ECO-CULTURAL VALUES OF THE ARCHITECTURE OF FULANI HOMESTEADS IN OKE-OGUN, OYO STATE, NIGERIA

BY

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A Thesis in the Department of Archaeology and Anthropology Submitted to the Faculty of Arts in Partial Fulfilment of the Requirements for the Degree of

DOCTOR OF PHILOSOPHY

of the

UNIVERSITY OF IBADAN

JUNE, 2021

ABSTRACT

The discourse of nomadism and its attendant socio-economic implications is a central theme in the ethnography of the Fulani. Existing anthropological studies have focused on the socio-economy of cattle herding and settlement patterns, devoting little or no attention to the ecological and cultural significance of the unique architecture of the Fulani homesteads. This study was, therefore, designed to investigate the adaptiveness of the homesteads of Fulani settlers, with a view to determining the roles that stable and sedentary lifestyles play in the evolution of their architecture.

Acculturation Theory was adopted as framework, while the ethnographic design was used. Tede, Shaki, and Iseyin in Oke-Ogun area in Oyo State were purposively selected for the study because of its large population of Fulani settlers. Qualitative data were obtained through participant observation, thirteen key informant interviews conducted with elderly Fulani in the selected communities, 7 Focus Group Discussions sessions with young men, and In-depth interviews with ninety-six randomly selected residents. Data were analysed using ethnographic description.

Fulani settlers in the Oke-Ogun area evolved a unique category of architectural designs that distinguished their dwelling places from those of the host communities. The architectural forms depicted a process of incorporation triggered by a combination of environmental and cultural factors such as climate change and building technology. Three forms of design-traditional, hybrid and contemporary-attested to contending forces of conservatism and modernisation. In terms of settlement pattern, buildings were still arranged in a patri-local fashion whereby the homestead place of the oldest male member of the household became the centre of activities and around which other buildings were organised. Elements of cultural continuity occurred in the retention of the "baa shiga" (no entry) model, although this is disappearing in recently built homesteads. Huts were deliberately located with precisions in ways that fostered relationships and social interactions among members. And with the scarcity of the preferred Beere (elephant grass), used for building, Fulani settlers employed all sorts of *fudo* (grass) and other synthetic materials in the construction of their homesteads. The grass for building are no longer imported from Ilorin as used to be the case, but are now cultivated locally. There is significant movement away from the cylindrical form of housing construction to square shape form of their Yoruba host. Socio-cultural values embedding religion, gender, economy and ecology were retained in the architectural designs of settlements and building styles. The social imagery of their public space is largely Northern in appearance and in feel, depicting an Islamic motif and ambience.

There is evidence of acculturation process going on among the settled Fulani in Oke-Ogun; which suggests that Fulani are amenable to changes within their eco-cultural system. These changes are responses to local climatic conditions and influence of gradual assimilation of Oke-Ogun culture. The design of their new architecture will be of value to cultural interchange in Nigeria.

Keywords: Settled Fulani in Oke Ogun, Indigenous architecture, Eco-cultural values.

Word count: 469

ACKNOWLEDGEMENTS

At a time like this, memories of the long journey may fail, however the possibility of remembering those that stood with me to this point remains fresh.

I acknowledge my mentor, father, friend and supervisor Professor O.B Lawuyi, who never lost hope in the success of this programme. I thank my lecturers in the Department of Archaeology and Anthropology, University of Ibadan, those who have moulded me into an anthropologist: Professors Caleb Folorunso, Philips Oyelaran, Aleru, S.O. Ogundele, Bola Olatunbosun, S.A. Ajala, Alabi, Agbaje Williams (formerly of the Institute of African Studies, University of Ibadan), Dr. Kayode Akinsete and Dr. Jide Ololajulo.

Words fail me to adequately express my appreciation for the encouragement extended to me by my senior colleagues at Lagos state University: Prof. A.O Sanni, Prof. Ayo Omotayo, Prof. Elias Wahab, Prof. Taiwo, Prof. Laide Adedokun, Prof. Wusu Onipede, Prof. O.E. Ajiboye, Prof.S.O. Yusuff, Dr. Ranti Samuel, Dr. Deji Oyenuga, Associate Prof. Jawando and my "boyfie" Dr. Bolawale Odunaike and Mrs. Busoye Olupooye. I say a big thank you to Dr. I.S Akoteyon of the Department of Geography for helping with the maps. My dear friends; Dr. Abiodun Fatai, Dr, Tobi Oshodi, Dr. Abdul-Wasi Moshood, Dr. Paul Sewa and aunty mi, Dr. Soladoye. Thank you Olaitan Faysal, you're a brother indeed!

I also got tremendous support from my academic "friends" and "ogas", notably Prof. H.O. Danmole who was a real source of support, Prof. Yinka Aderinto(mo bo l'owo yin sir!), Prof. Rasheed Okunola, Prof. Lanre Olutayo, Prof. Dele Layiwola, Mr. Olu Oni Ola, his accommodating wife, aunty Joke, and their adorable children,Prof. Duro Adeleke, Prof. Oyeweso, Prof. Supo Akewusola, Prof. Atere, Prof. Tunji Azeez, Prof. Tunji Abanikanda, Dr. Taiwo Kasumu, Mr. Akin-Lewis, and his adorable wife, Bunmi Agosu Akin-Lewis, Mr. Wale Anthony, Mr. Said Olayinka, Princess Semiat Bada... all of who continuously harassed and goaded me on. I cannot also forget the efforts of my friends within academia in general.

I appreciate my friends at the University of Ibadan; we have been together for about two decades now. Any of them can write my biography. Thank you egbon mi, Prof. Sola Olorunyomi, Lanre Oladoyinbo, Ropo Ewenla and his adorable wife, Omolara, Erazua Oniha, Nimibofa Ozigbo (my partner in progress), aburo mi like none, Wale Ola and his adorable wife! Wale mi, I know saying thank you can't measure up to your dedication to

me over the years. You're the tonic when each time the craze showed its face. Rotimi (Icarus, baba oko mi!), Benson Eluma (my blooder) Dr. (Mrs.) Ajala and Dr. Yomi Ogunsanya. And my darling wife and sister, Mrs. Ololajulo.

My political associates and friends are all eager to call me a doctor. Thanks for believing in me: Mr. Kayode Komolafe, Engr. Ade Adetimehin, Chief Funso Ologunde, Hon. Kehinde Bamigbetan, Hon. Jimoh Ajao, Cardinal Odunmbaku and his adorable wife; Hon. Sinmi Odunmbaku, RT. Hon. Jumoke Akindele, Chief Tony Akinrinsola, Dr. (Hon.) Wahab Adegbenro and his lovely wife, Mrs. Oluwatoyin Adegbenro, Erelu Modupe Akindele Martins, Hon. Ade Adeogun, Akogun Tokunbo, Hon. Gboye Adegbenro, Hon. Kehinde Adeniran, Hon. Tomomewo Semilore Favor, Rotimi Williams, Hon. Wale Williams, Wale Leyimu, Barrister Wale Odusola, Barrister Tolu Babaleye, Hon. Eni Akinsola, Hon. Otito Atikase, Hon. Banji Okunomo and all my constituency members in Lagos, especially in Alimosho/ Igando/Ikotun, my Federal Constituency in Ondo state; Akoko North Federal Constituency and Ondo state political family on social media. I say thank you to my "dad" as I fondly call him, CJ. Olasehinde Kumuyi... my genuine uncle. And the man I've come to respect and adore over the years, His Excellency, Dr. Segun Mimiko (Iroko).

Awon temi gangan! Otunba Kunle Akinyele, my own sister, Binta Ayo Mogaji (BAM), Oluwatoyin Jackson(Olola Jakito), Chief Boroji, Chief Bejide, uncle Clem, Engr. Ray and the Elites Club members, I say a big thank you to you all. The super women in my life: Semao Derin, Tope Scott, Omotunde Keshinro, Oluwafunmi Williams, Awero Pedro, Sola Oseni, Funmilayo Williams, Adunni Tokunbo

My friends and comrades, who would drag me into struggles and still breath down my neck to finish up, always saying: "Yinka, do this thing nau". Thank you, Comrades...topping this group is late Momoh (RIP Prof), Prof. Odion, Dr. Seteolu, Dr. Aderemi, Prof. Mudashiru, Dr. Dansu, Dr. Oni, Dr. Marculey, Dr. Oyekan, Dr. Afisi, Prof. (Mrs.) B.B. Idowu, Bidemi Aina, and Gbolahan Idowu, Promise Ade Kanayo Adewusi (PAK) Thank you!

My 'crew' was simply amazing, urging me on, seeing me every evening at FM's Place. Barrister Lanre Olaotan, Jide Kaka, TJ White, Mr. Bode Thomas (Buddy), Akinola Fawibe and my MM; Mathew Umoren. I acknowledge the immeasurable suggestions and contributions of my students. Wonderful friends I've got in you Solomon Isaiah, Gabriel Ogbeyemi, Seun Ajoseh, Edet Joshua Effiong, Abiodun Balogun, Ibukun Lawal, Bose Onifade, Opeyemi Salami and my Muslim sisters and brothers among my students.

My darling daughters who got my back! Zainab and Nurat Kazeem, Ayomide Rhodes, Oyindasola Taiwo, Omolabake Ogungbade, Abike Alogba and Ogochukwu. And my lovely sister from another parents, Rebecca Jonathan, thanks for holding my kids each time I leave Lagos on my numerous journeys between 2015 to 2021! Idris Muritala (ManU), thank you for always watching my back with prayers. Emeka darling, never tired of typing and helping with the corrections. These are the ones that attested to the Yoruba adage: "ajumobi o kan t'anu, eni Olorun ran si'ni, l'on se'ni l'ore. Thank you so much.

I say a big thank you to my late father, a father like none! He taught me to be me. He raised me to be bold and continue to see beauty in all things. Thank you Maami, you have done well. To my siblings, no fancy words will be adequate enough to say thank you. You are my primary constituency, my world: Prof. Adedeji Omole (Egirioke), Dr. Oluwasesan Akinyemi, Adesola, Elizabeth and her loving husband (Boda Gani), Adebowale, Adenola, Adedoyin, Adeola, Adegboyega, Adeyemi and my baby sister, Aderonke. My sister in-laws, brother in-laws, nephews and nieces... you have come to give me stability in the times of storms. I have no other wealth apart from Abiodun (my husband), Adetola (mummy's boyfriend), Mogbekeloluwa (my love), Olajuwon (Morenikeji mi) and Mogboluwaga (my sunshine), Oluwatosin Olarinmoye thanks for being there all these years. You'll always be my best friend... of which after God I dedicate this work to.

Thank you all!

CERTIFICATION

I hereby certify that this thesis was written from a research carried out by Olarinmoye, Adeyinka Wulemat, with matric. number 87455 in the Department of Archaeology and Anthropology, University of Ibadan.

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DEDICATION

This research is dedicated to the Almighty Allah, the Most Merciful, the Most Gracious.

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GLOSSARY OF SOME FULANI WORDS AND TERMS

- *Mapoode* Window/Door
- *Damugal* Entrance
- Fudo Grass
- Bashiga No entry
- *Suudu*-the head of the family hut/ detached parlor
- *Bomboro* Clay/Wall
- Kewi Bamboo
- *Beere* Elephant grass
- *Bulude* Common grass
- *Lumure* Granary
- Dafijo Father
- Irajo Mother
- Reube Women
- *Sukabe* Children
- *Gure* Settlement (Iga)
- Wara Cheese

CHAPTER ONE

1.0 Introduction

This study defines eco-cultural values as the combination of ecological and cultural potentials found in a given society that could affect everyday decision making of the people. In this instance, the study looked into the architectural types, building materials and cultural values that can dictate their choices of homesteads and allocations of space, that can be found among the Ibile-Fulani in Oke-Ogun, Oyo state. The ibile-Fulani, translated as the Acculturated Settled Fulani (AS-Fulani) are the group of Fulani that have settled in a geopolitical location for over a decade. It refers to those that have mixed with the locals and the host community, and probably have interacted to a level of intermarrying and exchanging cultural items and languages. This category of Fulani, which exist in contradiction from the ambulatory group of herders, can be found in sizeable numbers in Oke-Ogun area of Oyo state. Many are also found in Awe and Iseyin. Several of such a group of Fulani are scattered in many parts of Nigeria. There is also another group of Fulani called Permanent Settled Fulani (PSF) that is found in Ilorin and the core northern states of Kano, Sokoto, Borno, Adamawa, Taraba and Zamfara. This group is also often referred to as the Town Fulani. However, distinction must be made between the Town Fulani and the Settled Fulani under study here. The Town Fulani have settled for a long time in cities with their families and trades. Most of the Town Fulani have distinct lifestyles from the Hausa host communities. Because they gained prominence with the conquering of the Hausa states through the Uthman Dan Fodio Jihad in 1804, they took over the governance and trade from the indigenous Hausa people they met (Hall, et.al, 2013). The Town Fulani still exhibit a distinct cultural identity from the local Hausa communities, maintaining their Islamic dominance and, no less importantly, the architectural designs of their homesteads.

TheFulani of Oke-Ogun are in many ways different from and in some more ways like the other Fulani like the Bororo, otherwise known as Bush or Nomadic Fulani, Sedentary or the Town types. They are different in the sense that their interaction with the local people of Oke-Ogun gives a first-time observer some difficulty in distinguishing the natives from the Settled Fulani, especially outside of their clustered homesteads scattered across the Oke-Ogun area. The only strong distinction is the unique Fulani bamboo huts that they build in their settlements, and their visible herds of cattle which one sees in large numbers on entering Iseyin and along the vast span of land that reaches to Oke-Ogun and Saki. An

anthropological curiosity would necessarily be aroused on seeing a typical Fulani man from appearance, who speaks Fula, and who readily tells you he is Fulani wearing Yoruba native dress and speaking Oke-Ogun dialect with such an ease that could confuse a researcher.

Ecological and cultural factors influence the architecture of homesteads of the Fulani everywhere. This is also true of the acculturated settled Fulani in Oke-Ogun; they are typically identified with peculiar patterns by which they construct their dwelling places, which are influenced by both the ecological factors, belief system and cultural values. A preliminary discourse about dwelling is necessary here in order to chart a context for this study of these peculiar patterns of constructing dwelling places by this group. A dwelling is one of the basic developments through which man has settled his need for safety and security. According to Agboola & Zango (2014), for a structure to qualify as a house, it must be able to support human health and its activities. Mabogunje et.al (1978) have also observed that architectural designs of houses are structured to enhance the provision of shelter and other activities that promote good health and dignified living. However, the way houses are built vary between societies and among cultures.

In Nigeria, as well as in many societies of the world, traditional infrastructure contributes immensely to local technology and the social economic response of the area. The origin of architecture designs is associated with natural availability of local materials on one part, and the totality of norms and traditions the builders and end users of the buildings attach to such building. So that Daniell 2004 opines that traditional architectures are associated with religious beliefs, traditions, taboos and the availability of local materials.

With specific emphasis, the architectural and dwelling patterns of the Settled Fulani have functional clues and aesthetic form, rooted in the ecology and culture of Oke-Ogun, Oyo State, which is intermeshed with the migrant Fulani's culture. The architectural designs of the Fulani in Oke-Ogun is expressive of the extent of acculturation that has been witnessed over time. The people have reinvented, renamed and reinterpreted the physical architectural styles and use of space. Humans gain consciousness of pre-existing and ongoing reality of nature soon after they are born; but, despite the proliferation of vast artificial environments, the Settled Fulani of Oke-Ogun are not separated from how they culturally relate and interact with their natural environment. A number of homestead patterns, which has eco-cultural values, exist among the Fulani in Oke-Ogun area of Oyo

State, and with more inclination towards livestock and crop agricultural practices. However, from traditional nomadism to several other types, Fulani homesteads are spatially arranged. Their huts are built in circlesand structured cylindrically. As urbanization restricts nomadic lifestyle, Fulani also deployed differing means they tend to their herds. Over a long period of time now, many Fulani are more or less sessile. They have come to prefer the semi-sedentary or settled lifestyles.

The ecological and cultural realities embedded in the architectural and settlement patterns of Fulani of Oke-Ogun are immense; so much that, the architecture of housing, influenced by eco-cultural values, deserves to be given attention. The ecology of Oke-Ogun in Oyo state is the driving cultural metaphor for Settled Fulani that contributes to the co-evolution of ecology and architecture of settlement patterns in a nature-culture continuum. Cultural changes occur over a long period of time and usually very slowly. Design and culture had been reported to be intimately related, and these changes affect even built environments over a long period of time (Rapoport, 1969: 7). Cultural changes might occur due to various reasons. One of such reasons is the influence of one culture over the other over a long period of time. An influence as such motivates cultural change. Ogundiran (2020) reiterates the importance of understanding material culture and emerging new history of local people. The study of material culture can throw light into several hidden facts of a people. We can understand the people's ways of life through engaging in the study of their material culture like this study just did.

Cultural ecology focuses on adaptations of humans to both physical and social environments. Human adaptations would mean the different mechanisms employed to acclimatise and function both biologically and culturally to survive and reproduce in a certain settlement. This system is passed from one generation to another either diachronically when histories of certain events or personalities are examined or synchronically, when notable events or personalities are discussed as they occur. This is simply to bring to the forefront that natural environments are largely dependent on social structures and interactions, which are strong contributors to all human institutions and engagements. A strong emphasis is to be laid on the fact that human adaptations are shaped by prevailing technologies, beliefs, cultural practices and in part, historically before any human can fully live and function in an environment. So, while the environment can influence human character, it cannot determine it. Fulani homesteads are located based on a nature-culture interrelationship. This interrelationship between culture and nature is hardly perceptible. The Fulani of Oke-Ogun are a direct example of how culture and nature shape ways of life. Despite having their inherent cultural values, living and settling for long among a different culture had shaped their very own ways of life, although they still try to differ from the Yoruba social groups with which they live with. Each individual group engages nature and life based on differing beliefs. This is the origin of eco-cultural interactions in the choice of architectural designs and settlement patterns of the Fulani, which makes the housing pattern multi-layered in meaning, multi-nodal in design, overlapping, conflicting in attraction, always evolving and increasingly limited. Thus, in architectural and settlement patterns, eco-cultural needs of the population are taken into consideration. Such environments are supportive since they promote the inhabitants' activities without need for any cognitive restructuring.

The unavoidable interaction between two autonomous cultures as is the case for Fulani in Oke-Ogun, the resultant cultural formation constitutes to acculturation for each of them. When housing structural designs and culture becomes closely linked, certain housing changes are inherently involved. Needs and preferences of houses also change. Desirable home appliances, furniture and other items cannot be generalised based on the closeness of houses. This study explores the relationship between architectural structures and acculturation, focusing on the ecological, natural and cultural determinants of the choice of building styles and materials among the Settled Fulani of Oke-Ogun.

As expressed by Congress of New Urbanism (CNU), (1993), that universal language form has failed, especially in housing and design. That there is a gap between an architect's belief in international style and what he/she takes as acceptable in the local environment. Relph (1993) also reported that people often conform their housing design styles to conform to the most prevailing features of regional structural types, both in interior and exterior designs. But there has been serious criticism by both scholars and professionals that architectural designs and urban forms are an expression of certain cultural inclination (CNU, 1993). There had been a comparative study by Lawrence, (1987) that "structural architectures are an expression of both social and cultural variable". Beyond the social and cultural variable, there are the physical, economic and political variables. All these variables are interwoven in the determination of the house designs dwellers take. This study took into consideration all the different variables listed above and attempts to argue what the overall interpretation of the designs and shapes of houses currently considered by the present Fulani of Oke Ogun. Researchers usually relate structural designs to physical factors such as the topography of a place and also about availability of materials and the climatic condition of the place, albeit how important these factors are, they usually don't decide or impose the eventual form a house will take.

Religious beliefs, social and cultural structures play germane roles in the shaping of man's built environment. The more severe the climatic, economic and technologic constraints become, the less are the non-material factors subject to debate, although they influence the choices made for structural designs. Memmott and Davidson (2008) adopt the social and cultural factors discussed by Rapaport as irrefutable. He is of the opinion also that as social and physical factors change, these changes are to be put into perspective as they influence the design and the use of built environment. This current research takes cues from both Rapport and Lawrence into consideration in the determination of how structural designs are related to man's social and cultural needs. It fully explains the significance of a built environment in fulfilling man's social and cultural inclinations and how instrumental these variables are in formulating new residential environments. There is the need to stress how important social and cultural variables are and an attempt must always be made to balance these two. There is therefore the need for an anthropological approach, an approach where human aspects are examined in the determination of the physical forms settlements take and as it relates to patterns of culture and behaviour. We hope we will be able to complement and supplement previous researches on urban housing designs.

Under the influence of another stronger culture, a certain culture can be modified. This establishes the relationship between acculturation and a built environment. There is the need to understand the importance of certain preferences and needs in houses and its designs when cultural changes sets in. One of the strong features of any culture are the values inherent in them. Cultural values define lifestyles and lifestyles have a direct influence on activities and engagements. These are all linked to how environments are built. Summarily, the architectural forms observed by the Fulani of Oke-Ogun is a reflection of their culture, as observed from different Fulani cultural groups in Nigeria. Their lifestyles define also a direct connection with their culture and activities in all host communities.

The Oke-Ogun Settled Fulani identify themselves and associate with the people and the culture of Oke-Ogun, a place they have taken as their permanent residence/home. They own as many properties within their means as possible and speak the local language of the people as fluently as the native speakers. Although *Fulfulde* is still widely spoken by the Fulani in the study area, the local language of the host community is also widely spoken by the Settled Fulani. Majority of the Fulani here practice Islamic religion and they associate quite closely well with the non-Fulani dwellers than they do with their nomadic sister groups. They have managed to become very intimate with these non-Fulani dwellers. Despite this seemingly close relationship, these two groups seldom inter-marry. The very close relationship has helped them so far to avert conflicts with their host community. That there are no conflicts is not a direct influence of similar religion the native dwellers and the settled Fulani practice, nor is it that the Fulani brought Islamic religion to that region. Long before the nineteenth century, as far back as the eighteenth century, a good number of Yoruba people had been converted to Islam by the Jihadists. S.J. Patrick Ryan & Missoula Montana (2009).

A strong point however was noticed; that the nomadic Fulani does not form or show close relationship with people. When they do, it is done in certain peculiar ways. They conduct in a very strictly regulated pattern, governed by *pulaaku*, some code of conduct flag observed by all Fulani Nomads that defines how they interrelate with their kin and others. This code of conduct makes them worthy of being a Fulani and establishing their cultural values. Acculturation had enabled the settled Fulani gain adequate knowledge of their host community, since they depend on this community for their livelihood. They sell their diary products to the local people of the place and also buy grain and other staple food from the people. This interrelationship and seemingly interdependence encouraged their need for a second language and had helped them sustain a permanent settlement in that region.

The Fulani with the combination of Hausa forms an ethnic group in Nigeria. People describe them in different ways viz: "*Fellata*" by the Kanuri, "*Peul*" by the Wolof, "*Fula*" by the Bambara, but are referred to as "Fulani" by many Nigerians. Within themselves, they associate more with the name "*Fulbe*". There are varying syncretic religions practised by different families of this ethnic group, but they are known more to be Muslims. Their main socio-economic activity is cattle rearing mostly by the males and cow milking by the females. Some of these ethnic members are nomads. They travel from place to place with their livestock and make camps for a short period of time. This set of Fulani is known to

have both the drought and raining season kinds of settlement/camp. This makes their pattern of settlement largely patrilocal, with typical nuclear family pattern of one, but with about a hundred people. The head of the settlement in this kind of setting is usually the man who is more advanced in age, on whose shoulder lies almost all administrative responsibilities. This Patrilineal tendency is male dominating and territorial. The older/aged members tend to stay home in wet season while the younger males are sent alongside some non-herders to follow cattle herds to dry settlements. The Fulani in Oke-Ogun takes all cues from the urban host community they live in but endeavour to maintain the Fulani identity because of its inherent values. They have over the years assumed as many social responsibilities available to them as possible at different facilities such as religious specialist, trader, artisans, business specialists, landlords to being rulers and/or adviser to rulers and so forth.

As it was hinted earlier, the Fulani are of three types in Nigeria. The nomadic Fulani, the semi-sedentary Fulani, and the sedentary "Town Fulani". The nomads are known to have embraced nomadism, migrating from place to place with their livestock for a greener pasture, the semi-sedentary can live a settled life in a part of the year and nomadic at another season of the year, while the Town Fulani have been recognised to be the more settled ones that have embraced different trades in their settled communities, especially as it relates to the conquered Hausa communities in the northern part of Nigeria. However, a fourth category is the focus of this study. The Acculturated Settled Fulani (AS-Fulani), are the fourth category the researcher refers to, as the populations of Fulani that have settled among other indigenous peoples of Nigeria that are not the Hausa group which they share the northern part of Nigeria, the category that shares the cultural norms of their host communities while trying to retain their Fulaniness. Acculturation takes place, which leads to the absorption of their host communities. (Winkelma, 1994) described acculturation as the entire process of one culture coping with a new and largely unfamiliar culture. It is a process that is continuous, where a culture considered strange becomes re-socialized into a completely different culture. This is usually with the sole aim of imbibing another culture that is more urban and civilized, towards achieving greater compatibility, fitness and assimilation into the host community (Gudykunst, Matsumoto, Ting-Toomey, Nishida and Kim, 1996). The afore mentioned process of acculturation suggests there are two distinct sets of culture. A dominant/ stronger set with greater power and influence and the set undergoing acculturation, taking different forms of adaptation (Berry, Poortinga,Segall and Dasen, 2002).

The modern-day settlement itself is a recent phenomenon. In Oke-Ogun, the ambience, ecology and housing designs are bridged by cultural values, degree of exposure and availability of money. Settlements had integrated rather peacefully and in harmony with nature. Ecological footprint on human settlements is pronounced and embedded bio-regionally, such that, the immediate available natural resources permits architectural aesthetics. Increased industrialization from the 18th century had given rise to greater forms of settlements. This started in Europe before other regions. This is so because the rise in industrialization gave rise to greater opportunities and as such migrants moved in great numbers from rural settlements into urban settings. This increased migration eradicated gardens and gave rise to modern and civilised built houses. This contributed very highly to the destruction of natural ecological spaces (Samiei, 2012)

Such global space in which Oke-Ogun is a part, had impacted on the settlement patterns of the Yoruba which in turn has, impacts on the architecture and settlement pattern of the migrated and now sedentary and semi-sedentary Fulani residents in Oke-Ogun.

Anthropological and historical researches had given differing opinions on how architectural patterns or "house designs" are in direct influence of culture. In the research conducted by Oliver (1986) on housing in Turkey, he realised housing designs are influenced primarily by family. Privacy and protection of women from men was an important family value recognised by many households and largely under the influence of religious beliefs. Cultural values as defined by Lawrence (1987) is the set moral and aesthetic principles that gives an idealized framework of what the world should be. Lawrence's research in Australia on the German settlements gives the ideology that aside cultural beliefs, political and social events shape housing designs and forms taken by the Germans. Different explanations exist on how culture influences housing designs, linking cultural values to house designs. Because cultural values of the Fulani in Oke-Ogun have gone through modifications, the influence of acculturation can be assessed adequately by understanding the initial culture of the first Fulani occupants and their culture compared to the culture of the host community.

One can only understand cultural values, human lifestyles and activities in their unalloyed state, if these phenomena are studied in a traditional environment (Rapoport, 1969).

Traditional house designs as defined by Rapoport takes many shapes from generation to generation and that it is as a result of certain complex collaborations between architects or house builders and house users. There is a shared traditional value among these set of people for many generations. The shared sense of a shared cultural value and adherence to these values stand as a form of control enhancing moral discipline from generation to generation. These shared values encouraged a shared image of life and living and this has a strong influence in the kinds of houses built. Folk tradition takes its expressive forms in this regard. It takes into consideration from generation to generation the values, desires, dreams, needs and passion of the people (Rapoport, 1969: 2).

1.1 Statement of the Problem

The Fulani group are greatly neglected, specifically for the provision of housing policies and implementation that could meet their need and culture in Nigeria. Even the United Nation's Agenda 21 had no provision for nomadic housing schemes. Despite having the housing policy of the Federal government of Nigeria in line with the Global Shelter Strategy, it still does not have any housing plans for the settled Fulani. Even when the Fulani are taken into consideration in some housing policies, efforts have not been made to look into the eco-cultural values needed in the architectural designs. This present study intends to fill this void, by taking into cognisance the identity within an eco-cultural context of the Fulani, as the determinant of their architectural designs of homesteads. There has undoubtedly been a plethora of research and discussions on the settled or semisettled Fulani. However, these researches and discussions have not been elevated to the issues showcasing the potential for economic gains and preservation of cultural values among the sedentary Fulani in Oke-Ogun. Previous studies have argued that, there have, in most part of Nigeria conflicts between the settled Fulani and the host communities. These conflicts have been recorded in all the cardinal positions of the country. Scores of innocent citizens have been left injured, homeless and/or displaced due to these conflicts. These conflicts are recently common among the nomadic Fulani sets. These sets cause conflicts in their host communities whenever they move their cattle herds into dwellers farms for the animals to graze. These farm encroachments are never welcomed by many farmers either subsistence or commercial farmers. This particular problem is fast becoming a major security challenge to the Nigerian government. This has led to a greater focus on the implications of Fulani-host community conflicts, without an assessment of the touristic potentials of the eco-cultural values reflected by the architectural designs in their homesteads, particularly in Oke-Ogun area of Oyo State. Thus, studies, like those by Tonah (2006), Ofuoke and Isife (2009), Muhammed, Ismaila and Bibi (2015) have assessed the economic and humanitarian cost of Fulani-Host community conflicts which ranges from gross depletion in the overall outputs of farmers and then reduction in income to loss of lives or properties but placed little emphasis on touristic potentials of the architectural designs of the sedentary Fulani settlement.

The styles, patterns and placement of buildings among Fulani and their neighbours are a result of certain socially constructed shared meanings and beliefs. For instance, the choice of material, construction style, technology and environment will provide completely different building patterns. In particular, architectural designs of sedentary or semisedentary Fulani settlement patterns are a mixture of multi-dimensional factors, notably eco-cultural factors. Cultural forces however are the primary determinants of architectural designs, other factors simply stand secondary and are thus tagged modifying factors. Such secondary factors are factors considered in climatic, available resources and prevailing technologies. All these factors are important, but none is as primary and more important as the cultural factor. This is a world-reckoned force. That value systems are a strong factor in housing form determinant. People have differing reactions to good and services and this is arguably due to their differing cultural values (Rapoport, 2005). Values can be studied and they are often enmeshed in imaginary images (Rapoport, 1997); these images sometimes are visible in certain lifestyles. Often one can judge people from the way they behave and these peculiar behaviours can be linked to their ancestral cultural backgrounds. It is a strong point and determinant of choices people make, how they behave and the way they allocate resources (Rapoport, 1980). People's lifestyles are strongly influenced by the environment from which they grow. Summarily, it is strongly established that the bond between culture and forms of architectural designs goes beyond observation of structures to include processes instituted and driven by the inherent values of a cultural group.

The gap in researchers' interest in the determinants of the architectural designs of the Fulani homesteads and settlement patterns has led to the present inquiry. There has been very limited analytical work in this area, although significant research has been conducted on the cultural values of the Fulani. However, the publications that have appeared on West-African countries and some parts of Nigeria exclude the experiences of Fulani in Oke-Ogun, Oyo State, and the eco-cultural and touristic values of their architectural designs.

1.2 **Research Questions**

The following questions are the core positions of this study:

- 1. What are the forms of Fulani architectural designs available in Oke-Ogun?
- 2. What are the ecological and cultural values embedded in the style and building of Fulani people?
- 3. What is the significance of Fulani architectural designs to Fulani identity?
- 4. What implications are there for the state government in terms of socio economic gains?

1.3. Aim and Objectives

Primarily, this study aims to examine the eco-cultural values in the architectural designs of Fulani buildings in Oke-Ogun. The objectives include:

- 1. To examine the ecological and cultural values inherent in the construction styles, patterns and placements of Fulani buildings.
- 2. To document and explain the types of architectural designs available among the Settled Fulani in Oke-Ogun.
- **3.** To evaluate the implication of their architectural designs and process of acculturation on the advancement of Oyo state's socio-economy.

1.4 Significance of Study

The study raises consciousness, beyond issues of generalisation of Fulani as the aggressive lots, to showcasing the culture as potential for tourism development in Oyo state. The Fulani ethnic group is generally perceived as a violent group which engages in confrontations with farmers in most parts of Nigeria. They have clashed with the people of Oke-Ogun including Kisi, Igangan and Saki more than any other sub-ethnic group of the Yoruba nation. However, the touristic potential of their architectural and settlement pattern in Oke-Ogun is immense and needs to be acknowledged in scholarship.

This study is also significant in the sense that it heightens awareness about the lack of identity kit in the location of settlement patterns; emphasizing the need to look beyond inherent traditions of a place. That architects and policy makers should be more concerned with the demands of the house users and not alone focused on the traditional beliefs of the land. All designs are to be strictly about what will support the livelihood and activities of the house user.

1.5 Study Area

The Fulani community in AtisboLocal Government Area, Oyo State, Southwest Nigeria was the centre of concentration for this research. Atisbo Local Government is in the northern region of Oyo State. It is one of the local governments forming the Oke-Ogun community. ATISBO is derived from the acronyms: Ago-Are, Tede, Irawo, Sabe, Baasi and Ofiki. The headquarters is located in Tede. The traditional ruler of Tede is the Onitede of Tede Land, Oba Abdul-Rauf Bangbade Oladoyin, Elerun II.

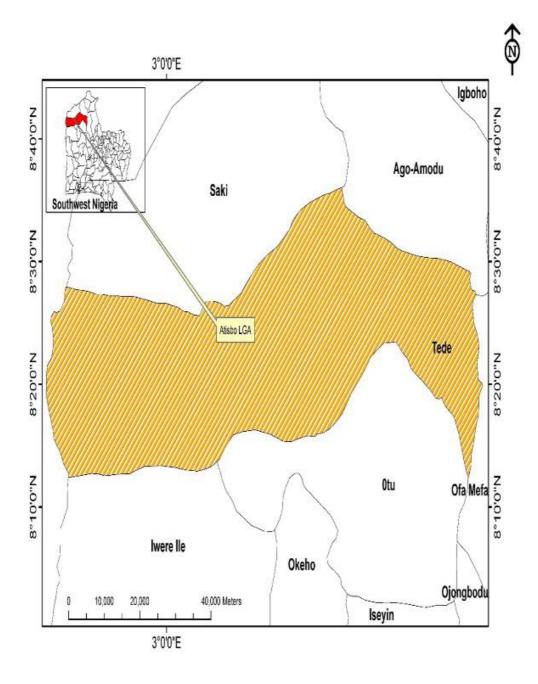


Figure 1: Map of Atisbo Local Government Area. (Source: Geography and Planning Department, Lagos State University, 2017)

Figure 1 shows the map of the Atisbo Local Government Area, indicating the seat of power, where the study started from in 2015. The area of the study extends to Saki East, the borders with Ago-Are. Constant references are made to the town, especially the Fulani Yoruba conflict of recent times.

Tede became more attractive for the study after taking into considerations the cluster of Fulani communities in Atisbo local government. The physical presence of the homesteads of the people under study was a major factor in the choice of Tede as the primary site of study. Tede has Fulani community with unique architecture. The work focused on the structures of the buildings, the significances of the buildings and the materials used. We then checked with other Acculturated Settled (AS) Fulani communities around Oyo state to see if there could be any similarities or differences.

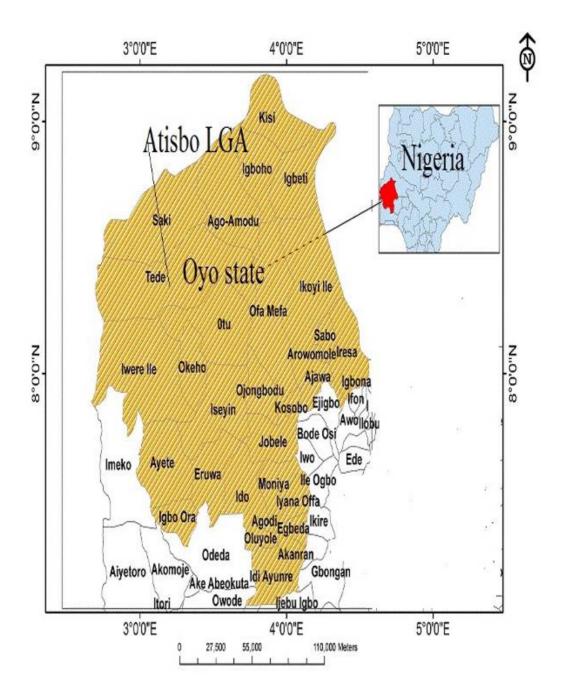


Figure 2:Oyo state map showing Tede, other study areas and Oyo local government boundaries. (Source: Department of Geography and planning, Lagos State University, 2017)

CHAPTER TWO

2.1 Literature Review

This chapter is to review multiple extant and relevant scholarly literatures critical to the several aspects of the present study. Much of the chapter is, therefore, in the form of a survey of existing literature with the intention of providing summaries and probes of these materials and hence locating the gap(s) that this study is designed to fill. Materials included in this review were those views and publications with immediate relevance to the objectives of the study. Selected topics reviewed include the ethnography of the Fulani in Nigeria, migratory and settlement pattern of the Fulani, tourism and material culture among the Fulani eco-cultural values in architectural designs, eco-cultural values in architectural designs, settlement pattern and eco-system adaptation of Fulani architectural housing structure of the Fulani and determinants of architectural designs among Fulani in Nigeria.

The chapter also includes a theoretical orientation under which the data to be presented in chapter four will be discussed.

2.1.1 The Ethnography of the Fulani in Nigeria

A review of literature shows that globally the Fulani are the largest groups of nomads, although there are certain disputes about their origin (Anthony, 2014). A report indicates that they are known for lighter skin and straighter hair than others in Africa, which make some to refer to them as white people (Africa guide, 2012). A part of the report is that the Fulani are a direct heir of the nomads of the Northern and the sub-Saharan Africa. They were argued to be the first Islam converts of West Africa. Related research reports that the Fulani have beginnings dating back 1000 years, and added that in the 18th and 19th centuries, the majority of them converted to Islam (Every culture report, 2017). Similarly, a study notes that the Fulani came into existence during the 8th-11th century; the period when the Berber of North Africa migrated South integrating with the Senegalese of Western Africa. This group formed the largest nomadic group in the world (Grace, 2012).

A 2012 report from the National Universities Commission (NUC) highlights that the Fulani co-habit with the Hausa and other ethnic groups and refers to them as largely nomadic. The report indicates that the Fulani have origins from the Futa Jalon Highland region of West Africa, and further emigrated across West Africa. The report shows that

Fulani combined with the jihad conquered Hausa forms one of the ethnic nationalities in Northern Nigeria. Its further notes that they are known with the following different names: "Fula" by the Bambara, "Peul" by the Wolof, "Fellata" by the Kanuri and generally referred to as Fulani by other Nigerians. The report reveals that the Fulani refer to themselves as "Fulbe". According to NUC (2012), while the majority of Fulani profess Islam, a few number of them maintain the traditional religion practice. Also, while the males are engaged in tending cattle, the females engage in milking activities. The Fulani generally comprise: fulanindaji (nomadic) and the fulaningida (sedentary). Fulanindaji maintains on the move style with their livestock for lush pasture. Fulaningida settle down for formal occupations including cattle rearing. The report highlights that the Fulani are widespread across the West African countries, most especially the Sahel, and graze their cattle from one place to another.

As shown by the NUC (2012), that the Fulani are in nearly every country of West Africa, ranging from the Sudan extended to the Senegal and as well in some parts of the East Africa, especially the upper Nile. It emphasises that the pastoral Fulani's lifestyles are principally basic and simple. The report states that the Fulani by all means endeavour to maintain their traditions and culture everywhere they find themselves. As mentioned earlier, the code of conduct observed under *pulaaku* ensures certain pristine qualities are exhibited everywhere they find themselves. Qualities such as: Possession of personal cattle herd, bravery at all times, humility and shyness, among other things. The NUC (2012) further highlights that Usman Shehu Dan Fodio lead the Fulani in the pre-colonial era and revived Islam in most parts of the Hausa land. According to this report, the Fulani were the cultivators and administrators of the aggressive campaign of Jihad. They used their position as devout Islamists to facilitate Dan Fodio's aim in effecting Jihad in Sokoto and how this entire movement contributed to the religious transition, the social and the political environment of the Northern Nigeria in the nineteenth century.

The review of literature shows that their population is way above 25 million across West Africa and Sahel region(Richard, 2008), while they just form about 6% of Nigerian population (Statista.com, 2018).

As observed by Anthony and Henry, (2010) the Fulani originated from the Middle East and also from North Africa. That it took certain number of years according to these scholars before the Fulani started mixing with ethnic groups in West Africa. Despite this mixture, study still reveals that as an ethnic group, the Fulani are by their history, Fula language, culture and religion are strongly bound together D-Group, (2013). A research shows that a strong percentage, up to about one third of the Fulani ethnic group are pastoralists, ascribing to them the ethnic group in the world with the highest number of nomadic pastoralist (Anthony and Henry, 2010). Similarly, David (1996) asserts that a large number of the Fulani live a semi-sedentary lifestyle. Christopher (2001) opines that this group consisted of merchants, settled farmers and artisans. A related study notes that the Fulani are more comfortable inhabiting Northern Parts of Central Africa and West Africa, but they are also found living in Sudan, places close the Red sea and the Chad (Anthony and Henry, 2010).

As it has been explicitly explained earlier that different communities and ethnic settings call the Fulani by different names based on contact and impression. In English form, Fulani wasa word from Hausa language '*fula*' (Steven, 2015). Fula and Fulani are used interchangeably in many African communities. Pēl recognised by the French was originally taken from the Wolof and it is variously spelt: *Peulh, Peul, and Peuhl.* Some prefer Fulbe, a term derived from Fulfulde/Pulaar in an attempt to anglicise the original Fulfulde. The Portuguese use Futafula or fula. The Sudan prefers the Kanuri's description of the Fulani as fellata or fallatah (Richard 2008). Research shows that while the West Africa Fulani initially occupied and lived in the borders of Senegal, Mali and Mauritania. But today are in many cities in Central and West Africa, but this took many years of migrations and land conquests (Steven, 2015).

Based on settlement patterns, three sets of Fulani have been identified. The Bush/Nomadic/Pastoralist, The semi-Pastoralist and the Sedentary/town Fulani. The Bush/Nomadic Fulani are never in a certain region for long periods of time. They move about in long distances with their cattle from place to place, grazing and then resting year round, but would spend just about 2-4 months in any chosen place. The Semi-Pastoralist Fulani are the Fulani families that would not move from place to place, even despite having livestock, remain settled albeit temporarily in a certain region much longer than the nomadic Fulani and are usually do not exceed their immediate environment. Generally, they are "in betweeners" (Carl, 2005). While the Sedentary/town Fulani live permanently in cities or towns. They engage in urban businesses and economics rather than cattle rearing. The acts of settlements, military conquests and concentration gave rise to the patterns known today of Fulani communities and the established size

differences between its villages and towns. At present, well known and established Fulani communities are: Birnin-Kebbi, Gombe, Mubi, Maroua, Girei, Jalingo, Belwa,Mayo, Ngaoundere and Garoua in Nigeria and Cameroon, Mopti, Djibo, Goro-Gorom, Dori, and Bandiagara in Mali and Burkina-Faso, Labe, Dalaba and Pita in Guinea, Podor Matam and Kaedi in Senegal and Mauritania etc. with the way the Fulani have over the years established their settlements in these communities, they have become prominent ruling class members of the community (Christopher, 2001).

Literature indicates that the Fulani from the same bloc find a way to organise themselves in the same dialectal variety, practicing the same traditions, culture and customs. It emphasises that over the years, Fulani from similar blocs tend to act in similar mannerism anywhere they find themselves. Those from the Eastern blocs are generically different from those from the Western bloc. However, as pointed out by one of the researchers that the Fulani from the Central regions are culturally in between those from the Eastern and the Western groups. (David, 1996). More from this scholar is the idea that culturally as well as dialectally, the Massina Fulani are more or less like those of the Nigeria or Cameroon or of those from Senegal or Guinea. However, the most divergent of all these groups are the Western groups. Overall, David (1996) demonstrates that all Fulani share most cultural practices.

After a number of scholarly debates on the origin of Fulani, several theories were postulated. Research has shown that they are usually linked to the Middle East or the Northern part of Africa. (Edmund, 2013). However, they are known to be more light-skinned groups amongst other skin colours in Africa (Richard 2008). Reports have it that the ethno-genesis of the Fulani may have been the commingling of people from the ancient North Africans such as Egyptians and those from West Africa. (Pat, 1996). A related study notes that they may actually be a mixture of people from the Arabian, the West Africans and the North Africans over several dynasties especially those of the Sahel and West Africa (Webster, 1931).

Several speculations have been made dating back to the colonial era about the origin of the Fulani. To buttress this, Edmund (1902) noted the prior portrayals by Pliny the Elder of one running a domain whose rulers were white, established by a ruler of predominance language of Fulfulde. The Tassilin' Ajjerrock art also reflects some prehistoric Fulani culture and it seem to indicate that how far back to 6000BCET one can trace the early lives of the Fulani. The assili n'Ajjer in Algeria, a famous North African site for rock painting (Adepegba, 2015). Critical assessments of these rocks reflects the existence of cultural traits of proto-Fulani by at least 4th millennium BCE in the region.

It is a common line of thought by scholars who specialise in the study of Fulani culture, that the imageries of Fulani depict certain rituals that are still practised by many Fulani today. For one, the historian Amadou Hampate Ba at the tin Tazarift site identified some sort of marker of the cow's water origin, called "lotori ceremony". Similarly, Ba also identified with the allusion of the drawings of foremost Fulani herdsman, Kikala. Ba also identified the Agades cross semblance, the hexagonal carnelian jewel of the Fulani; a fertility charm used till date by many Fulani women. All these indicate that the Fulani are detailed and had remained astute about issues on myths in the initiation rites (Adepegba, 2015).

A study shows the graphical representation of the Fulani initiation field. It is shown to have the sun surrounded by a circle with a male and female figures and heads of cows lined at the bottom of different phases of the moon. A hanging braid of hair towards the back is usually seen associated with the female figure. No one has been able to put an accurate date to the paintings, but one can tell with certain convictions that they had existed long before the Fulani were discovered in the Western Sahara, Adepegba (2015) asserted. Research shows how the Fulani had participated fully in the establishment of states in the 9th century. The Capital of the state was at Takrur, and Takrur is believed to be a place of many Fulani migrants settling in the Senegal Valley from the East (Hrbek, 1992). Fage (1997) had suggested that the interaction of Serer, the Negro agricultural people and the Berbers from the Sahara gave rise to Takrur. So essentially, Fulani culture can be said to have emerged from the Senegal Rivers and the Upper Niger.

Fulani were cattle herders that share landed properties with all nearby differing ethnic groups. They shared lands with Soninke, one of the major contributors to the rise of ancient Ghana. The Fulani experienced very great progress in the 16th century and they expanded and took ownership of large expanse of land from todays Senegal to Sudan, both to East Africa and to West Africa. This expansion was harnessed by the nomadic group, the Fulbeladde. The initial nomadic group was quite small, but over time and with the availability of lands to be grazed by cattle, they soon expanded cutting across Sahel to all the border lands to the South (Andrea, 2012). Knut (2013) notes that agricultural

expansions that originated form the availability of land gave rise to the three groups of Fulani known today. Where some chose the traditional pastoralist way, enjoying the nomadic lifestyle, others chose to savour the beauty of the town, preferring settled agricultural practices than cattle rearing. Any Fulani town seen today are arguably a direct result of a certain nomadic Fulani who had decided to settle in that place because of certain reasons rather than continue the nomadic style of wandering from place to place.

Cultural interaction normally occurs when two linguistically related languages are found side by side. The today's Fulani culture, language and the people are a result of many years of co-mingling with different ethnic groups from where they adapted and gained knowledge of the language and as such, prosper in such settings. Such is the ethnogenesis of the Fulani culture. Today, they are found all over West Africa. These set of people were initially separated from their kinsmen, but because they found a fertile land, they adapted to the lifestyle of the host communities, and then had their cattle herd expanded. When this new area is becoming too densely populated because of the fertility of the land and the subsequent increase in the cattle herd, some group decided to move towards the east and some to the south. This is the origin of their migrations all over Africa, and this migration patterns exists till date (Hrbek, I. 1992).

There is little evidence in books about the movement of Fulani from the West to the East of Sudan. Delafosse relied more on oral tradition rendition. He researched the Fulani history and tradition so well. He is of the opinions that in the eleventh to the fourteenth centuries were periods of active migration of the Fulani especially from Fuuta-Tooro and Macina moving eastern (Fage, 1997). Delafosse notes the steady immigration of Fulani into Bornu and other Hausa lands in the fifteenth century. They formed allies, a form of their loyalty to their host communities and then assisted fight in founding a town in Chad (Massenya) in the sixteenth century (Fage, 1997).

As made known by research, at about the end of the eighteenth Century, there were settlements having a place with the Fulani all over Benue River Valley and its feeders. A study further notes that they moved eastward along Rey Bouba, Garou, and to the south in Faro river towards the foot of Mambilla plateau which in years to follow, they climbed and established some settlemets there also (Walter, 1988). They were more concentrated in Chaba, Gurin, Cheboa, Bundang and Turua. Those in Benue were more settled and

notably were not a usual migrant (Walter, 1988). For Fulani to stay in a place for a certain period of time, short or long, certain basic amenities must be inherent in the region, two of these amenities are of note: (a) How Satisfactory the environment is to support human life and cattle and (b) oral history of previous settlers.

At about the 1500s, the Fulani rose to dominance, such that the Denianke dynasty was reportedly built from the forces of the Fulani and the Madinka (Andrea, 2012). This led to the empire of the great Fulo (John, 1998). Many scholars attest to the fact that Fulani were a major terror at a point raiding and disrupting trade routes, which eventually led to some economic prosperity of older African kingdoms. This brought them to prominence. That again in the 17th century, as emphasised by Knut, (2013) that Futa Bundu in Senegal and Faleme river confluence were the centres for the Fulani of West Africa rise to influence. Similarly, a study notes the increase in the number of Jihads and Jihadist in the 18th Century onwards, especially those led by Karamoko Ali and Ibrahim Sori in 1725 and the forces of those dominating politically in many areas (Knut, 2013). As Knut asserts, that area was completely taken through theocratic wars and many Islamists were noticed seeking political power and control. For instance, in a study done by Lotte, (2011) Moroccans invaded the Western Sahel in an anarchical situation. He emphasised that many production outputs and food dropped drastically and famine took the land and affected the cultural and political stability of the region, causing an increase in militant activity affecting the overall economy.

Andrea (2012) shares the opinion about how things changed terribly over time between different Fulani groups and many Emirates emerged. As indicated by this researcher, political force was more atomic to specific gatherings of Fulani, particularly those in the Senegal stream valley; the Fuuta Jallon Mountains in Guinea; the Maasina in the inland Delta of Niger in Mali; the North of Nigeria and the Adamawa level in Cameroon. This researcher further believes that there are little divisions of little commonwealths overwhelmed by the Fulani in the Central Gourma of Mali and the North and West of Burkina Faso, the northern Benin, the Sene-Gambia, the northern Senegal, and the southern and western pieces of present-day Niger. John (1998) declares that the Emirate/Imamate of Timbo in the Fuuta Jallon was the first of the Fulani emirates in West Africa. As indicated by him, it created from a revolt by Islamic Fulani against their persecution by the agnostic pulli (non-Islamic Fulani), and the Jallonke (the first Mande occupants of the Fuuta-Jallon, during the main portion of the eighteenth century. He

believes that the principal ruler took the title of Almaami and lived in Timbo, close to the current town of Mamou. Christopher (2009) noticed that the town turned into the political capital of the recently conceived imamate, and the heavenly city and strict capital, was situated in Fugumba. As indicated by him, the Council of Elders of the Futa Jallo state were likewise situated in Fugumba, and went about as a brake on the Almami's forces.

On a comparable record, Webster (1931) places that the new caliphate spread over districts of West Africa, involving nine regions: Timbo, Buuriya, Koyin, Fugumbaa, Kollaade, Keebaali, Fode-Hajji, Labe, and Timbi. Pulli Fulbe settled enormously across the locale. The Cambridge History of Africa of 1975 recorded that because of the conflict between two parts of the Seediayanke regal ancestry, the Soriya and the Alphaya, a framework for the turn of office between these branches was set up. As indicated by the report, this prompted a practically lasting condition of common struggle, since none of the gatherings were persuaded to regard the framework, which impressively debilitated the intensity of the political focus.

Johnson (1998) declares that the Maasina or Diina Emirate established by the Fulani jihad drove by Sheeku Aamadu in 1818, in view of disobedience to the Bambara/Bamana Kingdom of Segou. Tamari (1991) uncovers that the occasions originated from Usman Dan Fodio's Islamic domain in Northwest Nigeria.

An assessment takes note that for quite a while, gatherings of Fulani had been prevailing in pieces in the delta, in this way making a perplexing progression going back through a few floods of triumph. In any case, because of fighting they were always unable to sort out a countervailing power against the Bamana Kingdom (Richard, 2008). Richard in his work, stresses that in 1818, an Islamic minister named Aamadu Hammadi Buubu joined the Fulani under the standard of Islam and took on a triumphant conflict against the Bamana and their partners. He in this way settled his standard in the Inland Delta and the nearby dry grounds east and west of the Delta (1996). Writing recorded that this statement appears to have had solid power over its center territory, as confirmed by the way that its political and financial association actually showed today in the association of rural creation in the Delta (Walter, 1988). Notwithstanding its capacity and inescapability, the authority of the emirate was reliably undermined. During the rule of Aamadu, the grandson of Sheeku Aamadu, for example, the inside inconsistencies debilitated the emirate until it turned out to be simple prey for the powers of the Futanke, which consequently ousted the Maasina Emirate, in 1862 (Andrea, 2012).

Exploration shows that Sokoto Caliphate was by a wide margin the biggest and best tradition of Fulani power in Western Africa. It was the biggest, just as the most coordinated of the Fulani Jihad states (Creevey, 1996). Creevey states that all through the nineteenth century, Sokoto was one of the biggest and most remarkable realms in West Africa until 1903, when they were vanquished by European provincial powers. The Sokoto Caliphate incorporated a few Emirates, the biggest of which was Adamawa, in spite of the fact that the Kano Emirate was the most populated. Others include, however are not restricted to:Gwandu Emirate, Gombe Emirate, Katsina Emirate, Bauchi Emirate, Zazzua Emiirate, Muri Emirate and Hadejia Emirate. Knut (2013) featured that while building up their authority, the Fulani characterized an exacting social chain of command and forced constraints on exchanging and financial exercises. The researcher clarifies that the intention was to guarantee a consistent progression of expense income and items to the state and the standing armed force, particularly for the rangers. Knut further places that the opportunity for pastoralists to move about was abridged to guarantee smooth working of other creation exercises, similar to grain development, and on account of Maasina, the fishing exercises.

Fage (1997) opines that there had been a resistance to forceful recognition of Islamic tenets by the caliphate. According to him, the diversity of the Fulani tribe was due to escape for instance of the Wodabe from jihad of Sokoto caliphate, because acceptance of Islam meant embracing of not just the religion but of the social and cultural practices of the jihadists. Christopher (2009) posits that so many cultural influences have been share by the Fulani and Hausa in Nigeria. The victory of 1804 Fulani War led by Usman Dan Fadio, propelled the Fulani to leadership of Northern Nigerian Emirate. Hence, the Hausa–Fulani interaction is not just a case of cultural diffusion, which is unique across West Africa but that of political domination.

Similarly, Edmund (2013) asserts highlights same relationship between the Toucouleur of central Senegal River and the Fulani. The Toucouleur during the medieval era came in contact with and paid tribute to the Fulani. However, a few Fulani around the Senegal River are not all privileged (Lotte 2011). Literature records that in Mali, Senegal and Burkina Faso, people in these areas with cultural identities similar to the Fulani are

addressed as *yimbepulaaku*, (similar Fulani culture). Thus, Fulani culture or people comprise both ethnic and non-ethnically related groups (David, 2001). A case in point is the relatedness or relationship of Fulani and Rimaybeare, even years after abolition of slave trade. For instance, the characteristics observed of the *Jelgooji Fulbbe* on their slimness, tallness, light-skinned, thin straight noses, and long and curly hair was different from that of the Rimaybe who were stocky, dark-skinned with flat 'squashed' noses and short kinky hair (Riesman, 1980).

A study notes that Fulani settlements is characterised by the typical caste system common to West African (Marguerite, 1985), which is deeply rooted in medieval history (Tamari, 1991). The caste system has survived through 15th century to present day (Richard, 2008). They operate four major castes; including "nobility, traders, tradesmen and descendants of slaves" (Tamari, 1991). The Fulbe are the Fulani proper, including the Pullo (otherwise known as Rimbe and Dimo, or "noble"). The tradesmen or artisan caste includes the blacksmiths, potters, genealogists, dressmakers and woodworkers etc (Marguerite 1985), are referred to as *free people*. The captive, slave or serf ancestry; Rimmaybe, Maccudo, Dimaajo, and less often the Baleebe, the Fulani equivalent of the Tuareg Ikelan called the Bouzou/Bella in the Hausa and Songhay languages respectively. A study notes that the Fulani merchants and rulers were also involved in the trans-Atlantic slave trade, acquiring slaves through raids, violence and spoilt of war (Frank, 1997).

Literature shows that the Fulani castes respects and encourages endogamous relationships Coquery-Vidrovitch (2018), thereby individuals are limited to their caste. However, this practice was somehow limited in space and time, even though the stratification may be quite common in the Sahel (Tor-Arvie and Christian, 2001; Martin 2016).

2.2 Migratory and Settlement Pattern of the Fulani

Studies on the migratory and settlement pattern among the Fulani show that a lot of Fulani in the urban areas spend long times on foot, and are seen frequently moving about with their cattle throughout the West African communities, for water and green pasture availability (John, 1998). Lotte, (2011) has identified the Fulani for their unique nomadic style of living in the West African region just as the Tuaregs of North Africa. In Nigeria, Fulani settled in the highlands including Jos Plateau, Adamawa Plateau and the Western

High Plateau of Bamenda in Cameroon (Tamari, 1991), having altitude up to 8,700 feet above sea level and with temperate climate conducive for nomadic activities. These features of the plateau encouraged migration of the Fulani from further west.

A study shows that among the migratory Fulani, the size of the cattle herd is a reflection of wealth (Marguerite, 1985), which has underscored the myriad battles for grazing rights within and outside the Fulani settlements. The relevance of the cattle to the Fulani has been related to the ability of the cattle owner to understand and speak Fulfulde. The tradition of giving a *habbanaya* (a cow loaned until she calves) among them has been a lifelong practice that has been sustained for wealth sharing. This possibly could also explain why the Fulani herdsman would like to protect the animal with all he has got because the habbanaya is a prized asset which once given the recipient throws up a ceremony to honour.

A study on the Fulani settlement itemises that traditionally, nomadic Fulani abode in grass huts otherwise known as *Bukkaru* or *Suuduhudo*, in fulfulde (Abdoul, 1993). The huts are shaped structurally to provide warmth during the dry season, are hemisphere-shaped dome supported by millet stalk pillars, reed mats strung to wooden poles. These houses are easy to set up or dismantle, and available for their nomadic lifestyles. The huts are made to accommodate rooms for rest, sleep and other livelihood activities (Knut (2013).

A report shows that among the nomadic Fulani, life is frequently harsh (World Travel Guides, 1998), because of their settlements' distance from towns and cities, modern health care is usually not readily available. A review of literature on the migratory and settlement pattern of the Fulani shows land as one of the natural resources which has witnessed tremendous demand, and has continued to experience increasing demands for various uses, especially among the migratory Fulani (Adedire and Lawal-Adebowale, 2009). Land is needed for activities including farming, housing constructions and for rotational grazing among the Fulani. It becomes imperative and a source of conflict according to Kirk (2000) depending on complementary resources of the land such as topography, soil quality, availability of water, natural vegetation, and other substantial soil minerals or resources.

Land as it is often alluded to as unconditional gift of nature (Fabusoro & Sodiya 2011:68), but the reality is that it is never free, since it is ordinarily heavily influenced by

front pioneer settlers otherwise known as land-owners or landlords. The land-owners determine the extent and purpose for which the land can be used by any other intending users. More so, land control falls under government at the different levels, for example, the Nigeria Government under the land-use decree of 1978 laid claim to all lands in the country thereby giving the Government the prerogative right to acquire, designate and allocate appropriate use of the land for the overall national development (Fabusoro & Sodiya, Ashimolowo, Lawal-Adebowale, and Adamu, 2006). In view of this, Fabusoro & Sodiya (2011) note that the need for land use can thus be sort from the Government at the federal, state and local levels across the nation or country by the intending users, such as the migratory Fulani. And of course, access to land and the migratory style of the Fulani with claims for land for cattle grazing has been source of recurrent strife between the Fulani and local settlers in Nigeria.

Some of the unrests especially outside their original place of abode in the semi-arid (northern) part of Nigeria (Fricke, 1979) is as a result of a number of factors such as the expansion of cultivated land in the sub-humid zones, the long period of drought in the semiarid and arid zones, and the loss of cattle routes as a result of increased land development (Jabbar, 1994). Literature reveals that the increase in the trend of settlement in the humid and sub-humid agroecological zones of Nigeria has further been enhanced by a less incidence of tsetse fly (*Glossina sp*) which is an important vector trypasonomiasis. Different factors including depopulation of wildlife harbouring trypanosomes, seasonal bush burning, and unsuccessful tsetse fly eradication, deforestation and so on are the main reasons for morbidities in cattle (Sodiya et al, 2009). The growing patterns of pastoral households are from economic stand point, suggesting that the Fulani's choice of architecture and settlement pattern are a response to changes in their economic environment. For example, the pattern and location of the settlements of the Fulani pastoralists in the peri-urban areas, so as to gain access to a regular market for their products, mainly, meat, milk and cheese (Omotayo, 2002).

Study indicates that the transitory settlement of the Fulani nomads has encouraged their involvement in routine economic activities in the particular environment and bigger societies (Aboki, 2003). Research shows that such economic activities as crop and small ruminant livestock production, farm labour work, and marketing of farm and livestock products among others contribute to the livelihood and earnings of the Fulani especially the women who in return add value to the household (Ogun State Agricultural

Development Programme, 2004). As a reaction to the migratory and settlement pattern of the Fulani, Sodiya et al (2009) opine that the duration of the land lease or tenancy granted to Fulani for Rural Grazing Area (RUGA) may to a large extent influence or contribute to the extent to which they make impact on their own livelihoods and to the economy of communities where they may reside. The scholars assert that the confidence or security of settlement derived from long term access to land by the Fulani may determine how they are drawn to activities of the community, involvement and responsibility they assume for progress of the society. According to Sodiya et al (2009), however when land access or security of stay is lacking, the Fulani may havelittle or no contribution to their society and hence face difficulty in making a living.

Studies on the migratory and settlement pattern of the Fulani have also shown a linked between migratory and settlement variables and origin and dominance. Research discloses that the Fulani are concentrated in the Sahel zone (northern) and Central (Middle-belt) region of Nigeria (Anthony, 2014). Though, with or without justification, the scholar opines that they are specialist in animal husbandry especially cattle which constitute high proportions of their wealth. Different terms have been attached to them in the regions and countries where they settle including Fulbe, Fellata, and Fula (Fricke, 1993). Literature shows that the Fulani has migrated far and wide across the south of Sahara, from east to west (Anthony, 2014). As noted by Fricke (1993), however, their origin has only been traced to Fouta Djallon, from where they migrated out to other territories right from the eight century. A study notes that they however entered Hausa province of present day Nigeria around the thirteen century (Anthony, 2014), Sudan territories in Fifteenth Century then to Cameroon highlands (Fricke 1993). Their constant migration and settlement lead to their gradual dominance in the sixteen-century (East, 1994).

Research on the nomadic livelihood of the Fulani in Middle Belt region of Nigeria including Benue, Jos Plateau points to the continual struggle of settlers of this region, and Fulani were also integral early settlers (Antony, 2014). This scholar also identified this area as a region of cultural diffusion between the main people and the in dwelling Fulani who have no claim or responsibility in the communities because of their inability to access land. This may be the cause of the ever-lingering source of communal clashes between the nomadic Fulani and local dwellers in this region (Fricke, 1993). In other words, Anthony (2014) asserts that there are no plans for RUGA settlement or grazing

zones that may proffer peace for co-existence between the crop farmer and cattle rearing Fulani.

Literature illustrates that for the fully nomadic Fulani, the practice of transhumance or the seasonal movement in search of water strongly influences settlement patterns (Encyclopaedia of World Cultures, 2017). The basic settlement, consisting of a man and his dependents, is called a *wuru*. It is social but ephemeral, given that many such settlements have no women and serve simply as shelters for the nomads who tend the herds. There are, in fact, a number of settlement patterns among the Fulani. A study shows that the Fulani has adapted its lifestyle a little bit from the strict nomadism to accommodating sedentary style in the late twentieth century, Frantz (1981) noted.

Due to the national restriction on free range or nomadism of the Fulani, they now assume a settlement for the family while the males take the animals out to graze based on availability of water and lush pasture (Riesman, 1977). A study notes that over the last few centuries, the majority of Fulani have become sedentary (Encyclopaedia of World Cultures, 2017). This study reveals that those Fulani who remain nomadic or seminomadic have two major types of settlements, namely: the dry-season and the wet-season camps. According to the Encyclopaedia of World Cultures (2017), the dry season lasts from about November to March, while the wet season from about March to the end of October. Also, households are patrilocal and range in size from one nuclear family to another, each may comprise of ten to more than one hundred people. The report indicates that the administrative structure is strictly patriarchal and territorial. The report records that families tend to remain in wet-season while sending younger males or increasingly hiring of non-Fulani herders to accompany the cattle to dry-season. Town Fulani live much the same way as the urban people among whom they live with and maintain their Fulani identity because of the prestige and other advantages this may entitles their members. In towns, the report further shows that the Fulani pursue the various occupations available to them such as ruling, advisory to the rulers, religious specialist, business, landlord, and trade among others.

Studies show that settlement structures and architectural practices of Fulani are largely affected by Islamic religion. An examination shows that a straightforward progression of provincial settlement has arisen over the Fulani who are firmly weaved to the Hausa of Nigeria (Agboola and Zango, 2014). These researchers clarify that the compound of their

structure is generally founded on the more distant family and regularly sub-separated into areas; each containing family houses and close to this settlement are the piece of a few mixes. At the highest point of the provincial settlement network is the town. The noteworthy towns reflect a reduced nucleated settlement encompassed with a cautious divider. This example depicted by Agboola and Zango was seen over the span of this examination. Particularly with the Tede and Awe Fulani settlements. Truly, the researchers clarify that the settlements of the slave sways on the example of provincial design. As per them, this becomes imitation model in which a ruler or master presents a settlement plot that acquired the slave worker closeness to cultivate.

As indicated by Agboola and Zango (2014), this style of compound development was proposed to encourage the development of the encompassing farmlands, and guaranteed improved use of workforce. Subsequent upon these settlements which have formed into different types of settlement, the researchers note that the metropolitan settlement exists basically in Hausa land, and tends to create city one next to the other. As indicated by these researchers, generally the since quite a while ago existed and new ones regularly started with the advancement of certain types of strategy's contamination of the indigenes by outsider, who are non-Muslim and couple with formative administrations like rail lines. Nonetheless, while the state of security generally assumes a part in choosing why settlement would be nucleated or scattered, Agboola and Zango (2014)explains that the convergence of pioneers and their families living nearer to the commercial centre means that an aim custom fitted towards successful guarded nature, and sums up the improvement of Fulani's nucleated settlement design.Literature review on the architectural designs among the Fulani shows that a Settled Fulani building design is a Sudanese prototype which is also a replica of a typical Hausa-Fulani building. The associated building type was common along the Chad and Niger River basin (Fatiregun 1999). The Fulani prototypic house also incorporates concept of court yard system which are surrounded by adjacent rooms which can accommodate comfortably the household and expansion of the family. Agboola and Zango (2014) assert that the architecture entails allowance for an open air space for interaction of the family. They explain that the religion and tradition however allow privacy and seclusion for wives and women in the household. More so, the prototypic design allows for the front or rostral quarter which is meant for the main house and the rear quarters meant for the wives and women. This is in conformity to Islamic religion. Osasona (2007) for instance, asserts that the

front building have different purposes for socio-religious activities with close restriction to the women quarters. It has been observed that only members of the family and dignified male personalities are allowed to cross the main to the women quarters. The front building functions for reception, discussion area, play area, morality, protection, ethnic ideas, administration and decorations etc.

A study supposes that the local materials for building the Fulani house comprise; earth, reeds, timber, grasses, and stones (Dmochowski, 1990). According to this scholar, the construction hard sun dried pear-shaped bricks moulded from red laterite soil in the neighbourhood, which is rich with high fibre content and moisture. Agboola and Zango (2014) opine that moulding the bricks comprises mixing the laterite soil with water properly and when adequately dried, the bricks are laid in unique patterns in an upward fashion. Afterwards, the walls are earth-plastered to assume amonolithic appearance (Osasona, 2007).

In the development of Fulani house in Hausa districts, Agboola and Zango (2014) attest that the rooftops structures are framed with little entryway space and with almost no window openings which are regularly accomplished with the longing to wipe out the hot, dry and dusty air. They noticed that this avoidance is likewise identified with splendid sunshine and section of air around evening time. These researchers featured that the area and little size of the window help with controlling the attack of residue and flies. As per them, the development of mud rooftops involves split palm frond pieces which are laid on palm frond radiates in herringbone style and further put on the two sides with mud. Putting of the dividers as indicated by them is made with mud containing a combination of potash or juice got from the beetle bean. In the interim, as delineated by these researchers the wide utilization of level or vaulted mud rooftops shows strategy for thwarting the dangers of metropolitan fire avoidance, hence, the detailing of strategies restricting the utilization of covered rooftops inside the metropolitan city. This strategy began the surprising dissimilarity among metropolitan and provincial design among the Fulani and Hausa, Agboola and Zango (2014) declared.

As indicated in writing, while the structures in metropolitan local locations have mud rooftops and rectangular dividers, the ones in sub-metropolitan territories have straightforward cover rooftops over round planes (Agboola and Zango, 2014). All the more in this way, while the wide utilization of mud rooftops respond to extraordinary

temperature contrasts among days and evenings, because of the way that they are semiconductors, the keep up temperature harmony just as support among outsides and insides conditions remained. The presentation of new structure materials like concrete and layered iron sheet from Europe has huge effect on the actual appearance. For instance, the researchers noticed that the folded iron sheets immediately acquired wide acknowledgment, in this way the surrender of conventional cover rooftops which were extremely inflammable. Also, Agboola and Zango (2014) believe that since it is hard to rooftop round structure with rectangular iron sheets, this structure the explanation in certain territories where the essential state of their structure changes to rectangular one. Adamu (2005) sorted adornment in conventional engineering into three gatherings in particular; surface plan, calligraphy and fancy. The creator saw that the three classes could be shown on a solitary veneer of the structure, and the decision relies upon the status and inclination of the clients. As indicated by Denyer (1978) hypothesis, this enrichment may impart some strict or mysterious critical.

Not just among the Fulani of Nigeria, Agboola and Zango (2014) noticed that conventional structures across Nigeria's geological zones are known to have demonstrated a careful reaction to the nearby innovation, atmosphere, and financial milieu which they developed. The source and presence of these distinctive conventional structures partner with the accessible regular materials available by the neighbourhood developers just as strict devotees, and are in accordance with the social practices and restrictions. As indicated by Agboola and Zango, the appearance of expansionism in Nigeria have changed the conventional life and culture of numerous Nigerians and have made a frail association between the customary design and the contemporary engineering in the nation. Latest structure plans across Nigeria and among the Settled Fulani are being worked with imported materials and the development design custom-made to fulfill current ideas. In this way, these researchers place that customary engineering ought not to be deserted however specialists' mindfulness ought to be custom-made to the comprehension of its unique substance.

2.3 Determinants of Architectural Designs among Fulani in Nigeria

Studies have shown that many factors combine to influence the development of architectural designs among the Fulani. Agboola and Zango (2014) identified culture as one of such factors. According to them, an architectural design is a reflection of records

of anthropology and psychology of foremost human settlers. The Fulani settlement and ancestry structure consists of strong brotherhood in keenly knitted society. On the interplay of culture and architectural design, Olotuah (2001) noted that the way of life, is reflected in the architectural designs of housing, societal structures and organisation. Olotuah further corroborated the relatedness of housing designs and the way of life of the people. And as such, housing structures and architectural designs are influenced by and are responses to religion, belief systems, lifestyle, traditional values, contact with other people and ultimately, culture.

The social organisation of the Fulani society in terms of patterns of behaviour among others describes how the people interact through many communal activities and architecture of their housing. Studies of Olotuah (2001) further enumerated three uniqueness of the housing designs in the beliefs and way of life; including 1) Norms and Taboos, 2) Ideas, values and religions, 3) Works and occupation. All these are strongly inter-related because the cultural system of the Fulani and their way of life are influenced by their every day practices, ancestral beliefs, day to day activities and their religion practices. Most of their moral values are largely drawn from the Islamic religion, which has even formed common law and constitutional guide for the Fulani settlement. Their daily activities of nomadism largely performed by the males and some ornamental designs carried out by the females has reflected in their housing architecture which allows for easy detachment and resettlement whenever the family or community has to transit.

Another determinant factor influencing of architectural design among the Fulani is climate. Agboola and Zango (2014) recounted that the climate is one of the key factors influencing the choice of architectural design among the Fulani. The climatic factors include rain, rainstorm, wind, humidity, harmattan and heat. For instance, the Northern part of the Nigeria, the home of most Fulani, lie within the dry savannah zone which is characterised by arid environment with hot temperature, dust, much sunshine, less rain and open dry lands. Therefore, the design of their housing allow for cooling within the hut or house during hot weather, ventilation and appropriate aeration to correct for the excessive heat.

Literature also documented moderating factors as one of the factors associated with the architectural design of the Fulani. As noted by Olotuah (2001), the moderating factors

include: history. According to Agboola and Zango (2014), the contact with colonisation modernised the rural outlook of their settlements. More so, cities have overridden most rural neighbourhood thereby moderrnising typical architectural housing designs except in interior settlements and rugal houses which still retain typical architectural designs. Fatiregun (1999) highlighted the impact of modernisation on the erosion of typical Fulani housing architecture. These were explained further in the context of policies from government, housing estates, residential layout and urbanisation which has led to the abandonment of traditional housing structures and communal styles to the nowadays isolated and fenced self-contain.

Furthermore, the evolution and architectural design of Fulani's house is based on availability of materials (Agboola and Zango (2014). Fulani prefer readily available thatch materials and mud for construction of their houses. They highlighted that due to the fact that the soil in Nigeria is loose and dry, they have learnt to add other materials like cow dung, long grasses etc to allow for more strength of the wall. These have been the case because of their accessibility, cheapness and availability (Adeyemi 2008).

To Ogunnaike (2012) the architectural design of the Fulani can be linked to the concept of everyone is a village. As indicated in his study, everyone is a village illustrates a likely relationship in some way. The village is actually like a "big family", all members of the extended family have roles that are closely linked and that cannot be separated and valued individually. That is, as observed in the course of this study, the house chores and milking of cows the women perform are as important as the tending of cattle and constructions of buildings by the men. Also indicated, is the valuable roles of children in helping their parents. The Fulani male children help their fathers in cattle herding, and got socialized into cattle business, while the female children get socialized by the older women in the clan in preparation for womanhood and childbearing. According to this scholar, the architectural designs or houses themselves consist of thick walls made of mud mixed with cow dung and straw. These thick walls keep the house warm in the winter and cool in the summer. As emphasised by this scholar, many houses are surrounded by high mud walls and large courtyards. Some homes in smaller villages, though, are much more simple huts or tents. Grace (2012) reports that the majority of the homes in the villages are quite scattered into groups.

2.3.1 Traditional Housing Structure of the Fulani

Spatial patterns reflect social processes, and spatial relationships reflect social relations. Man's housing spaces are organized according to their cultural context. There is, therefore, a spatial organization meant to give rise to a spatial order in man's housing environment.

It has been noted that, man's spatial order is not universal since, according to Rapoport (1976), one group's order may be another's disorder. One way by which one can understand the spatial order of the house meant for dwelling is through the preparation of a pattern which may express individual's behaviour or activity patterns within spaces in the housing environment. A house for dwelling is orderly, or it can be made orderly. If there is no form of order in a house for dwelling, it becomes almost impossible to classify the components. By nature, the house for dwelling is a composite issue and there is therefore the need to find out a system of classification that will include all the dimensions of the form and structure of the house. Such form of classification is essential for a systematic study of the structure of a house meant for dwelling, according to Popoola (1984). Thus, a classification on the basis of the functions and operations, content or elements, and structure of the nouse will deal with the composite nature of the house and will be useful for the analysis of housing spatial-morphology as summarily presented below:

- i. Classification by function and analysis
- ii. Classification by contents or elements (to include fixed feature elements, semifixed feature elements) and
- iii. Classification by spatial structure or orders.

While the traditional house can be seen in terms of the four parts, each spatial unit in a house can also be seen in terms of the parts.

People relate to the parts based on their role within the whole unit. Man, for example, acts and behaves in a different way if in a homogenous area, a central area, a special area or a circulatory one. Each part of the structure has to be understood in terms of their functions and operations and each part has to be related to the other parts to be able to appreciate the functioning of the whole.

Popoola (1984) reports the following:

- 1. *Homogenous units*: These are areas which appear as its main parts. In a housing cluster, the houses will form the homogenous parts, while in a house the bedrooms or sleeping areas will form the homogenous parts.
- 2. *Central units*: These areas are those serving other larger areas all around them with special functions. The function of the Central unit would include social, producing, commerce, entertainment or recreational.
- 3. *Circulatory units:* These areas make a provision for the movement of people, goods and information within it, as well as between it and other.
- 4. Special units: These areas are neither homogenous nor central, but form part of the basic circulatory system. For a house, the toilet and the kitchen would be considered as special areas. However, it is regularly observed that this phenomenon is not observed in the contemporary traditional housing settlements that are being traditional in nature and content. One may also conclude that, the spatial formation and transformation of the house goes through the growth and death process. As a result of inheritance sub-division/the growth cycle moves from the youthful stage of the nuclear family to the middle stage of the composite family unit and then to the mature stage before the units break up to start the growth cycles again. The spatial formation of the *gida* may go through a death process when the unit is left unoccupied for a long period. The buildings will collapse leaving heaps of soil. Such dead *gida* can however be revived when the children of the last owner inherited and occupy the site.

2.3.2 Fulani Architecture and Eco-System Adaptation

A related study highlights the importance of housing as an integral component of human wellbeing for existence in the physical environment (Olotuah, 1998). Massoudi and Simonian (1978) posit the optimal criterial for housing objective, it must be equipped with least facilities to keep body, soul and spirit in good state of health and wellbeing. Palen, (1987) corroborated the importance of housing process and conditions to the performance of human activities. Mabogunje, Hardoy and Misra (1987) were able to link housing processes to the provison of shelter and social responsibilities. In the light of Fulani housing, the specifications of traditional houses have met most of these requirements. Rikko and Qwatau (2011) asserted the close relatedness of the Fulani archetypical houses to their cultural heritage and beliefs. Nonetheless, the erosion of

these traditional systems by modernisation has still left some fundamental practices in the Fulani housing architecture (Olotuah, 2001).

Proof from literatures on Architectural design have shown that the nature of the settlement structure reflects the close ties between inhabitants and their customs in the different societal strata. It therefore indicates that the pattern and usefulness of house design differ across human organisation, consequent on what the populace considered as essential in their housing (Agboola and Zango, 2014). Rikko and Qwatau (2011) asserted these observations on housing structures across Nigeria which was reflecting the settlement style, beliefs and tradition. The nature of environmental conditions and the use of local building materials and builders are underscored by the science of building construction in the community.

Environmental factors including topography, weather changes and beliefs contribute to housing architecture of the Fulani and other tribes in pre-colonial Nigeria (Fatiregun, 1999). A study shows that the further reiterated this principle of beliefs influenced by religion, philosophy or cultural leaning of the people in their housing design (Agboola and Zango, 2014). In addition, the nature of these housing constructions is a further reflection of the ingenuity, local intelligence and elementary scientific mind of the people. The fact that they were able to construct portable, impregnable house designs from local materials and in the phase of prevailing environmental conditions really tell of the depth of architectural science in the Fulani and other tribes.

Apart from all the aforementioned, defence from intruders, wildlife, physical environment and orientation to the sun have also modified house designs and construction (Uji 1992). However, these days housing constructions are now largely influenced by the global market (Ruquayya, 2011; Adedokun, 2014).

Museo (2013) emphasises this observation too from his work because the improved material and their availability from the global market like China has informed the new styles of our construction in this post 1990 modernised era. Thus, an edifice requires input of many specialists in the field of design and construction (Françoise, 2001). Research shows that these issues are now the basis of housing construction which has in a way eroded the typical one man approach to typical housing architecture in traditional Fulani and others (Museo, 2013).

2.4 Dwelling Pattern

The Fulani habitat in Nigeria is located in the Sahel to dry savannah (coordinates). These areas are characterised by extreme weather conditions. So their houses are designed bearing in mind these conditions. The floor to roof height, nature of the roof, mud wall, open free space in the street and building close to trees are all in a bid to make the house inhabitable. The nature of their dressing also reduces the amount of heat absorption into the body.

Several religious factors combine to exert considerable influence on Fulani architecture and dwelling pattern. Essentially, the general description of Fulani architecture has a lot of Islamic influence since the incursion of Islam into the North-Eastern part of Africa (Olarinmoye, 2012). The influence is such that the Fulani homesteads are built to barricade the women from the public access. This practice is known as "Bashiga". A "Bashigated" homestead (see plate 1) is deliberately and specifically done in consideration for Islamic injunction of keeping women in enclosure or in purdah. Thus, the houses are designed with two court yards whereby the women are kept in the hind quarters and the male reside in the front quarters.

The Fulani settlement is of common group residing in close proximity with similar interest. this has been the style even pre-Islam. Although, the Islamic beliefs has further strengthened the communal ties, for instance the daily prayers is an opportunity to familiarise with each other, while the festive periods bring but the small and big in the community together.

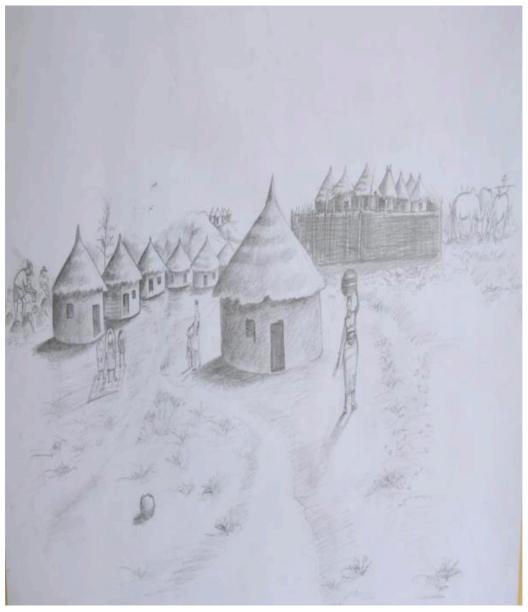


Plate 1: An artistic depiction of the typical Fulani's settlement, showing the "bashigated" area for the women. (Fieldwork, 2017)

2.5. Eco-Cultural Values in Architectural Designs

Cultural values and architectural designs are linked. This has been repeated all through history of human existence irrespective of place, time and space (Krieger 2004, Holm 2006). Usually in a Fulani household, a woman is given the left side of the house, they believe it's a divine arrangement from God. The *wuru* is the functional unit of the Fulani settlement. It comprises the mature male, which is the head of his family.

There are, indeed, various settlement designs among Fulani. In the late 20th century there has been an expanding pattern toward animals' creation and stationary settlement, however Fulani settlement types actually range from customary nomadism to minor departure from sedentarism. As the advanced country state limits the scope of nomadism, the Fulani have embraced ever progressively complex approaches to move crowds among their connected families: the families may live in stable networks, yet the groups move as per the accessibility of water. Throughout the most recent couple of hundreds of years, most of Fulani have gotten stationary.

Those Fulani who stay traveling or semi-migrant have two significant kinds of settlements: dry-season and wet-season camps. The dry season keeps going from about November to March, the wet season from about March to the furthest limit of October. Families are patrilocal and reach in size from one family unit to more than 100 individuals. The regulatory structure, notwithstanding, crosscuts patrilineal and is regional. Families will in general stay in wet-season camp while sending more youthful guys—or, progressively, recruiting non-Fulani herders—to go with the steers to dry-season camps. Town Fulani live in much similar way as the metropolitan individuals among whom they live, keeping up their Fulani personality as a result of the glory and different favourable circumstances to which it entitles its individuals. In towns, Fulani seek after the different occupations accessible to them: ruler, counsel to the ruler, strict subject matter expert, landowner, business, exchange, etc.

Inside both engineering and social qualities there is a long custom of being both enlivened by and re-use plan components of existing structures and items (Flores, 2004). As shown by this researcher, this is the case regardless of whether numerous engineers and modern creators contend that they are fundamentally utilizing their inventiveness to make new and novel plan arrangements. Flores (2004) likewise features that a few planners and modern creators have transparently left themselves alone propelled by

existing structure and items conventions, and have even utilized this motivation as the principle base for their plans arrangements. Writing shows that this plan custom has an impressive history, which can be demonstrated in large numbers of the names related with social qualities. Likewise, as demonstrated by Gelernter (1995) on social qualities and engineering writing, a significant component of custom plan is to re-utilize and be roused by previously existing aesthetical components and styles. The researchers likewise note the connection between social qualities and compositional plan in different viewpoints, for example, useful perspectives, protecting existing structure customs just as individual structures and items.

Social qualities and building configuration shows that plan estimation of reclamation and protection are significant factors. As per Ross (1996), this depends on a promise to protect the best of structures and items for people in the future. Tomlan (2004) clarifies that this plan esteem will in general speak to re-establishing a structure or item to its underlying plan and is normally established in three points of view. As per Tomlan, these are the archaeological point of view (for example safeguarding structures and results of chronicled interest); the imaginative viewpoint for example a craving to save something of magnificence; and the social point of view (for example a longing to clutch the recognizable and consoling).

A few chips away at the way of life and engineering show the job of vernacular plan an incentive in structural plan guesses that worth depends on a conviction that a straightforward life and its plan, firmly connected to nature, are better than that of advancement (Oliver, 2004). As indicated by Weisman (2000), originators that cling to the compositional and culture configuration, in light of sex, commonly have an attention on making structures that don't have the very obstructions that kids, guardians and the old involvement with a significant part of the assembled climate. As shown by this researcher, it additionally infers an emphasis on feel that are considered to be more 'ladylike' than the 'manly' style regularly made by male creators.

An examination recommends that the different kinds and styles of conventional houses can be grouped dependent on the type of rooftops and sometimes the varieties as characterized by the quantity of segments (Yuan, 1987). A connected report led by Hosseini and Shahedi (2012) noticed that the various calculations of the rooftop shape in the customary houses are critical according to the heat and humidity. They clarify that the varieties in typology of customary houses are a response to the heat and humidity and social estimation of areas. On the side of these, they gave a record on the building of the floor of conventional houses on the braces to defeat the sogginess of under ground, flood, and furthermore encourage ventilation. Furthermore, Nasir and Teh (1997) believe that the development of high inclined rooftops, as comfort gadgets for clients against blistering and moist climate, through vulnerable spaces under the rooftop overhang, shows social qualities in engineering plans. As per them, the rooftops are planned on structures to shield the houses from occasional downpour falls.

Furthermore, an examination clarifies how lodging plans are made regarding the requirements and abundance of tenants (Iskandar, 2001). An investigation shows for instance that the spatial association of conventional houses gave accommodation to tenants by thought of their social capacities, day by day needs, and exercises of standard individuals (Mohamad, 2007). The vulnerable inside spaces of a customary house express impact of culture in space the board. As indicated by Mohamad (2007), social convictions are instrumental to characterizing the situation of a man or a lady in their homes. Inside a house, there are multipurpose spaces at various degree of the structure, communicating least isolating parcels and the progressive request of the estimation of spaces (Sim, 2010).

An investigation shows that houses are the most basic engineering wonder that plays out the humanistic, legends, and social instrumentation of every day needs of society's (Mohamad, 2007). This clarifies why houses are homogeneous and logical to their fabricated climate. In an examination led by Hui (2011), for example, customary houses are of basic and clear constructional legacy, which is because of compassion and collaboration of clients, method of development, and antiques put away through ages. The plan stylish nature of customary engineering depends on innate requirements of individuals for making a tolerable spot, versatile to ecological conditions. Consequently, as Ismail (2002) writes in his work, a social society's engineering configuration is arranged in a structure that can be sent to people in the future to protect cultural social roots.

Writing features that the idea of natural and engineering multi-usefulness is exceptionally useful in planning a decent structure. Frequently time, anthropogenic compositional and natural investigations are controlled to serve capacities, for example, cropland for the creation of food, or parks for diversion. Lovell and Johnston (2009) represents that both part of studies and their relationship can be coordinated into the financial, natural, and social measurements for compositional plan and scene the board. Writing uncovers that a multifunctional environment offers openings for houses to deliver administrations in various manners (de Groot 2006). An investigation shows that multi-usefulness with regards to practical improvement proposes that different natural, financial and social capacities are given by the scene (Wiggeringet et al. 2003). The methodology recommends that human don't need to pick between the apparently fundamentally unrelated objectives of protection and urbanization, however that they need to plan a design or scene considering numerous objectives (León and Harvey, 2006). In spite of the fact that the idea of multi-usefulness identified with anthropogenic engineering configuration, has been investigated in Europe and Asia, it has gotten restricted consideration in some piece of the world, where the potential advantages are either incredible or less because of the accessible asset and territory of land (Groenfeldt, 2006).

Writing reports that compositional plan and nature research currently energizes the improvement of multifunctional plans that give feasible biodiversity preservation, and security of environment administrations (McNeely and Scherr 2003). An investigation features that the expansion of biodiversity preservation as a particular objective has fundamental ramifications for environment working (Tscharntke et al. 2005), especially as biodiversity and environmental heterogeneity are lost with engineering plan and land-use heightening (Benton et al. 2003). Expanding on the idea of structural plan and nature multi-usefulness, research considers the chance to plan rural scenes and structures all the more innovatively to improve creation and biological capacities at the same time (McNeely and Scherr, 2003).

Examination demonstrates that the plan of the structure and scene structure offers probably the best chance for improving biological execution. It noticed that the fix hall network idea was created to set up a language of scene and building structure, fundamentally communicated through spatial example and plan. Inside this model, the scene is viewed as a mosaic comprising of three significant components. These are: "patches" of discrete regions comprising of normal or presented vegetation varying from the encompassing scene, "halls" that interface and give linkages among patches, and the "framework," comprising of the prevailing scene type (Forman and Godron, 1986). A

show that in spite of the fact that the fix passageway grid idea has significant ramifications for economical design arranging (Blaschke, 2006), these examples might be less clear in exceptionally divided anthropogenic scenes. A fairly late examination proposes that as opposed to zeroing in just on huge, excellent fixes and assigned hallways to interface them, a superior methodology may be to improve the nature of the framework in rural and metropolitan building plan (Vandermeer and Lin, 2008).

Baudry et al. (2003) recommend that it is currently imperative to accomplish more than consider natural surroundings in a paired world that diminishes a scene or building plan to two essential classes; reasonable territories and dreadful framework. All things being equal, examination ought to think about heterogeneity and availability in plan, alongside biodiversity, as great markers of environment work (Andersson 2006). Bailey (2007) suggests improving the nature of the lattice by diminishing area use power, expanding and securing semi-common environments, and expanding by and large heterogeneity. Exploration noticed that while urbanization and farming have brought about natural surroundings misfortune and discontinuity, which compromise biodiversity through nearby eradication of local species (McKinney 2002), purposefully planning heterogeneity into the structural plan can improve biological system administrations in metropolitan and rustic biology by expanding capacity and flexibility (Fischer et al. 2006). Benton et al. (2003) recommend that the nature of rural frameworks would be improved by the particular goal of advancing heterogeneity in the building plan, as it would bring about more noteworthy biodiversity in biology. Examination shows that heterogeneity and biodiversity can be expanded in design horticultural scenes by the expansion of, or preservation of, woodlots or lush fencerows (Freemark et al., 2002), normal woody hedgerows (Boutin et al. 2002), and live fences (León and Harvey 2006).

Exploration demonstrates that the twentieth century has been set apart by the reappearance of environmental qualities in social orders (Flores, 2004). In this way, the current worry for the biology or climate isn't new and can be found to a changing degree since forever. It is established in various viewpoints including the point of dealing with the environments for supported asset yields (reasonable turn of events), and the possibility that everything in nature has an inborn worth (nature security and conservation) (Gelernter, 1995). Explanations are to be made handy for coming generations about how environmental problems of the nineteenth and twentieth centuries led to how sacrosanct it is to incorporate environmental values in western societies.

2.6 Economic Development Material Culture among the Fulani

Literature shows a link between development and material culture in architectural studies. The most useful economic gain of material culture is to develop a touristic template round it. It indicates that tourism is one of the economic success stories of the last 40 years. It emphasises that it has grown into a major component of the world economy and one of the most highly developed and dynamic industries with an important contribution to incomes and employment (Khaksar, Tahmouri and Hoseinrazavi, 2001). A study reveals that tourism has been a rapidly growing sector and a wide-sweeping socioeconomic phenomenon with broad economic, social, cultural and environmental consequences. Thus, it is likely that tourism will continue to dominate the international scene and architectural design for many years to come (Sharma, 2011).

Sharma, (2011) asserts that the environment is probably one of the most important contributors to the desirability and attractiveness of a destination. Scenic site, amenable climates and unique landscape features have an important influence in tourism development and the spatial distribution of tourist movements. Apart from environment, the other important tourist puller is culture in all its diversity across continents. Cultural tourism has long existed, but recent demographic, social, and cultural changes in the main source countries have led to an increasing number of new niche markets in destination countries, including culture-oriented holidays.

A study notes that like other forms of development, tourism has also contributed to its share of problems, such as social interruption, loss of cultural heritage, economic dependence and ecological degradation (UNEP, WTO, 2005). These scholars opine that learning about the brunt of tourism has led many tourists to seek more conscientious holidays. According to them, these incorporate various forms of sustainable tourism such as: 'nature-based tourism', 'ecotourism' and 'cultural tourism'. However, they noted that the major problems arise because the environment (at least in the short term) is a zero-priced public good and as with any zero-priced good, is subject to excess demand and over-utilization. This over-utilization of the natural resources and exploitation of cultural heritage especially during the peak periods of tourist activity as well as often ill planned tourism development, have provided a number of examples where tourism is in conflict with the environment (Coccossis and Parpairis, 1995).

Literature indicates that not only that, as a result of environmental consciousness, a great number of alternative forms of tourism been developed in the last decade. And sustainable tourism promotes limited-scale, low-impact, and community-based activities (Sharma, K (2011). It therefore indicates that tourism gives emphasis to the contact and understanding between the hosts and the tourist, as well as the environment (Smith and Eadington, 1992). A related study adds that tourism consistent with the natural, social and community values and that allows a positive relationship among locals and tourists (Wearing and Neil, 1999).

Research shows that sustainable environment requires sustainable design. Architecture and design can preserve the memorable and old monuments while it can also create new and attractive qualities in which people can use and enjoy (Khaksar et al, 2001). Architecture has the talent of defining spaces and therefore has a powerful influence on the human behaviour and understanding and this is exactly what is always taken into account in sustainability, maximizing economic benefit and preserving the ecosystem (UNEP and WTO, 2005). A study further suggests that what should be the approach to this design to achieve all goals of sustainable tourism or rather what are the tools and principles of architecture that need to be adopted to embrace sustainable tourism need to be developed. Thus, the question to be answered is what should be the architectural approach for sustainable tourism? (Sharma, 2011).

Literature of architectural designs explains that sustainable tourism is often considered to be a special kind of tourism that appeals to a market niche that is sensitive to environmental and social impacts (Khaksar, et al, 2001). According to these scholars, this is a narrow view as sustainable tourism is much more than a discreet or special form of tourism. To them sustainable tourism refers to a fundamental objective to make all tourism more sustainable, especially within the emblem of architecture. Smith and Edington (1992) opine that it is a continual process of improvement, one which applies equally to tourism in cities, resorts, rural and coastal areas, hills and protected areas. To them, it should be thought of as a condition of tourism, not a type of tourism.

In relation to material culture and architectural design, a study emphasises that sustainable tourism is based on the three 'pillars' of sustainability (economic, social and environmental) and is simply defined by the World Tourism Organization (WTO, 2005) as: "tourism that takes full account of its current and future economic, social, and

environmental impacts, addressing the needs of visitors, the industry, the environment and host communities." Ozgen (2003) reiterates that tourism has been one of the economic success stories of the last four decades. Ozgen emphasises that it has grown into a major component of the world economy and today it could be considered one of the most highly developed and dynamic industries with an important contribution to incomes and employment. According to him, part of it being in less developed regions has spread economic development and reduces inequalities in the geographical distribution of income (Özgen, 2003). A study notes that tourism at the same time is increasingly becoming an important subject in environmental and social sciences as a result of many socioeconomic and environmental factors influence the movements of people (Nijkamp, 1974).

A study reveals that the major factors, which have contributed to the rapid growth of this activity are the rise in incomes, increase in the time available for leisure, and the advent of declining costs of travel among others (Wearing and Neil, 1999). Tourism grew at such a scale that, within a short period of time it almost tripled from 160 million international arrivals in 1970 to 430 million in 1990 (WTO, 1991). Today, we expect more than this figure even though a report on this is yet fetched. Research shows that tourism has been rapidly growing sector and a wide-sweeping socioeconomic phenomenon with broad economic, social, cultural and environmental consequences. It is likely that tourism will continue to dominate the international scene for many years to come (Özgen, 2003) noted.

Literature shows that environmental protection has become a major issue in the recent years. In general, it indicates that most people realize that the planet has quite limited resources and therefore attempt to identify various methods, which will enable its preservation. "Despite the recognition of the long history of the environmental problem, it should be noted that until the beginning of the twentieth century, in general only relatively modest environmental changes were taking place as the prevailing technological and economic was unable to alter environmental condition on earth dramatically" (Nijkamp, 1992:1). To buttress this, literature reveals that the environment is probably one of the most important contributors to the desirability and attractiveness of a destination. It shows that scenic site, amenable climates and unique landscape features have an important influence in tourism development with regard to tourism and

architectural design is seen as design for a development that meets the needs of the present without compromising the ability of future generations to meet their own needs, required in order to preserve the environment as an asset for the tourism industry (Özgen, 2003).

Research shows that tourism has also been responsible for a great number of environmental problems. Evident in literature, the major problems arise because the environment (at least in the short term) is a zero-priced public good and as with any zero-priced good, is subject to excess demand and over-utilization. Hence, the overutilization of the natural resources, especially during the peak periods of tourist activity as well as often ill planned tourism development, have provided a number of examples where tourism is in conflict with the environment (Coccossis and Parpairis, 1995).

Literature indicates that as a result of environmental consciousness, a great number of alternative forms of tourism has been developed in the last decade. Various names are utilized to demonstrate the typologies of the environmentally tourist. According to Özgen, (2003) this includes green, soft, eco, sustainable, responsible, or alternative tourism is some of the terms for to describe the new tourist. This new trend prefers the places which are not destroyed by the mass of tourists. Sustainable environment requires sustainable design, and sustainable design solutions for the continuity of the traditional architectural environment can be seen in the Greek Islands (Özgen, 2003).

We can trace tourism as an important aspect of material culture and promotion of material wealth of a people to Greece. literatures reveal that tourism for Greece had played an important role in the maintenance of financial stability (Drettakis, 1996). It highlighted that in the Greece, the tourism development started after the end of the Second World War. It reports that the tourism arrivals from 210.000 in 1956 were increased to 5.557.109 in 1981 and 8.351.000 in 1988. According to the predictions of tourism arrivals in Greece, the arrivals present augmentative tendencies during 1997-2005 and will be increased per 36,3 times in relation to 1969 (Varvaressos, 1998). The 85% of the tourism movement takes place on May-October while the full months, when the 50% of the tourists visits Greece, are July, August and September (Drettakis, 1996).

This demonstrates intensively the seasonal characteristic of tourism in Greece. The specific data concern mainly coastal areas, islands and specialized in foreign tourism that possess big hotel units, either as specialize local tourism, mainly under the form of

summer residence (Varvaressos, 1998). The visitors in Greece come mainly from Europe and especially, from countries of the European Union (Germans and British) and, in a smaller percentage, from North America. Thus, noticed the dependence on the international tourism in Greece (Drettakis, 1996). It added that the main tourism destinations are Rhodes, Corfou, Creta, Calchidica, Mykonos and Santorini as weell as Attiki - however lately there is a series of other smaller destinations (Voultsaki, 2000).

Okpoko and Okonwko (2005) record a tripartite relationship that exists among heritage management, conservation, and tourism. According to them good heritage management ensures that tourism and conservation complement each other; in turn, conservation and tourism are complementary factors in the management of heritage sites. They opine that the attempts to address heritage management in Africa must seek to satisfy this trinity and encourage the sensitive blending of modern and traditional practices. Similarly, Millar (1993) opines that the emerging trends in sustainable heritage management in Africa demand the integration of local concerns with modern heritage management.

Okpoko and Okonwko (2005) state that tourism is shrouded in the legacy of a people. Accordingly, the travel industry and culture board make policies that cover the public or private activities of the tourism industry, to ensure thesafekeeping of public zones, common wealth and social assets, including the insurance and protection of natural surroundings, species, relics, landmarks, and locales of verifiable significance. As indicated by these researchers, legacy is once in a while utilized reciprocally with social assets by the policy makers. However, the last is restricted to man-made curios, destinations, and the constructed climate. Legacy locales make significant commitments in supporting human culture particularly through moderating the world's characteristic and social legacy (United Nations Environmental Program and World Tourism Organization, 1994).

Examination shows that separated from keeping up delegate tests of biological systems and saving organic variety, ensured territories frequently are focuses of ecological soundness for their areas. Legacy locales "can give chance to country improvement and level-headed utilization of negligible grounds, for exploration and observing, for protection, training and for entertainment and the travel industry (United Nations Environmental Program and World Tourism Organization, 1994). Without a doubt, legacy destinations assume a significant part in advancing the travel industry in many agricultural nations like Kenya, Rwanda, South Africa, India, Costa Rica, Indonesia, and Ecuador, legacy among others in light of the fact that their locales are significant global vacation spots.

Okpoko and Okonkwo (2005) attest that the extraordinary and most engaging parts of Nigeria's social legacy keep on furnishing the general population with excellent and truly critical spots that are connected to public personality and the pride of the nation and its kin. As indicated by these researchers a few backers for the formation of public parks in Nigeria see them as a method for guaranteeing the proceeded with endurance of legacy destinations and as a segment in propelling the nation's scholarly and material turn of events. A sound administration plan that joins contribution from the local area and concessionaires is important in receiving the rewards of the travel industry they proposed. This is on the grounds that, as per them, local area input "energizes an attention to, and pride in, the normal and social legacy of the local area and simultaneously empowers the local area to be proactive in advancing what it sees as interesting as far as building up a suitable vacationer methodology for the territory.

Robert (1996) believes that an appropriate mix of present day and conventional practices is required in legacy site the board. As far as he might be concerned, the fruitful administration of a legacy site includes affectability to the prerequisites of both the legacy assets and the local area of which they are a section just as the requests of either short-stay or long-stay guests. Consequently, his recommendation that a mix of procedures is crucial for effective legacy the board in Nigeria and permits engineers to survey all the information accessible from each source and pick what is most appropriate to the current case. Robert presumes that cutting edge strategies are not by any means the only road towards feasible legacy the board, especially in non-industrial countries.

The travel industry and structural plan writing show that the development of engineering and modern plan thoughts which occurred during the only remaining century has made a different stylish reality inside these two spaces (Steer, 2004). As indicated by Krieger (2004) this pluralistic and assorted tasteful reality has commonly been made inside various compositional and mechanical plan developments, for example, innovation, postmodernism post-constructivism and new articulation. Flores (2004) attests that all tasteful real factors speak to a couple of dissimilar stylish qualities. Notwithstanding contrasts all in all qualities and speculations found inside these developments, a portion of the complex differentiations found in these assorted stylish real factors reflect significant contrasts in plan esteems and thinking (Flores, 2004). Despite the fact that, Gelernter (Tilman, 2004) have contended that this isn't the situation for every single expressive differentiation, as some complex qualifications expands on comparable reasoning and qualities.

Writing shows that tasteful qualities and their assorted stylish articulations are somewhat an impression of the improvement that has occurred in the workmanship local area (Oliver, 2004). Also, Morton (2004) thinks that more broad changes have occurred in Western social orders, because of innovative turn of events, new financial real factors, political changes and so on In any case, to Flores (2004) these assorted tasteful articulations reflect singular draftsmen and modern originators' very own appearance, in view of planners' inclination to try different things with structure, materials, and adornment to make new stylish styles and stylish jargon. As per this researcher, changes in tasteful styles and articulations have been, and still are, both synchronic and diachronic, as various stylish styles are delivered and advanced at the same time. Steer (2004) noticed that few qualities which can't be delegated stylish plan esteems have impacted the improvement of the tasteful reality, just as added to the pluralistic tasteful reality which portrays contemporary engineering and modern plan.

Masterful and the travel industry research underlines that aesthetic and self-articulation in engineering configuration is described by a conviction that singular self-articulation or one's inward profound self and innovative creative mind, internal assets and instinct ought to be used or potentially be the base utilized when planning (Gelernter, 1995). An investigation reports that these estimations are firmly connected to a few creative qualities found in developments like expressionism and Avent-grade workmanship (Fedders, 2004). Subsequently, this researcher sets that this plan esteem is firmly identified with conceptual structures and articulation, individual imaginative freedom, elitism and being in front of the remainder of society.

On the travel industry and soul of the hour of building configuration esteem, writing shows that the plan esteem depends on the origination that each age has a specific soul or set of shared mentalities that ought to be used when planning (Hume, 1965). This researcher contends that the soul of the Times indicates the scholarly and social atmosphere of anera, which can be connected to an encounter of a certain perspective,

feeling of taste, aggregate awareness and obviousness. Subsequently, structure articulation which can be found, somewhat "noticeable all around" of a given time and every age, ought to create a tasteful style that communicates the uniqueness identified with that time (Brolin, 2000).

Studies on the underlying, practical and material genuineness configuration esteem guesses that primary trustworthiness is connected to the thought that a structure will show its "actual" reason and not be enriching and so on (Brolin, 2000). Examination shows that practical genuineness is connected to the possibility that a structure or item structure will be moulded based on its planned capacity, regularly known as structure, follows work (Kaufmann, 1995). Then again, material trustworthiness infers that materials ought to be utilized and chosen on the bases of their properties and that the qualities of a material should impact the structure it is utilized for (Nesbitt, 1996. Along these lines, a material should not be utilized as a substitute for another material as this sabotages the materials genuine properties and cheat the onlooker (Whiteley, 1993).

Writing demonstrating the oversimplified and insignificant plan an incentive in engineering and the travel industry shows that such plan esteem depends on the possibility that basic structures, for example, style without significant decorations, straightforward calculation, smooth surfaces and so forth, speaks to structures which are both more genuine to genuine workmanship and speaks to people insight (Ruby and Ruby, 2003). An examination uncovers that this plan esteem suggests a more developed an individual turns into, the more enhancement vanishes. Likewise, it states that it is connected to the idea that straightforward structures will liberate individuals from the ordinary mess, accordingly add to serenity and tranquility (Aldersey-Williams, 2003).

To support the part of nature and natural plan an incentive in the travel industry and compositional plan writing survey show that plan esteem depends on the possibility that nature which incorporates a wide range of living beings, and mathematical laws among others can give motivation, useful hints and tasteful structures that planners and mechanical creators should use as a reason for plans (Pearson, 2001). An investigation recommends that plans dependent on this worth will in general be described by free-streaming bends, hilter kilter lines and expressive structures. Along these lines, as clear in the writing, this plan worth can be summarized in structure follows stream or of the slope instead of on the slope (Fedders, 2004).

2.7 Theoretical Orientation

2.7.1 Theory of Acculturation

Acculturation is, without a doubt, a centre build in contemporary social research about ethnic gatherings; and, despite the fact that, changes can result from practically any intercultural contact (Arnett, 2002). Acculturation is quite often concentrated concerning people living in nations or areas other than where they were conceived and are now very comfortable to this new place or country. Models incorporate, settlers, displaced people, shelter searchers, and sojourners (e.g., global understudies, occasional ranch labourers (Berry, 2006). Assimilation alludes to changes that occur because of contact with socially different individuals, gatherings, and social impacts (Gibson, 2001). Practitioners and researchers alike have underscored the need to consider the effects of acculturation on various individual behaviours and conditions, such as mental health status, substance abuse, socioeconomic standing, and culture maintenance and diffusion. Although uncertainty about the nature and processes of acculturation still exists, the study of this construct compels us to consider the behaviours and beliefs of different ethnic groups in multicultural societies.

A consistent belief by anthropologists seems to be that acculturation is important in considering the behaviour and beliefs of members of ethnic groups in any multicultural society. Furthermore, a broad consensus among researchers is that individuals who are exposed to a different cultural context exhibit a "complex pattern of continuity and change in how they go about their lives" (Berry, 1997:6).

As a construct in the social and behavioural sciences, acculturation has an early history of benign neglect. The late 1990s to year 2020 have nevertheless been characterized by a resurgence of interest in defining, measuring, and reconceptualising acculturation to understand its role in shaping people's attitudes, norms, values, and actions. Early interest in acculturation primarily began in the anthropological community, which set out to describe the nature and effects of contact among distinct cultural groups. Many anthropologists focused on defining and properly understanding the dynamic processes that occur when cultures interact.

Redfield, Linton, and Herskovits (1936) established one of the first classical definitions of acculturation-encompassing changes in original cultural patterns that occur as a result of ongoing contact among groups of individuals with different cultures. In 1954 the Social

Science Research Council proposed an expanded definition by stating that acculturation is the merger of two or more independent cultural systems, leading to dynamic processes that include the adaptation of value systems and transformation within relationships and personality traits. This definition suggests assimilation is not necessarily the only outcome possible when cultures interact, and acculturation is a selective process that may cause changes in one area of human behaviour but not in another. Despite their long history, these initial conceptualizations of acculturation continue to influence our current thinking in the field.

Recently, researchers have been trying to develop more sophisticated acculturation measures and assess the impact or relationship of acculturation with a panoply of behaviours, beliefs, attitudes, and perceptions. Our understanding of acculturation in the psychological literature has increased significantly with the development of conceptual frameworks (e.g.Padilla, 1980; Berry, 1990), analyses of methodological constraints (e.g.Olmedo, 1979. Berry, Trimble, & Olmedo, 1986, and appearance of critical reviews of the literature (e.g. Berry & Sam, 1996; Ward, 1996).

As is true with significant portions of research on ethnic groups, many seminal publications dealing with theoretical and empirical issues on acculturation appeared in difficult-to-find sources or ephemeral outlets. These circumstances produced a situation in which advances in the field sometimes went unrecognized and the significance of the construct was obscured. Studies (e.g., Berry & Sam, 1996; Ward, 1996) have helped to alleviate this problem, and this study is one more attempt to apply the theoretical grid of acculturation to actual life phenomena, this time the Fulani-Yoruba interaction as a basis for adaptations of architectural designs and patterns. Would the RUGA policy help in furthering the seemingly peaceful coexistence observed as at the time of this data gathering? Because it became obvious that the settled Fulani around Oke-Ogun are already seeing themselves as Fula-Yoruba, wanting to maintain their architectural designs and everyday norms. Their hosts think they still need to be checked, that "oko o ki n'je ti baba t'omo, ko ma l'ala!" (There must be boundary in the farmlands of a father and his son), that loosely translate to mean the Fulani cannot claim ownership of the lands despite their relationship over the decades. One of the reasons for the resistance is the constant conflicts between the nomadic Fulani herdsmen and the native farmers in the area. Could acculturation help even the Bororo? How would the conflict be eradicated in the scheme of events? These two questions were mostly answered by the native Oke-Ogun informants.

The Yoruba of Oke-Ogun extraction would not want a total assimilation of the Fulani, while the Fulani would want the land and maintain their identity.

CHAPTER THREE

RESEARCH METHODOLOGY

It is necessary to explain the means by which the data used in this study was gathered, described, and analysed. Literature sources, ethnographic procedures, and analytic strategies will be discussed. The objective being to expose the processes by which the discursive structure of this research achieved its goals.

The study was conceived as an ethnography because it involved describing only those aspects of Fulani life and culture that have direct relevance to this study. In this regard, the research methodology hinged on ethnographic fieldwork that enabled the researcher to make observations and conduct interviews while constantly visiting the people and observing in the daily life.

3.0 Study Population

The primary targets of this study are the Settled Fulani migrants living permanently in Oke-Ogun, Atisbo Local Government Area, Oyo state, Southwest Nigeria. The pastoral Fulani in Oke-Ogunare about five thousand in population (Kolawole, 2008), this is one of the largest concentrations in the country. They work mainly as herdsmen. However, some of them also work as traders, well diggers, and menial workers. The study covered the Settled Fulani migrants of all ages, professions, and social classes found in settlements of Tede, Ago-Are and other such communities around Atisbo Local Government Area. The study also cross-checked data with some other Settled Fulani communities that have links with the Ilorin migration. These communities include, Saki East, Iseyin and Awe in Oyo West local government.

Atisbo Local Government Area Headquarter is in Tede Town. Created in 1996 by the former Head of State, Late General Sani Abacha. The local government is bordered in the north by Saki Local Government, in the East by Republic of Benin, in the south by Itesiwaju and Iwajowa Local Governments and in the west by Orire Local Government. The name Atisbo is an acronym for the six communities that made up the local government. These are Ago-Are, Tede, Irawo, Sabe, Baaji and Ofiki.

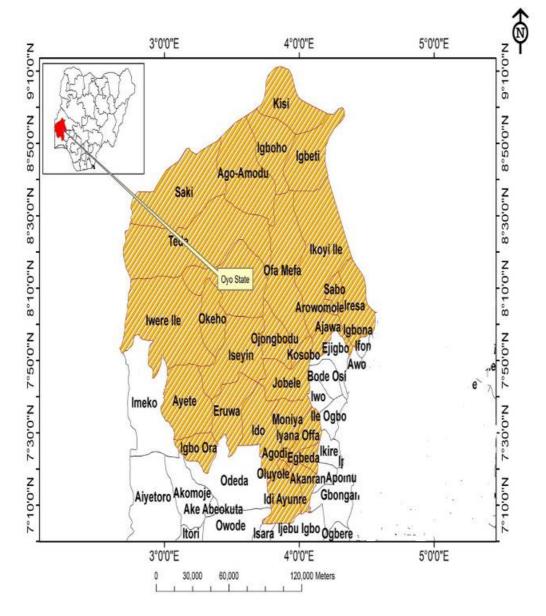


Figure 3: Map of Oyo State Showing the Study Areas (Department of Geography and Planning, Lagos State University)

3.1 Sampling and Sample size

The study design was exploratory, and involved the use of ethnography and intensive field work that lasted two and a half years. The study adopted the use of Photographs (taken during fieldwork), observation, qualitative in-depth interview (IDI), informal conversations, and focus group discussion.

The sampling population comprised the entire Fulani settlements in Atisbo Local Government, Oyo State, Nigeria. Members of the sample were selected through purposive and random sampling. Key informants and members of the focus groups were purposively selected from different categories of the populations, with regards to their knowledge of the subject matter. The informants included the traditional rulers, chiefs, and Fulani in Awe, Saki, Iseyin and Tede. The average number of minutes spent per informant was roughly thirty-five (35) minutes.

Informants for IDI's were selected through simple random sampling technique at different places such as mosques, markets, streets and Fulani homesteads. However, criteria for inclusion include ethnicity, age, and willingness to participate in the study. In all, 70% of the informants were selected using simple random sampling methods particularly for those included in the IDI's, while 30% others were selected using purposive sampling methods of data collection.

3.2 Method of data collection

3.2.1 Participant Observation

The study relied more on participant observation. Participant observation is one of the main research methods in ethnography. The researcher participated in the discussion. The researcher, because of the observation method employed, enjoyed the advantage of recording the people in their natural state, free of interference. The researcher using the five human senses of sight, hearing, smell, touch, and taste, could blend with the people or environment without obstructing the natural flow of their relationship and actions and also key into active roles in their daily activities to obtain information.

The researcher spent an estimated number of 28 months from April 2015 to March 2017 living and researching in all Fulani settlements in Atisbo Local Government Area. Considerable time was spent studying the social organizations and institutions of the Fulani and observing the trends and patterns in the construction of their homes. In this, the

research and assistant researchers were assisted by Abdullahi, who helped in locating the nomadic, semi-nomadic and Settled Fulani settlements. After locating each of the Fulani settlements, the assistant helped in sourcing information from the men on when they plan to build their huts or thatch the roofs of their house with locally sourced natural products (e.g. bamboos, grasses, clay etc.).

The researcher observed the men as they constructed their homesteads and asked questions about the significance (both ecological and cultural) of the materials and the architecture for an insight into the significance of each construction. The researcher observed the homesteads of the adult men, adult women, younger men and younger women and noted the furniture and space utilization.

Moreover, the researcher observed the contributions of the women to hut constructions, and their activities when they are milking cows and making cheese for consumption and sales. The researcher observed that some settlements only consisted of mud walls and grass-thatched roofs; some have only houses with grass wall and roofs; some have mud walls and thatched roofs while some settlements have houses constructed with bricks and iron-corrugated roofs. Some settlements have two or more types of houses.

In the course of participating and observing, the researcher took photographs of events, actions and encounters that were relevant to the general and specific objectives of the study. This was done with the consent of the informants. The different types of homesteads were captured bearing in mind their location and the status of the individuals or households inhabiting or using them.

As mentioned earlier, the researcher visited three Fulani homesteads in Awe, Oyo State because they were identified in the continual reference to the Oyo Acculturated Settled Fulani of same Ilorin migration. The visit was done to learn the specific history, culture affiliation and dialects of Yoruba, spoken by the Fulani. The settlement patterns, physiology and architectural designs were compared with that of the Fulani in Atisbolocal government.

3.2.2 Key Informant Interviews

Six (6) Key Informant Interviews (KIIs) were conducted in Tede; with the Oba of Tede; the head of Fulani community, a member of Oba's council; an Official of Atisbo LGA, A teacher at the nomadic school and a trader. Three (3) were also conducted in Ago Are; with a Fulani herdsman; the head of Fulani traders and the head of Yoruba traders and three (3) were done in Awe; two (2) family heads and one (1) Fulani housewife. A cordial interaction was maintained with the key informants during the fieldwork and thereafter. In the case of Tede and Atisbo, the researcher got in touch with these informants through Abdullahi, that was recruited as a field assistant. However, it was the researcher that had direct contact with informants in Awe.

The researcher visited informants at their homes and observed the various cultural practices with specific regards to house constructions and preferred architectural design. A considerable time was spent in the homes, asking them questions on their views of patterns of house constructions. We in the course of interactions interrogated issues of the inadequacy or sometimes lack of local raw materials (such as grasses) for the constructions of houses and how this affects local adaptation.

Some of the interviews were unstructured. That is, they took the form of informal conversations. Some were in-depth, and the participants were selected through purposive sampling. The purposively selected candidates were selected based on in-depth knowledge of the trends in the pattern of architectural designs in Fulani settlements.

3.2.3 Focus Group Discussion

Another ethnographic method employed in this study was the focus group discussion. One (1) FGD was held at Saki to validate data regarding the conflict that ensued and became catalyst to the siting of the cattle market at Ago-Are. One (1) FGD was held in Ago-Are Cattle Market, two (2) FGDs were held in Awe and three (3) FGDs were held at Tede in Atisbo Local Government. Summarily, the researcher conducted seven (7) focus group discussions. Each group had a minimum of six (6) participants of the same characteristics. There were discussions for elderly men, elderly women, younger men and younger women.

The discussion specifically focused on the Fulani transiting from their original pattern of traditional architectural to a modern one; and examined the effects this has on their culture and social construction of coping strategies.

3.2.4 In-depth Interview

The researcher employed in-depth interview method of data collection to corroborate data collected from previously explained methods and to ensure that overall, data collected were rich and broad. In-depth interviews are techniques designed to elicit deep meaning and interpretation from a participant's perspective on data gathered. Thirteen (13), Twenty-one (21), twenty-four (24) and thirty-eight (38) in-depth interviews were carried out at Awe, Iseyin, Saki and Tede respectively.

3.3 Data Analysis

The data in this thesis was content analysed and is presented in ethnographic narratives. The analysis started with data identifying and developing themes pertinent to research objectives in the data collected. What emerged was a cultural portrait of the social group, based on the views of the members of Fulani groups and the researcher's own interpretation of their statements and contexts.

The verbal and non-verbal expressions of the people and the observed scenes were valuable to bringing out the ecological and cultural values of architectural designs.

3.4. Ethical Consideration

Basic research ethics were observed. Ethical approval was sought from the University of Ibadan Ethical Approval Board. During the fieldwork, informed consent was sought, right of retraction was granted. Similarly, informants were interviewed while respecting their security as paramount.

About 83% of the informants refused their names to appear in the print version of the research report, thus they were anonymized, using the letterings to mean their gender and name of town, for example, X stands for male, F stands for female, XY for young adolescent and the first letter of town of the informant follows, so that XT means a male from Tede. Since the Fulani in Oyo North regularly have friction with their Yoruba neighbour, they refuse acknowledgement of their personal duties such as names for fear of misinterpretation.

CHAPTER FOUR

DATA PRESENTATION

This section commences with the socio-demographics of the informants, and the ethnographic narrative of the landscape and architecture which formed the ethnographic background of the field research in Oke-Ogun. The data presentation encapsulates an exploration of the social construction in the styles and locations of how Fulani people build houses, among themselves, and among their neighbours. There is also a documentation of types of architectural designs and their significance to the Fulani in Oke-Ogun, and a perspective on the touristic potential of architecture.

4.1 Demographics of the Informants:

Table 1: Socio-Demographics of Informants

Socio-Demographic Characteristics of Informants	Frequency	Percentage
Age		
15-24	5	3.3
25-34	12	8.1
35-44	30	19.8
45-54	13	8.6
55-64	26	17.2
65+	65	43.0
Total	151	100
Sex		
Male	123	81.5
Female	28	18.5
Total	151	100
Religion		
Christian	24	15.9
Muslim	127	84.1
Total	151	100
Occupation		
Trading	30	19.7
Oba	1	0.7
Civil Service	1	0.7
Herding	72	47.7
Farming	46	30.5
Teaching	1	0.7
Total	151	100
Ethnicity		
Fulani	98	64.9
Yoruba	52	34.4
Igbo	1	0.7
Total	151	100
Marital Status		
Single	5	3.3
Married	146	96.7
Total	151	100

Table II: DISTRIBUTION OF INFORMANTS

METHOD	LOCATION	DISTRIBTION OF INFORMANTS	
KII			
6	TEDE	 1 Oba Onitede 1 teacher (woman) 1 head of Fulani community 1 official of the ATISBO council 1 herdsman 1 trader 	
3	AGO ARE	 2 Fulani Herdsmen 1 Yoruba Chief	
4	AWE	 3 Fulanifamily heads 1 Fulani woman	
FGD			
7 (6 in each group, totalling 42 informants)	AGO-ARE	 1 FGDs; 1 in the market with the head of cattle traders and his Executive members. 1 in the Saki market with market 	
	SAKI TEDE	 I at the house of the Fulani representative to the Oba 2 at the Fulani settlements 	
	AWE	 2 at the Fulan settlements 2 at Awe (Iga-Oniyere and Iga Musa) Women - 4 Men - 38 	
IDI			
21	ISEYIN	 2 randomly selected male Yoruba adults 10 Fulani men 5 Fulani women 4 Yoruba women 	
35	SAKI	 10 Yoruba men 1 Igbo man 11 Fulanimen 7 Kwara men 6 Kogi men 	
40	TEDE	 20Fulani men 7 Yoruba men 5 Yoruba women 8 Fulani women 	
Total 151			

Table III: Distribution of Informants by Sex

Sex	Number	Percentage (%)
Males	123	81
Females	28	19
Total	151	100

Table 3 shows the distribution of informants by sex. Males form the larger percentage of the total number of informants at 79.3%.

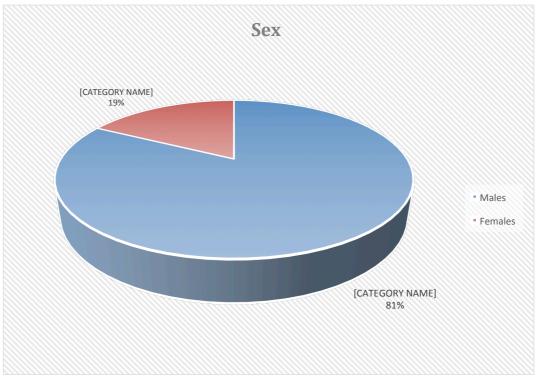


Figure 4: Pie chart showing the distribution of informants

The pie chart above shows a distribution of informants according to their sex. In all the researcher interviewed a total of 151 informants', 81 percent of whom were male and the female share of the sample only amounting to 19 percent. This is due largely to the fact that Fulani females are scarcely seen in public places.

4.2: Atisbo Headquarters, Tede

The first day in the community provided a microcosm of the macrocosm in which the researcher was to be deeply immersed throughout the study. It afforded her the opportunity to evaluate how the researcher was being perceived and placed within their existing socio-cultural system. The researcher first contact with the Oke-Ogun community was on the 28thJune 2015. The research team arrived the town of Tede in the early evening. When she got to the town, she checked into her accommodation and quickly went to the market to get some necessities and got familiarized with the environment.

Atisbo is home to a fairly large community of Fulani people, of which Tede hosts the largest Settled Fulani. The largest cattle market was relocated from Saki and sited in Ago-Are, after the Yoruba-Fulani clashed in Saki, in year 2000. The ambience of the town typifies any of the quiet towns outside of the major cities in Nigeria. It is a very quiet and serene town, with a unique smell that suggested to me that animals are very close to human beings. There are churches and mosques along the road that leads into the inner residential area. The local government council secretariat is also on the major road that leads to Onitede's palace. There are electrical poles, but the researcher did not experience Ibadan Electricity Distribution Company (IEDC) electric power supply throughout her stay. There are schools both private and public in the town (see plates 2 and 3 below). Of interest is the Nomadic School for the Fulani pupils. There are also hotels, restaurants, markets and stalls all scattered around.

The researcher went out the following morning with two research assistants. The team first checked with their host, to get the important details about Oke-Ogun generally, and Tede specifically. The host gave the narratives of the migration of the Tede people, which was also verified with the Onitede of Tede land in later scheduled interviews with him. The team got to work immediately, while the host took the team out to see other people in the community who all gave consents for proposed scheduled interviews. Individuals' commitments to assist were gotten, and they also expressed their reservations about researches. The promised to keep their identities private as, it is an issue of ethics. The

teamlater visited some historic sites within the town. The real ethnographic endeavour started in the third day of arrival, which was 30th of June 2015.

For emphasis, it is to be noted that this work centres on the ecological, cultural and touristic values of Fulani architectural designs in Oke-Ogun. It is based on a proposition that their homestead patterning is influenced by the ecology of their environment. The Fulani practice either pure nomadism, semi-sendentarism or sedentarism or a combination of two or all. Because they do *transhumance* (the seasonal movement in search of water and grasses for cattle) they construct make-shift tents for temporal settlement. The tents were meant to serve as shelters for the nomads who tend the herds.

The seminomadic Fulani have two major forms of settlements: the dry-season and wetseason camps. The dry season camps last from about November to March while the wet season lasts from about March to the end of October. Semi-nomadic families remain in wet-season camps while sending younger males or, increasingly, hiring non-Fulani herders—to accompany the cattle to the dry-season camps. From the late twentieth century, there has been an increasing trend toward livestock production and sedentary settlement, and the majority of Fulani are becoming sedentary.

The Fulani that practice semi-nomadism have permanent architectural structures just like the sedentary populations. Their settlements are mostly located in bushes where they are faced with harsh climatic conditions such as wind. Unlike the modern architectural designs which could have several outlets in a house for different purposes such as sleeping, bathing, resting, eating etc. the Fulani construct separate homesteads for resting, cooking, tethering animals etc. The distribution of informants is shown in the table 1 above.

Data showed that as part of the Nigerian government's efforts at meeting the MDG goal on education, the Federal Government of Nigeria under General Ibrahim Babangida, administration, established the National Commission for Nomadic Education (NCNE) in 1989 by The primary aim of the project is to be able to educate the Fulani nomadic children, creating some sort of education that could meet with nomadism and helping to at the same time give a quality and accessible education for the young Fulani at the primary level. However, from observations over the period of this research, the researcher could hardly see some full functional educational activities in the Tede primary school. The researcher engaged the head of the Fulani community in Tede, and he gave opinions that many also agreed with in the course of the research. Alhaji thought the schools are not adequately funded. And that those schools around Oke-Ogun in particular are not conducive for Fulani children on one part, and that the children and their parents alike may not see any reason to acquire such training. As trainings in cattle herding and Islamic education are considered to be sufficient enough for Fulani children. To the acculturated settled Fulani of Oke-Ogun informants therefore, the Nomadic education was targeted at the Bororo, and the Semi-Sedentary Fulani who could move as they desired, which the targets had rejected. It was obvious from observations that the schools were not opened to activities on a strict formal arrangement. The school at Tede opened on few occasions while on the research. And also, the researcher observed that the students that would come to school on such occasions cannot be more than six maxima and for a time period of two hours. The AS Fulani can be enrolled in the general school system if they so wished. But do they have their children enrolled in those "Yoruba" schools? The majority of the Yoruba informants were of the opinion that formal education cannot fit into the lifestyle of the Fulani. A Yoruba informant expressed shock on the decision of the government to "waste" funds, resources and human capital on the nomadic education. To him, it was an avenue for the ministry personnel to "eat" government money, as there was no basis for the project in the first place. The researcher observed that the Tede Nomadic Primary School opened late and closed earlier than the other schools. The Fulani population itself determines when the school opens and closes, thereby, an average pupil of the Tede Nomadic Primary School spent less than two hours in the school in a day, while the school opened for activities like twice in a week. The school therefore operated two registers, one for the ministry of education and another for the school itself. Obviously, the AS Fulani prefer Madrasah (Islamic education) to the Western Education. And it was adequately reported during the course of study. Majority of the Fulani believe the female children should not be enrolled into public schools as it is against the Islamic injunctions. A girl should be married off by thirteen years of age, and as such, enrolling such into the schools may not be necessary. And it was reflected in the number of the educated Fulani female children and adults alike. The head of the Fulani community in Tede had his children enrolled into schools, and one was as at the time of this study preparing to write the Joint Admissions and Matriculations Board (JAMB) examination. When probed to know if his female children enjoy same privilege of being enrolled in public schools, he also like other Fulani thought it was not necessary for female children to be enrolled in school. He however noted that many of the Fulani female children now desire western education, and few parents, especially in very rare occasions where inter-tribal household holds sway, the tendency for female children education is higher. Moreover, more of the Yoruba values including the knack for western education are rubbing off on the AS Fulani of Oke-Ogun.



Plate 2: Classroom Buildings of the Nomadic Primary School, Tede (Fieldwork, Tede 2017)

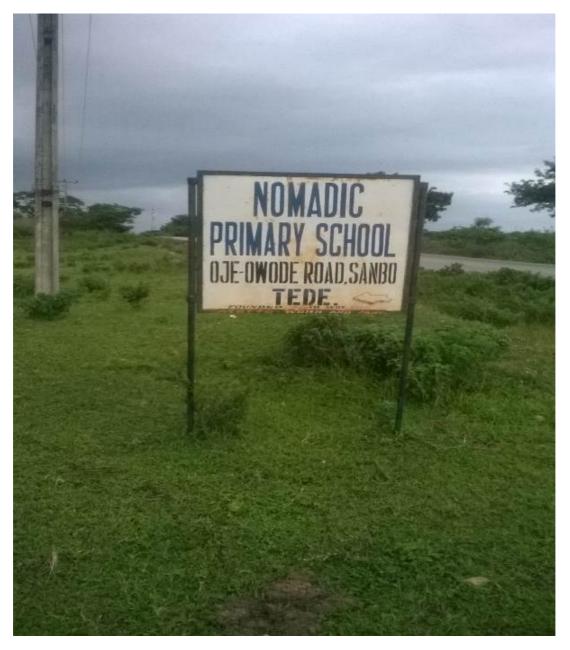


Plate 3: A Signpost Indicating the Nomadic Primary, Tede (Fieldwork, Tede 2017)

4.3 Architectural Forms of Fulani Homesteads in Oke-Ogun

The research team had just stayed for one week in Tede, Oke-Ogun when they met Mr. XT1 who introduced the team to Mr. XT2 who also was resident in Tede town. Mr. XT1, whom the researcher got introduced to, took the team to see some AS-Fulani *Igas* (homesteads), and I was able to conduct interviews with some Fulani descendants. The first was informant XT2 often referred to as Alhaji, who showed the team some Fulani architectural designs in Oke-Ogun. The architecture is a manifestation of the cultural context of adaptation and adoption to the community. In Oke-Ogun, buildings are, in fact, matrices for social structure, and this corroborates claim that:

Anthropologists believe that plastic arts, [including architecture], can be read to describe the "whole way of life" of a society. Encompassing much more than just the basic needs of a society, the architectural form responds to a far more complex system (Herskovits, 1965: pp 159-210).

Architectural designs of the Fulani respond to a complex system. It is not just an expression of a way of life, but of a "whole way of life" of a society. Evident are characteristics of the land, the attributes of personality, the socio-economy of the community and a functional adaptation to the climate and culture. Each settlement reflects a need, the family structure and hierarchy, the roles of women, notions of privacy and valued social interaction. Among the traditional Yoruba in Oke-Ogun, the kitchen is one of the very few areas of the house that are considered to be the "woman's domain," and is specifically designed for her use in terms of scale of the space and arrangement of equipment. In a sense, the room becomes a cultural space because human concerns, in addition to functional requirements, are considered in its conception.

But in Fulani homesteads, huts are for either sleeping, cooking or tethering animals, they are separate and cyclical arranged with a pointed roof(as shown in plates 4 and 5 below). The purpose of a cyclical arrangement is to offer protection for the house from harsh climatic conditions such as wind. The grass used for construction keeps the building cool during the dry and cold seasons. They are tightly knitted to disallow rain from sipping through into the buildings, as well as guiding against reptiles and winds. A typical large household would have the household head's hut in the centre, while other buildings are constructed around it. The headship of the household that controls members of the household.

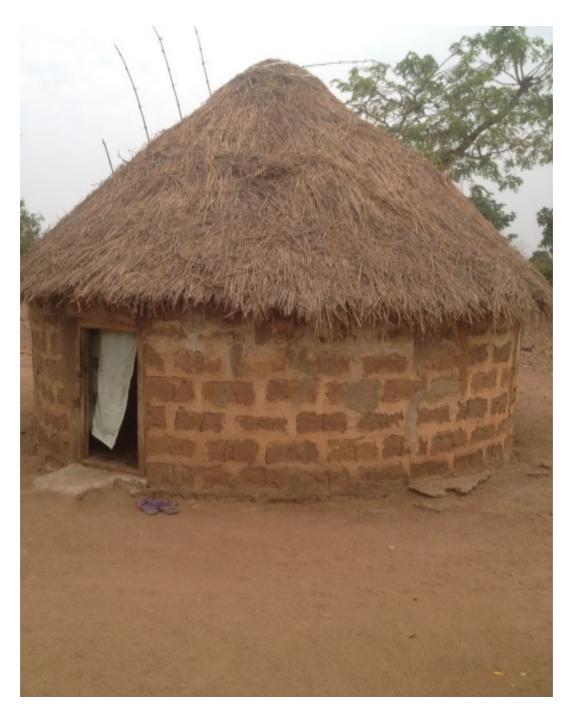


Plate 4: Mud House with Thatched Roof (Fieldwork, Awe, 2017)

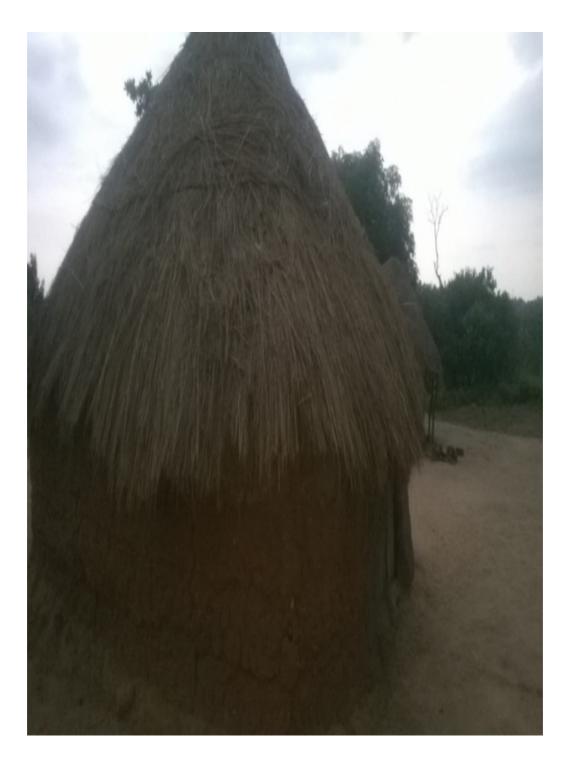


Plate 5: Mud Free-hand with Thatched Roof (Fieldwork, Tede, 2017)

Besides the thatched huts, there are mud structures. Over time, due to the scarcity of grass for huts construction, the Fulani have adopted the use of mud for the construction of huts. The houses constructed with muds are of two types. The first type is the hut constructed with bricks made from mud as shown in plate 4. The mudis collected, processed and cast into moulds to get a particular shape. The second type of the building is constructed with muds without prior casting as shown in plate 5. It is considered a free-style building technique. However, both huts have roofs made from grass. Each of the constructed huts has a door at the entrance and a small window at the back of the huts. The doors and windows are made small to control cold hording of the house during the rainy season.

In the interview with Informant XA1, a key informant was taken on questions of similarities and differences between the Fulani architectural designs in the North (of Nigeria) and the ones found in the Oke-Ogun area were asked. He answered, that, obviously it has to be in the same way: southern Fulani build their houses because they migrated from the northern part of Nigeria and must maintain the identity. Questioned as to whether XA1 is an original Fulani, what language he speaks and whether the language can be called Fulani or Fulfude. The informant thought Fula or Fulfule better described the language of the Fulani. He claimed to be an original Fulani man. From his physical appearance, as of one having a pointed nose, fair complexioned, slim and tall, one may be inclined to agree with his self-perception and self-identity. To him the real Fulani houses are built with grasses all through. The huts in their homesteads these days are mixture of mud for the body and grass for the roofing. Their preference for all-through thatch huts is that one, the grass used to be available in large quantity, secondly, they are light weight and can be picked up when the nomads or semi-sedentary Fulani have need to move with their cattle in search of water. The researcher saw some of the all grass huts constructions in many of their *igas*. And they expressed a great preference for such huts type that is traditional and indigenous to their race. The head of Iga Onivere in Awe, an Islamic clergy believed Fulani in the part of Awe need to act more in ensuring that the *ibile* Fulani in Oyo generally do not get carried away with the hospitality of their host community (Yoruba).

> "All-through grass huts are the best. Only we don't have grass in large quantities again. We must use the material available (mud), thatch the roof up and still retain our conical shapes. It is better than not having such buildings at all. Our children would easily forget they are Fulani".

(IDI, XA1, Male, 2017)

Despite the fact that many buildings are constructed of natural materials, particularly earth, buildings constructed out of natural materials are now rare and uncommonly seen around the world. Buildings constructed out of mud and other natural materials were until recently considered primitive. The images of Fulani mud houses display a certain peculiarity.

Of course, the researcher sensed the need for the Yoruba to also encourage the Fulani architectural designs in their *igas* as to guide against land use conflict that is almost inevitable in the future. The Settled Fulani have started claiming equal ownership of the lands, which the Yoruba population have not started observing to the best of my observation. The researcher's bike-man was pointing at many instances of how the Fulani have come to be regarded as factors in socio-economic life of the Oke-Ogun people. He was sympathetic towards the *Ibile*Fulani as against their Bororo kinsmen that kept spoiling the farmlands of both AS Fulani and the Yoruba people. He constantly referred to the Acculturated Settled Fulani as "*Filani-Ibile*" (native Fulani). He was however quick to point out the fears of allowing them too much space.

"My sister, the *Filani* are too aggressive. We cannot forget the slaughtering of our people between year 1999 and 2000".

(IDI, XS2, Male, 50 yrs, Saki, 2016)

But could they have been the ones that killed in Saki considering the level of integration with your people?

Their brothers did. They keep relationship with their brothers in the bush. Those bororos [herdsmen] help them rear their cattle. (IDI, XS2, Male, 50 yrs, Saki 2016)

Despite the high level of seemingly cohesive coexistence between the AS Fulani is the mutual distrust on both sides. As the Yoruba in Oke-Ogun still cannot hold them to trust fully from the past experience of ethnic clashes they had had with the neighbouring town of Saki, the Fulani also fear the total influence of Yoruba culture on theirs that could erase the Fulaniness in few decades to come.

Another twist is that observed in Awe town. The family heads of three *igas* visited all expressed the unfairness of having to rebuy the land that have been ceded to them for over a century. That explained why they must build more of their huts to wade off incursion into the remaining parts of the land. The Yoruba population were seen building very close

to *iga* Baba Musa. This act to them is part of the reason for the unavailability of *fudoo* (grass).



Plate 6: Fulani Mud House with Thatched Grass Roof and Some Fulani Dwellers (Fieldwork. Tede. 2017)

Informant XAG3 believes that building mud houses is more of art than science. Learning the right mixtures to use, based on the soil you have available, is more a matter of trial and error than calculation. It requires a certain amount of experimentation. Making an earth house is like making a cake than building a conventional form of house. The material cost of building earth based homesteads is only a fraction of the cost of building a conventional house with commercial materials.

From the interaction of close to three years with the Settled Fulani groups found around Oke-Ogun (see plate 6), it was observed that all the Fulani migrants settled in the area are socially integrated. They share strong familial ties which necessitate being in constant touch with themselves. They also have strong ties with their host communities; though they have an uncomfortable attitude towards exogamous marriage. The head cattle sellers in Ago-Are cattle market says:

I will like to pick a Yoruba wife, especially from either Ekiti or Ondo because I love eating pounded yam. I can eat any Yoruba food. I am used to Yoruba food since I've been to many parts of the Yoruba land in the course of herding my cattle. I love their ways. And because of my long interaction, I know that Yoruba people are accommodating. I can give my daughter in marriage to any willing Yoruba.

(KII,XAG3, Head of cattle sellers, 60+ yrs, Ago-Are, 2016)



Plate 7: With the Head of Herdsmen and the Head of Yoruba Traders at Ago Are Cattle Market (Fieldwork. 2017)

However, majority of the Yoruba informants thought a Yoruba-Fulani marriage is still generally unusual and unhealthy. More so, as the few cases that have been contracted have ended up in breakups. But there were two cases of Fulani woman marriage to a Yoruba man in Tede town that the researcher got to know had not broken up as at the time of this study. One example is that of a former chairman of Atisbo local government, whose marriage helped mobilized the Fulani electorate during the election into the local government council of Atisbo. It was obvious that the Settled Fulani marry more among themselves just like their Bororo counterparts. But there was no record of a Bororo of *Ibile-Fulani* man taking a Yoruba wife as at the period of this research. Though, one instance was cited that happened between a Bororo and a Yoruba lady in Iseyin and the marriage too was said to have hit the rock when the Bororo had to move with his cattle to another grazing zone.

It was a consensus among the informants that labour is a major consideration in the construction of buildings among the Fulani people, whether as nomadic or as a settled one. To save the labour cost, the labour of friends and family members are enlisted, and this helps to build a closer family tie. Hence as you often hear them say, "we owe one another a deep sense of gratitude for the services rendered". In this sense, marriage ties can be exogamous because of the economic gains in trade and labour.

The earth-based houses are naturally insulated. So, they are cool in hot seasons and warm in cold seasons. They are extremely strong where constructed correctly, and proponents of such houses have claimed that they are resistant to earthquakes. They likewise claimed that the houses are healthy for living, no such irritant chemicals are incorporated within the mixture producing the blocks to cause any allergies. Once the house is completed, the cattle waste, apart from providing manure for their subsistence farming, is also used to darken the floors and walls of their buildings. It is cheap, available and less toxic.

Informant XT4was asked to give further explanations on why grass houses are no longer common based on the researcher's observation that some brick houses were found alongside the mud and grass thatched roof. He then responded that there are no longer grasses to build this type of houses. He observed that:

> grasses suffer from termite attacks, which impacts negatively on their growth, drought is another big problem across much of the territory. There is, furthermore, insufficient water for grasses to grow. Grass naturally goes

dormant after two to three weeks without water. Most lawns cannot tolerate drought for four to six weeks, they will otherwise turn brown.

(IDI, XT4, Male, 50+ yrs, Tede, 2016)

It seems during extended periods of hot, dry weather, the grasses are scarce, that having grasses for thatch roofing becomes a big challenge. When grass lawn turns brown is when dry season rolls in for the Fulani, there is a problem with thatch. The thatch starts developing a thick layer of decomposing plant, matter, roots and partially decomposed stems build up under the roofs. Thatch roof decomposes quickly and kills the soil, which in turn leads to insufficient grasses to build the prototype Fulani houses.



Plate 8: Fulani Woman Approaching a Mud House (Fieldwork, Tede, 2017)

4.4 Cultural Construction in the Values of Styles and Placements of Buildings in the Fulani Settlements.

Cultural attitudes about privacy influence the Fulani architectural form; degrees of privacy within the society, views about personal self-worth; territoriality and sex all have impact on the form of the built environment. The Fulani have attitude about being bare, and their architecture tends to be less visually open to the public. A Fulani culture, with the emphasis on modesty orient attitudes, to building a closed space. What the basic forms of building requires is a closed space for bath.

Fulani men and women have separate places for sleeping, even in marriage. Indeed, Informant X4 was very surprised to know that women and men should sleep in the same place in the first place. As he says:

> "Yes, that is true, in the room men and women sleep separately, it is not an accepted tradition for men and women to live in the same room at a stage in their lives. In fact, he said it is not common for husbands and wives to sleep on the same bed. It is not something that the Fulani do". It is a normative practice that is culturally interpreted among the Fulani.

(IDI, XT5, Male, 70 yrs, Tede 2015).

The researcher expressed surprise as she had apparently been caught in subjective views on the discussion, and asked probed further; "including a husband and wife? Another informant, XA6 stated in another interview at Awe, that Fulani women sleep to the left of the house, "because it is a natural order for women to tie their wrappers to left". The researcher raised the question of nature that makes most humans to be right hand sided because of the positioning of the brains. But that did not make much meaning to them. To them, modernity has come to rob people of everything that is "right". Similarly, all the men in the group discussion at Tede agreed that the rightful position of a woman in the dwelling is the left-hand side. They think it is divinely arranged for man to understand the use of space. Like every other spatial allocation such as markets and worship centers, the inner chamber of a dwelling has been divinely ordered and allocated by nature. A view which was captured by an informant in IDI, Awe in 2017. Even this assertion is not logical to the researcher, but it is part of their cultural dispositions that women are better protected and secured in the left part of their dwelling.

"the left side will enable them to better conceal their nakedness, and because the men own the right side, women cannot take it from men. But unfortunately, the situation on our hands is that some women tie their wrapper to the left now, although it is still not common among the Fulani".

(IDI, XA6, male, 65 yrs, Awe, 2017)

The most vocal Fulani woman; XF1, that granted the most comprehensive interview observed that people seem not to be able to distinguish between the Bororo and "us". What is different then? She thought the difference lies not only in their physical appearances, but in the culture exchange with the Yoruba.

We despise them (Bororo) as much as any other ethnic groups in Nigeria! They destroy our farmlands too, and generally are too aggressive. We Filani-Ibile(Yoruba-Fulani) have started building modern houses, we can participate in festivals of the communities, we have our representative, Seriki Fulani as one of the Oba in council, and we speak Oke-Ogun dialect fluently. We have started getting married among ourselves [Fulani and Yoruba intermarriage]. But no Yoruba can marry a Bororo, in a case that happened at Iseyin, the Bororo left without looking back, and the young woman remained unmarried as she was seen to have been contaminated

(IDI, FA7, Female, 30, Ago-Are, 2016).

The community head of the Fulani in Tede (see plate 9), a member of Oba in council has house his in the developing part of the town. And the part of the town owned by the Yoruba people. The man bought the piece of land from a Yoruba landowner, and he got the permission to erect his building among other Yoruba indigenes and rooms are rented out to interested tenants including Yoruba and other tribes in Nigeria. They live together without any rancour nor prejudice.



Plate 9: The Head of Fulani Community in Tede. His House is Built among the Indigenes with all Modern Yoruba Style (Fieldwork, 2017)

The Onitede of Tede shared the opinion of the Fulani woman (XF1) who spoke with the researcher on the Bororo. While tracing the point of entrance of the Fulani to his kingdom, he observed that the Bororo are aggressive. According to him, the "Fulani-Ibile" have been staying with them since inception of the kingdom, and for him:

This is the third place Tede is sited. We moved from two previous settlements before getting to this place we call Tede today. Not to bore you with those places, we have moved with our Fulani tribe that you see around from the beginning. My ancestors passed it down to me that the first Onitede was ordered back from his sojourn to Ilorin, to come and ascend the throne of his forefathers. He was asked to sacrifice an unblemished black cow, which his best friend, the ancestor of the Fulani tribe of Tede provided. You see, we see the Fulani among us as one with us. They speak our language and eat our food. They used to have their community farther down, but now, expansion is bringing them closer to the town, and many of them have opted to sell their lands to other tribes like Igbo and Igbira living among us. They also have started building Yoruba and renting their buildings out among for accommodation to interested occupants. They now send their children to schools. We have many of them serving as teachers in the Nomadic school sited close to them at their ago [settlement]. The only thing you cannot take away from them is their buildings. They cherish their *ileaberewo* (low huts).

(KII. XT8, Onitede, 2015)



Plate 10: HRM Oba Abdul-Rauf Oladoyin Adebimpe Elerun 2, Onitede of Tede Land (Fieldwork, 2015)



Plate 11: Onitede of Tede's Palace (Fieldwork, Tede, 2017)

Gradually, the Settled Fulani have taken after the lifestyle of the Yoruba, although they still hold to those values that confer their Fulaniness, the younger settled Fulani may be willing to let go of these traditional values. One of such values is the indigenous architectural design which is sensitive to issues of privacy or gender. This is so according to the majority of the younger Fulani informants because Yoruba traditions are rubbing on the Fulani value system.

4.5 The Social Construction Inherent in the Styles of Fulani Architecture

A typical large household has a structure for the household head in the center of occupied space as depicted in plate 10. It is the biggest hut that is often sited in the centre that is called *suudu*. Other buildings are constructed round it. The *suudu*serves as the focal point of any settlement (*gure*) because it represents authority, power and dominance of the male. Here, the father (*dafijo*), entertains his male visitors, from inside or outside his suudu. Political discussions with other heads of the clans are held in suudus around the community, signifying the importance that men play in making decisions for and on behalf of the community.

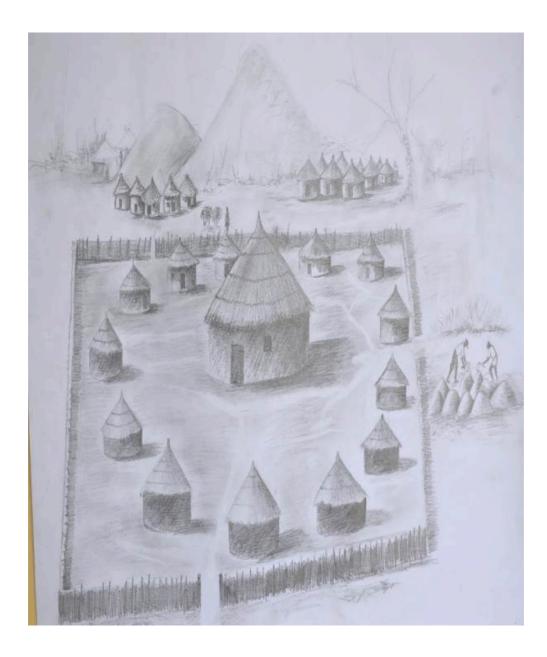


Plate 12: Artistic Depiction of the Typical Fulani Homestead. (Fieldwork, 2017)

The household itself is a circular frame, each hut deliberately and calculatedly placed with precisions and details for organising relationships and social interactions among members. Each building is built for specific purposes, and one hut cannot be converted for another use. For example, if a kitchen is built, it cannot be converted to a granary.

The researcher asked informant XT9 if there is anywhere in this arrangement of houses that is out of bounds to women. That is, which is forbidden for women to reach? Informant XT9 said no, "there is no such place. Women can move anywhere around as they like here". In the arrangement of the studied Fulani homesteads, it is common to build different types of huts, small ones are built all around and big one at the centre. As informant X4 showed me round, he pointed at a *suudu*, the biggest hut situated closer to the second entrance to the settlement, and said:

"So if we are talking about the northern ways of placement of buildings, and not the Yoruba influenced styles that we have around here, just as the Yoruba people do not build separate [or detached] building for the head of their family, the Fulani population settled in this area do not have much of the *suudus* built. But we need to start building *suudus* as this is our own unique household settlement arrangement. For instance, the Northern Fulani still practice purdah. They keep their wives in an enclosure commonly referred to as *bashiga*.

(IDI, XT9, Male, 60+ yrs, Tede, 2016)

What is *bashiga*?

Bashiga is the strictly barricaded area where the wives of a clan head stay. It is forbidden for any other man, apart from the husband, women, close male members of the family like father, father in-law, brothers and sons to gain access to the area. It is always located at the extreme end of the compound, according to Islamic injunction.

(KII, XA10, The head of Iga Oniyere, Male, Awe, 2017)

The two important buildings ongoing during the ethnographic visits were a granary (*lumure*) and a *Suudu* were under construction. The first stage of the construction is the clearing of the site by the family members. The Second stage is the gathering of materials and heaping them close the site, after which, as still the second stage, the clay soil for the moulding is dug out from the surface of their surrounding soil. The final, third stage is the construction proper. The basic materials needed are just (1). *Fudo* (generic term for grass), (2). *Bomboru* (clay), (3). *Kewi* (bamboo) (4). *Beere* (elephant grass; and the most

preferred, but which is also scarce now) (4). *Bulude* (common grass). These materials are basically needed in constructing the Fulani huts. Nevertheless, due to scarcity of these materials, alternatives are being provided which caused the Oke-Ogun Fulani to adapt the use of new materials, natural or artificial. (FGD, Awe, 2017)

As earlier stated in this work, the Fulani enjoy their privacy, and particularly, the females. Thus, privacy is considered in the building pattern and architectural design. The female apartments are behind the main building and surrounded with high walls to keep it out of public sight and access. The female areas are termed "Bashigated" areas as stated by the researcher. It is a term coined from the Fulani word, *Ba Shiga* meaning "no entry". In this wise, and as a projection of privacy, Fulani women are scarcely seen, both in public and in their homes, except by persons with genuine access to the building. The purdah may be another metaphor for the value of protection and restricted visibility for women. As the researcher could observe, the purdah (the seclusion of women) is a value with religious roots. In the same vein, Bashigated area is a response to Islamic injunction that stipulates the privacy and seclusion of women in Purdah. Purdah in Islamic religion is intended to screen away males that are not related to a woman. Such men or males include male visitors, male family members who are not the woman's sons, brothers, or husband.

However, asides the homesteads for sleeping or resting, each compound has at least a place for tethering animals. The females are not left out in the household architectural designs. They are provided structure for cooking activities for both household and commercial consumption. The kitchen (see plate 17) and the granary (see plate 14) remain exclusively a female preserve. The Fulani men obviously avoid these areas, including the buildings that are considered to be women's affairs. One of my informants, a woman of petite build XF1, gave the information on their privacy, the inner room allocation, and sexual relationships.

"Fulani women cannot initiate sex in the marriage".

(KII, FT11, Female, 22 yrs, Tede, 2015)

Why if the researcher may ask?

Ah! Because we don't do it as we are many, and we [the wives] know when it is our turn.

(KII, FT11, 22 yrs, Tede, 2015)

Suppose you want to have sex before your own turn? A co-wife cuts in:

Well it is not possible. You can only wait for your own time. Women here are not like you. Yoruba women are freer and why most often our husbands think friendship with them can influence us. We only sell "wara" (cheese) to them (see plate 11), and sew clothes and do other things like visit their salons and shops. But many Fulani women are now into vocational businesses, such as sewing, hairdressing, bead making and petty trading. The women are allocated the left side of the hut whenever they have any business in the men's huts. Some newlywed couples can stay together. But when more wives start coming, women are separated, and the man stays in his own hut and the women take turn to visit him there".

(KII. FT12, Female, 30 yrs, Tede, 2015)



Plate 13: A Fulani Woman Selling Wara (Cheese) (Fieldwork, Iseyin 2016)

The allocation of space to male children within the settlement gives the women (*reube*), an increased status. The status and value of women increase with the number of male children given birth to; and the male children give the mothers the desired comfort within the clan when they are allocated space right in the dwelling upon marriage. This allows the mother of such sons to continue to have her welfare being attended to by the wife or wives of her son. The Fulani man takes wife as young as their own daughters, and at such occurrence, older wives are comforted by their sons and their daughter in-laws. According to Alhaja XF2, a woman of average build, fair complexioned and well over 60 years called me aside and told me:

"iyawa (referring to me as our mother), the only value a woman has around here is in the children. Just like Yoruba would say, "omol'aso (children are clothing), you could see that in the younger woman there (pointing at a much younger woman around the kitchen), that's Alhaji's last wife. And that man you were speaking with, is my own son. His wife prepares food when it is not my turn to give Alhaji food. Thank Allah for having those boys. I have three boys, two are married."

(IDI,FA13, Female, 60+ years, Awe 2017)

Alhaji XA14 says:

"The huts are for the young adult children. The younger children live with their mothers in their huts. The father lives separately; it is the father's house that comes first in the compound, while that of the children comes last".

(KII, XA14, Head of Fulani in Awe, Awe 2017)

He stressed further:

"Our mother (referring to me), you know all these children when they get their wives, they get separated from their parents, so that there would not be conflict with the daughter in-laws, especially so with the mother of the young husband and his bride".

(KII, XA14, Head of Fulani in Awe, Awe 2017)

But the researcher could see only two sons, so shehad to ask where the third was. She said the first of the three have gone to graze the cattle. The second is too fragile and only does his job as an alfa (Muslim cleric and spiritualist). The third is in school and would like to gain admission into the university. The adolescent XYA15 who was in a secondary school was at home for the three days that the researcher stayed with them. That was because he was down with malaria. He served as one of the research assistants in Awe town; assisting in organizing interviews at other *igas* around their settlement and gave useful information on the fear his father constantly nurses about the Fulani becoming too modern than if not adequately tended to. It was his view that his father is paranoid of fears of losing him to western education. The father actually preferred him being a herdsman or an alfa. Most Fulani of his father age would not like anything than cattle and subsistence farming, at most. Islamic clerical work would suffice for any good son. Yet, they still have some of them enrolled in government organizations like the military and paramilitary. He touched on the styles of living and his father's preference for the most original Fulani huts, those made of pure raffia grass. When probed further on the reason for his father to have built a modern house in the compound, he said his father "build it for us".

Our mothers want a modern house. Our father doesn't stay there. And our mothers would also run to the mud huts because mud houses are cooler. They are self-regulating, they keep warm during very cold season, and keep cooler in hot season.

(IDI, XYA15, Male, 16, Awe, 2017)

It could be observed among the Fulani that the girl child is given to another extended family, and as such, becomes a mother among the Fulani, *Irajo* is a function of the utility and wealth she can give to her husband's family by the numbers of children born to the family (observation, 2017).

The structure of Fulani family is a dynamic one. It grows, subdivides and/or declines depending on circumstances. A basic family unit may grow into an extended family compound called '*Gure*'. The Fulani keep all members of their nuclear family in the same compound; inclusive of adult and children. The young adult son upon maturity takes a way and continues to live with his parents and this goes on like that till the space is fully allocated. A typical Fulani family consists of a family head, his brother, his children, his wives, his parents and other relatives. The male children may start their matrimonial life within the compound before setting up their own nucleus, especially when the compound is filled up, and there is need for hiving out to start a new compound.

4.5.1 The Social Construction Inherent in the Styles and Placements of Fulani Buildings among their Neighbours

Observation revealed that Fulani homesteads are most times located in places far from the communities of the hosts. Various reasons were given for this. Most importantly, Fulani need space for cattle rearing activities and such space can be conveniently accessed in bushy locations often far from the host communities.

Secondly, the location of Fulani homesteads is influenced by their migration. As, migrants, they do not concentrate in sections of the communities that are obviously or inconspicuously delineated from the host communities.

Thirdly, Fulani have a superior stance above other ethnic groups. There is the belief linking this with the royal blood running through their veins. Hence, a need to have separate settlements from those considered inferior (Observation, 2017).

I observed that the population in the homesteads visited are homogenous; that is, the acculturated Settled Fulani do not live with others in their *Igas*. There are expressed fears of social contaminations from the host communities, particularly when they start building houses close to them. One of the fears strongly expressed by my host in Tede is that many of their children are now influenced by their Yoruba friends. Though he said he has nothing against the Yoruba culture, he expressed the opinion that hardly would a Yoruba Muslim be as fastidious as Fulani Muslim.

In Awe, the Fulani settlement was legalised through the land use law of the state. I observed deliberate incursion into the settlements around there, by their hosts. The biker that served as my transporter was quick to note that the Fulani inOyo/Awe town had become extremely uncontrollable. He noted also that the *Ibile*-Fulani can be very tolerable, but the Bororo are extremely aggressive and are often the ones that tend their masters' cattle. It could be difficult to separate them in order of who should be tackled first in the instances of destructions of farmlands and killings of natives of their host communities. He gave an example of a wealthy Fulani that turned his compound to an estate and totally assimilated the culture of the Oyo. The biker and many other Yoruba informants agreed that there are some integrated or acculturated Fulani in Oke-Ogun that an outsider may not be able to distinguish them from their Yoruba hosts in terms of

appearances and mannerism... in the words of an elderly Yoruba woman, "only Fulani do not have "oriki". Buttressing this is the opinion of another informant at Awe:

There is this wealthy Fulani in Oyo here, you can hardly distinguish him from a Yoruba when he talks and the manner with which he does his things. The only distinction is the architecture of his building. And this is one of the unique features of a *ibile* Fulani, the architecture of the buildings is now important for them to keep.

(KII, XYA15, Male, 16 yrs. Awe, 2017)

In striking a balance, in the serious national debate on going on land secession for Fulani Herdsmen, host communities must encourage the Settled Fulani group to continue to build their indigenous huts, so as to have the line of the Fulani preserved for future reference.

What is clear is that Fulani values are in a constant state of alteration. This may be peculiar to those in Atisbo. Those that live here respond to hosts' cultural system with which they interact. Such a culture requires the ability to accommodate change, without losing its tradition, in order to maintain itself.

Several items are preserved for identity purpose. The first is their physiological appearance; lanky, fair complexioned, narrow face with pointed nose and curly hair, which is a biological inheritance. The others are their architectural designs, cattle rearing and language. The head of the Fulani settlement in Ago-Are noted that:

"Even the Yoruba have not seen any use for Fulani building like my people see in Yoruba styles of building, (cut in, but are those modern buildings Yoruba buildings?). We got the designs here and not in America. Laughs. But check many hotels and they use the Fulani huts. They see the beauty of the Fulani huts and use it, because many of such huts can occupy a small space".

(KII, XAG16, Seriki Fulani, Male, 65, Ago-Are2016)

This can be implied to mean that the architecture enjoys a wide patronage especially in Yoruba areas, among the hotelier and holiday resorts and therefore needs to be preserved. What can be said is that this architecture encodes is the family authority, gender, privacy and social solidarity.

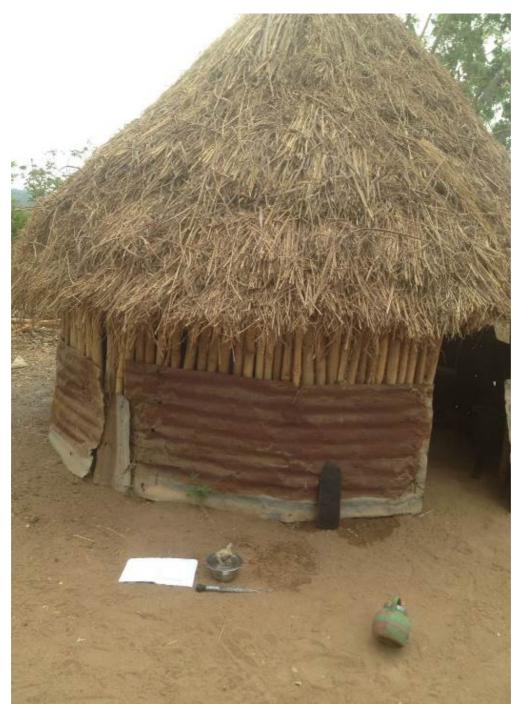


Plate 14: A Barn; Bamboo Planks, Grass Thatched Roof (Fieldwork, Awe, 2017)



Plate 15: A Suudu under construction. (Fieldwork, Awe, 2017)



Plate 16: A Granary under Construction. (Fieldwork, 2017)



Plate 17:A Picture of Fulani Brick and Corrugated Roof House in midst of the mud huts (Fieldwork, Tede, 2017) Over the past few years, Fulani architectural designs have been affected by the influence of their host Yoruba communities. The spherical shaped homesteads are getting replaced by square or rectangular shaped buildings. These new buildings are either constructed with cement blocks or mud (see plate 15). Corrugated iron roofs are also being used to replace the grass thatched roof.



Plate 18: Fulani Animal Tethering Hut (Fieldwork, 2017)



Plate 19: Fulani Kitchen Space (Fieldwork, 2017)

4.6 Evaluating the Ecological, Cultural Values, Process of Acculturation and Development of Oyo Economy

Eco-cultural values as reflected in the architectural designs of the Fulani homesteads point to untapped socio-economic potentials. The differences in the structure of buildings in different areas are evidence of their cultural, rituals, ways of life; the social organization, climates and landscapes, and materials and technology available. Buildings' relation to nature reveal a great deal about the culture under review. It is a signpost to the attitudes toward the natural world and the respect man has given to it. For example, today's world culture is shifting toward an environmentally friendly attitude. Likewise, among the Fulani of Oke-Ogun, as informant XA17 noted, there are cultural and ecological implications in houses being constructed. According to him;

"Our huts in their originality are usually cool and better insulated than houses covered with corrugated iron sheets. They insulate against heat. That is one benefit, and it is cheaper to build with all the materials available everywhere around us".

(KII, XA17, Male, 68 yrs, Awe, 2017)

Simply put, the houses are affordable and ecologically friendly. When asked why iron sheets were piled up at the construction site, another informant in the FGD at Tede replied that it is now used for roofing of the mud huts. As they considered iron roofing more durable. Windows are not very visible feature of Fulani huts. Question about why their huts are without windows or with not too visible window outlets were asked. The Fulani informants believe it is often impossible to create windows with grass huts. And grass huts were mostly used in the past. Do they have a name for window in their local dialect? Probing further to know what a window is called in Fulani language. He gave the Fulani name for door and window as *Mapoode*. Meaning the Fulani refer to both door and window with one word. Probing to know if there was any mix-up. But he was emphatic that window and doors are openings. He then provided the name for entrance as *damugai*. The grasses used are called *Fudo*(see plate 18)and the palm fronds are called *kewi*.

Clay for building mud houses is called *Bomboru* in Fulfulde, clay wall and clay are called the same thing. Bamboo trees are called *Kewi* which are used to tie *fudo* grasses together, and they use to weave it, but nowadays there is no *beere* grass, the *beere* grass is a type of grass. There are other

types of grasses such as *beere* and *bulude*, *fudo* is the general name for grasses, and it is like saying, this is hen, this is guinea fowl. But nowadays, there is no *beere* grass, so we don't have much choice. We use all available grasses and leafs that we can find around. We use any type of grass, plants and other synthetic materials, including sack, nylons and twain. And these materials are good replacements for the *fudo* and they do not leak".

(IDI, XA18, Male, 60 yrs, Awe, 2017)



Plate 20: A Heap of Fudo (Grass)(Fieldwork, 2017)



Plate 21:Beere, Preferred Grass for Roofing.(Fieldwork, 2017)



Plate 22: A Fulani Homestead Constructed from Sacks and Other Synthetic Material (Iseyin, Fieldwork, 2017)

The researcher asked if a hut that was constructed with sacks and cartons as shown in plate 22 is a house or a kitchen.

Informant XI19 said it is a residential Fulani house. "It is a room. It is yet to be finished and that is why you see iron sheets being used therein. Moreover, there are termites here and they can destroy the thatch. That is why we now use iron sheets. That is why when you visit many Fulani settlement nowadays you may find thatch houses scanty. It is because of termites. They destroy things made of grass. You will have to build and rebuild it again".

(IDI, XI19, Male, 58 yrs, Iseyin, 2017)

How their huts are being constructed became another focus at this point. The researcher got interested in seeing how the damaged houses were re-built, most especially, the wood at the door of the entrance XA18 referred to as *damugal*. it is the door that is called *mapoode*, while, *damugal* simply means entrance, which is referred to in Yoruba parlance as *ona-abawole*. *Ona-abawole* is simply the entrance while the door is *ilekun*. But from the information gathered here, *ilekun* and *ona-abawole* (door and entrance) have just one word-*mapoode*.

Informant XT19, a Yoruba informant, who also speak Hausa fluently, an averagely built man, with deep Oyo ascent, spoke on whether the Fulani can live among other tribes and if they live in the city as well:

Yes. They do. There are those who rent houses and those who built their houses in the city or amidst the Yoruba in town. They sometimes engage in cattle rearing and sometimes they employ relatives or do shifting in herding the animals to feed. There are people like Baba Apaara of Oke-Apo. There are Fulani settlements that are now completely towns.

(IDI XT19, Male, 63 yrs, Tede, 2016)

The above response suggests that Fulani people can also live outside of their settlements, as the case of the head of the Fulani in Tede, who built among the Yoruba and have even turned to a landowner. And from observations, those who live among the people enjoy cordial relationship with their host communities. Could this help in solving the many conflicts between the Fulani and other ethnic nationalities in Nigeria? Should the herdsmen be permitted to have cattle colonies in choice districts of Nigeria? Can they be trusted? If considering the past experience of the Ilorin Yoruba and the Nupe of Kwara?

These and many questions would make an average Yoruba not to trust the Fulani. However, the Settled Fulani of Oke-Ogun have come to see their stay in that area as God ordained, as they see land generally in terms of God's gift than legal possession. This attitude of the Fulani is a major issue the host communities in study areas expressed. As many of the clashes between the Igangan people are connected to herdsmen destroying farmlands of their hosts, and going ahead to kill farmers and rape the women. This herdsmen-farmers' clashes have become a national issue in recent times, that many fall outs have become lethal, security challenging and threatening the coexistence of the Fulani and Yoruba in Oke-Ogun area.

A Fulani cleric, and a key Informant thought that "no man can own a land, because land belongs to God". Does this account for the herdsmen invading other people's farmlands?

No. it is not right, but you people should know that the Bororo are as aggressive to us as they are to others.

(IKI, XT20, Male, 72 yrs, Tede, 2015)

Who are the "us" Alfa? "The Fulani".

What makes the Fulani different from the others? You must know a Fulani if you see one. Fulani look different from other tribes. And like you want to understand how we build our houses; our huts also are different. And you can recognize a Fulani compound on sighting our huts

(IKI, XT20, Male, 72 yrs, Tede, 2015)

His response shows that Fulani architectural designs project the dominant eco-cultural values. But with the intention to gain more insight, the researcher probed further... "are you not scared that the way all these Fulani settlements are settling for modern houses and towns, building traditional houses will be lost? This question was directed to the young ones specifically, stressing the fear of a lost heritage. A young man of about 22 years, and a Fulani, and more educated thought that the problem is that grasses are becoming increasingly scarce due to chemicals used in spraying weed.

This has greatly affected us. All these ones you see; we may have to pull them down. We still retain it because it is

one of our cultural heritages. I knew You could easily get to know this is a Fulani's settlement when you dropped from the okada that brought you. Till we can fix them, wecan just retain them to show to people we still live in this settlement. We can pull this down and erect it again three times in a year. We are still going to pull these ones (huts) down.

(IDI, XT21, Male, 22 yrs, 2015, Tede)

The scarcity of the preferred materials for the construction of Fulani homestead is and has been one of the major causes of the decline in and changing pattern of its traditional architecture and the continued infusion of new patterns from neighbouring cultures. 100% of the Fulani informants agreed that mud houses as well as the thatch roofing materials are prone to attacks by termites (see plates 21, 22, and 23) and other insects, and this causes negative effects on duration and strength of the houses, because they are subject to degradation and decomposition.

There is an obvious expression of fear within the community that there are threats to the indigenous architecture of the Fulani. Such threat includes;

- i. Encroachments of other ethnic groups into their settlement areas.
- ii. Agricultural practices and use of insecticide use; deforestation for farming activities and cattle overgrazing.
- iii. Yoruba cultural influence through encounters and interactions and there, women sheer knack for fad as implied by modernity.
- iv. The availability of more durable synthetic materials.

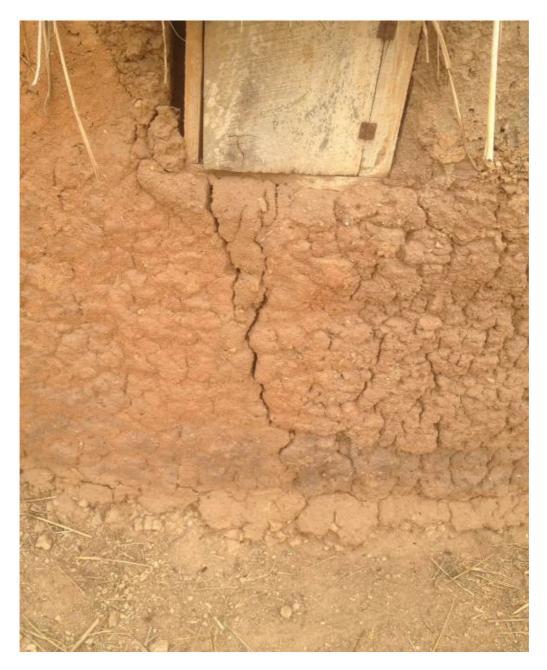


Plate 23: A Mud House Inflicted by Termites (Fieldwork, Awe, 2017)

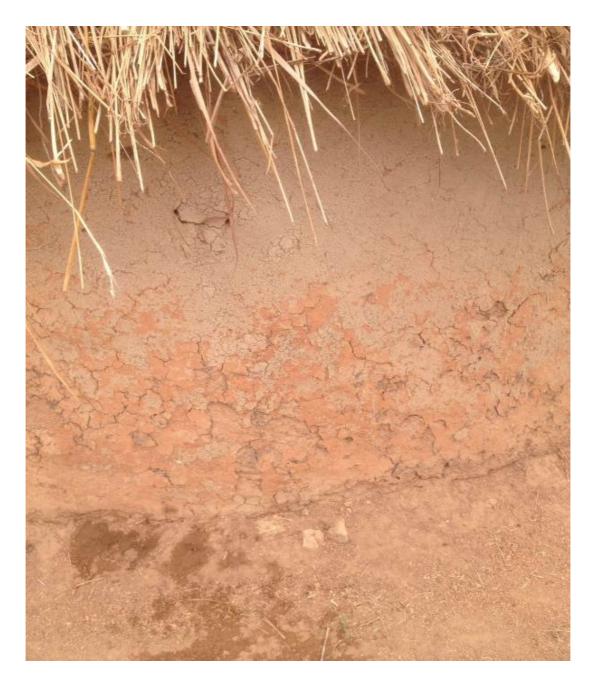


Plate 24: Another Mud House Inflicted by Termites (Fieldwork, Awe, 2017)



Plate 25: A Roof Infested by Termites (Fieldwork, Awe, 2017)

Studies on material culture aim at addressing how objects are designed, made, used and what they mean to those who make them and use them (Ogundiran, 2020). Anthropologists are interested in the objects themselves, in respect of such matters, as their shapes and dimensions, in the instance of architectural designs of the Fulani, we have concentrated attention on the reasons for the choice of materials for their buildings, the social allocation of spaces and the variations that have occurred overtime. The study revealed that the Fulani huts, granary, kitchens and *suudus* (bigger huts) are elements of Fulani material culture, they can give quality and meaning to what their compound and settlement stand for. There is the fear of losing identity in the midst of overwhelming influences of other ethnic groups around them or those they have encountered either as sedentary or nomadic Fulani. Should Nigerian government intend to preserve and conserve their identity, there must be a way to accommodate these cultural features pointing to and reflecting on gender relations, material conservation and eco-friendly structures.

CHAPTER FIVE

SUMMARY, DISCUSSION, CONCLUSION AND RECOMMENDATIONS

This chapter includes summary of findings, conclusions and recommendations in respect of the objectives of the study. The study aims at understanding the eco-cultural values of Fulani architecture- especially as to how pattering of their homesteads influences social interaction within theirs and other communities. It also seeks to understand the touristic potentials of the material culture of their architectural designs.

The study brought out the various aspects of the Fulani life that need to be promoted for tourism. But it equally noted that the architectural designs of the Fulani houses are changing and if not preserved, may go into extinction.

5.1 Summary

With the specific focus on the Settled Fulani in Oke-Ogun, Oyo state, south west Nigeria, this study delved into the eco-cultural values of the architecture of the Fulani that are settled in Oke-Ogun, with comparisons to the others in Awe, Saki and Iseyin. It is an ethnographic study that focused on the traditional values of the Fulani and the impact of material culture on architectural design, building materials and pattern of settlement.

Living huts, sitting area huts, kitchen, barns, granary, and other features constitute the focus on the material culture driving the indigenous architecture. The Fulani homesteads visited gave ample data on the features of the contemporary architecture of the Settled Fulani in Oke-Ogun. The homesteads which have gone through noticeable changes as is being influenced by contact and interaction with the Yoruba, scarcity of preferred materials and productivity towards modernity. Of significance of these arrays of influences is that the people themselves are beginning to fear that their cultural identity may be lost if, no effort is made to preserve the language, building architecture and the values they most cherished.

The study investigated settlement patterns and the socio-cultural and religious factors affecting the composition of these patterns. The impacts of culture, rituals, ways of life, climates and landscapes, and the availability of materials and technology as well as its socio-economic and cultural values were examined.

The Fulani in Atisbo local government area are, basically, immigrants from the northern part of the country; specifically, from Ilorin in Kwara State. They have settled in Oke-Ogun area since the 19th century. At least, three generations of the Fulani clusters found around Oke-Ogun see themselves as indigenes of the community, although they trace their origin to the Fulani people of Ilorin.

When one enters a Fulani settlement, it is realised at once (from sight and smell) that you are in a Fulani environment. They are 100% Muslims; this makes the community a typical Islamic one. Islamic influences reflect in their social organisation and pattern of architectural designs. In almost all the settlements (*iga*) visited, there were no seen "*bashigated*" area that visitors could not access. So that, Yoruba interaction have influenced the reduced and not too strict purdah system as portrayed in most literatures about the Fulani people.

The Fulani in Oke-Ogun are also largely economic, with livestock rearing, farming and trade as their primary economic activity. This, like those earlier mentioned, also reflects on their pattern of architecture and social organisation as their homesteads are patterned to allow for free movement and feeding of their herds of cattle. However, asides livestock business, the Fulani men also perform several menial jobs like religion cleric and spiritual specialist, commercial bike riding, water fetching, butchering, petty trading, and "suya" selling among various other jobs. The Fulani women are essentially dairy sellers, with very few now taking to vocational jobs such as hairdressing, tailoring and teaching.

The study was based on an ethnographic fieldwork. Specifically, in a sense, the research was a form of multi-sited ethnography (Marcus, 2016). By multi-sited, it is meant that data collected for this research was not collected from a single location, but from several locations. In the course of the fieldwork, the researcher visited Tede for six times and spent minimum of two weeks at each visit. During the first two visits, the research team visited Saki on several occasions. Two days were spent at Iseyin and a week was spent at Awe, collecting data through participant observation, key informant interviews, focus group discussions and in-depth interviews.

The Answered Questions

There are three major architectural forms found in the homesteads of the Settled Fulani of Oke-Ogun, namely; i. the traditional form ii. the hybrid form and iii. The contemporary form.

That the socio-cultural values unearthed in the Oke-Ogun architectural designs of both their dwelling arrangement and building styles include; religious value, gender value, economic and ecological values.

The study also noted that preservation of their architectural types is important to them as it serves as identity-building and identity-preservation, and to their host communities, as keeping in check of perceived excesses of the Settled Fulani population and maintenance conflict as well as formation of land-use policy.

And lastly, the architectural designs of the Settled Fulani can help boost the economy of the communities if given attention. Because the uniqueness of the relationship between the hosts and the settlers can help in answering the many questions bothering on the Fulani outlook in the larger Nigerian state. The Oke-Ogun typifies the "Unity in diversity" mantra from the cordial relationship the settlers and hosts enjoy there. This can be replicated in other parts of Nigeria where the problems of herdsmen and native populations are raging now. And for further economic gains, a tourist economic plan can be achieved, where public education can be initiated about the systemic acculturation that could help settlers and hosts communities coexist without life threatening conflicts. And these buildings can be encouraged to be built by other ethnic groups considering the ecological implications and the cost effectiveness. Lastly, it has touristic potentials as it is an indigenous knowledge system of architecture and engineering that needs to be preserved for posterity.

The study in general established that:

- The Fulani people of Oke-Ogun area of Oyo State claimed to have settled down in the area for over a century. The Settled Fulani in Tede even have a history as old as the town itself. Many other Fulani nomads joined as the town expanded and decided to live permanently with the Yoruba indigenes.
- 2. The Fulani settlers came with their architectural designs and that is quickly sighted on getting to the Oke-Ogun area. The building styles of the Fulani under focus are

not different from those described in the literatures. However, the study found out that there are observable changes in both the architecture and settlement patterns both engendered by the influence of acculturation by the host community.

- 3. As opposed to the famous assumption that the Fulani are isolated and do not have familial interaction or relationship, the study established that social interaction and cohesion among the Fulani in Oke-Ogun is strong. Through observation and interaction with the Fulani in Oke-Ogun over the course of the study, it is found that they consider themselves indebted to one another and as such they assist friends and families to erect their structures. This heightens social interaction, allows for closer relationship and ties, and settles the demand for labour and the cost attached to it.
- 4. The design and patterns of their architecture have deep socio-cultural cum religious undertones with exact semblances of what obtains in the north, the social imagery of their public space is largely Islamic/northern in appearance and in feel, depicting a northern atmosphere and ambience. They hold the belief that materials used for constructing their homesteads are ecologically friendly and do not pose any significant threat to nature (since they are made of bio-degradable material) and help them maintain regulated temperature in harsh weather conditions. However, these materials are becoming less and less available due to the impact attack from termites and other insects, drought and other ecological factors present in Oke-Ogun. And as such, opting for available materials and adopting contemporary architectural designs for their homesteads.
- 5. The original beliefs and values of the Fulani society including those that relate to dwelling or settlement making and architectural designs are slowly being eroded particularly by the impact of the Yoruba culture found in the host community and partly by modernity. As such, some houses are now seen in bricks and corrugated iron roofing and the purdah system highly celebrated in the north is almost unseen in Oke-Ogun. Special spaces are also now allocated to women as cooking spaces or kitchen which was hitherto not so in traditional Fulani architecture. However, they still hold their core beliefs and values at high esteem, particularly those that set them apart as and are not willing to let go. One of such values is the indigenous architectural technology. They all want the architectural designs kept in its originality, or at worst, in syncretism with western Yorubarized architecture forms.



Plate 26: A Fulani Homestead Modern Corrugated Iron Roofing.(Fieldwork, Awe, 2017)



Plate 27: Researcher with Informants in Discussion of Modern Fulani Dwelling. In the Background is a Brick and Corrugated Roofed House. (Fieldwork, Awe 2017)

5.2 Conclusion

The study has focused on the patterns of architectural designs, settlement patterns and ecocultural undertones of Settled Fulani inOke-Ogun area of Oyo state Nigeria. The study made attempts at understanding the reasons why the Fulani in Oke-Ogun builds or fashion their architecture in the manner with which they do and the consequences of these patterns for their social organisation and settlement patterns. The study established that Fulani architectural patterns and designs are closely tied to environmental factors, religious factors and socio-cultural factors. As such, certain materials are used to ensure that conducive atmospheric conditions are obtained within the buildings even when general weather conditions are harsh or almost unbearable. The study also attempted an understanding of the touristic potentials in the material culture in relation to their buildings and styles of architecture.

As we have attempted to show in the study, the Fulani in Oke-Ogun consider themselves indigenes of the community, claiming to have settled there over a century ago, however, they trace their origin to the northern parts of Nigeria with specific references to the Ilorin migrants. They are also entirely Muslims, the ambience of their community clearly depicting this fact. Their social organisation and sense of community are also reflected in the placements of their huts and general allocations of spaces in their homesteads. Their pattern of settlements also echoes the prevalence of patriarchy, as a typical Fulani settlement is built around the hut of the family head.

The study established that there is a need to conserve the architecture of the Fulani settlers around the Oke-Ogun area, as this is an authentic material aspect of their culture that can give immediate details about their origin, history and identity. It is also Fulani's justification for touristic value. It is an indigenous knowledge system of architecture and engineering that needs to be preserved for posterity. This justifies its location within the domain of touristic industry, for economic development and resources for education.

Finally, as rich and interesting as the Fulani architectural pattern and design are, they are slowly being eroded by the influence of acculturation (particularly from the host Yoruba community) and modernity. The study shows that certain changes have surfaced in traditional Fulani architecture as found among the Settled Fulani in Oke-Ogun area of Oyo state, due to constant contact with the culture of the host community. As established by the study, the building materials of Fulani dwellers in Oke-Ogun are frequently attacked by

termite and other insect, coupled with the fact that ecological situations in the area do not fully support the growth of these materials. Hence, due to unavailability, these materials are replaced by modern building material as used by members of their host community.

5.3 **Recommendation for further study**

Based on the finding, the study recommends the following;

- 1. The Fulani settlement in Oke-Ogun should be preserved as a municipality of Oke-Ogun, as a local heritage with distinct architectural designs which promotes ecocultural values, through revenues accruable from the aesthetics in the architectural designs, projecting the eco-cultural values of the Fulani settlement patterns.
- 2. The government should understudy the process of cultural integration of Fulani and Yoruba specifically in Oke-Ogun to enable policy formation that can resolve Fulani and their host communities' clashes.
- 3. The study also recommends that the nomadic education be brought back and strengthened for the young Fulani, as it was observed that the large population of the Fulani youths are uneducated. Education can also help in forming objective and abstract thinking that can make people live in a modern society while keeping their knowledge and value for indigenous architecture safe.
- 4. We have a lot to take also from their simple but functional architectural design. The government should therefore bring the potential benefits of Fulani architecture to the fore through public education. It can also be a source of employment and poverty eradication as the Fulani expertise would be required more in their style or architectural engineering.
- 5. The government should also encourage the development of synthetic materials that can replace the scarce natural materials such as grasses.

REFERENCES

- Abdoul, A. S. and John A. 1993. Fulani Poetic Genres, Research in African Literatures, *Indiana University Press*, Vol. 24, No. 2, Special Issue on Oral Literature (Summer, 1993), pages 61-77.
- Aboki, Y. 2003. Land use policies and legislative development in Nigeria. *In*: Gefu J. O. (ed) Land tenure systems in Nigeria: Evolving effective land use policy for poverty alleviation, 17-32.
- Adamu, M.S. 2005. Interpretation of significant and messages in Hausa traditional architecture. Case of the "Zaure" entrance hall. *Journal of the Association of Architectural Educators in Nigeria*. 4(1), January- March, Pp10-21.
- Adedokun, A. 2014. Environmental and Adaptation in Architecture planning and Building Design; Lesson from the Forest region of West Africa. *British Journal of Environmental Sciences*. 2(1), Pp.9-20.
- Adepegba, C.O. "webPulaaku". Retrieved 25 July, 2017.
- Africa guide. 2012. "African Tribes Fulani People." *Tours and Safaris in Africa*. Web. 30 Apr. 2012. http://www.africaguide.com/culture/tribes/fulani.htm>.
- African Commission on Human and Peoples' Rights. 2009. Rapport Du Groupe de Travail de la Commission Africaine Sur Les Populations/communautes Autochtones: Mission en Republique de Niger 14-24 Fevrier 2006.IWGIA. p. 41 note 74.
- Agboola, O. P. and Zango, M.S. 2014. "Development Of Traditional Architecture In Nigeria: A Case Study Of Hausa House Form". *International Journal of African Society Cultures and Traditions*, 1(1), pp.61-74.
- Alberti, M. 2005. The effects of urban patterns on ecosystem function. *International Regional Science Review*, 28, pp.168–192.
- Aldersey-Williams, H. 2003. Zoomorphic: new animal architecture, London, Laurence King Publication.
- Allsopp, B. 1977. A Modern Theory of Architecture. London: Routledge & Kegan Paul.
- Amundson, J. A. and Miller, C. C. 2004 Classicism. In Sennott, R. S. (Ed.) Encyclopedia of 20th-century architecture. New York, Fitzroy Dearborn.
- Andersson, E. 2006. Urban landscapes and sustainable cities. *Ecology and Society* 11(1), pp.34.
- Andrea, L. Stanton 2012. Cultural Sociology of the Middle East, Asia and Africa: An Encyclopedia. *SAGE Publications*. pp. 147–148.
- Anthony, A. and Henry, L. G. 2010. *Encyclopedia Africa*. Oxford University Press. p. 495.

- Anthony, A.O. 2014. A Historical Analysis of the Migration, Penetration and Diffusion of the Fulani into the Middle Belt Region of Nigeria. *Journal of Humanities And Social Science*, 19(10), pp.54-62.
- Attfield, J. 1989 Form/female follows function/male: Feminist critiques of design. In Walker, J. A. and Attfield, J. (Eds.) Design history and the history of design. London, Pluto.
- Bailey, S. 2007. Increasing connectivity in fragmented landscapes: an investigation of evidence for biodiversity gain in woodlands. *Forest Ecology and Management* 238, pp.7–23.
- Baker-laporte, P., Elliott, E. and Banta, J. 2001. *Prescriptions for a healthy house: a practical guide for architects, builders, and homeowners*, Santa Fe, In Word Press.
- Beatley T. and Wheeler S. M. 2004. *The sustainable urban development reader*, London, Routledge.
- Berry, J.W., Poortinga, Y.H., Segal, M.H. and Dasen, P.R. 2002. Cross-cultural psychology: research and applications. Cambridge University Press.s
- Blaschke, T. 2006. The role of the spatial dimension within the framework of sustainable landscapes and natural capital. Landscape and Urban Planning 75, pp. 198–226.
- Boutin, C., B. Jobin, L. Belanger, and L. Choiniere. 2002. Plant diversity in three types of hedgerows adjacent to cropfields. *Biodiversity and Conservation* 11, pp.1–25.
- Boutin, C., Jobin B. and L. Belanger. 2003. Importance of riparian habitats to flora conservation in farming landscapes of southern Quebec, Canada. *Agriculture, Ecosystems and Environment* 94, pp. 73–87.
- Brandt, J., and Vejre H. 2004. Multifunctional landscapes motives, concepts and perspectives. Pages 3–31 In J.Brandt and H. Vejre, editors. Multifunctional Landscapes Volume I: Theory, Value, and History. WIT, Boston, Massachusetts, USA.
- Brolin, B. C. 2000. Architectural ornament: banishment and return. New York, Norton.
- Cambridge History of Africa- Google Books. *Books.google.ca.1975-09* 18. <u>ISBN 9780521204132</u>. Retrieved 25/07/17.
- Catherine, V. 1994. The Slave Experience in Adamawa: Past and Present Perspectives from Yola, Nigeria. *Cahiers d'Études Africaines*, Vol. 34, Cahier 133/135, L'archipelpeul, pp. 23-53
- Christopher, R. D. 2001. West Africa During the Atlantic Slave Trade: Archaeological Perspectives. Bloomsburg Academic. pp. 172–174.
- Costanza, R., R. d'Arge, R. de Groot, S. Farber, M. Grasso, B. Hannon, K. Limburg, S. Naeem, R. V. O'Neill, J. Paruelo, R. G. Raskin, R. Sutton, and M. van den Belt. 1997. The value of the world's ecosystem services and natural capital. *Nature* 387, pp.253–260.

- Cuff, D. 2000. "Epilogue" In Kostof, S. (Ed.) *The Architect: chapters in the history of the profession*. Berkeley, Calif., University of California Press.
- D Group. 2013. Encyclopedia of African Peoples. Routledge. pp. 85-88.
- Daniell, T. 2004. "Beyond Style," presented at the International Conference, Architecture & identity, Berlin.
- David L. 1996. "Fulani". Encyclopedia of World Cultures: Africa and the Middle East, Volume 9. Gale Group. <u>ISBN 978-0-8161-1808-3.</u>,
- De Groot, R. 2006. Function-analysis and valuation as a tool to assess land-use conflicts in planning for sustainable, multifunctional landscapes. *Landscape and Urban Planning* 75, pp.175–186.
- Denyer, S. 1978. African traditional architecture, London. Heinemann Publishers. Pp 164-165.
- Dmochowski, Z. R., 1990. An Introduction to Nigerian Architecture Northern Nigeria, Ethnographical Ltd. London, 1990, Pp. 1-20.
- Doing, H. 1997. The landscape as an ecosystem. Agriculture, Ecosystems, and Environment 63, pp.221–225.
- Dramstad, W. E., M. S. Tveit, W. J. Fjellstad, and G. L. A. Fry. 2006. Relationships between visual landscape preferences and map-based indicators of landscape structure. *Landscape and Urban Planning* 78, pp. 465–474.
- Earth Pledge. 2005. *Green roofs: ecological design and construction*. Schiffer, Atglen, Pennsylvania, USA.
- East, R. M. 1994. Stories of old Adamawa: a collection of historical texts in the Adamawa dialect of Fulani. Lagos: Longman Nigeria plc.
- Edmund, D. M. 2013. Affairs of West Africa. Routledge. pp. 130–133, 136–142.
- Edmund, <u>D. M</u>. 1902. *Affairs of West Africa*. Library of African Study, Routledge, pages 141–142.
- Encyclopedia of World Cultures. 2017. Fulani facts, information, pictures. Encyclopedia.com
- Eraña, J. 2008. "Satirical Regionalism," 2008.
- Every culture. 2017. "Fulani." *Countries and Their Cultures*. Every Culture. Web. 30 Apr. .<http://www.everyculture.com/wc/Germany-to-Jamaica/Fulani.html>.
- Fabusoro, E. and Sodiya, C.I. 2011. Institutions for collective action among settled Fulani agro-pastoralists in Southwest Nigeria. Journal of Agricultural Education and extention. 17 (1) pp 53-68.
- Fasona, M., Fabusoro, E., Sodiya, C., Adedayo, V. and Peter, F.O. 2016. Some dimension of farmers'-pastoralists' conflicts in Nigeria Savanna. Journal of Global Initiatives: Policy Pedagogy Perspective. 10 (2). 7-14.

- Fatiregun, A.A. 1999. A brief history of traditional African architecture (with 50 illustrations), Ilesa, Fatiregun press Ltd. Pp 11-37.
- Fedders, K. 2004. "Archigram". In Sennott R. S. (Ed.) Encyclopedia of 20th-century architecture.. New York, Fitzroy Dearborn. 1: 57 58.
- Fischer, J., D. B. Lindenmayer, and A. D. Manning. 2006. Biodiversity, ecosystem function, and resilience: ten guiding principles for commodity production landscapes. *Frontiers in Ecology and the Environment* 4, pp.80–86.
- Fleischer, A., and A. Tchetchik. 2005. Does rural tourism benefit from agriculture? *Tourism Management*, 26, pp. 493–501.
- Flores, C. A. 2004. Symbolism. In Sennott, R. S. (Ed.) *Encyclopedia of 20th-century architecture*. New York, Fitzroy Dearborn.
- Forman, R. T. T., and M. Godron. 1986. Landscape ecology. Wiley, New York, New York, USA.
- Françoise Choay, Alberti and Vitruvius. 2001. editor, Joseph Rykwert, Profile 2001, Architectural Design, 49, 5-6
- Frank, S. 1997. The Historical Encyclopedia of World Slavery. ABC-CLIO. pp. 333-334.
- Frantz, C. 1981. "Settlement and Migration among Pastoral Fulbe in Nigeria and Cameroun."In *Contemporary Nomadic and Pastoral Peoples*, edited by Philip Carl Salzman, 57-94.Studies in Third World Society, Publication no. 17. Williamsburg, Va.: College of William and Mary, Department of Anthropology.
- Freemark, K. E, Boutin C, and C. J. Keddy. 2002. Importance of farmland habitats for conservation of plant species. Conservation Biology 16, pp. 399–412.
- Fricke, W. 1979. Cattle Husbandry in Nigeria: A study of its ecological conditions & social-geographical differentiations. Heidelberger Geographischen Arbeiten, Hert 52, Geographischen Institute de Universitaet Heidelbes, West Germany.
- Fricke, W. 1993. Cattle husbandry in Nigeria: a case study of its ecological conditions and social-geographical differentiations. Nigeria: Ikot-Ekpene.
- Gelernter, M. 1995. Sources of architectural form: a critical history of Western design theory. Manchester, Manchester University Press.
- Grace. 2012. The Fulani People." *By His Grace Ministries*. Web. Retrieved from <<u>http://www.byhisgrace.cc/fulani/profile.htm</u>>.
- Groenfeldt, D. 2006. Multifunctionality of agricultural water: looking beyond food production and ecosystem services. Irrigation and Drainage 55, pp.73–83.
- Gudykunst, W.B., Matsumoto, Y., Ting-Toomey, S., Nishida, T, and Kim, P. 1996. The influence of cultural individualism-collectivism, self construals, and individual values on communication styles across cultures. Human Communication Research. 22 (4). Pp. 510-543.

Gurupiah, M. 2008. "Pemikiran Dan Sahutan Regionalisme Dalam Wacana Senibina Malaysia," PhD, Faculty Built environment, University Technology Malaysia, Skudijohor.

Hall, J.W. and Kirl, J. G. 2013. History of the World: Earliest Times to the Present Day, USA: World Publications Group, Inc.

Herskovits, M. J. 1965. Cultural Anthropology. Canada: Alfred A. Knopf Inc.

- Heynen, H. 2005. "Postmodernism," in *Encyclopedia of 20th-Century Architecture*. vol. 2, R. S. Sennott, Ed., ed London: Taylor & Francis e-Library, p. 896.
- Holm, Ivar. 2006. Ideas and Beliefs in Architecture and Industrial design: How attitudes, orientations, and underlying assumptions shape the built environment. Oslo School of Architecture and Design. <u>ISBN 82-547-0174-</u>
- Hosseini, E. and Shahedi, B. 2012. Design Values in Traditional Architecture: Malay House.6th International Seminar on Vernacular Settlements, Contemporary Vernaculars: Places, Processes and Manifestations, April 19-21, 2012, Famagusta, North Cyprus.
- Hrbek, I. 1992. General History of Africa volume 3: Africa from the 7th to the 11th Century: Africa from the Seventh to the Eleventh Century v. 3, Unesco General History of Africa (abridged). James Carey. p. 67.
- Hui, C.W. 2011. Retrofitting Bioclimatic Solutions of Vernacular Architecture into Contemporary Design to Achieve Passive Architecture in Malaysia, Built environment, University Technology Malaysia.
- Hume, D. 1965. Of the standard of taste: and other essays. Indianapolis, The Bobbs-Merrill Company.
- Imaah, N. O. 2008. The Natural and Human environments in Nigeria: Their Implications for Architecture. Journal of Applied Sciences and Environmental Management." 12(2). Pp73.
- Iskandar, S.A. 2001. "Order in Traditional Malay House Form," Doctor of Philosophy, School of Architecture, Oxford Brookes University.
- Ismail, Z. and A. Sani. 2011. Modularity Concept in Traditional Malay House (TMH) in Malaysia.
- Jabbar, M.A. 1994. Evolving crop-livestock farming systems in the humid zone of West Africa. *Journal for Farming Systems Research and Extension*, 4, 3, 47 -60.
- Jo, H. K., and E. G. McPherson. 2001. Indirect carbon reduction by residential vegetation and planting strategies in Chicago, USA. *Journal of Environmental Management* 61, pp.165–177.
- John, T. 1998. Africa and Africans in the Making of the Atlantic World, 1400-1800. Cambridge University Press.pp. 91–92, xvii–xix.
- Kalner, S. 2004. "Adaptwere-use". In Sennott, R. S. (Ed.) *Encyclopedia of 20th-century architecture*. New York, Fitzroy Dearborn.

- Kalner, S. 2004 "Adaptwere-use". In Sennott, R. S. (Ed.) *Encyclopedia of 20th-century architecture*. New York, Fitzroy Dearborn.
- Kaufmann, E. 1955 Architecture in the age of reason; baroque and postbaroque in England, Italy, and France, Cambridge, Harvard University Press.
- Khaksar, A., Tahmouri, A., and Hoseinrazavi, S. 2001. *The Reciprocal Effects Of Architecture And Tourism: The Sustainability Approach*, Allameh Tabataba'i University, Tehran, Iran.
- Kirk, M. 2000. The context for livestock and crop-livestock development in Africa: The evolving role of the state in influencing property rights over grazing resources in sub-Sahara Africa, 23-54.
- Knut, V. 2013. Leif Manger, ed. Muslim Diversity: Local Islam in Global Contexts. Routledge. pp. 92–93.
- Knut, V. 2013. Leif Manger, ed. Muslim Diversity: Local Islam in Global Contexts. Routledge. pp. 92–93.
- Kremen, C., and R. S. Ostfeld. 2005. A call to ecologists: measuring, analyzing, and managing ecosystem services. *Frontiers in Ecology and Environment* 3, pp.540–548.
- Krieger, P. 2004.Contextualism. in Sennott, R. S. (Ed.) *Encyclopedia of 20th-century architecture*. New York, Fitzroy Dearborn.
- Langhein, J. 2005, Proportion and Traditional Architecture. International Network for Traditional Building, Architecture & Urbanism I (10).
- León, M. C., and C. A. Harvey. 2006. Live fences and landscape connectivity in a neotropical agricultural landscape. *Agroforestry Systems* 68, pp.15–26.
- Lotte, P. 2011 Travelling hierarchies, Roads in and out of slave status in a central Malian Fulbe network, African Studies Centre, Leiden University, African Studies Collection, Vol. 34, <u>ISBN 978-90-5448-105-8</u>
- Lovell, S. T. and D. M. Johnston. 2009. Designing landscapes for performance based on emerging principles in landscape ecology. *Ecology and Society* 14(1), pp. 44.
- Lovell, S. T., and W. C. Sullivan. 2006. Environmental benefits of conservation buffers in the United States: evidence, promise, and open questions. Agriculture, Ecosystems and Environment 112, pp. 249–260.
- Mabogunje, A. L., Hardoy, J. E., Misra P.R. 1978. "Shelter provision in developing countries, The Gresham Press. <u>http://scindeks.ceon.rs/article..aspx?artid=1450-569x07160281_br</u>.
- Marcus, G.C. 2016. Multi-sited ethnography: notes and queries. Tylorfrancis.com. pp 195-210
- Marguerite, D. 1985. A Nomadic Caste: The Fulani Woodcarvers Historical Background and Evolution, *Anthropos*, pages 85-100.

- Martin, P. 2016-08-10. *Nigeria's deadly battle for land: Herdsmen v farmers*. BBC News. Retrieved 24/07/2017.
- Massoudi, A. and Simonian W. 1978. "The problem of Housing in development countries." In Housing Problem, in Developing countries, Dakhil, H. et. al (Eds). Pp 175-194.
- Mcdonald, M. K. 2004. "Sustainability and sustainable architecture".InSennott, R. S. (Ed.) *Encyclopaedia of 20th-century architecture*. New York, Fitzroy Dearborn.
- McKinney, M. L. 2002. Urbanization, biodiversity, and conservation. *BioScience* 52, pp.883–890.
- McNeely, J. A., and S. J. Scherr. 2003. Ecoagriculture-*strategies to feed the world and save wild biodiversity*. Island Press, Washington, D.C., USA.
- Memmott, P. and Davidson, J. 2008. Exploring a cross-cultural theory of architecture. Traditional Homesteads and Settlements Review. Pp. 51-68.
- Miller, J. R., and R. J. Hobbs. 2002. Conservation where people live and work. *Conservation Biology* 16, pp. 330–337.
- Miller, S. 1993. Heritage Management for Heritage Tourism. Oxford. UK: Butterworth-Heinemann Ltd., 114-121.
- Mohamad, H.A. 2007. "The Interdependency of House Layout, Privacy and Culture from the User - Behavioural Perspective of Urban Malays," Master, Human Ecology, University Putra Malaysia, Putra Jaya.
- Morton, P. 2004. "Primitivism". In Sennott, R. S. (Ed.) *Encyclopedia of 20th-century architecture*. New York, Fitzroy Dearborn.
- Museo, G. 2013. Museum and Institute of History and Science, The Dome of Santa Maria del Fiore Archived. *Wayback Machine*. (accessed 24/07/2017).
- Nasir, A.H. and Teh W.H. 1997. *The Traditional Malay House*. Singapore: FajarBakti, Shah Alam, Malaysia.
- National Universities Commission 2012. Nigerian Peoples and Culture for Distance Learners in the Nigerian University System. University of Maiduguri, Maiduguri, Nigeria.
- Ndukwe, P. I. 1996. *Fulani*. Heritage Library of African People. The Rosen Publishing Group. pp.9–17.
- Nesbitt, K. 1996. Theorizing a new agenda for architecture: an anthology of architectural theory 1965-1995, New York, Princeton Architectural Press.
- Nijkamp, P. 1974. *Environmental Attraction Factors and Regional Tourist Effects*, Paper 14, Free University of Amsterdam.

- Oberndorfer, E. J., Lundholm, B. Bass, R. R. Coffman, H. Doshi, N. Dunnett, S. Gaffin, M. Kohler, K. K. Y. Liu, and B. Rowe. 2007. Green roofs as urban ecosystems: ecological structures, functions, and services. *BioScience* 57(10), pp. 823–833.
- Ogun State Agricultural Development Programme (OGADEP).2004. Annual Reports 2004, OGADEP. Abeokuta, Ogun State, Nigeria.
- Ogundiran, A. 2020. The Yoruba: a new history. Bloomington. Indiana University Press.
- Ogunnaike, Y. 2012. The Fulani People. *Scribd*.Web. Retrieved from <<u>http://www.scribd.com/doc/32595146</u>/The-Fulani-People>.
- Okpoko, P.O. and Okonkwo E. 2005. Heritage Site Management and Tourism in the Obudu Cattle Ranch and Sukur Kingdom, Nigeria. Journal of Heritage Stewardship, 2 (2) . pp. 79-89.
- Olarinmoye, A.W. 2014. Culture and Nigerian People. In Wahab, E.O., Fadeyi, A.O., Wusu, O. (Eds), Essentials of Sociology: A Brief Introduction. Lagos: Department of Sociology, LASU.
- Oliver, P. 2004. Vernacular Architecture. In Sennott, R. S. (Ed.) *Encyclopedia of 20thcentury architecture*. New York, Fitzroy Dearborn.
- Olotuah, A. O. 2001. "Mass Housing Design." Unpublished course monograph for Postgraduate Diploma students in architecture. Department of Architecture, the Federal university of technology, Akure. Pp. 2-9.
- Olotuah, A.O. 1998b. Housing: The Intractable Human Imperative, Nigeria's urban situation. Unpublished Monographs. Forthcoming in Housing is today.
- Omotayo A.M. 2002. A Land use system and the challenge of sustainable agro-pastoral production in south-western Nigeria. *International Journal of Sustainable Development and World Ecology*, 9, pp.369-382.
- Osasona, C. O. 2007. From traditional residential architecture to the vernacular: the Nigerian experience. *Online http: www. mainline. Org/aat/2007 documents/AAT Osasona*, pp.17-19.
- Patrick Ryan, S.J. and Montana, Missoula. 2009. Islam in Yorubaland- Imale: Yoruba participation in the Muslim tradition. Cambridge University Press. pp.1-10
- Pearson, D. 2001. *New organic architecture: the breaking wave*, Berkeley, University of California Press.
- Peoples on the Move: Introducing the Nomads of the World David J. Phillips Google Books. *Books.google.ca. 2001. ISBN 9780878083527.Retrieved 2017-07-25.*
- Porter, D. 2000. "Why do architects wear black? thinking beyond the trap". In Toft, A. E. (Ed.) *Ethics in architecture: architectural education in the epoch of virtuality.* [Leuven], European Association for Architectural Education.
- Powell, K. 1999. Architecture reborn: the conversion and reconstruction of old buildings, London.

- Rank, I. D., Engelke, P. O. and Schmid, T. L. 2003. *Health and community design: the impact of the built environment on physical activity.* Washington, DC, Island Press.
- Rapoport, A., 1969. *House Form and Culture* vol. 10. London: Prentice Hall, INC., Englewood Cliffs, N.J.
- Relph, E., 1993. Modernity and reclamation of place. Dwelling, Seeing and Designing: Toward a Phenomenological Ecology. (2).
- Richard, M. J. 2008. Africa and the Americas: Culture, Politics and History. ABC-CLIO, p. 492.
- Riesman, P. 1977. *Freedom in Fulani Social Life: An Introspective Ethnography.* Translated by Martha Fuller. Chicago: University of Chicago Press.
- Rikko, L.S. and Gwatau, D. 2011. The Nigerian architecture: The trend in housing development. *Journal of Geography and Regional Planning*. 4(5), pp. 273-278.
- Robert Z. 1996. "Traditional Methods: A Guarantee for Sustainability," in *Indigenous Knowledge and Development Monitor* 4, issue 3, pp. 20-28.
- Ross, M. 1996. *Planning and the heritage: policy and procedures*, London, E & FN Spon.
- Rowland, D. and Howe T.N. 1999. Vitruvius. Ten Books on Architecture. Cambridge University Press, Cambridge, <u>ISBN 0-521-00292-3</u>
- Ruby, I. and Ruby, A. 2003. "Essential, Meta-, Trans-The Chimeras of Minimalist Architecture". In Ruby, I. (Ed.) *Minimal architecture*. Munich, Prestel.
- Rudofsky, B. 1964. Architecture without architects: a short introduction to non-pedigree architecture. New York, Doubleday.
- Ruqayya B. T. 2011. Traditional Nigerian Architecture and Design. Presentation for INTBAU and TAG Event, UK. 9-10th, February 2011.
- Saiz, S., Kennedy D., Bass B., and Pressnail K. 2006. Comparative life cycle assessment of standard and green roofs. *Environmental Science and Technology* 40, pp.4312– 4316.
- Sharma, K. 2011. Sustainable Tourism Development Through Sustainable Architecture: A Projected Case Study of Cox's Bazaar, Bangladesh. Master's thesis, University of Huddersfield
- Shashua-Bar, L., M. E. Hoffman, and Y. Tzamir. 2006. Integrated thermal effects of generic built forms and vegetation on the UCL microclimate. *Building and Environment* 41, pp. 343–354.
- Sodiya, C.I, Adedire M.O. and Lawal-Adebowale O.A. 2009. Land Holding Rights of Fulani Pastoralists and its Effect on their Agropastoral Production System in Ogun State, Nigeria.*TROPICULTURA*, 27(2),pp.65-69
- Sodiya, C.I. Ashimolowo R.O. Lawal-Adebowale O.A. &Adamu C.O. 2006. Analysis of the roles and selected activities of Fulani women among sedentarised pastoral

households in Ogun State, Nigeria.OgunJournal of Agricultural Sciences, 4, pp. 49 - 60.

- Steven, L. D. 2015. Native Peoples of the World: An Encyclopedia of Groups, Cultures and Contemporary Issues. Routledge. pp. 31–32.
- Tahir, M.M. 2010. The Concept of Raised Floor Innovation for Terrace Housing in Tropical Climate, *Journal of Surveying, Construction & Property*, vol. 1, pp. 47-64.
- Tamari, T. 1991. The Development of Caste Systems in West Africa. *The Journal of African History*. Cambridge University Press. 32(02), pp. 221–250.
- Thompson, W., and K. Sorvig. 2000. Sustainable landscape construction: a guide to green building outdoors. Island Press, Washington, D.C., USA.
- Tilman, J. T. 2004. "Historicism". In Sennott, R. S. (Ed.) *Encyclopedia of 20th-century architecture*. New York, Fitzroy Dearborn.
- Tomlan, M. A. 2004. Historic preservation. In Sennott, R. S. (Ed.) *Encyclopedia of 20th-century architecture*. New York, Fitzroy Dearborn.
- Tor ArveB. and Christian L. 2001. Politics, Property and Production in the West African Sahel: Understanding Natural Resources Management. Nordic Africa Institute. pp. 118-131.
- Troll, C. 1950. The geographic landscape and its investigation. Pages 71–101 in J. A. Weins, M. R. Moss, M. G. Turner, D. J. Mladenoff, editors. Foundation papers in landscape ecology. 2006. Columbia University Press, New York, New York, USA.
- Tscharntke, R., A. M. Klein, A. Kruess, I. Steffan-Dewenter, and C. Thies. 2005. Landscape perspectives on agricultural intensification and biodiversity ecosystem service management. *Ecology Letters* 8:857–874.
- Uji, Z. 1992. Commonality in the House forms of the Nigerian cultures in change. *Journal of Nigerian Institute of Architects*. "January- April, Pp. 26-31.
- United Nations Environmental Program and World Tourism Organization. 1994. "Guidelines: Development of National Parks and Protected Areas for Tourism," Tourism and the Environment World Tourism Organization/United Nations Environmental Program, Division of Technology, Industry and Economics-Product and Consumption Technical Report, Series3.
- Vandermeer, J. and B. B. Lin. 2008. The importance of matrix quality in fragmented landscapes: understanding ecosystem collapse through a combination of deterministic and stochastic forces. *Ecological Complexity* 5(3), pp. 222–227.
- Walter van, B. 1988. "Purity and statecraft: The Fulani Jihad". The Quest for Purity: Dynamics of Puritan Movements. Walter de Gruyter. pp. 149–177.
- Wania, A., I. Kuhn, and S. Klotz. 2006. Plant richness patterns in agricultural and urban landscapes in Central Germany—spatial gradients of species richness. *Landscape* and Urban Planning 75, pp.97–110.

- Webster, G. W. 1931. 242 Customs and Beliefs of the Fulani: Notes Collected During 24 Years Residence in Northern Nigeria. *Man.* 31: 238. doi:10.2307/2790939.
- Weisman, L. K. 2000. Prologue: 'women's environmental rights: a manifesto'. In Borden, I., Rendell, J. & Penner, B. (Eds.) Gender space architecture: an interdisciplinary introduction. London, Routledge.
- Whiteley, N. 1993. Design for society, London, Reaktion Books.
- Wiggering, H., K. Muller, A. Werner, and A. Helming. 2003. The concept of multifunctionality in sustainable land development. Pages 3–18. In K. Helming and H. Wiggering, editors. Sustainable Development of Multifunctional Landscapes. Springer–Verlag, Berlin, Germany.
- Wilson, K. A., E. C. Underwood, S. A. Morrison, K. R. Klausmeyer, W. W. Murdoch, B. Reyers, G. Wardell-Johnson, P. A. Marquet, P. W. Rundel, M. F. McBride, R. L. Pressey, M. Bode, J. M. Hoekstra, S. Andelman, M. Looker, C. Rondinini, P. Kareiva, M. R. Shaw, and H. P. Possingham. 2007. Conserving biodiversity efficiently: what to do, where, and when. *Plos Biology* 5(9), pp.1850–1861.
- Wines, J. and Jodidio, P. 2000. Green architecture, Köln, Taschen.
- Winkelma, M. 1994. Cultural shock and adaptation. Journal of Counselling & Development. (2) pp. 121-126.
- World Travel Guide. 1998. Fulani: Guinea. Retrieved from Available <u>http://www.wtgonline.com/country/gn/gen.html</u>

APPENDIX

STRUCTURED INTERVIEW GUIDE FOR IN-DEPTH INTERVIEWS.

ECO-CULTURAL VALUES OF THE ARCHITECTURE OF FULANI HOMESTEADS IN OKE-OGUN, OYO STATE, NIGERIA. You are assured that all information provided shall be treated with the highest confidentiality.

This interview session will take a few minutes of your time. Do I have your permission to proceed?

Thanks for your anticipated cooperation.

SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTIC

1	Age	
2	Sex	
3	Religion	
4	Ethnicity	
5	Marital Status	
6	Educational Qualification	
7	Work Experience (In Years)	

SECTION B: WHO ARE THE FULANI?

SECTION C: HOW DO YOU RECOGNIZE A FULANI?

(a) Physical appearance?_____

-	Cultural and social behaviour?
]	Describe a Fulani in one sentence
]	For how long has Fulani ethnic group being around in Oke-Ogun?
-	What is your opinion of the Fulani in Oke-Ogun?
-]	How many types of Fulani groups are you familiar with?
	ON D: How do you perceive the architectural designs of the Fulani homesteads?
-	Give the various designs you know
_	

Probe for:

- i. Indigenous understanding of ecology
- ii. What values can be attached to physical environment?
- (j) What are the cultural values attached to the buildings of the Fulani?

Probe for:

- i. Cultural values attached to space allocations.
- ii. Cultural values attached to gender and space placements
- iii. Cultural values attached to specific buildings.

Thank you for sparing me your time.

UNSTRUCTURED QUESTION GUIDE FOR KEY INFORMANTS

My name is Adeyinka Wulemat Olarinmoye. A Ph.D student of the University of Ibaban. I am undertaking a research on the **Eco-Cultural Values of the Architecture of the Fulani Homesteads in Oke-Ogun, here in Oyo State.** I have selected you for a discussion based on your wealth of experience as.....

SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTIC

1	Age	
2	Sex	
3	Religion	
4	Ethnicity	
5	Marital Status	
6	Educational Qualification	
7	Work Experience (In Years)	

Please can I and my team meet you, sir/ma.

Questions:

The history of the migration of the Fulani to Oke-Ogun.

The coexistence of Fulani and the host communities.

Benefits of these interactions.

Disadvantages of these interactions.

General opinion on the identities of both the migrants and host communities.

General opinion on their architectural designs, homesteads and acculturation.

Thank you for giving us this opportunity to speak with you, sir/ma

FOCUS GROUP DISCUSSION QUESTION GUIDE.

My name is Adeyinka Wulemat Olarinmoye. A Ph.D student of the University of Ibaban. I am undertaking a research on the **Eco-Cultural Values of the Architecture of the Fulani Homesteads in Oke-Ogun, here in Oyo State.** I have selected you to participate in this group discussion based on your age, occupation, status and gender.....

SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTIC

1	Age	
2	Sex	
3	Religion	
4	Ethnicity	
5	Marital Status	
6	Educational Qualification	
7	Work Experience (In Years)	

Questions.

- i. Who are the Fulani?
- ii. How do you describe the Fulani?
- iii. Who are the Yoruba?
- iv. How do you describe the Yoruba?
- v. Describe the interaction of these two ethnic groups living in Oke-Ogun
- vi. What are the cultural items that differentiate the Fulani and Yoruba?
- vii. How do you describe the homesteads of the Fulani?
- viii. How has the Yoruba interaction with the Fulani impacted on their lifestyles?
- ix. How has the Yoruba interaction with the Fulani impacted on their architectural designs?
- x. What is the significance of Fulani architecture to their identity?
- xi. What do you think the Fulani architecture can add to the social economic gains of the Oyo state?