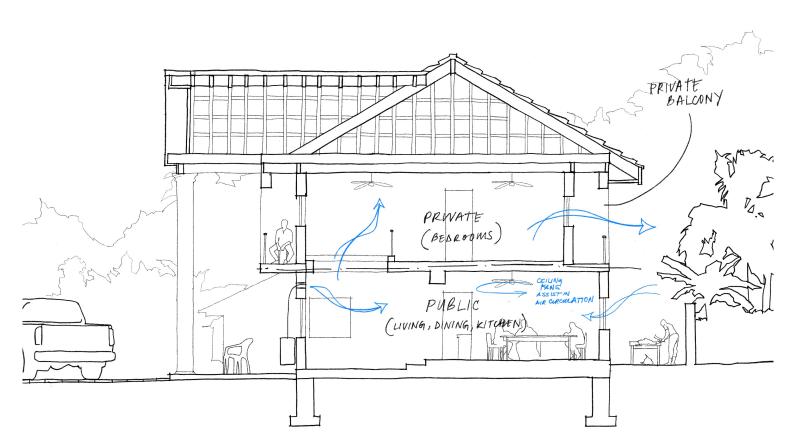


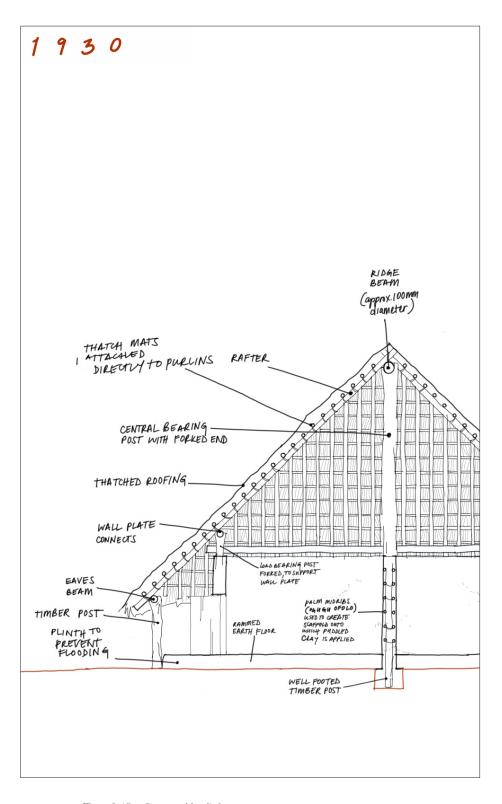
Figure 3.16 Compound head's house circa 2021

Related structures: Boys' quarters

The "boy's quarters" are a unique feature of post-colonial Nigerian architecture, in which young boys or sometimes girls were hired to help the family around the compound and occupied small house units within the compound. The practice of building a separate "quarter" appeared in Igboland during the British colonial period. A small indigenous house would be built for servants or "houseboys" - young boys - behind the main house. In the urban residential settlements "hedges and trees" would visibly separate the quarters from the main house²², but in the rural setting, they are placed to the side or rear of the compound head's house. At some point, the concept of the house has become a permanent fixture of the compound even being adopted by the Igbo to house distant relatives or visitors.²³ More recently it seems to broadly refer to any guest house at the periphery of the compound's domestic zone. They are often constructed at the same time as or prior to the construction of new houses and so are constructed with the same materials, but on a smaller scale, with uncomplex floor plans and plain exteriors.

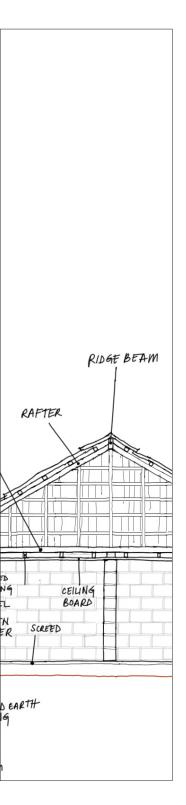
²² Nsude, "The Traditional Architecture of the Igbo of Nigeria"

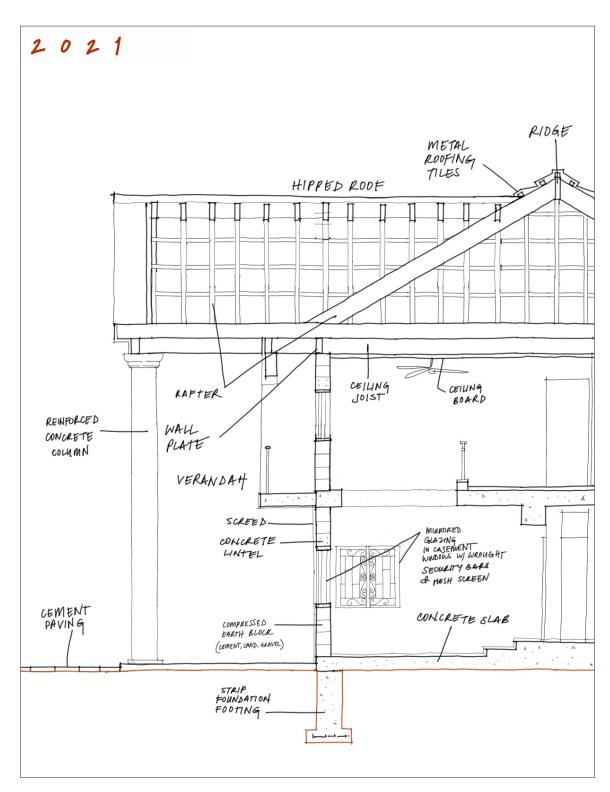
^{23 &}quot;Nigeria:TheBoys'QuartersMentality,"lastmodified2013-04-16T10:27:34+0000, accessed Aug 13, 2021, https://allafrica.com/stories/201304160998.html.



CEILING JOIST -SHEET METAL ROOFING (CORRUGATED IRON) PURLIN-OPENI EAVES BEAM. LINTE WOODE TIMBER POST -SHUTT LOAD BEARING BLOCK WALL WITH CEMENT SCREED FOUNDATION WALL RAMME FLOORIN

Figure 3.17 Compound head's house structural details





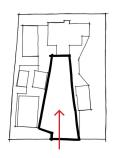
3.4 The social and cultural zone: the courtyard

The typical family traditional courtyard is an open central space enclosed by buildings and compound walls and gates. Therefore, the boundary of the courtyard is loosely defined by the features of the domestic sphere. The courtyard is the focus of family life, serving as a territory that links the social, vocational, and domestic activity within the compound. The orientation of buildings around the courtyard provides a level of security created by communal surveillance, where everyone is privy to human- and possibly non-human- visitors. "The area of the courtyard is limited only by such factors as the size of inherited land, the personal choice of the compound owner, and the status of the owner in society. Of greater interest perhaps, is the fact that the ratio of built to unbuilt area in the compound is always in the region of 1:2, 1:3 or sometimes higher."24 The compound is a hub of activity. It is an outdoor living room facilitating multiple activities concurrently and accommodating the traditionally segregated routines of men and women in the compound. It is a stage for conducting



Yomi Oruwari, "Planners, Officials, and Low Income Women and Children in Nigerian Cities: Divergent Perspectives Over Housing and Neighborhoods," *Canadian Journal of African Studies / Revue Canadienne Des Études Africaines* 37, no. 2 (2003), 396-410. doi:10.2307/4107244. http://www.jstor.org.proxy.lib.uwaterloo.ca/stable/4107244.

Figure 3.18 The boys' quarters



The socio-cultural zone THE COURTYARD

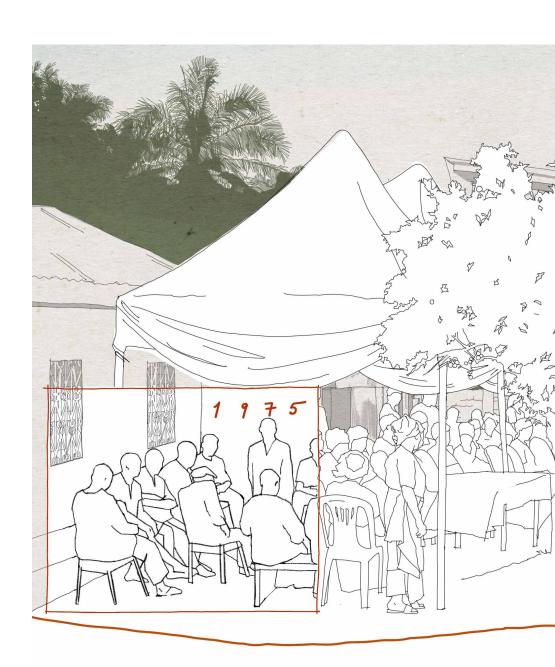
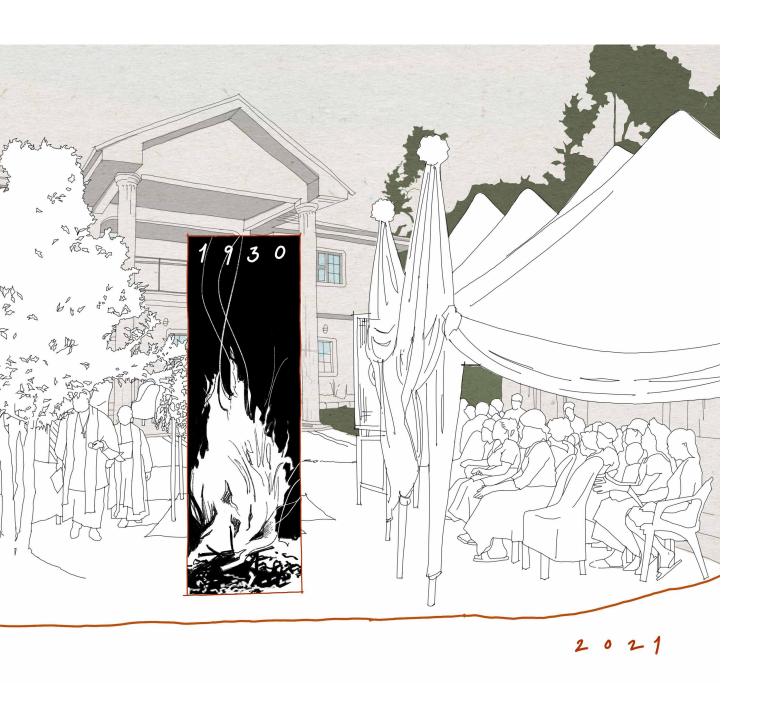


Figure 3.19 composite drawing of courtyard activities



transitional space between the completely open socio-cultural zone of the courtyard and the private domestic space. Aside from functioning as a flood prevention device, the plinth area offers a space for sitting, working, resting, and accepting visitors. Throughout the change to the structural composition of the compound, the courtyard has maintained its socio-cultural role in the life of the compound. The courtyard acts as the ante-room which must be traversed before one gains access to the private living rooms. It is an exterior vestibule which extends the visitor's welcome and serves social activity fine if there is no need for the visitor to go any further.²⁷

²⁷ Nsude, "The Traditional Architecture of the Igbo of Nigeria"

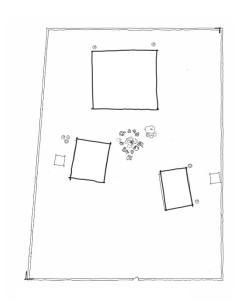
3.5 The occupational zone: The material and cultivated landscape

The rear-court condition formed behind the house, between the rear and the compound wall enclosure, allows for a more private zone to continue some of the activity conducted in the main forecourt. This zone is the site for meal preparation, material storage and planting and storing of the crops, which are used for cooking and economic activities. Within the 1:2 to 1:3 ratio of built to unbuilt space, a large portion of



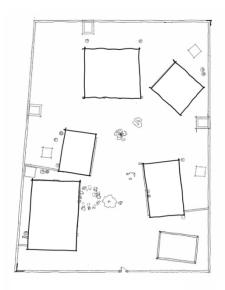
Figure 3.20 the compound courtyard in the morning, view from the main house balcony

²⁸ Nsude, "The Traditional Architecture of the Igbo of Nigeria"

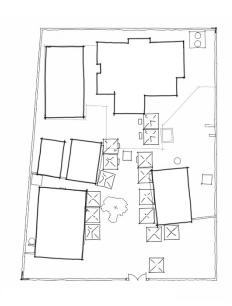


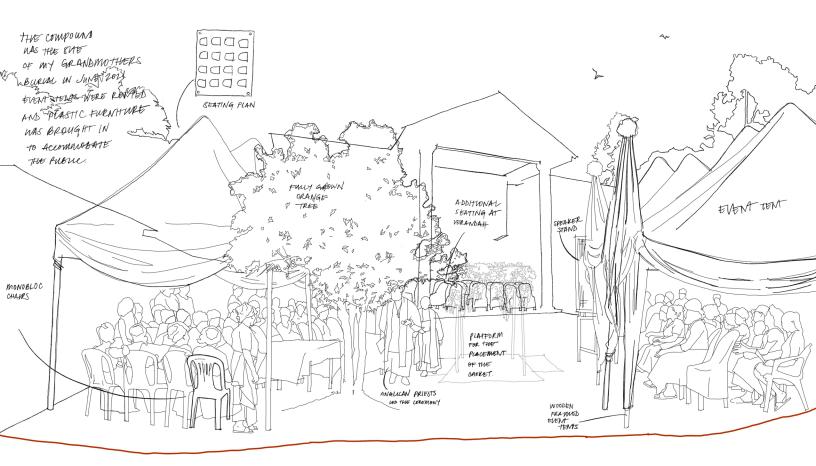


red earth - matters of time



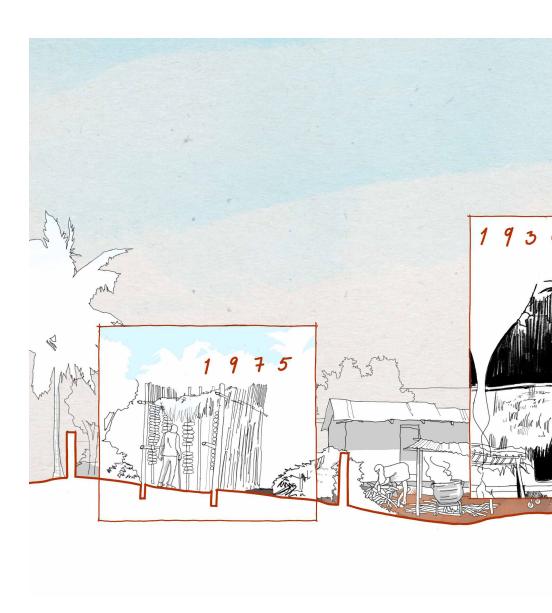




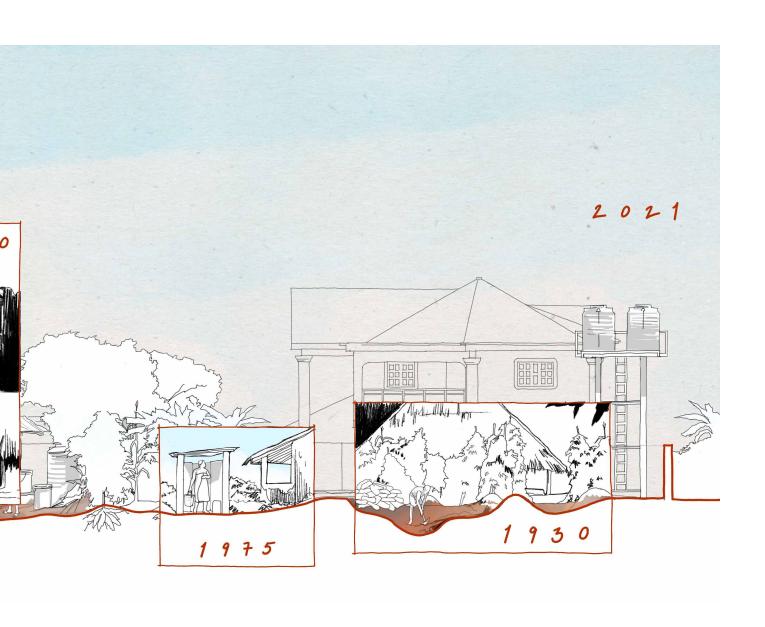




The occupational zone THE MATERIAL LANDSCAPE



 $\label{eq:figure 3.21} \textit{Composite section through the} \\ \textit{occupational zone}$



The kitchen

Married women usually have a primary cooking area outside their house and a secondary kitchen inside.²⁹ The heat and smoke produced in the traditional firewood or charcoal fire cooking methods meant that cooking outside was the most practical option. An internal cooking area closed off from the main rooms, may be used during the rains, with smoke escaping "through the roof covering or through the air gap between the roof and the wall. The interior cooking area served as an alternative for the rainy season and acts as more of a fireplace used for heating the house, driving insects, and in the past, drying fish and meats in a netted scaffolding that was suspended above the fire. Cooking outside took place beneath a scaffolded structure. Meals were traditionally prepared and consumed daily.³⁰ Because of the inconsistency of power in the rural areas and the fuel required for the full-time operation of a refrigerator, food continues to be prepared in this tradition. Typically, there was no designated or centralized eating space in the houses, as meals were not taken all together as a family. Men would eat together while women and children ate at her home. The family head usually ate in or at his house with guests, undisturbed by the activity and fumes of the kitchen. Wives kept pens behind their houses for fowls, but animals wander freely around the compound during the day.

²⁹ Nsude, "The Traditional Architecture of the Igbo of Nigeria"

³⁰ Ibid., 295-305.

AMA
(CLEARED PATHWAY
OR DRIVEWAY LEADING TOWARD
THE COMPOUND)

COMPOUND

OVERGROWN FARMLAND

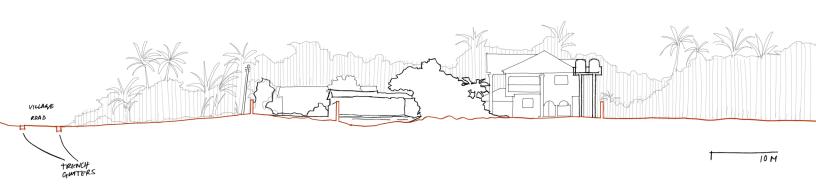


Figure 3.22 Site section, 2021



Figure 3.23 Compound gardens

image by author.



Figure 3.24 sections through the occupational zone

image by author.

Water use, collection, and storage

Water management on the site is related to the collection and storage of rain and groundwater necessary for drinking and bathing.³¹ Bathing was traditionally relegated to a small structure to the rear of each house in the compound, with a pit latrine in the back of the compound, for the use of all family members.³² The varying methods of water collection are addressed in the illustrations. Traditionally, clay pots were the primary method of water collection and storage. Until recently, much of the water required for daily use was collected from nearby streams. My parents remember following their mother in the morning to the edge of the community where potable water was collected from the stream. Clay pots were strategically placed around buildings to catch rainwater runoff from the roofs that could be used for bathing, cleaning, and garden maintenance. Because of their structure, clay pots kept the water cool- they were usually capped and stored inside for later use.33 Branches, posts or metal scraps could be used as improvised channels to direct water from the roof into the pots. The late-century plastic boom brought about the popularity of polyethylene plastic tanks as the preferred means of water storage.

In the current climate typical to sink boreholes and store water in large tanks and water towers. This is necessary to support the increased water load of modern plumbing fixtures and appliances. In cases where sinking a borehole is economically infeasible due to compound height above the water tables (which is the case with the compound at the center of this study), the compound relies on local water delivery steered by tanker trunks which obtain water from a local public borehole. A defunct shallow well still exists in the compound, dug before the construction of the boy's quarters and my uncle's house as a source of water for its need during the construction process. Because most of the compound remains unpaved, rainwater runoff is dealt with

Nsude, "The Traditional Architecture of the Igbo of Nigeria"

³² Salome Nnoromele, *Life among the Ibo Women of Nigeria*San Diego, CA: Lucent Books, 1998). http://archive.org/details/lifeamongibowome0000nnor.

³³ Interview with my mother, November 2021

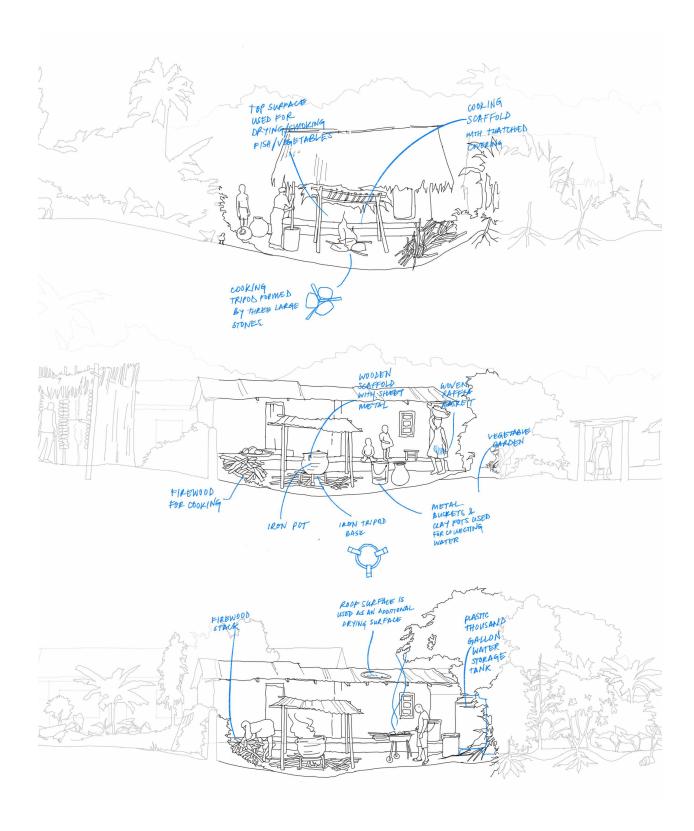


Figure 3.25 the cooking area

image by author.

directly through the ground. The paved village road in front of the compound deals with excess runoff by using a gutter system based on the model implemented during the colonial planning of the towns. There are no underground channels, so open street side channels are relied on to keep roads from flooding. The system is fragmented, so many village roads are riddled with potholes or structural damage.

Cultivation

The family compound is located amidst gardens. Gardens are also incorporated within the compound enclosure. Gardens and trees provide thermal comfort and provide ready tools and sustenance, reflecting the passage of time and the health of the natural environment. In the traditional setting, nature was minimally tamed; activities were to be carried out amongst its natural composition, to co-exist and cooperate with it. Since most daily activities are carried out outdoor -cooking, preparing plants for storage (harvesting/drying), washing clothes, socializing- the solar light and heat can be cut through by breezes produced by plants. Trees and shrubs are prominent features of the compounds. Palms, coconut, banana, (pawpaw) papaya, cassava, ogilisi are common species, used for domestic, economic, or ritualistic significance such as serving as part of family shrines (ie. the ogilisi tree). Large trees, usually at the periphery or immediately outside the compound walls, provide shade from the sun or "focal points for social and domestic activities" evident from the chairs and other furniture for relaxation made of stones or tree trunks usually arranged under these trees." 34 In the occupational zone, relief from the sun is provided between the shadows cast by the house houses, the compound wall, and the offered by surrounding flora.

Agricultural Storage

Igboland is known for its production of yam and cassava. It is in this occupational sphere that yam would also be stored. Yam is a staple food crop, and its economic and cultural value is seen in the

³⁴ Nsude, "The Traditional Architecture of the Igbo of Nigeria"

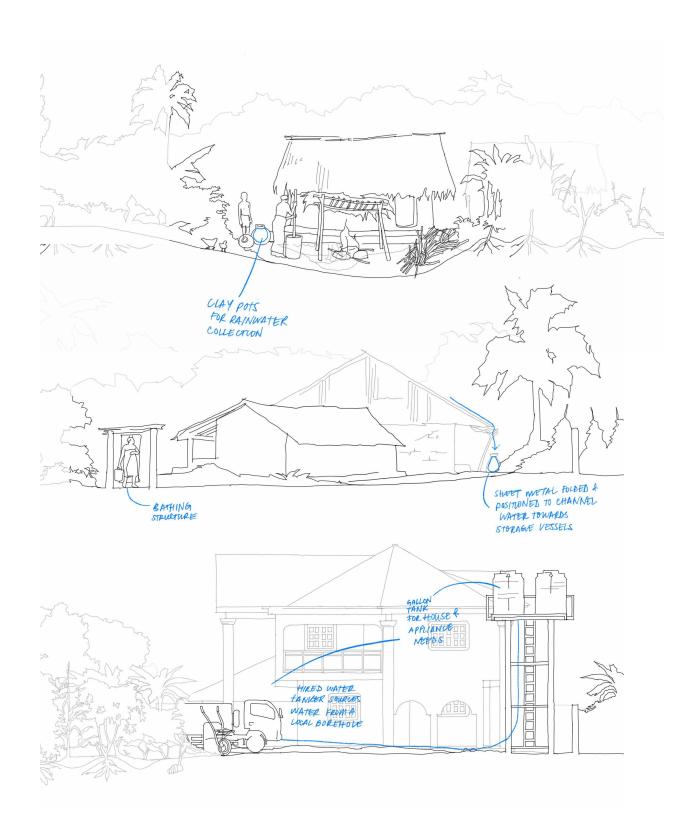


Figure 3.26 Conditions for water storage

image by author.

harvest season's rituals and festivals.³⁵ The yam barn in traditional compounds was a timber structure built to store harvested yams. The barn belongs to the family head who can allot space within it for other family members. My great-grandfather was a successful farmer, and my mother remembers that his yam barn was near the main entry gate, the first structure seen upon entering the compound. His was a large barn, symbolizing his primary occupation and capabilities. Its prominence reflected the success of his farming enterprise. The barn was an area in which wooden posts set at regular intervals framed a small portion of land. Yam tubers were woven in stacks on a horizontal scaffold set across the posts. Palm fronds are laid over a roof scaffold to provide shade for the yam tubers and allow proper ventilation to prevent rot. The decline in large-scale farming practice eliminates the need for distinctive agricultural storage structures. The traditional occupational zone is manifest in modern pantry and closet storage.

^{35 &}quot;New Yam Festival," , accessed Jul 8, 2022, https://encyclopedia2.thefreedictionary.com/New+Yam+Festival.

3.6 Circumstance and evolution

The domestic environment is never fully complete; it is an everevolving realm, a constant undertaking. This chapter has attempted to create a dialogue between the past and present. by establishing the key elements and design principles that have defined and continue to define the Igbo compound typology. The features have remained recognizable and persistent, from a tradition where buildings are loosely configured around a central courtyard to the effect of changing land use on the scale and, therefore, the built environment of the compound, which manifests itself in large suburban "mansions" within existing compounds. Igbo indigenous architecture's contact with the materials and building activities of colonialism and modernization have significantly impacted the family compound architecture. Whether indigenous forms persist in new material expressions and new models cater to indigenous tradition; there is a hybridization of Indigenous and foreign influence.

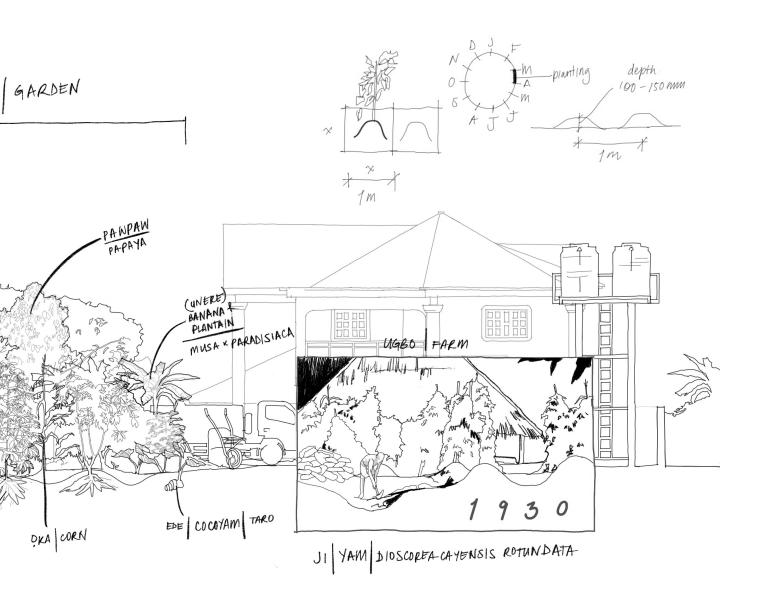
The evolution of Igbo vernacular architecture is an exploration of the roles and expressions of form and function. The drawings speak to the evolution of form, which in part responds to evolving patterns of use, material availability and techniques employed in their making. The adaptation of form follows upgrades in technological function and structural changes to the economy. Qualities like durability and ease of construction take precedence when the labour pool begins to flow toward the cities, and so materials that require seasonal replacement like palm thatch are replaced with sheet metal. In other instances, adopting new technological tools offers practical solutions to common environmental concerns, like zinc netting for window openings to prevent mosquitos or ceiling fans and air-conditioning units used to counter the effects of humidity. Technology has a universal property and is indicative of the globalization of culture and exposure to other cultures and interpretations of form.

Although these composite illustrations of my family

red earth - matters of time YAM TUBERS ARE TUED WITH ROPE TO A TUMBER SCAFFOLD FOR STORAGE TBE ISI NRI COOKING AREA UBI HATCH IS WEED TO PROTECT birtet SUNLIGAPT FROM UKWA BREADFRUM AFFECTING THE TUBERS OBA YAM BARN AKPH CASSAVA-

Figure 3.27 composite section showing cultivation and storage

image by author.



compound suggest the outdating of certain forms, it is interesting to note the complex relationship between form and function as some elements of function do not have a clear and formal character. In my great-grandfather's original house (1930), function has a clear formal character with a steep pitch roof which serves to shed water from the house, protecting and prolonging the life of the mud walls, while also dispersing heat. Shedding water is a characteristic shared by the newer roofs, although their pitch no longer plays a significant role in dispensing heat due to the addition of dropped ceiling structures and the use of metal cladding. Additionally, the great extent of the traditional roof eaves is no longer critical in preventing the mud walls from washing away in the rain. A scalar increase preserves the prominence of the house in the compound, while the current pitched roof draws from the traditional house form, despite the noticeable fluctuation in roof pitch and update of construction materials.

In other cases, function does not have as clear a presence in architectural form. The courtyard is a functional space that is produced through the strategic positioning of the courtyard homes. Its character is defined by ritual and activity and its evolution is hinted at through the objects used to occupy its space. Here, form is less explicit, and function comes to the foreground. The courtyard's significance comes from its use as an open gathering space, central to all and removed from the private domains; its positioning as an exterior anteroom takes precedence over its shape.

Ultimately, the adaption of Igbo vernacular architecture is an exercise which can be approached from several different angles. Adapting indigenous materials with new methods to improve durability, translating familiar cultural spaces (like the courtyard), or drawing from previous artistic traditions and architectural forms can all be considered valid ways of further developing Igbo vernacular architecture. They are various expressions of Igbo architecture and exploring the way Igbo people have adapted through time shows that culture is embodied in both the form and function of the Igbo family compound.

4. The matter of this time

4.1 The matter of this time

The urban influence on the rural environment

Post-independence, Nigeria saw a significant period of architectural development, although much of it played out following colonial-era principles.¹ The need for rapid industrialization, something intrinsically tied with developing a new national identity, meant little focus was on the careful adaptation of native tradition to develop new social systems and housing strategies. A continuation of this trend has further eroded the knowledge of the indigenous craft and further contributed to relegating this craft to the "past" in opposition to progress. The interminability of colonial influence is present in continued land tenure practices, urbanization, and the development of domestic compound plots. The new land policies affected the use and accumulation of undeveloped land, and those who found economic success proved their wealth by maintaining a monopoly on the land. As cities exploded and the urban centres suffocated, residential and commercial developments expanded further into the Igbo countryside.

"Post-colonial non-reservation layouts still maintain all the characteristics of their colonial predecessors. Here, the gridiron pattern with standard plots of 15x30m is still adopted as a model for new layouts." The excess of roads present in the grid plans continued to consume available land. The spatial elements and zonal patterns which dictate the different scales of open space are lost in the gridiron patterns of the urban environments. This condition has also been replicated in the individual plots found in the cities. In some ways, the urban compound reflects its rural counterparts with a rectangular enclosure and the internal distribution of houses around a courtyard. Alternatively, the urban compound is a small replica of the rural family domain, sometimes housing multiple families in a reduced area. There

¹ Godwin Chikwendu Nsude, "The Traditional Architecture of the Igbo of Nigeria" Thames Polytechnic School of Architecture and Landscape Dartford, 1987), .

² Nsude, "The Traditional Architecture of the Igbo of Nigeria"

Illustration 118

Spatial Order of a Plot in the Non-Reservation

Layout in Enugu.

Illustration 119

Early Town Compound in the Non-Reservation Layout in Enugu.

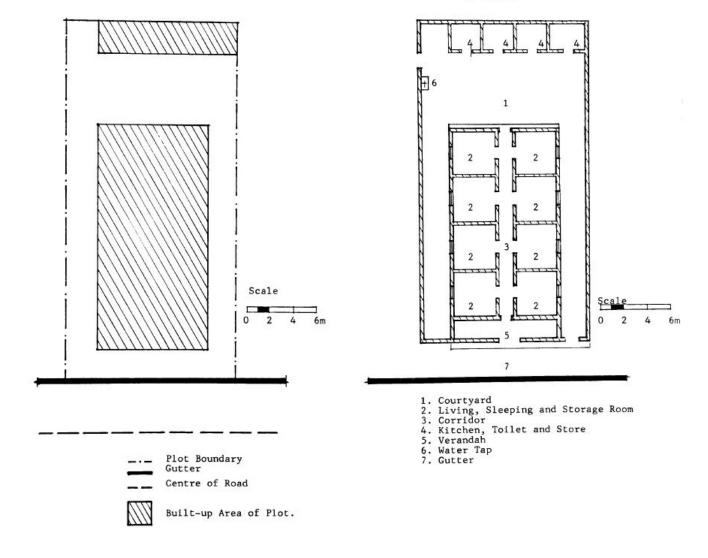
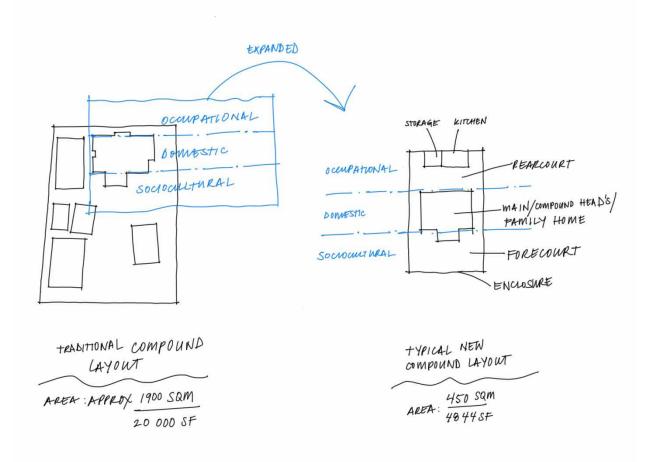


Figure 4.1 Diagrams of the spatial order in Non-Reservation Compounds

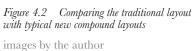
Godwin Chikwendu Nsude, The Traditional Architecture of the Igbo lacks the complexity of semi-open spaces present in the traditional compound. The zonal model is no longer a concentric ordering of sociocultural, domestic, and occupational space. The compound head's house, now the main house, is located directly at the compound entrance, with a rear courtyard condition or the gates open to a courtyard in line with the main house [Figure 4.1]. Due to their shape and area, these plots limit space for cultivation. This compound model is being applied to available land in rural communities. This adjusted compound typology appears in various aerials of Isiekenesi community [Figure 4.2], where the features of the traditional compound can still be identified. However, the spatial order of the compound becomes linear and nonconcentric with the absence of multiple domestic structures.

The changing scale of the compound and the compound house

The programmatic planning of the compound has undergone change spurred on by the reduction of compound sizes over time. Population density growth has reduced the family compound's overall scale. This change has altered the ratio of built to unbuilt space. New compounds are much smaller, so the constructed structure(s) must subsume much of the distributed programming while maintaining privacy amongst the program zones. The trend is towards consolidating all programs and functional zones into a single structure with an area for parking in the forecourt, a small garden in the forecourt, and the boy's quarters or guest rooms and storage in the rear. In the storey building, elevated balconies become additional new semi-enclosed extensions of the floor area out into the courtyard. They provide the semi-private/ open space previously found behind the compound house. They are meant for leisure but can also be used as surveillance points. When placed on the front of the house in line with the gate, it provides the perch from which the family head can watch over the compound activities and observe the household. The relationship between the compound gate and the main house remains aligned. Currently, with the expanding population, security concerns, and weakened ties within the rural community due to such a high percentage of Igbos living outside the village group, a sturdy compound closure is crucial in









*google earth was used to determine that these compounds have been completed within the past decade

preserving the privacy and security of the family within its walls.³ In the case of newly established compounds, this house consumes the role of the separate housing units of traditional compounds in a complex multi-storey plan. Including specialized rooms like formal living and dining rooms alters the function of the courtyard.⁴

Climate Change, thermal comfort, and energy concerns

Hot temperatures and humid air define the regional climate. Much of the compound experiences direct solar radiation throughout the day. The marginal temperature differential between day and night reinforces the need for air movement. Relief from direct sunlight is found under the roof overhangs of the houses or the porch. The large, thatched roofs, overhanging eaves, and small dark rooms of traditional houses provided a level of comfort that supported an existence spent primarily out in the open courtyard. The introduction of generators and mechanical cooling systems offers more freedom for house design by taking advantage of the opportunity to conduct the daily routine indoors. Any additional heat produced by sheet or tile metal roofing can be offset with fans and air-conditioning. It is still customary to spend most of one's time outdoors. The cultural imperative to engage with other family members necessitates the need for shaded areas for leisure.

In the present context, fuel generators supply all the electrical needs within the compound. The abundance of fuel in the region initially made these generators a viable option, but increased fuel costs and excessive noise pollution relegate them to essential use only. Although transmission lines are set up in many villages, inconsistent networks and older infrastructure means that service is often spotty. The recency of electrical grids and general inconsistency creates a need for self-sufficiency at the compound level. While travelling, I noted that some people have even begun implementing solar panels on

³ Africa center for strategic studies, , https://africacenter.org/spotlight/nigeria-diverse-security-threats/.

⁴ Chike Cyril Aniakor, Igbo Architecture: A Study of Forms, Function and Typology , Volume 1 ed. (Indiana University: , 1978).

the region's house roofs. This reflects the potential to implement solar technology for electricity generation in this climate and the desire for experimentation in the field of sustainability.

4.2 Reflecting on the study of Igbo traditional architecture

Contemporary compound practices are influenced by land tenure and the changing availability of land, more extensive energy needs are complicated by inconsistent energy supplies in the rural areas, style preferences, experimentation, and access to global supply chains. The previous chapters considered the transformation of the compound typology by exploring the retention of Igbo culture through the artifacts of domestic space. They hinted at changing conceptions of class, religion, and priorities. This study has shown me that the use of space is tied to culture and that even when foreign methods, spaces and styles are adopted, people adapt them to their pre-existing way of life. In this section, I explore the importance of studying Igbo indigenous architecture and how this exploration can influence the future adaptation of the family compound typology.

Despite the past century of change in the region, many features of Igbo culture have remained. The understanding and application of the Igbo cosmological universe and the supreme power of *Chineke* have been retained through acts like the continued practice of giving children Igbo first names.⁵ (Igbo names and proverbs reference this aspect of the Igbo worldview revealing the ambitions and fears of the Igbo people while also reaffirming the reality of God and invoking good fortune. For example, my full name, Chinenye, means "God Gives") The connection and duty to the family through the dedication to supporting family "back home" through the economic influence of remittances and the physical influence of land purchasing and development in Igboland.6 This study supports the idea that the technological aspect of modernization had the greatest impact on Igbo domestic life and culture by expanding Igbo avenues of achievement and increasing the ways in which that achievement could be displayed by Igbo integration into global markets. Because of how interwoven Igbo culture has become with global culture, and the rapid speed of

societal change, Igbo needs, values and culture will continue to evolve.

The Igbo family compound is a living, tangible symbol of Igbo history and tradition. Exploring the traditional family typology allowed me to explore my family history and see Igbo culture in a new light. Studying traditional typologies like the compound, which people continue to occupy, lets us know there is longevity to this way of life. Therefore, by understanding this architecture, one may find solutions to other present problems that are confronted, whether they be spatial, technological, or climatic. It is the role of designers to research, explore, and experiment. Looking back on Igbo traditional architecture can help ensure the continuation of Igbo culture and tradition.

4.3 Speculating on adaptation

The expertise of the traditional builders was borne from generations of experimentation. Now that we have access to vast pools of knowledge, there is a greater opportunity to develop successful examples of contemporary Igbo architecture. The discussion of adaptation is not one of mimicry but of research and experimentation. Certain features of the compound can be adapted to modern standards to meet current needs. Wholesale readoption of pre-colonial materials or methods is unnecessary. Family compounds need not be as large as they once were when farm animals also occupied them, nor do they need to accommodate yam barns when large-scale farming practices are no longer the standard. Instead, I advocate for adapting integral principles of Igbo traditional architecture. Through technology, once again, we can continue improving the comfort of village life. Nsude suggests the application of three approaches to the development of contemporary Igbo architecture. He indicates that applying purely traditional architecture, upgrading traditional architecture, and adopting solutions from other cultures are approaches that can be used for new projects where appropriate. Along with this suggested strategy and through the established typological features of the family compound, I follow by speculating on the compound's future.

THE ENCLOSURE:

The purpose of the walled enclosure goes beyond spatial demarcation to protect against noise and dust in high-traffic areas. So, the enclosure remains a staple feature of the housing typology. The use of walls can be explored further through their incorporation as free-standing partitions within the compound used to create shaded zones, reduce sightlines, or create quiet zones within the larger courtyard. It is also possible to experiment with the enclosure scale where variations in its height may occur to distinguish or create different micro conditions within the courtyard. As was visible in the gates around southeastern

Nigeria, the desire to distinguish the compound entry remains because it remains a portal and visitors' first impression of the family home. It is often the most ornamental feature of the compound. It may continue to increase in function, perhaps with the return of awning-covered vestibules to extend its purpose as a point of welcoming. As it becomes less economical to build multiple homes within the enclosure, the enclosure will play more of a role as a backdrop to the interior courtyard.

THE HOUSE:

The traditional "Igbo compound gives an impression of an open-air house which is designed to assure privacy for each member of the family and permit different activities of their daily routine to be conducted simultaneously by all the members without inconveniencing one another". 8 This strategy employs openness, promotes harmony with the surrounding landscape, and provides various types of qualities of space. In an environment where people are drawn to doing everything outside, the concept of openness must be maintained. This will not only encourage airflow and ventilation but the maintenance of flexibility afforded by the traditional compound type. The permanence of load-bearing reinforced steel structures which reduces the flexibility of the compound can be offset by the design of multiscale multipurpose rooms which extend and cordon space off as needed. This could be explored through features like moveable partitions or strategically shaped apertures. The earlier study showed that furniture is used in a modular way around the compound and to facilitate different types and regions of activity. Palm tree stumps, stools, benches and recently, Monobloc chairs are convenient ways to change the orientation of space. They reflect an inherent penchant for customization.

THE COURTYARD:

Igbo culture remains an open social culture in which people are

⁸ Nsude, "The Traditional Architecture of the Igbo of Nigeria"

welcomed into a communal exterior living space. Many Igbo people of the older generation (who make up a large part of the rural populations in Nigeria) are accustomed to the patterns of compound use because they grew up in the villages and so retain certain associative cultural values with the open space of the compound. The open courtyard is a great activity space but offers little shade relief. During the day, one must sit against the home under the shade of the roof if one wants to remain seated for an extended period during the day. Perhaps the reduced area of future compounds and the multistory heights of future homes may reduce the impacts of the afternoon sun. With the reduced compound scale, one large open courtyard may become multiple smaller courtyards or even a vertical atrium to create a secondary private courtyard type. Spaces like these might even channel air into the main house and reduce the need for mechanical air conditioning.

THE LANDSCAPE:

The rural regions are noticeably more comfortable than cities like Lagos and Owerri. If the rural landscape were to follow the development trend of these cities, there would be no relief from the discomfort of the smog, dust, and heat. This proves how necessary it is for the natural cover to be retained. Beyond comfort regulation, the density of the natural landscape provides each family compound with the quality of privacy. It is necessary to support the local environment by maintaining and cultivating diverse vegetation.

In the traditional landscape, the sun provided the sunlight and the natural landscape the relief from the humid temperatures. We can take cues from this practice and maintain the connection between the ecosystem and the built environment by incorporating planting into the plan of any future compound. With the continuing trajectory of technology, there is the opportunity to collect more rainwater for storage on-site through improved gutter and drainage systems and provide alternative energy sources for compound maintenance. Solar energy is an excellent alternative for the singular needs of village life to reduce the noise pollution and messy process of refuelling generators.

Cooking is an activity that still culturally remains part of the

occupational realm. Culturally it remains the space around which women socialize. Because this area retains a social and private quality, contemporary kitchens can be indoor/outdoor spaces with both public and private areas. Preparing food outside is much more comfortable due to the heat and fumes, and access to drying surfaces and vegetable gardens is necessary; the widely used indoor outdoor kitchen designs could become sources of inspiration for this space.

4.4 Taxonomies of space and time

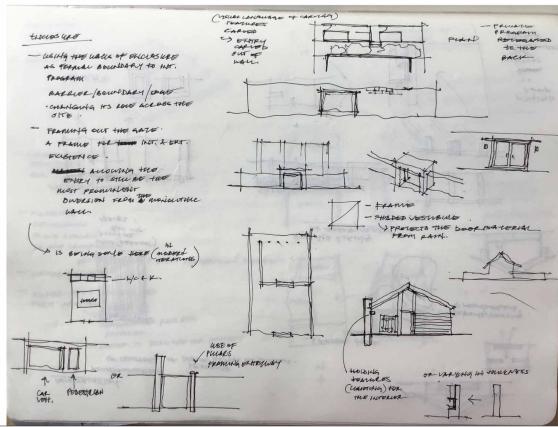
I am interested in how we document vernacular architecture. I am interested in consolidating information and aligning scenes to explore juxtapose and explore idiosyncrasies. I'm interested in exploring the external forces impacting place, especially in African architecture, and the intimate, domestic consequences of modernization and time. I used my attachment to the subject to extract a story of the Igbo family compound that has not yet been told. How do my drawings contemplate the past in service of the future? My drawing methodology suggests a way of bringing together disparate activities. Perhaps, I see the work as a taxonomy, considering what is there and making notes—adding to an ongoing archive attempting to piece together the story of Igbo and Nigerian indigenous architecture.

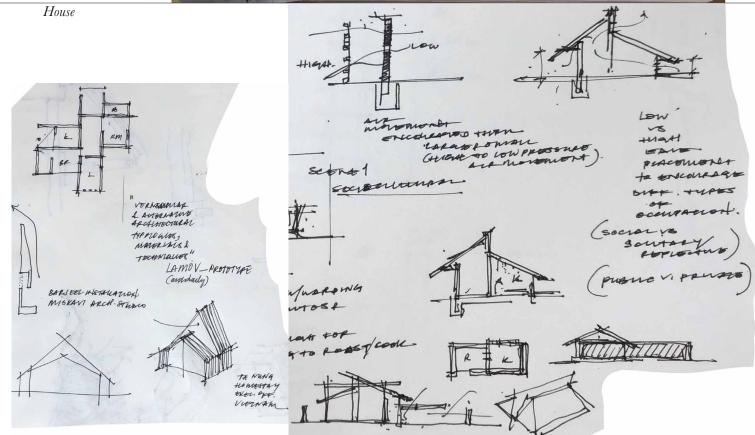
Identity and reconciling knowledge

African development scholar Chika Ezeanya-Esiobu identifies the missing knowledge of ancient African techniques as contributing to an "abstraction of education" in African academia, where students continue to learn through European curriculums, accomplishments, and theories. This makes it difficult to reconcile the world they come from with the world they are taught to aspire to. The primary function of education is to "introduce the learner to an appreciation of [their] environment and a curiosity to explore" it further. When this does not occur, education becomes foreign, a medium through which one must constantly seek validation from those to whom it belongs. 10 Ezeanya-Esiobu opens her talk by referring to how Nigerian children are still introduced to the English alphabet, where "A is for apple" despite many having never eaten one. The modes of academia that translated colonial values cemented their legitimacy over the indigenous way of life. While conducting my research, I encountered digital photographic archives on Igbo arts and culture. I shared them with my parents who

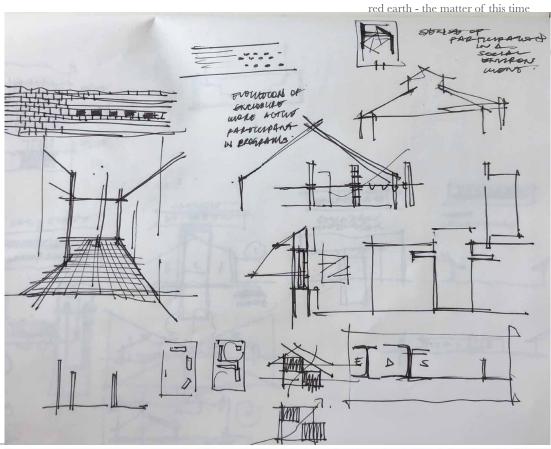
Figure 4.3 Sketching adaptations

Enclosure

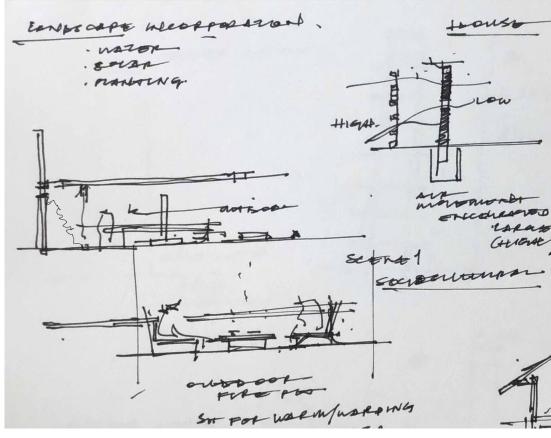








Landscape



had not before seen Igbo life and culture documented so extensively. Memories, references, and stories remerged through this engagement. It was then that I understood the weight that diagrams and illustrations have in codifying cultural traditions and motifs. Simply documenting and illustrating narratives from oral histories is a way of appropriating the tradition of transcription that has placed European history above African cultures that functioned through oral tradition. While writing treatises and producing architectural details were not methods employed by indigenous peoples to take account of their surroundings, they may help to preserve landscapes that are rapidly transforming. The daily routines centred on the Igbo traditional compound and the collective understanding of procedure and craft hold the principles for future development and discourse. Visuals are an impactful way to reveal the impacts of and hopefully make vernacular architecture more accessible. Through this work, I hope to contribute to the discourse of numerous Nigerian artists, designers, and architects, adding to an ongoing archive of the African indigenous material history.

4.5 Conclusion: Red Earth

This thesis has explored facets of how modernization has affected the life and culture of the Igbo people. Igboland was transformed through the interaction between new urban centres and the rural villages. Increased interaction between local and national markets and Igbo migration to the cities encouraged the cross-pollination of objects and ideas which challenged the worldview and values of traditional society. The story of the transformation of my family compound is just one in a collection of narratives that follow the effects of this societal change on the function and character of Igbo domestic architecture.

This work suggests a methodology for exploring the forces that shape and continue to shape indigenous African architecture. This work initially began as an exercise in adapting Igbo indigenous housing using the land my parents purchased as a proposal site, but as it went on, it began to reflect a different intention. Instead, the focus of this work is the research, and the value of the drawings comes from the time applied to contextualizing the vernacular through visuals. The layering methodology in the composite drawings speaks to the perception of vernacular architecture formed through the eyes, memories, and interpretations of a collective. The contributions of my parents, Igbo and non-Igbo scholars form a conceptual understanding of compound space in a way that mirrors the idea of collectivity that forms the basis of traditional Igbo society and culture. The layering of rituals and activities onto the evolving architectural depictions of form is analogous to the compound's existence as a purveyor and preserver of culture, a palimpsestic domestic space that retains the memory of Igbo tradition across time.

The thesis title "Red earth" refers to not only the colour of the earth but the thread that I have followed throughout this work. Red earth is the memory of a place I recently became reacquainted with. Red earth represents the unchanged *ala*, the ubiquitous, ever-present earth, witness to all interactions with the earth, with one another, and

across time. The title of this thesis and the term "shaping" refers to not only the act of forming a narrative but the act of drawing and refers to the potential for designing a contemporary compound. Shaping refers to what is there and what can be there. The rich red earth is the constant; what we do on it is shaped by many forces.



Figure 4.4 Village road, Isiekenesi

image by author

Bibliography

Aniakor, Chike Cyril. *Igbo Architecture: A Study of Forms, Function and Typology*. Volume 1 ed. Indiana University: 1978.

Barrett, Stanley R. "The Achievement Factor in Igbo Receptivity to Industrialization." *Canadian Review of* Sociology/Revue Canadienne De Sociologie 5, no. 2 (1968): 68-83. doi:10.1111/j.1755-618X.1968.tb01180.x. https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1755-618X.1968.tb01180.x.

Biafra 2021. https://en.wikipedia.org/w/index.php?title=Biafra&oldid=1046647518.

Biomes Group, UC B. "The Grassland Biome."

(CCA), Canadian Centre for Architecture. "Architectures of Care." . Accessed Dec 20, 2021. https://www.cca.qc.ca/en/articles/issues/30/of-migration/81159/architectures-of-care.

(CCA), Canadian Centre for Architecture. "Pictorial Storytelling." . Accessed Oct 31, 2021. https://www.cca.qc.ca/en/articles/78653/pictorial-storytelling.

Chapin Metz, Helen, ed. *Nigeria: A Country Study*. Area Handbook Series. Fifth Edition, First Printing ed. Washington, D.C.: Federal Research Division, Library of Congress, 1991.

Cole, Herbert M., Chike Cyril Aniakor, African Studies Association. Meeting (27th: 1984: Los Angeles, Calif), and University of California, Los Angeles African Studies Center. *Igbo Arts: Community and Cosmos* Los Angeles: Museum of Cultural History, University of California, 1984. http://archive.org/details/igboartscommunit00cole.

Enahoro, Eugene. "Nigeria: The Boys' Quarters Mentality." . Accessed Aug 13, 2021. https://allafrica.com/stories/201304160998.html.

Folkers, Antoni S. and van Buiten, Belinda A. C. *Modern Architecture in Africa Practical Encounters with Intricate African Modernity*. 1st ed. Cham: Springer International Publishing, 2019. doi:10.1007/978-3-030-01075-1.

Fry, Maxwell, 1899-1987. Tropical Architecture in the Dry and Humid Zones. London: B. T. Batsford, 1964.

"Here by Richard McGuire Review – an Exquisitely Drawn Ecological Warning." . Accessed Jun 8, 2022. http://www.theguardian.com/books/2014/dec/21/hererichard-mcguire-review-exquisitely-drawn-ecological-warning.

How Africa can use its Traditional Knowledge to make Progress. video. Directed by Ezeanya-Esiobu, Chika. TED:Technology, Entertainment and Design, 2017. https://www.ted.com/talks/chika ezeanya esiobu how africa can use its traditional knowledge to make progress.

Igboland 2020a. https://en.wikipedia.org/w/index.php?title=Igboland&oldid=949301724.

Ikebude, Chukwuemeka M. "Identity in Igbo Architecture: Ekwuru, Obi, and the African Continental Bank Building." Ohio University, 2009. http://rave.ohiolink.edu/etdc/view?acc_num=ohiou1250885407.

Ilogu, Edmund. *Christianity and Igbo Culture : A Study of the Interaction of Christianity and Igbo Culture* New York : NOK Publishers, 1974. http://archive.org/details/christianityigbo0000ilog.

Intertropical Convergence Zone 2021b. https://en.wikipedia.org/w/index.php?title=Intertropical Convergence Zone&oldid=1061607329.

Jones Archive | Southeastern Nigerian Art & Culture. G.I. Jones Photographic Archive Southeastern Nigerian Art & Culture. Southern Illinois University,. https://jonesarchive.siu.edu/.

King, Anthony D. *The Bungalow: The Production of a Global Culture*. London; Boston: Routledge & Kegan Paul, 1984.

Mark Duerksen March. *Nigeria's Diverse Security Threats*. Africa Center for Strategic Studies. https://africacenter.org/spotlight/nigeria-diverse-security-threats/.

McGuire, Richard. "Here, 2014." . Accessed Jun 10, 2022. https://www.richard-mcguire.com/new-page-4.

National Forest Reference Emission Level (FREL) for the Federal Republic of Nigeria. January 2019: Federal Republic of Nigeria, b.

Nevin, Andrew S. and Omomia Omosomi. *Strength from Abroad: The Economic Power of Nigeria's Diaspora*: PricewaterhouseCoopers Limited, 2019.

"New Yam Festival." . Accessed Jul 8, 2022. https://encyclopedia2.thefreedictionary.com/New+Yam+Festival.

Njoku, Athanasius Onwusaka. "Perspectives on the Nigerian Tragedy." *Negro Digest*, January, 1969, 19-29.

Nnoromele, Salome. *Life among the Ibo Women of Nigeria* San Diego, CA: Lucent Books, 1998. http://archive.org/details/lifeamongibowome0000nnor.

Nsude, Godwin Chikwendu. "The Traditional Architecture of the Igbo of Nigeria."Thames Polytechnic School of Architecture and Landscape Dartford, 1987.

Nwaka, Geoffrey I. "Urban Culture and the Problems of Urban Development in Imo State, Nigeria A Historian's View / CARACTERE ET DEVELOPPEMENT DES VILLES DANS L'ETAT IMO, NIGERIA POINT DE VUE D'UN HISTORIEN." *Civilisations* 28, no. 3 (1978): 307-318. http://www.jstor.org/stable/41803152.

N. W. Thomas Archives. [Re:] Entanglements. a. https://re-entanglements.net/category/n-

w-thomas/.

Oruwari, Yomi. "Planners, Officials, and Low Income Women and Children in Nigerian Cities: Divergent Perspectives Over Housing and Neighborhoods." *Canadian Journal of African Studies / Revue Canadienne Des Études Africaines* 37, no. 2 (2003): 396-410. doi:10.2307/4107244. http://www.jstor.org.proxy.lib.uwaterloo.ca/stable/4107244.

"Owerri Climate, Weather by Month, Average Temperature (Nigeria) - Weather Spark." . Accessed Mar 2, 2022. https://weatherspark.com/y/54994/Average-Weather-in-Owerri-Nigeria-Year-Round.

Public Works Department (Nigeria) 2022c. https://en.wikipedia.org/w/index.php?title=Public Works Department (Nigeria)&oldid=1067112019.

"Rural Population - Nigeria." 2022. https://data.worldbank.org/indicator/SP.RUR.TOTL?locations=NG.

Rudofsky, Bernard, 1905-1988. Architecture without Architects: An Introduction to Nonpedigreed Architecture. Garden City, N.Y.; New York: Doubleday 1964]; Doubleday, 1964.

Smith, Daniel Jordan. "Legacies of Biafra: Marriage, 'Home People' and Reproduction among the Igbo of Nigeria." *Africa: Journal of the International African Institute* 75, no. 1 (2005): 30-45. http://www.jstor.org/stable/3556715.

Uchendu, Victor Chikezie. *The Igbo of Southeast Nigeria* New York: Holt, Rinehart and Winston, 1965. http://archive.org/details/igboofsoutheastn0000uche_f6e3.

Ukpuru. Ukpuru. d. https://ukpuru.tumblr.com/.

van den Bersselaar, Dmitri. "Imagining Home: Migration and the Igbo Village in Colonial Nigeria." *The Journal of African History* 46, no. 1 (2005): 51-73. http://www.jstor.org/stable/4100829.

"Why African Vernacular Architecture is Overdue for a Renaissance." . Accessed Feb 7, 2020. https://www.archdaily.com/889350/why-african-vernacular-architecture-is-overdue-for-a-renaissance.

INTERVIEWS

Chioma Ogbu, "Interview with my mother", Ancaster, Ontario, December 2021.

Ebere Ogbu, "Interview with my father", Ancaster, Ontario, November 2021.