EVOKING THE IDENTITY AND CHARACTER OF AFRICAN ART, ARCHITECTURE AND HISTORY THROUGH CULTURAL BUILDINGS: THE CASE OF CAPE-COAST

by

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DECLARATION

I hereby declare that this submission is my own work towards the March and that, to the best of my knowledge , it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due knowledge has been made in the text.
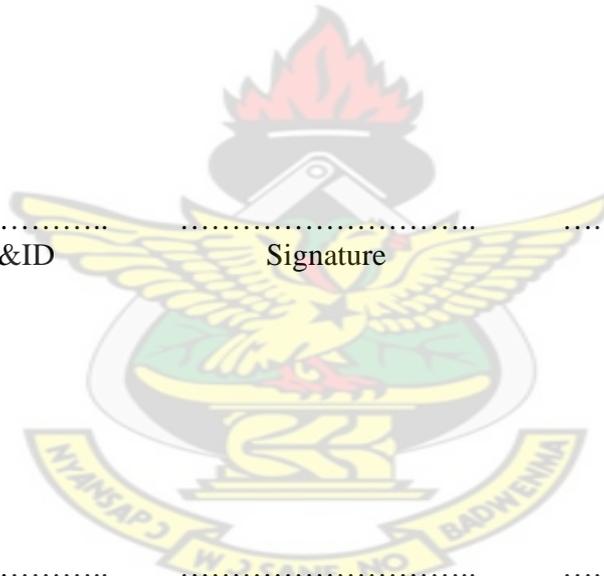
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Supervisor(s) Name   Signature   Date

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Head of Dept. Name   Signature   Date

DEDICATION

I dedicate this thesis to all the faceless people who have continually expressed their faith in me and encouraged me to achieve all my goals. This is to Mr. Archibald Mensah for all the help he gave me at the start and through my study of Architecture.

ACKNOWLEDGEMENT

I take this opportunity to acknowledge how gracious God has been to me all these years; He has been the primary source of inspiration. I would also like to acknowledge the immense influence my supervisor; Prof. G.W.K Instiful has been to the development and completion of this thesis.

My siblings Francis, Rosaline and Philomena also played very important role in support of my education. I indeed appreciate the help of my favorite Auntie who has financed my education and been a Mother to me through it all. Thank you to Mr. and Mrs. Hagan for providing me with accommodation and a home.

Also want to show my appreciation to all my course mates and all the people I met on university campus who have aided me in diverse ways. Lastly my thanks go to all who assisted in various ways by given information and participating in the study.
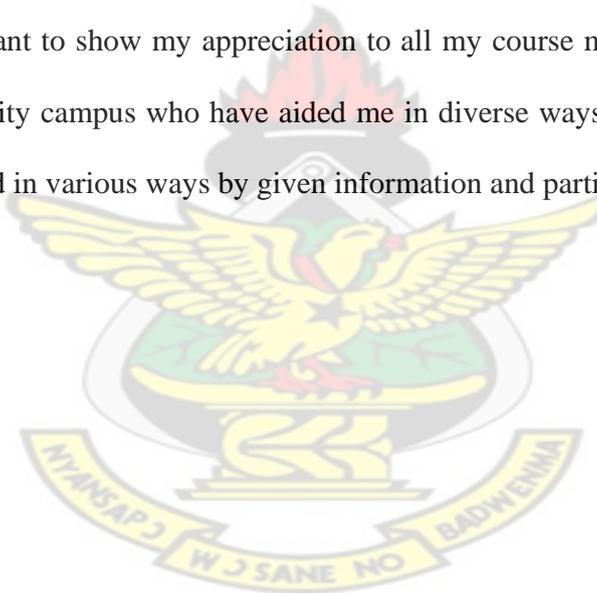
ABSTRACT

This thesis aims at identifying some elements and concepts of art and architecture that when incorporated in building designs classifies them African. It also assesses whether evoking such elements and concepts is possible and can be easily identified by the natives of the study area and by foreigners. I conducted a survey to assess the level of awareness in Cape-Coast in Ghana which is rich in cultural heritage sites and African history.

Studies of cultural buildings were carried out to find out how character and identity is given to such buildings to make them culturally significant to the particular culture it is designed for. Survey results showed that there is low knowledge and understanding of African Art, Architecture and History amongst natives in Cape Coast. People generally identify African Architecture by the aesthetic that is evident on the envelope of buildings. Evoking the identity and character of African Art, Architecture and history through cultural buildings will hopefully impact positively on Ghana's tourism industry. One way African elements and concepts are captured in African buildings is through symbolism. Case studies were conducted on the use of symbolism in buildings and these revealed the two modes of application of symbolism, the literal and abstract modes.

This thesis hopes to address the general lack of clarity on the subject of African Art and Architecture and history amongst ordinary Africans. It is hoped that this thesis will help to incorporate African elements and concepts to develop a unique African Architecture. Through findings of this thesis, model cultural centers can be designed and subsequently this model will help to educate and inform the design of other cultural buildings and eventually all buildings in Ghana.

TABLE OF CONTENTS

Contents

LIST OF TABLES

LIST OF FIGURES

KNUST

CHAPTER ONE

1.0 INTRODUCTION

All over the African continent, people are advocating for a change in current trends in African Architecture to a more sustainable one. This call has come through lectures and seminars organized in Universities across the continent. The question has always been what is African Architecture? In other words what can be recognized as African Architecture? This is the area that this thesis explores; the element and concepts employed in Architecture to classify it as African through the design of a cultural center for Cape coast.

Over the African continent, a lot of work has been done on the restoration of this identity and character. Notable amongst the lot is the work of A.D Oosthuizen, the design of his Kouga Cultural Centre in South Africa.[1] In this design he demonstrates how African Art and Architecture elements can be used in a sustainable way to create Architecture that can be identified as African.

1.1   Problem Statement

Lack of awareness and understanding of African Culture and the conscious effort to develop its Architecture has for a long time affected the development of indigenous African Architecture to the point that we are now dependant on technologies and built up environment that we cannot identify as our own. Current trends in the development of our built environment do not in most cases have any bases or inspirations stemming from our culture.

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[1] A.d Oosthuizen, Kouga cultural Centre- Architectural Symbolism and Meaning.
[ecobuild.com.au/Symbolism.pdf], (accessed 2008 November 3)

This has resulted in the followings:

- Lost evolution of Indigenous African Architecture

- Unsustainable trends in building/ High cost of housing

- Urban sprawl and Slams

- Lost cultural and Architectural Identity

1.2   Justification and choice of study area

By this thesis the author is adding a voice to the call for a rebirth in indigenous African Architecture. Hopefully by first taken people through our past by sensitization and research into ways to restore our African Identity will result in unique and African built environments.

The other area in which this thesis and the ends it seeks to achieve becomes very helpful and relevant is the promotion and growth of the tourism industry. In line with National agenda to rebrand Ghana, tourism could be used as one of the tools to achieve the above agenda. Tourism in Ghana in general will be more attractive and profitable if we can show the world some good indigenous African attractions (cultural buildings) and built environment. According to Odeyale Timothy Oluseyi cultural buildings are those building that facilitate and preserve the culture of particular groups of people. This ranges from shrines, cultural centers, cinemas, libraries, museums, town halls, etc.[2]

Cape Coast is a good location for the beginning of a revival for African architecture. This is due to the unique role Cape- Coast has played in Ghana's history. It

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[2]Odeyale, Timothy Oluseyi (2007), Cultural Metamorphosis, Building Traditions and search for Architectural Identity in Africa - A Case Study of South Western Nigeria.

has the Cape Coast Castle which tells a story of Ghana's colonial past and was later the capital of the then Gold Coast. Due to this Cape Coast attracts a lot of tourists. Once the tourists come to see what happened in history, we can then take the opportunity to show them the side of Africa that they may not be aware of.

According to Comer the problem with tourism in Cape Coast is the short stay of tourist due to in adequate customer services such as accommodation and catering.[3] If these facilities are provided, more revenue will be generated. Another problem that he mentioned was inadequate education on the various heritage sites in and around the Cape Coast municipality.

There is obviously a lot of potential in this region to change Africa's outlook at the same time building the tourism industry in the region. According to the Central Regional Director of Ghana Museum and Monument Board, Mr. Nicholas Ayivor, the Cape Coast and Elmina Castles alone generated revenue of 210,795.83 Ghana Cedis and had 135,070 tourists in 2007.[4]The number of visitors reduced in 2009 to 121,434 tourists. He attributed the higher patronage in 2007 to increased number of festivities such as the PANAFEST (Pan-African Historical Theatre Festival) and Ghana @50 celebrations. Cape Coast hosts the celebration of PANAFEST and is able to draws people from all parts of the world. With the infusion of adequate resources and sensitization in this part of the country, Cape–Coast will be in a position to meet the needs of any activity related to tourism and dissemination of cultural information and

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[3] Douglas C. Comer, PhD
http://proceedings.esri.com/library/userconf/proc99/proceed/papers/pap283/p283.htm
Historic Cape Coast Site Analysis ,Utilizing Geographical Information System (GIS) and Aerial Imagery Analysis Technology for Integrated Planning

[4]Ghana web, Article140422 (2008-03-07) www.ghana web.com/../artikel.php(accessed 2008 February 18)

African identity in buildings. There is a pressing need to establish a clear identity for our way of life (culture) and architecture in a sustainable manner. This can start with cultural buildings such as museums and cultural centres designed with elements and concept of African art, architecture and history. The elements are the features and principles that guide the creation of African art and architecture. The concept comes from the culture of Africans and serves as the moral basis for its art and architecture.

1.3   Aims

This Thesis seeks to establish a guide for the development of cultural buildings which will serve as centers that African Culture can be taught to everyone and also equip African communities to develop their indigenous African Architecture.

1.4   Objectives

This thesis explores to establish the possibility of using cultural buildings as catalysts to cause this change which will eventually transform the landscape of Ghana. The realization of this will mean a more sustainable approach to Architecture which will sharply contrast current building trends on the African continent in the 21st Century. This change is a necessity and will go a long way to solve some of the challenges the continent faces. Africa is saddled with lack of adequate infrastructure coupled with poorly planned towns, cities and deprived rural areas. Urban sprawl and development of slums which has resulted from inadequate affordable housing is high on the list of challenges. Basic necessities such as decent housing are now beyond the reach of citizens of most African countries.

4

This is due to the use of foreign technologies and materials. All of these points to the unsustainable trends in the development of Africa's built environment today. Africa used to have developed towns and civilizations as depicted by Timbuktu and the Egyptian civilization. The success of these towns and civilizations was that they were able to develop indigenous technologies and also built taking into consideration climatic, geographical and cultural contexts. Scholars believe this was gradually brought to an end over the years through contact with different cultures, the Islamic invasions and eventually the colonization of the continent.

By the end of slavery and the emancipation of the continent, African indigenous Architecture, its building technologies, character and identity had been lost. Then came the International style of Architecture from the west to replace what was left of indigenous African Architecture. Africa has since looked to the west for solutions to its problems when it comes to Architecture and building technologies. This thesis seeks to break this trend and cause Africa, and particularly Ghana to look more inwards to what we have. This hopefully will be achieved through sensitization and development of model African buildings.

1.5   Scope

This Thesis will be guided by the following.

- Looking at issues that have to do with people's understanding and awareness of African Culture and Architecture. This will be done at Cape Coast with a selected number of respondents.

- Thesis will not be limited to a specific group of Africans but will analyze what Africans generally identify with.

- Find Elements and Concepts that make buildings African.

- Identify relevant literature to form the bases for proposal of cultural building developments.

- Access the impact a model African cultural building can have on the Built environment.
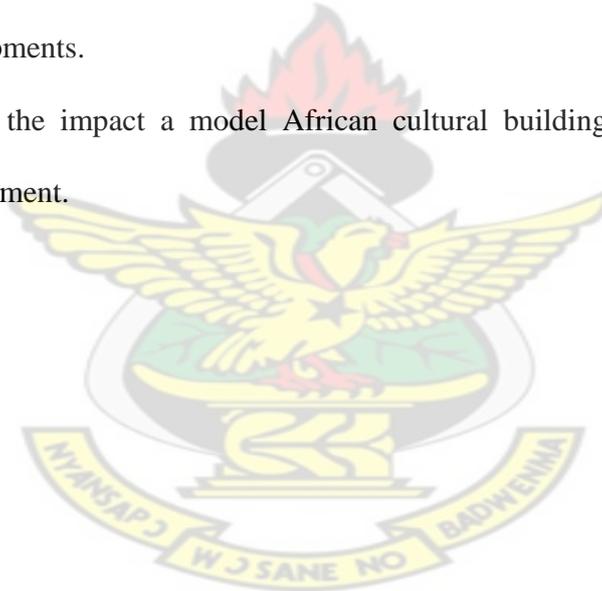
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 The Museum

2.1.1   Historical Background

The museum its origin, purpose and functions have been well documented in a lot of publications and articles. Museums, by their functions have played important cultural roles in safe guarding the history of cultures. They can be classified under cultural buildings.

To understand what museums are, one needs to have a historical background of how it evolved and have functioned since then. The English word "museum" comes from the Latin word, "musea" which means rarely, and is pluralized as "museums". It is originally from the Greek word mouseion , which denotes a place or temple dedicated to the Muses (the patron divinities in Greek mythology of the arts), and hence a building set apart for study and the arts, especially the institute for philosophy and research at the Library established at Alexandria by Ptolemy I Soter c280 BCE[5]. It can safely be concluded that from history, the core functions of museums have been to educate and to preserve history.

However, due to changing times and the need for museums to be sustainable, they now need to be self financed and not sponsored by a patron. Museums also took on the role to entertain. Today, museums, like the Guggenheim museum at Bilbao serve as

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[5] Wikipedia, [http://en.wikipedia.org/wiki/museum] (accessed 2008 February 18)

a major tourist destination. Due to this change museums now have the ability to project the history and culture of various people across boundaries.

2.1.2   Types of Museums

Museums as institutions are classified under some groupings based on the functions and types of exhibits available on display. They can be put into categories that range from fine arts, applied arts, craft, archaeology, anthropology and ethnology, history, cultural history, military history, science, technology, children's museums, natural history, numismatics, botanical and zoological gardens and philately. However, there are some that are specialized in fields like museums of modern art, local history, aviation history, agriculture or geology, whilst others have been a combination of several disciples.

As mentioned above these museums are put in these categories due to the subject matter they tackle. Of particular interest to this thesis is the Art museum, History museum and the Virtual museum space. The virtual museum will have the unique ability to provide variations in the type of exhibits to be displayed to achieve different ends.

2.1.3   Trends in design of Museums

The museum experience has gradually changed from one that encouraged limited contact between exhibits and visitors to one that the visitor is "virtually" in the period if it has to do with history and has more interaction with artifacts. It is possible for visitors to walk through the lives of particular cultures by means of the virtual museums talked about. For purposes of reconciling Africa with its past, education can

be done through the establishment of a virtual museum. This museum is a developing trend which can be capitalized upon in the display of Africa's rich and vibrant culture. It is widely known that most of Africa's history was passed on orally through folktales and songs. Not much was recorded. A virtual museum with a lot of simulation will do a lot of good for the preservation of such history.

2.2 African History

Contrary to the view held by most people from the West and even Africans of Africa not having had any advance civilizations in history, historians have proved beyond doubt that Africa had flourishing civilizations before the exploration of the continent. The subject of African history is a complex and controversial one which is certainly beyond the scope of this thesis. Therefore it is important to give an overview of the various segments of African history to set the background for understanding where Africa and its people are coming from, and their true identity.

What remains true about African history and architecture that it has come though the period of history put on different outlook depending on the influences that are present? Professor Ali Mazuri captures this concept in his book 'The African, a triple heritage'[6]. He stated that the triple heritage was evident in all African countries. It is the effect of the introduction of different cultures into Africa over the centuries: the indigenous culture of the Africans mixed with culture of Europeans during the colonial times and other cultures like the Islamic culture. A look at most countries in Sub-Saharan Africa has these three parts in various sections of the country. Depending on

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[6] Nnamdi Elleh (1996), African Architecture: Evolution and Transformations

9

which part of a country the new cultured stayed that culture dominates and had more influence on its architecture.

The history of Africa shows that it had developed civilization before the period of invasion in the 16th Century. Africa had its own civilization that had from the simple hut houses, earth (adobe) buildings in the northern Africa region to the monumental structures in the form of the pyramids.

Africa clearly began to witness a decline in its identity and various components of its culture during and after the era of the European exploration. This was due to the influx of foreign cultures and acculturation of the people of Africa. These cultures flourished due to colonization and the slave trade. The culture of the colonized state changed quickly into a hybrid of the indigenous and foreign cultures. In the process the African continent lost aspects of its culture for that of its colonial masters, this is evident in the way we live now. However the 21st century has seen an increased desire for a renaissance in African culture identity and Architecture.[7] Conference and seminars are being organized all in the attempt to sensitize and find ways of redeveloping indigenous building technologies.

2.3 African Arts and Architecture

According to Van –Jean Belton Africans have been endowed with lots of arts and as such, the African seeks to find meaning and expresses himself through arts. Van-Jean Belton acknowledges the contributions of Africa to arts by stating that, the possible greatest contribution Africa has made so far to the cultural heritage of mankind is its

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[7] [http://en.wikipedia.org/wiki/History_of_Africa] (accessed 2008 April 4)

varied sculpture. He continued by saying that African sculpture was hardly known outside its own continent until the late nineteenth century, but during the twentieth century, its effects on Western art have been immense.[8] To be able to appreciate and recognize true African Art and Architecture one needs to understand the underlining principle that shapes it.

2.3.1   African art aesthetics and meaning:

In African art, 'aesthetics' is a term used to sum up the characteristics and elements clearly present in all art objects.[9]

African artifacts have generally been exhibited with reference only to cultural context and use. In view of recent studies of African aesthetic principles and related moral and religious values, there is good reason to emphasize the formal aesthetic aspects of the objects and the moral and religious ideas they express. [10]

African aesthetics generally has a moral basis, as indicated by the fact that in many African languages one word is used to describe "beautiful" and "good." It is consistent with the use and meaning of African art that it should be both beautiful and good, because it is intended not only to please the eye but to uphold moral values. The ethical and religious basis of African art may explain why the principal subject is the human figure; African art often appears in ritual contexts that deal with the vital moral and spiritual concerns of the human condition.

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[8]Susan M. Vogel, African Aesthetics, New York: Center for African Art, 1986.
[www2.lib.virginia.edu/artsandmedia/artmuseum/africanart/Elements.html -],(accessed 2009March 11)

[9] Bromer, Gerald F. Discovering Art History, 1981
[10] Susan M. Vogel, African Aesthetics, New York: Center for African Art, 1986.

All the various principles and meanings in African art points to one fact: that art ought to be relevant and in line with the morals, beliefs and aspirations of the African. Therefore to make art and architecture meaningful and recognized as African, they have to be seen to be exhibiting these morals, beliefs and aspirations.

2.3.2   Elements of the African Aesthetic:-

The following, according to Vogel forms the pillars of African aesthetic which suggest how the final outlook of African art and architecture should be.

a) Resemblance to a human being:

African artists praise a carved figure by saying that it "looks like a human being." Artists seldom portray particular people, actual animals, or the actual form of invisible spirits. Rather, they aim to portray ideas about reality, spiritual or human, and express these ideas through human or animal images. This element is used because African artists seldom portray particular people, actual animals, or the actual form of invisible spirits in their sculptures. Rather sculptures were intended to be likenesses of their living subject.

b) Luminosity:

Vogel defines this as the lustrously smooth surface of most African figural sculpture, often embellished with decorative scarification indicates beautifully shining, healthy skin. Figures with rough surfaces and deformities are intended to appear ugly and morally flawed. It involves the play of light and shadows on surfaces of sculpture.

c) Self-composure:

The person who is composed behaves in a measured and rational way; he or she is controlled, proud, dignified, and cool. The sculptures are often a straight and upright

12

posture and symmetrical arrangement. This does not exclude asymmetry, but it does restrict it to fairly minor details. **11**

    d) Youthfulness:

A youthful appearance connotes vigour, productiveness, fertility, and ability to labour. Illness and deformity are rarely depicted because they are signs of evil. Clarity of form and detail, complexity of composition, balance and symmetry are typical characteristics.

    e) Smoothness of finish:

African artists place a high value on fine workmanship and mastery of the medium.[12]

2.3.3 African Architecture

In defining what African architecture is, Elleh takes Professor Ali Mazuri's Triple heritage concept a step further, showing how those three components shaped the face of architecture in Africa.[13] The evidence from archaeological sites in different parts of the continent contradicts the notion that Africans were unable to produce monumental architecture. So far, the only two main texts ground traditional African architecture in antiquity and made a strong case for exploring what the archaeological evidence reveals about the continent's architectural history: Elleh's aforementioned African Architecture and Prussin's African Nomadic Architecture: Space, Place, and Gender (1995). Both books strongly argue that scholars should look at the archaeological records in the Sahara, especially from the regions of Tassili and Fezzan,

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[11] Susan M. Vogel, African Aesthetics, New York: Center for African Art, 1986. [www2.lib.virginia.edu/artsandmedia/artmuseum/africanart/Elements.html -],(accessed 2009March 11)
[12] Susan M. Vogel, African Aesthetics, New York: Center for African Art, 1986. [www2.lib.virginia.edu/artsandmedia/artmuseum/africanart/Elements.html -],(accessed 2009March 11)
[13] Nnamdi Elleh (1996), African Architecture: Evolution and Transformations

in order to gain insights into how different architectural elements evolved on the continent. Prussin traces the origins of the tent structure and the role of women in its construction and perpetuation from prehistoric to contemporary times. Prussin's propositions help buttress Mazuri's concept of the triple heritage when it comes to the relationships between ancient Egyptian architecture and traditional architecture in sub-Saharan Africa.

In Art History in Africa: An Introduction to Method (1984), Jan Vansina makes the point that ancient Egyptian art and Architecture cannot be fully understood without recognizing that it inherited most of its traditions from the Saharan cultures that predate it by more than three thousand years.

Usually, when people think of ancient Egyptian Architecture the image that comes to mind is great pyramids and temples that were built by people whose skin colour was lighter than the complexion of people who reside in sub-Saharan Africa. The implication is that, culturally speaking, these people with lighter skin color are entirely distinct from those with very dark skin, and, as such, those with very dark skin produced nothing in antiquity. On the contrary, and backed by strong archaeological evidence, Elleh argues that early Egyptian dynasties and their monumental Architecture were built by ancient African kings.

Indigenous African architecture includes pyramids, temples, clay (adobe) structures, tent structures, huts made of grass and reeds, and a combination of multiple building materials, and the tectonics of each structure depended on its geographical location and the time in which it was conceived and produced.

2.3.4 Summary of the triple heritage concept

Traditional African Architecture:

The tent is one of the earliest houses of Africa. Ancient Africans built their first homes after they left the cave of the Sahara and settled along the Nile valley where the fertile grounds allowed them to develop a booming agriculture. They developed structures like the hoop-roofed houses which were made of bundled reeds bound together to form a hoop at the top. There also came the rectangular house which represents the last phase before the creation of the eternal monuments.

During this stage the Egyptian house evolved from tent houses through circular and oval huts to rigid rectangular houses.[14]

Western Architecture

According to Elleh Western architecture was introduced into Africa in two stages- the first during the roman conquest of the North Africa and the subsequent being the European invasions of Africa. The introduction of Western architecture was intertwining with the introduction of Christianity.

The other factor that caused an increase in influence of Western architecture in Africa was emancipated slaves and native Africans who worked directly and had been trained by the Europeans. They were called upon in the rebuilding of African nations after Independence had been won. These artisans and crafts men built based on what they had learnt from the Europeans. Notable amongst the styles of architecture employed was the International style or Modern architecture.

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[14] Nnamdi Elleh (1996), African Architecture: Evolution and Transformations, McGraw – Hill Professional; 1 edition, Chicago.

Islamic Architecture

Islamic architecture was introduced into African Architecture through the Islamic invasions of North, East and West Africa. This resulted in the mosque building and with their arches and domes. Islamic architecture on the east African coast is homogenous in five basic elements: technique of construction, ornamentation and decorative detail, the composition of mosque mihrabs, mosque planning, and the planning of domestic buildings. Most of the structure were made of coral limestone and had highly developed interior spaces that included flat roofs, domes, gables and vault.[15]

African Architecture today is focused on Rediscovery, Renaissance, Rebirth, Regeneration and so forth, has become a major preoccupation of the African continent today. The above named approaches are in the effort of restoring identity and value to the African continent. To accomplish this understanding of what African Architecture is today is critical. One may speak of indigenous African Architecture today as being the Architecture that carries an identity of indigenous people of the people of the continent today and how they live. [16]?

An objective view to the above definition is that Architecture that has an African character today cannot be limited to poor construction materials nor mud-walled cone-on cylinders and grass domes. Use of such elements and forms today can only be encouraged where one wishes to acknowledge, with sufficient understanding, a historical milestone of the lost evolution of indigenous African Architecture. The use of underdeveloped construction materials in contemporary Architecture is only a celebration of African poverty in Architecture. There is tendency for one to think the

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[15] Dumisani Mhlaba, African Architecture Today, Approaches and Appreciation of African Architecture.
[16] Dumisani Mhlaba, African Architecture Today, Approaches and Appreciation of African Architecture.

mere use of local available materials which have not been developed is African. Having lost its technological evolution, the most significant element of indigenous African architecture that has survived thus far is spatial planning, driven by culture. African indigenous architecture is developed based on the way Africans live and the functions they assign to the spaces. These functional organizations have moral bases and are in harmony with the beliefs of the African.

Architectural form is a product of technological advancements of construction materials and methods, which is subject to economy. The completeness of architecture, as shelter, involves space and form. It follows; therefore, that quality in indigenous African architecture today has remained in the planning of space relative to form. This is predominant in the rural built environments of indigenous African communities.[17] This is a resource that, taken advantage of, has great potential in the redefinition and development of contemporary African architecture.

2.4 Culture and Iconic Architecture

A useful definition for culture is the body of learned beliefs, traditions, principles and guides for behavior that are commonly shared among members of a particular group. Culture serves as a road map for perceiving and interacting with the world. As mentioned earlier about African indigenous architecture, it is said that the part that survived was its spatial planning and this was possible through culture. This suggests strong linkage between African architecture and its culture.

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[17] Dumisani Mhlaba, African Architecture Today, Approaches and Appreciation of African Architecture

2.4.1 Characteristics of Culture

Culture has several distinguishing characteristics. (1) It is based on *symbols*—abstract ways of referring to and understanding ideas, objects, feelings, or behaviors—and the ability to communicate with symbols using language. (2) Culture is shared. People in the same society share common behaviours and ways of thinking through culture. (3) Culture is learned. While people biologically inherit many physical traits and behavioural instincts, culture is socially inherited. A person must learn culture from other people in a society. (4) Culture is adaptive.[18]

People use culture to flexibly and quickly adjust to changes in the world around them. By this, culture is intended to make a group of people unique from other but then they share visible common characteristic which shows in their built environment.

2.4.2 Culture and the built environment

Culture has to do with the way of life a people; it may be of material or non-material type. The material culture have some aspects reflected in the historical buildings, monuments, sculptural object, artifacts' or antiquities, carved wooden objects, which form essential parts of the traditional built environment. There is a general consensus among mainstream anthropologists that humans first emerged in Africa about two million years ago. Since then man has spread throughout the world, successfully adapted to widely differing conditions and to periodic cataclysmic changes in local and global climate. This led to the emergence around the globe remarkably different societies with differing cultures, and these cultural differences persist to this day.

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[18] http://www.sociology101.net/readings/Culture.pdf

The comprehensive process of societal change resulted into different physical development of the environment across the globe.[19]The development of building types and forms is not tied only to climatic considerations; such factors identified include related economic activities, critical social activities (including cooking and childbirth), ceremonial rites, religious believes restrictions, prestige, owner's status and modernity (Adeyemi, 1994, Rapoport, 1964).

Depending on the culture of a group of people cultural buildings are put up to facilitate the activities of the people. These facilities range from churches, shrines, culture centers, cinemas, libraries, museum, monuments and a lot more. Through the activities of the people, these buildings become the physical part of their culture. These buildings become symbols for the people of that particular culture. This is where iconic buildings come into play.

An icon is defined in the Oxford dictionary as a representative symbol of a cultural period. Iconic buildings in history were not erected just for the purpose of building icons, they served specific purposes, quite aside from being grand, well – executed and thoughtful additions to the immediate environment they inhabited, early 20th century design brought Frank Lloyd Wright's Prairie houses, Le Corbusier Citrohan House, and Mies van der Rohe's Barcelona Pavilion.[20]Each has become an icon, although not immediately recognized as such at the time of conception.

Traditionally, a building is an icon when it is a popularly-recognized symbol of something larger than itself. The word iconic was originally intended, as a way of

[19] Odeyale, Timothy Oluseyi (2007), Cultural Metamorphosis, Building Traditions and search for Architectural Identity in Africa - A Case Study of South Western Nigeria.
[20] Iconic Architecture Redefined, Classic Architectural Features versus Signature Architecture Design. [http://architecture.suite101.com/article.cfm/experiencing_architecture]

recognizing well-established architecture which is beautiful, functional, a welcome adjunct to the social and physical environment, and a worthy testament to the culture of its time. However in the 21st century according to Charles Jencks, "Iconic has become synonymous with wacky crowns on high rise buildings, super-tall structures that come down hard at grade and unusual architectural forms".[21]

It however has to be said that there are some success stories for example the Bilbao Guggenheim museum by Frank Gehry which has been of immense benefit to the locality in terms of revenue and the exposure brought to it. Icons can be power tools that define the order and the architecture of people at a time in history.

2.5   Re-building the Identity of African Cities

The basic problem which exists in a majority of African cities is the feeling of overcrowded chaos which can be attributed to two issues; (1) a lack of multiple centers and (2) a lack of proper planning. Typical images of African cities show crowded open markets, gridlocked streets where people on foot move faster than cars, temporary structures for commerce (and sometimes as a residence), and a basic lack of order to the urban landscape.[22] For African identity to be restored to our cities and towns in the area of our built environment, spaces need to be created based on the cultural structure and social   ordering   of   spaces   of   the   people.

According to Carson, a good city design should afford the inhabitants the ability to live a self-sustaining life within a fifteen (15) minute (or ½ mile) walking

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[21] Jencks Charles (2005), Iconic Building, Rizzoli; First edition

[22] Dr. Jacqueline Copeland Carson, The Cultural Re-Construction of African Identity: A 21st Century Agenda.

radius.[23] Giving thought to all the different activities the typical person experiences on any given day, creating categories for these activities and designing them into the fabric of the neighbourhood, grouping these neighbourhoods together to form a good town, and all these self-sustaining towns together create a good city.[24]Prof. Westfall has defined six (6) basic architectural typologies which I believe to be the building blocks for designing a good city. 1. Tholos – for venerating 2. Temple – for celebrating 3. Dwelling 4. Regia – for governing. 5. Theater – for imagining 6. Taberna – for mercantile activities.[25]

The thoughtful arrangement of these building typologies into a system of streets and blocks form a well designed neighbourhood. A group of well designed neighbourhoods form a town. A group of well designed towns form a city. A simple ideal, and can easily be achieved if there is a plan to follow. In my opinion, the infrastructure already exists to make neighbourhoods such as I have described a reality in most African cities.

2.6 African Architecture and Urbanism

Urbanism is the study of cities, their geographic, economic, political, social and cultural environment, and the impact of all these forces on the built environment. Urbanism is also a species of urban planning, focusing on the creation of communities for living, work, and play. According to demographers within the next five years, half the population of the world will for the first time live in cities, a milestone that has been more than a millennium in the making. Nearly all the world's population growth for the

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[23] Dr. Jacqueline Copeland Carson, The Cultural Re-Construction of African Identity: A 21st Century Agenda.
[24] Prof. Westfall , University of Notre Dame,2008 June 8
[25] Prof. Westfall , University of Notre Dame,2008 June 8

foreseeable future is projected to be concentrated in urban areas, with most of the growth occurring in the poverty-ridden cities of Asia, Africa and Latin America. According to Lowy the trend toward urbanization is as old as civilization, although it accelerated with the industrial revolution of the 19th century and increased during the last fifty (50) years. [26] These projections also predict increase in number of urban dweller. It is important that in planning our cities we incorporate elements, concepts and spatial configuration with their compositions that will define our built environment as African.

Urbanization encompasses both physical and social dimensions. The former includes the attributes of size, layout, land use pattern, and the pattern and rate of growth or expansion. The social dimension on the other hand, embodies a group of subjects that include, but are not limited to, the composition and distribution of the population, housing, the availability and accessibility to services, and the livelihood strategies of the urban dwellers.

African urbanism displays two general trends. The first, for communities possessing some literacy, is toward relatively small compact settlements many of them less than 1km in extent (Macintosh & Macintosh 1980), the second major trend is towards low density occupation. Since the second millennium BC, literate and non-literate societies in Africa have also produced very substantial, extensive, low density settlements.

Whichever densities we have it is important that our cities and urban areas grow to reflect our culture. Urbanization does not necessarily have to cause us to abandon our

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[26] Joan Lowy, Scripps Howard April 08, 2002, http://www.post-gazette.com/world/20020406urbanworld0408p2.asp

culture. For example in Ghana and most parts of Africa, towns are closely knit social units with members having a sense of communal belonging. This kind of living forms part of the culture of the people and need not be changed because the town gets bigger but our cities can be made up of several of such social units from which we can retain our identity.

2.7 African Culture and Symbolism

In the book, "Writing for Your Life", Metzger states that "self discovery is more than gathering information about oneself." She continues, "In the process of... discovering our story, we restore those parts of ourselves that have been scattered, hidden, suppressed, denied, distorted, forbidden, and we come to understand that stories heal." Since time immemorial, individuals and communities have turned to the arts for a sense of identity and history.[27] It is through the arts that many still find a map to self-discovery. Given the nature of man as a cultural animal, man is able to make representations of his cultural identity through symbols in form of arts, language, myth., rituals, names, to mention but a few.[28]

African culture, since the colonization of the continent has experienced rapid change. The contemporary African culture is a mixture of traditional elements and alien features. Theophilus Okere describes today's Africa as a living merging of cultural rivers, the major rivers being, on the one hand, the traditional culture with its tributaries of religion, social structure, language, values and world view, and, on the other hand, the Christian -Western culture (and other alien cultures including Islam) with its own

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[27] Deena Metzger (1992) Writing for Your Life: Discovering the Story of Your Life's Journey, Harper One; 1st edition
[28] Deena Metzger (1992) Writing for Your Life: Discovering the Story of Your Life's Journey, Harper One; 1st edition

23

tributaries".[29]It has been established by many writers that the identity of African culture is in crises and to fix this we need a concept that embodies African community consciousness and solidarity, at the same time expresses African religion, politics and language.

The African world view is full of symbols. These symbols are presented by Dzobo as sources of insights into African orientations to life[30]. To illustrate this he takes examples from Ghanaian Adinkra symbols. He has classified them into about five major groups which are Adinkra, Stool, Linguistic staff, Religious and Oral literary symbols. Each of the symbolic group has information to convey concerning the way of life of the people at every situation they are presented or the history of the society it represents. Color has symbolic meaning in African culture and each color conveys peculiar information when worn or displaced at significant places or situations. These attributes of African culture and symbolism shows that Africa will be in danger of putting aside its culture if it accepts any influence without it having meaning or cultural relevance to the African.

2.8 Crisis of African identity

Arthur Leonardo believes that African people eat and live religiously.[31] The African is guided by a set of believers and norms that shapes their societies and built environment. Unfortunately, the desire for traditional African religion and its practices started diminishing when the first European missionaries arrived in Africa. Forms of religiosity may differ, but all traditional societies practice one form of religion or another. The

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[29] Theophilus Okere, "African Culture: The Past and the present as Indivisible whole", in Identity and Change: Nigerian Philosophical Studies

[30] African Culture and Symbolism (www.crp.org/seminar/05-seminar/)

[31] African Culture and Symbolism (www.crp.org/seminar/05-seminar/)

historical forces which can be held responsible for the fate of our traditional religion include:

i.   Western education, philosophy, science and technology which have increased our knowledge of nature and its laws.

ii.   Western religion, with its ideological campaign against traditional African religion and culture.

The colonialists subordinated traditional African authority, values and norms of African communalism in the minds of Africans. This new anti-African script argues Nyasani (1997), remains deeply imbedded in the minds of contemporary Africans to the point that Africans see their culture to be inferior to that of the Western world. They have abandoned their culture and have adopted and assimilated whatever the West has to offer.

2.9 Seaming the fragmented cultural identity

African Identity has been corrupted and needs urgent and serious attention to seam the fragments together. This process is going to incorporate the new ideologies already adopted by the African people as comparison with the lively cultures which religiously provide the symbolic meanings of African culture. This will mean a change to some of the values that held our culture together. Some of these will be: Communal living- African people are community conscious beings and give symbolic meanings to community life. This will lead to designing of more well planned settlements that foster the values described above. This African communalism is the seaming line of African

identity where the individual is immersed in the community and derives his personality only from the community. [32]

Symbol is something such as idea, object, conventional or non conventional that is used to represent something else. It could be abstract or not. Abstract symbols are symbols that do not depend on their concrete material substance. [33]However as stated earlier the African society is one that uses a lot of symbolism in their day to day activities. Due to the great diversity in African symbols, the Akan traditional symbols will be used as an example to show African cultural belief influence their architecture. Akan architecture is not only elaborate in terms of function and building technology. It also presents a reflection of the people and their spirit of independence, a variety of forms and design principles that encode expressive messages which continue to astonish foreign observers. Various symbols are used as reliefs on plinths, banisters, and walls in Akan architecture.

The *fihankra* (compound house) style of building consists of a central quadrangle which is enclosed on all four sides with rooms. The multi-room rectangular building with an open courtyard found in Akan houses, as captured by the fihankra symbol, marks the Akan concept of private and public space. The Akan fihankra building used as a home demarcates between the "Fie" (inside, private) and "Abonten" (outside, public).

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[32] Andrew Ifeanyi Isiguzo, African Culture and Symbolism: A Rediscovery of the Seam of a Fragmented Identity. [www.assatashakur.org/.../27129-african-culture-symbolism-rediscovery-seam-fragmented-identity.html]
[33] African Culture and Symbolism (www.crp.org/seminar/05-seminar/)

The *"Fihankra"* symbolizes protection, security and spirituality. In front of the house is placed a stump called the "Nyame dua" - God's altar which represent's God's presence and protection. When one enters the house, the open courtyard (*"Adiwo"* in Twi; Fante call it *Paado")* represents the public space within the house. This open courtyard has multiple uses. It is usually surrounded by a verandah where guests may be received. A bigger group of guests will usually be received in the *"Dampan"*. The *"Dampan"* (literally, empty room) is semi-private and has multiple uses: from receiving guests, and holding court to laying the dead in state during funerals. Then, there are the private rooms: living room, bed rooms, bathrooms, etc. There is also the kitchen, which very often extends into the open courtyard. In a big Akan house, there are the women's quarters *("Mmaa mu")* which will have its own open courtyard and a number of private rooms. The kitchen and the bathrooms will usually be in these quarters. In the Asantehene's Palace the women's quarters is called *"Hia"* or *"Hyia"*. [34] From the examples listed, it is obvious that African Architecture is mainly developed from the social standard of its people.

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[34] http://www.marshall.edu/akanart/akanadnasie.html

2.10 Concluding Remarks

From the above review, various ideas on the Africans historical roots have been outlined. Whilst Mazuri's concept of the triple heritage states that for African history to be understood, all its components must be brought to the table, Elleh elaborates on this concept and believes that the three influences on African Architecture are Indigenous, Islamic and Western architecture.

Adeyemi believes that the development of building types and forms are largely influenced by economic, critical social activities like cooking, ceremonial rites, religious beliefs and restrictions, prestige, owner status and modernity.

On the other hand, Bromer describes aesthetics in the African sense as a sum of the characteristics and elements clearly present in all arts objects. Vogel sees that African art generally expresses the aesthetic aspects of arts together with moral and religious ideals.

To sum it all Pitney gives us an idea of what a good architecture is, "Good architecture offers identity and satisfies both a sense of belonging and one of aspiration". [35]

2.11 Technical Studies

2.11.1 Day lighting in Museums

Importance of day lighting in museums

1. Better color rendering
2. Fuller spectrum
3. Connection to the outside

Use of day lighting in spaces gives a sense of connection to the outdoor spaces and allows for views outside.[36]

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[35] Indeterminate Identity [www.shefs.ac.uk/../alex_pitney.pdf]
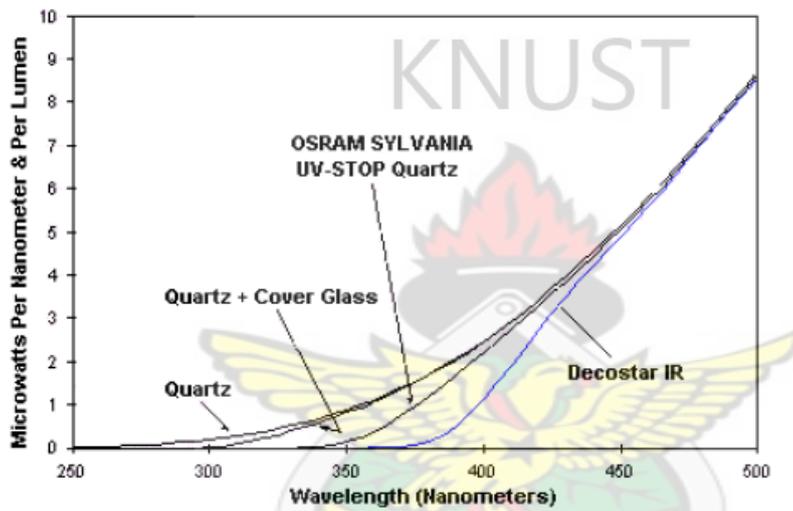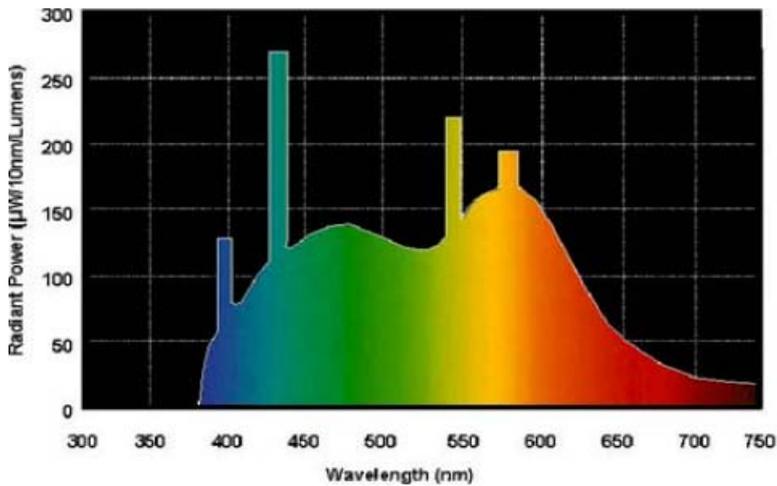
Figure 2.1 : Spectrum charts

(Courtesy www.nrc-cnrc.gc.ca/obj/irc/doc/daysim-case-studies.pdf) (accessed 2008 March 19)

Conservation consideration

Generally, all direct sunlight should be avoided. Shading systems can allow diffuse light and block all direct sunlight.

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[36] COPE Day lighting design aspects :www.nrc-cnrc.gc.ca/obj/irc/doc/daysim-case-studies.pdf

Figure 2.2 : High Museum of Art, Atlanta, Georgia

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Courtesy www.nrc-cnrc.gc.ca/obj/irc/doc/daysim-case-studies.pdf (accessed 2008 March 19)

Diffuse Daylight

Works on paper	50 lux	Works on paper with coloured media, any media on a degraded support, colour photo prints and transparencies
	100 lux	Works on paper with black and white media only, Black and white Photographs
Paintings	50 lux	Thinly covered paintings on unprimed canvas, Paintings in distemper media and gouache, miniature
	150 – 200 lux	Oil and tempera paintings
Objects	50 lux	Objects with painted , dyed or polychrome surfaces, Upholstered furniture, Unstable glass
	200 lux	Objects made of material such as leather and wood
	1000-2000lux	Objects made of inorganic material with unpainted surface such as stone, ceramic and metal

▪ **650,000 lux – hours maximum recommended for oil and tempera painting and object made of wood of leather**

▪ **150,000 lux – hours maximum recommended for textile, colored works on paper, photographs.[37]**

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[37] COPE Day lighting design aspects :www.nrc-cnrc.gc.ca/obj/irc/doc/daysim-case-studies.pdf

Lighting Design consideration

- Uniformity over vertical flat viewing surface – 2: 1 average to minimum is ideal
- Uniformity for 3-d object not as important
- Minimize glare by reducing reflection and bright surfaces such as unshielded lamps and windows.

Gallery lighting Analysis (Seattle Art Museum)

Figure 2.3 : Top lit gallery/Light box

(Courtesy Arup lighting- www.radiance-online.org/radiance.../Franks_ArupCaseStudies.pdf

Figure 2.4 : View galleries

Courtesy Arup lighting- www.radiance-online.org/radiance.../Franks_ArupCaseStudies.pdf (accessed 2008 March 19)
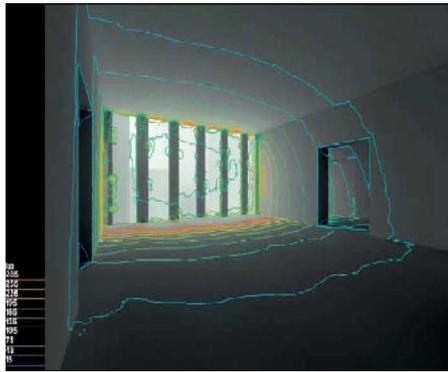
Figure 2.5 : Side lit gallery

Standard climate levels
Relative humidity 50 percent plus minus 5. Temperature 65 ^{0}F

2.11.2 Application of Titanium Dioxide Photo catalysis to Create Self-Cleaning Building Materials.

Summary
To realize self-cleaning material surfaces there are two principal ways: the development Of super-hydrophobic or super-hydrophilic materials. By transferring the microstructure of selected plant surfaces to practical materials like tiles and Facade paints, super-hydrophobic surfaces were obtained (Lotus effect). Super hydrophilic materials were developed by coating glass, ceramic tiles or plastics with the semi conducting photo catalyst titanium dioxide (TiO2). If TiO2 is illuminated by light, grease, dirt and organic contaminants are decomposed and can easily be swept away by water (rain). Subject of our further research is a detailed study of the interaction between TiO2 and traditional building materials like concrete, mortar and plaster.
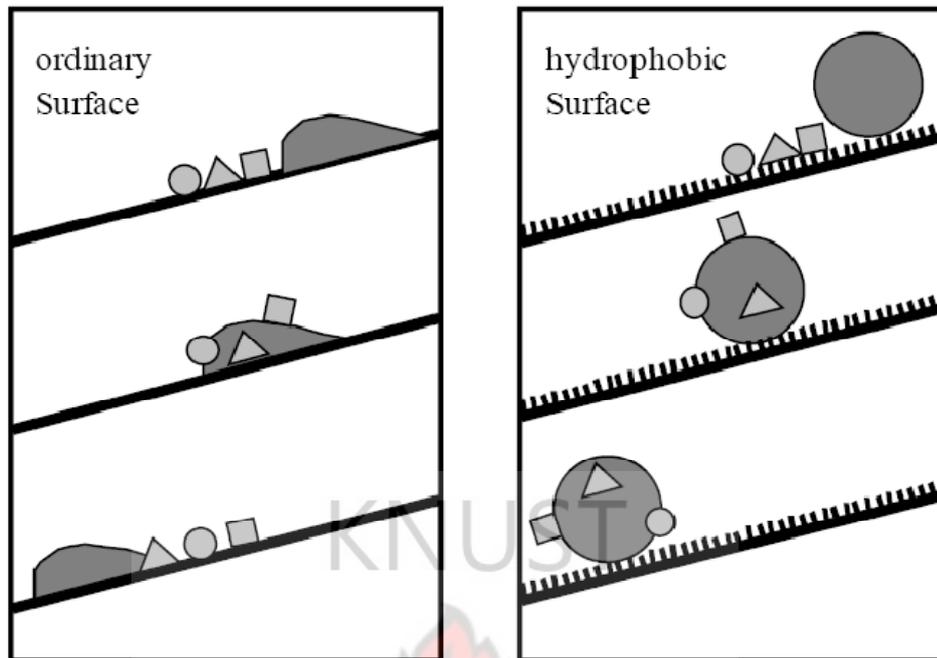
Figure 2.6: the lotus effect diagram
(Courtesy: www.nanoes.com/Reference/Self-Clean%20Materials.pdf) (accessed 2008 December 4)

Major areas of activity in titanium dioxide Photo catalysis
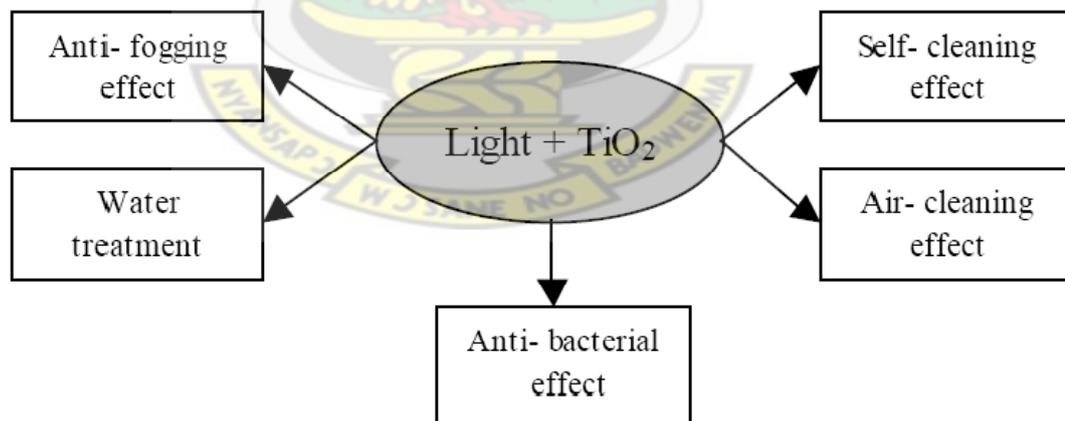
titanium dioxide photocalysis diagram

(Courtesy: www.nanoes.com/Reference/Self-Clean%20Materials.pdf) (accessed 2008 December 4)

Other application of Titanium Oxide

Self-cleaning aluminum siding, tent material, window blinds, self-sterilizing paper screens, and masonry building materials like stone.

Figure 2.7 : Application of titanium dioxide to Masonry, Tent and sidings

Courtesy: www.hydrotect.com (accessed 2008 December 4)
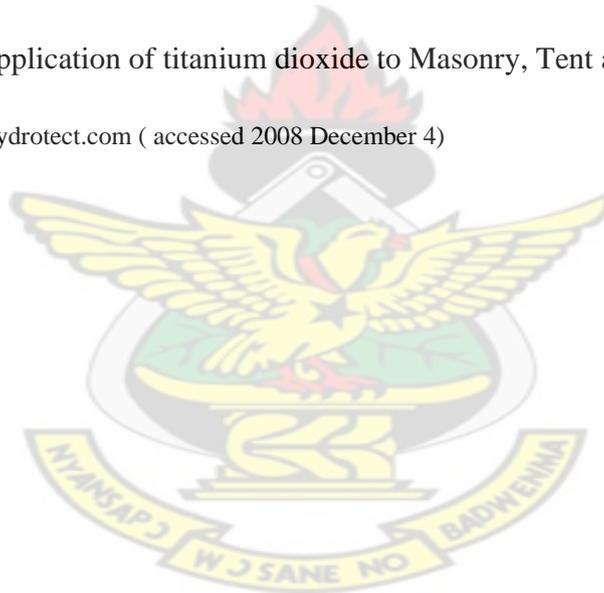
2.11.3 Floor Construction system

COMPOSITE
PRECAST SLABS

Composite precast slab

No. of floors	Rib			Beam			Materials per m2 of floor area					Design load kN/m2	Stability	Notes (See page 4)
							Precast			In situ				
	Span m	Depth mm	Span/depth ratio	Span m	Depth mm	Span/depth ratio	Concrete m3	Rebar kg	Strand kg	Concrete m3	Rebar kg			
9	14.5	560	25.9	4.8	500x 1000 (Perimeter)	4.8	0.150	5.75	6.3	0.080	2.2	5.0	Frame action and shear walls	Grade C60 Code CP 110 Double Tees, with in situ topping Precast H frame

14500

28400

4800 typical

14500

47600

Typical floor plan

1200

In situ

Varies 60-100

500

Typical section   Precast double-T beams
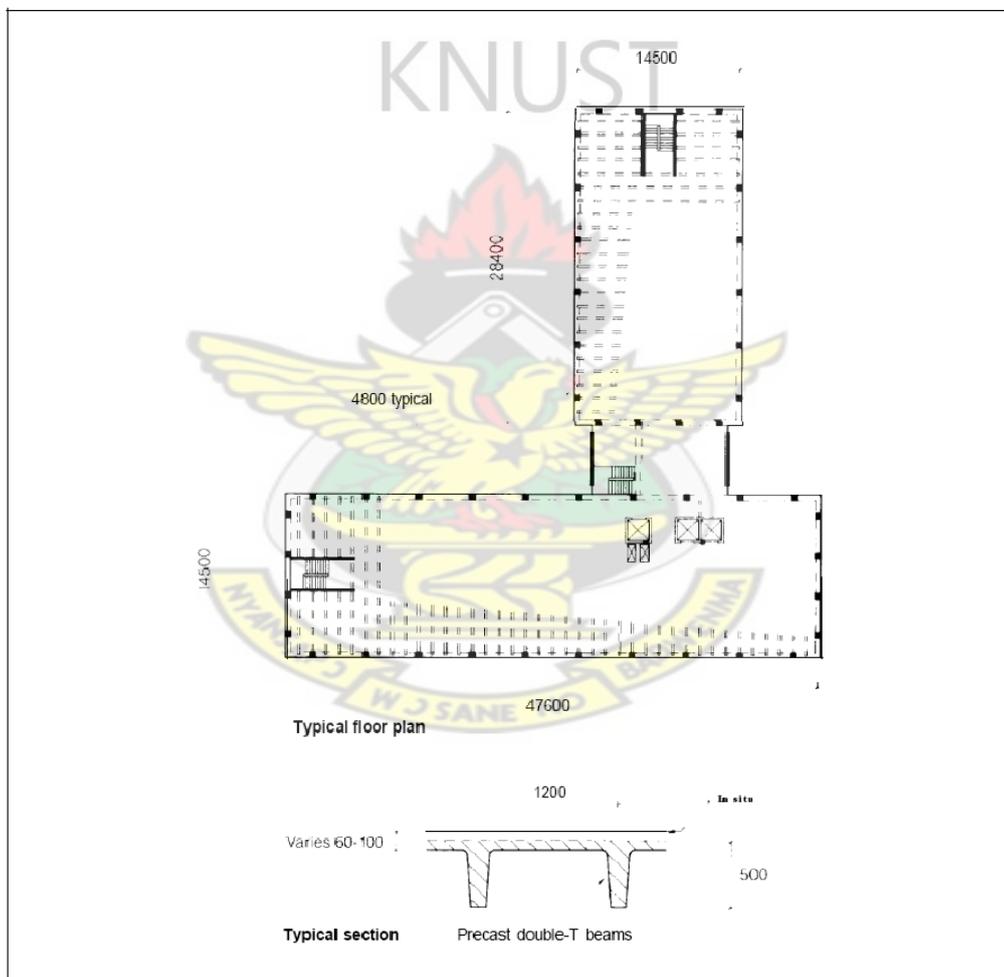
Figure 2.8: Structural floor system

Courtesy: Economic Long-span concrete floors- www.civl.port.ac.uk/rcc2000/pdfs/ecolong.pdf (accessed 2008 December 4)

The use of structural systems that could span long distance was studies. To enhance the quality of exhibition spaces and to make planning of spaces more manageable the way to go is clear spaces with no columns.

2.11.4 Dome construction system (Dome international incorporation)

Figure 2.9: detail of fiberglass dome.

Courtesy : www.domesintl.com/images/Composite_20Building_20Systems (accessed 2008 December 4)

The basic panel is triangular in shape but curved rectangular expansion panels are also available for virtually limitless size and configuration possibilities. The major component panels are handmade of energy-efficient, corrosion free fiberglass Sprayed onto a mold, this layer is followed by a 1" to 1 1/2" layer of high-density urethane foam for insulation and then a final layer of fiberglass is applied.

The four basic configurations are, the 8 foot diameter dome, the 16 foot diameter dome, the 20 foot diameter Dome, and the 32 foot diameter dome. The color of the outside of the dome is bonded into the surface during the molding process thus assuring durability and virtually no surface maintenance other than an occasional wash. On site the panels are bolted together and anchored to a concrete foundation. The seams where the panels meet are protected with a silicone sealant with an estimated fifty to seventy (50-75) years life span.

36

Properties of fiber glass dome

1. Thermal Radiant Heat Barrier Provides 97% Reflection Of Heat- Total R-28+Energy Rating.

2. Non-Combustible Exterior, Interior Coated With Ul Approved Fire Retardant Paint

3. Aero-Dynamic Shape Makes DOME Buildings Virtually Wind-Proof

4. Flexibility of the fiberglass shell reduces risk of damage or personal injury due to earthquakes.[38]

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[38] Composite Building components: www.domesintl.com/images/Composite_20Building_20Systems

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 The Research

The research comprised the following, study of literature relevant to the subject matter, the choosing and study of a survey area, a survey to solicit answers to some of the questions raised by this thesis and study of two Cultural buildings.

3.1.1   Literature Review

Research into literature that has been written on the subject was done to identify the most relevant issues to be discussed and added to if necessary. This primarily serves as background information from which useful suggestion or solutions could be applied to address some of the question this thesis raises. This also helped in structuring survey to be done in the study area.

3.1.2   Study of the Geographical area of Survey.

Through research on the internet, visits to the study area and by the help of local authorities like the Town and Country Planning the zone covered by Pedu, Kotokoraba, Bakaano and regions around the Cape Coast castle and the Catholic Church was studied.

To establish the viability of the project, an analysis of the area and its ability to attract income and patronage was.

A survey around the cape coast township gave further assurance to the viability developing a cultural center to sensitize people and achieve the objectives of this thesis. The following are the attractions:

- Heritage sites like shrines and important places like the London bridge

- The Kakum Park also attracts a lot of people into the region and around the site due to the sites strategic and proximity to the high way. Visitors who stop over at the STC terminal can be attracted to the site.

- The site is positioned in a region with a high density of educational facilities that can patronize the facility.

- The main forces that will ensure patronage are the castles. The Elmina and cape coast castles. According to the director of (GMMB) Mr. Nicolas Ivo, tourism in cape coast has seen a boost resulting in an increase in revenue. In 2007 visitors to the castles were one hundred and thirty five thousand (135,000) as against one hundred and five thousand (105,000) for 2006, with revenues of Two hundred and ten thousand, seven hundred and ninety five Ghana cedis, eighty three pesewas (GHc 210,795.83) 2007 and one hundred and forty six thousand Ghana cedis, sixty eight pesewas (GHc 146,000.68) 2006.

3.1.3   Survey.

A survey questionnaire was used to collect the data from randomly selected adults and youth in the study area. The following form the scope of the questionnaire:

- To access the awareness and understanding of a local African community (Cape-Coast, Ghana) towards African cultural identity and African architecture.

- To find out whether sensitization and education of the local people about African cultural identity and architecture will change their approach and use towards African architecture (Indigenous ways of building).

- To find out ways of creating the African character and identity through our cultural buildings.

- To find out whether people with higher education level (senior secondary and tertiary level) have better understanding of African arts and architecture.

- To access the contribution of tourism to the local population.

- To access the tourism potential of a cultural centre in the Cape Coast municipality.

Note: For study questionnaire please refer to appendix I.

The area covered includes places in region of the Cape Coast castle, Kotokoraba and the Catholic Church whilst others were randomly sampled and interviewed at Pedu, Bakaano and the Cape coast University. This was done to get the different categories of people to make sure a wider range of people are interviewed. A total of 100 respondents were interviewed. 80 of them were adults selected from the villages of Pedu, Kotokoraba, Bakaano and settlers around the Cape Coast castle and the Catholic Church. Twenty were students of Adisadel High school and the University of Cape Coast to enable the researcher to make comparisons between those who have some knowledge of African arts and Architecture. It took the researcher one week and 2 days to collect the data.

The adults in all the villages mentioned above were very cooperative which made the work of the researcher very easy. Students from Adisadel High school

and the University of Cape Coast were selected randomly from different levels and whoever was interviewed was not allowed to mix with those who were not yet interviewed. During the interview they gave different answers which helped him to draw conclusions.

3.1.4   Case Study of a Cultural Centre and a Museum

Studies were also conducted over the internet and locally on a number of cultural buildings. The first being the Kouga Cultural Centre, South Africa designed by A.d Oosthuizen and the second being the Jewish Museum, Berlin designed by Daniel Libeskind.

The Kouga cultural centre amongst other things was chosen because it's located in Africa (regional example), and employs the use of local materials. The objective was to study the use of African symbols in a cultural building.

On the other hand the Jewish Museum, Berlin was studied because it uses symbolism in the building fabric to revive a lost history and identity of the Jewish people in Germany.

3.2 Problems encountered during the research

The following are some of the problems which were encountered by the researcher while collecting the data in the field and the subsequent data analysis and presentation; the following were the hurdles during the process of data collection.

- Local authorities like the Town and Country Planning did not have much information on the municipality readily available. Much of the information on the municipality and study area had to be sourced from the internet.

- Interviewees initially were skeptical as to the importance of the study but upon further explanation to the fact that it was for an academic exercise they were open to participate.

- Additional information and study on the internet proved difficult because information of the subject matter of the study was scanty and not readily available.

- Moving through the CBD of Cape coast (Kotokoraba) was quite difficult due to the traffic congestion and over crowdedness resulting from the nature of the road.

CHAPTER FOUR

4.0 FINDINGS AND ANALYSIS OF RESEARCH

This chapter is in three main parts, the survey, the case studies and an application of the findings of the research in a Proposed Center for African art and history Cape coast. For the Survey data collected is tabulated and explanation follows below the tables.

4.1 The Survey

The first question posed to find out the size of the families of the respondents revealed that the demographic characteristics of the study area. Respondents interviewed showed that most belong to large families which characterize typical African families. The smallest was three family members and the largest was eleven members. This is explained by the fact that African societies are still structured on the extended family system. This confirms the assertion that the part of African culture that has survived over the years is the way we live and our spatial organization. This spatial organization is clearly based on our family system. In a place like Cape coast people live closely knit nuclear families which have strong ties with the extended families and most of the time both a found resident in the same household. This is so probably because in such families the up bring of young ones are not left alone to the parents but is also the responsibility of the entire family. The courtyard in these household enable them to perform this cross over seeing role. Space then becomes a very important tool in such a family system for the performance of daily activities and sacred rites and rituals both for the living and the dead.

Table 4.1: Response on the number of family members

No of Family Members	No of Respondents	Percentage
3	05	05%
4	09	09%
5	10	10%
7	04	04%
8	10	10%
9	22	22%
11+	40	40%
Total	100	100%

Source: Interview

4.1.1 Awareness and understanding of African cultural identity and African Architecture

Table 4.2: Responses on level of awareness and understanding

View	No. Respondent	Percentage
Yes	37	37%
No	63	63%
Total	100	100%

Source: Interview

Generally most participants in the survey confessed to not having any idea what African identity and African architecture really entailed. This group forms 63% of respondent. The other 37% had an idea or two about what it entailed. These people come mostly from the respondents sampled from the educational facility who said, they had come across the subject during the course of their study in school or through

44

general reading mostly on the internet. This shows that a lot more people are ignorant about the subject matter. This can be the result of inadequate and inaccessible information on African arts and architecture both in our schools and on the internet. There isn't much education going on at the various cultural centers because they are most of the time not properly resourced to perform effectively.

However when the question as to whether buildings being put up in and around the township had any African architectural identity, a majority of 92% said they had no African identity. This only goes to say that most people do not know or would not be able to clearly list the elements, concepts and principles of aesthetics that make up African architecture. The others forming a percentage of 8% thought they were African because they are being built by Africans, Ghanaians. It can be said that people generally look out for symbols both literal and abstract in determining whether a building is African or not. In other cases it has to do with the building materials used in its construction. This case is not always true because it is possible to use foreign materials and develop building schemes on concept and elements of African aesthetics as seen earlier to achieve a building design that is African as well.

Table 4.3: Responses to whether buildings being put up in the town have any African identity

View	No. Respondent	Percentage
African Identity	08	08%
No African Identity	92	92%
Total	100	100%

Source: Interview

4.1.2 Sensitization on African cultural identity and African Architecture

Table 4.4: Response on the choice between cheaper local building technologies to current building methods

View	No. Respondent	Percentage
• Local technologies	25	25%
• Current building method	75	75%
Total	100	100%

Source: Interview

When asked to choose between local building methods that used local building materials and what is being used currently in the construction industry, a majority chose current building methods. 75% of respondent said they thought current building construction is more durable in terms of the materials used. This assertion is a contributory factor to the low patronage of the use of local building technologies and materials. The other 25% were willing to try alternative methods if they were cheaper and readily accessible. Most of the local building materials that have been developed in our Universities and Research institutes have not been commercialize and there is scarce information on their existence, use and potential benefits. It will eventually come to a point when high cost of building together with rising demands for housing as our cities becomes bigger and our rural areas become urbanized will cause people to look for more cost effective alternatives to current trends in building. The other issue that most of the time is overlooks is the ability to sustain and maintain current trend in building constructions. A look at Structures built in Cape coast during and just after colonial era tells us that we cannot sustain these buildings unless we develop alternatives for these materials and technologies locally.

4.1.3 Recreating African cultural identity and African architecture

In response to the question below 75% chose aesthetics, 13% chose function and 12% thought both are needed.

Table 4.5: Responses on what make makes a building African and what makes it not.

View	No. Respondent	Percentages
• Aesthetics (form and material)	75	75%
•Function(spatial organization, climatic consideration	13	13%
•Both	12	12%
Total	100	100%

Source: Interview

The fact that 75% of respondent chose aesthetic as the main determinant of what is African and what is not African, affirms Vogel's theory of aesthetic in African art and architecture. African art and architecture is one that uses a lot of symbols and symbolism to capture meaning which Africans can identify with.

13% chose function (spatial organization and climatic control) because they thought the building should be able to first house and sustain their way of life the African way of life before anything else could be considered. This is particularly true of African houses. Some examples of these are the design of the Dogon house which has its layout based on their family system. Same can be said for the Ashanti courtyard house which is fashioned to accommodate the performance of rituals both for the living and the dead.

12% went for both. This is not good because both of the above listed form major part of what African culture, its arts and architecture is. African architecture has both a social order for the planning of its spaces and levels to which buildings are decorated reflect the social status of the owner or the inhabitants.

The other aspect of the question sought for opinions on what, according to the respondent, can help restore or recreate that unique African cultural identity and African architecture.

Table 4.6: Responses on how to recreate African cultural identity and African architecture

View	No. Respondent	Percentage
• Through education	40	40%
• Research into traditional building Methods.	3	3%
• Government Initiative	21	21%
• Private Initiative	6	6%
• Use of local material and technologies	2	2%
• Training of local artisans in traditional building methods	4	4%
• Building cultural centers for sensitization	5	5%
• Strengthen traditional systems(Chieftaincy)	10	10%
• More control of Media	2	2%
• Cottage industries for arts crafts.	7	7%
Total	100	100%

Source: Interview

48

The two most frequent responses to the question are firstly that of education. 40% of respondents agree that a lot of education to sensitize people on the subject matter is necessary. The other 21% however confirms the assertion that colonization had made Africans to believe that the solutions to our problems lie in the hands of governments and not us.

Another 10% had the response that our traditional systems should be strengthened and made more relevant. On top of this list of traditional system is chieftaincy. This institution used to form an important part of African culture. Chiefs were seen as the custodians of the culture of the people and most of the time the spiritual leader and head of the indigenous African religion. Chiefs also played important roles in the shaping of our built environment. According to scholars the fall of the indigenous African religion resulted eventually in the loss of African cultural identity.

Another two respondents forming 2% of respondents mentioned the use of local materials for the construction of buildings. This is a percentage too low for something so important. This shows the low level of knowledge in the use of local materials. Majority of the responses was a call for some form of education. Five people forming 5% mentioned that the setting up of cultural centers as part of the planning of neighborhoods will address most of the issues of education. This they believed will make information on African art, architecture and history readily available and packaged well to make our culture more attractive to all generations and nationaliti.

4.1.4 Employment of the local community in the tourism industry

Table 4.7: Responses on the employment potential of the tourism industry

View	No. Respondent	Percentage
• Potential	20	20%
• No potential	80	80%
Total	100	100%

Source: Interview

80% of the respondents did not think the tourism industry had much potential in employing lots of people. These respondents didn't have any relation that was directly employed in the tourism industry. This is not wholly true because from other follow up questions they admitted the people in the study area benefited indirectly from tourism. 20% of the respondent thought there was much potential. These are people who are engaged either directly or indirectly in the tourism industry.

Table 4.8: Responses on the benefits of tourism industry to the local population

Benefits	No. Respondent	Percentage
• Employment.	12	12%
• Patronage of hotel business.	24	24%
• Foreign exchange earnings.	6	6%
• Development of African art works.	32	32%
• Urbanization.	5	5%
• Education.	3	3%
• Local markets.	9	9%

• Maintenance of Historic buildings	2	2%
• Sponsorship of further education.	1	1%
• Exchange Programs	2	2%
Total	**100**	**100%**

Source: Interview

In order of frequency the following were listed as benefits of tourism in the study area. 32% of the respondent said the arts and craft industry benefited most from tourism. This is followed by 24% for the hotel business. 12% of respondent mentioned people in direct employment; tour guides, drivers and the management of the tourist attractions as benefiting directly.

According to the trend established from this information it is clear that majority of the benefits from tourism are indirect. This also means there is much potential in generating more revenue directly from tourism if the structures are put in place.

4.1.5 Potential for the development of a cultural centre

79% of the respondent when asked the question whether there is potential for a cultural centre in the study area, thought there was lots of potential. It is increasingly clear from the study that a place for education and sensitization in the African culture and architecture will be necessary.

21% were skeptical and said they were not sure if it will be successful or if there is any potential at all. This they said was so because other cultural centers established didn't make much impact by way of sensitizing people on issues of African arts and architecture.

51

Table 4.9 : Responses on potential for developing a cultural centre

View	No. Respondent	Percentage
• Potential	79	79%
• No potential	21	21%
Total	100	100%

Source: Interview

4.2 Case Studies

As part of the research two case studies were conduct on two buildings that also dealt with issues of culture, symbols and symbolism in architecture. The following were observations made.

4.2.1 Kouga Cultural Centre (Architectural symbolism and meaning)

This case study explores the use of African symbols in monumental buildings such as the Kouga cultural centre. Here symbols are used in the literal sense and can be seen on the building fabric and in the form composition. The author of this scheme acknowledges the subjectivity in symbolism and states, "Symbolism is in the eye of the beholder. The same symbol or metaphor may have different meanings for different eyes. Given the inherent subjectivity of symbolism the architectural symbolism and meaning in buildings should neither attempt to be comprehensive nor to provide the only interpretation for any given symbol" [39]

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[39] A.d Oosthuizen, Kouga cultural Centre- Architectural Symbolism and Meaning, ecobuild.com.au/Symbolism.pdf

African symbols and meaning

The following shows some African symbols their meanings and how they are used in the cultural centre.


Figure 4.10: ceremonial entrance, Kouga cultural centre

Courtesy of ecobuild.com.au (accessed 2008 April 6)

The dome floor consists of a central fireplace surrounded by nine rings:

- The number 9 in African numerology denotes the nine months of Gestation and is the number of the Female.
- African holy number symbolizing Creation.
- The ancient African belief is that the soul is connected to the brain through nine large veins.
- Sun and nine known planets.
- Nine South African provinces.
- The concentricity of Time, as portrayed by year rings of trees or dropping a stone in a pond causing expanding concentric ripples.

Dome floor in the centre of the building.

Dome and Ceremonial Entrance.

- With the belly of the dome over the columns of the inner Kraal, it signifies the Womb.
- The parallel curved walls of the ceremonial entrance leading to the dome, signifies the Birth Canal.
- The dome, ceremonial entrance way and entry plaza combined symbolizes Fertility.

- Oldest African Fertility symbol, also the symbol for Pregnancy.

Ceremonial entrance leading to the dome

Plan layout:

- Curvilinear architectural expression common in indigenous architecture, avoiding straight lines and sharp rectangular corners.
- Feminine and organic architecture.
- Plan layout in an asymmetrical cross with entrances to the north, south (ceremonial entrance facing the main street of Humansdorp), east and west. The axes of the cross intersect in the middle of the dome.

- Based on the African symbol meaning Sun, Light and Health.
- This sign is also the astronomical symbol for Planet Earth.

Plan view of the building

Figure 4.11: Dome, Dome floor and Plan view, Kouga cultural centre

Courtesy of ecobuild.com.au (accessed 2008 April 6)

	Roof silhouette of southern elevation.
	• Reflecting surrounding mountain horizon.
	• Sunrise over the mountains representing Birth of the African Renaissance.
	• African symbol for Sunrise and Birth.
Roof silhouette of southern elevation	• African symbol for Mountains, Longing and Remembrance.

	Southern Elevation as viewed from the length of the Humansdorp Main Street, representing.
	• African symbol for Hope.
View from the Main Street of Humansdorp – Southern Elevation	• African symbol for Future.

|	Roof shapes:
	• Conical and dome shaped as per indigenous architecture.
	• The crescent shaped curves of the inside thatch roofs surrounding the dome refers to the African symbols for Mother and Married Woman representing the Ancestral Mother.
Roof shapes:	

Figure 4.12: roof silhouette, roof shapes, Kouga cultural centre

Courtesy ecobuild.com.au (accessed 2008 April 6)

Summary: To put the building in proper context African symbols are used to add meaning and moral discipline. Building materials common to the locality were also used to fit the context.

4.2.2   Jewish Museum Berlin. (The study of De-constructivist Architecture)

The case study was chosen to show how history and design concepts can be translated into spaces by deconstruction. The designer uses symbolism in the abstract sense. The facility is a ten thousand square meters (10,000sqm), five storey deconstructivist structure designed by Daniel Libeskind.

Concept: "between the lines" he describes as being about two lines of thinking, organization and relationship-

1. Straight line but broken into many fragment

2. Tortuous lines but continuing indefinitely. He uses this paradoxical form to tell the story of an irreconcilable history. These two organizing principles are precisely equivalent to the two paradigms of labyrinth design.

The floor plan follows a fractured pattern similar to the Star of David that Jews were forced to wear in the streets during the Nazi regime. By deconstructing this symbol he finally achieves the zig- zig shape (below right shows the process)

The main objective of the project was to tell of the holocaust and the history of German Jews and the impact the Jewish people had on Germany. Apart from the deconstruction he used a lot of symbolism and metaphors as is seen in the design of the voids, circulation spaces, the holocaust tower and the sculpture gardens.[40]

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[40] Design Problem Solving with Conceptual Diagrams, Fehmi Dogan (fehmidogan@iyte.edu.tr)College of Architecture, Izmir Institute of Technology

The Labyrinthine Aesthetic in Contemporary Museum Design

The two paradigms of labyrinth design: the unicursal (left) featuring a single path with no dead ends or bifurcations; the multicursal (right) featuring multiple choices between paths, some leading to dead ends. Paul Basu.[41]
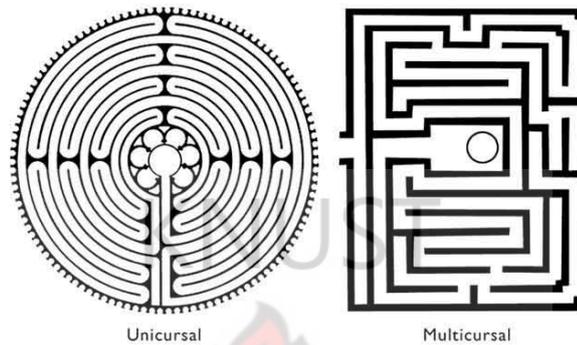

Figure 4.13: Labyrinth Aesthetics

Courtesy: www.homepages.ucl.ac.uk/~ucsapba/basu_libeskind_labyrinths.pdf (accessed 2008 April15)

The above is the guiding principle in movement patterns and how spaces are experienced by the walker of the space. The labyrinth simultaneously represents order and disorder, clarity and confusion, integration and disintegration, unity and multiplicity, artistry and chaos. Contemporary designs are embracing this principle to help stop the passive voyeurism of visitors.

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[41] Paul Basu, The Labyrinthine Aesthetic in Contemporary Museum Design
[http://www.homepages.ucl.ac.uk/~ucsapba/basu_libeskind_labyrinths.pdf]

**Form developed by the deconstruction of the Star of David[42]**
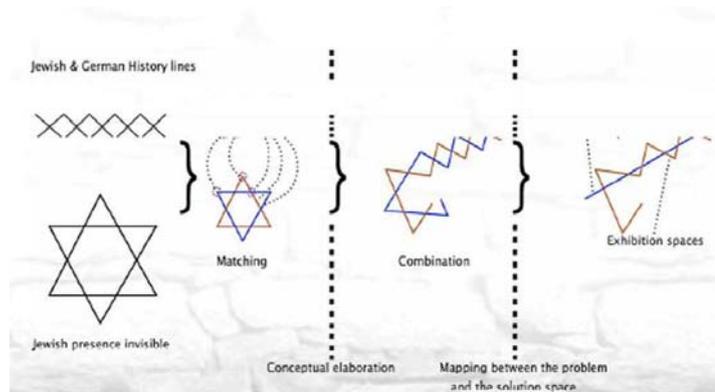
Figure 4.14: Process architect went through to achieve the lightning bolt shape of the building.
Courtesy of fehmidogan@iyte.edu.tr (accessed 2008 April 15)

Figure 4.15: Conceptual sketches of Jewish museum.
Courtesy of fehmidogan@iyte.edu.tr (accessed 2008 April 15)

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[42] Design Problem Solving with Conceptual Diagrams, Fehmi Dogan (fehmidogan@iyte.edu.tr)College of Architecture, Izmir Institute of Technology

Conceptual sketch above shows the crisscrossing Jewish and German history lines depicts the kind of relationship and presence between Jews and Germans. Above the Architect traces conceptually the presence of Jews in Berlin.
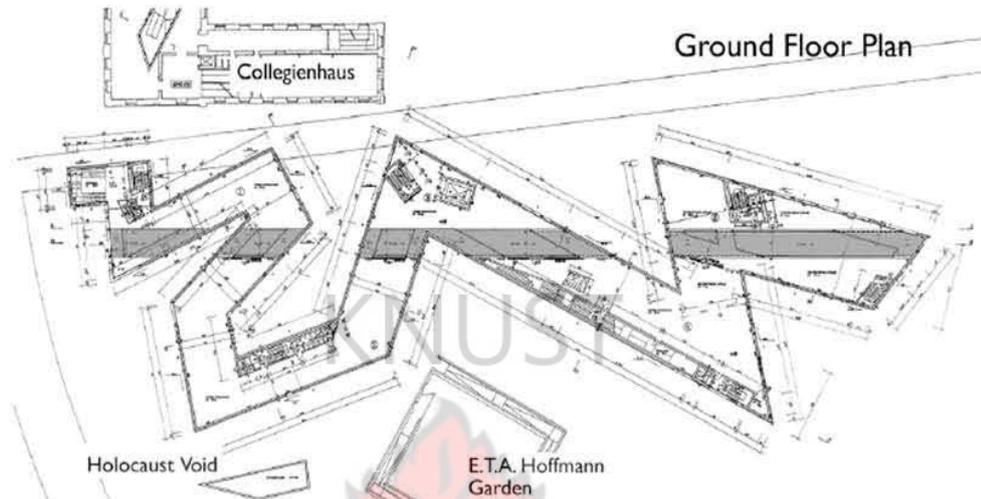

Figure 4.16: Ground Floor plan of Jewish museum

Courtesy of www.homepages.ucl.ac.uk/~ucsapba/basu_libeskind_labyrinths.pdf (accessed 2008 April 15)

The facility has three main axis of circulation in the underground floor, the axis of continuity, axis of emigration and the final ending in holocaust tower. These tell the entire history of Germans, Jews.

**Spatial and circulation organization**
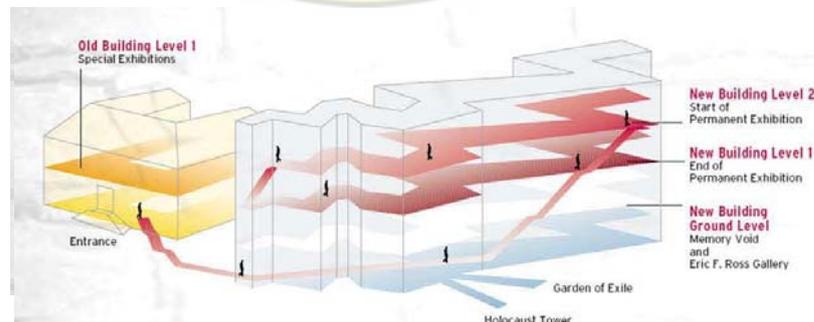
Figure 4.17: Circulation diagram of museum

Courtesy of www.homepages.ucl.ac.uk/~ucsapba/basu_libeskind_labyrinths.pdf (accessed 2008 April 15)

Building form is linear thus employing the use of corridors to arrive at the various exhibition spaces. Circulation is basically through the use of stairs and lifts (two) placed at the vantage points close to the stairs together with the sanitary facilities.

Some of the spaces noticed in the case study that will be beneficial in the proposed design are the cloak room, catering service, special exhibition spaces, auditorium, shops, meeting points and an information desk that comes with a public address system.
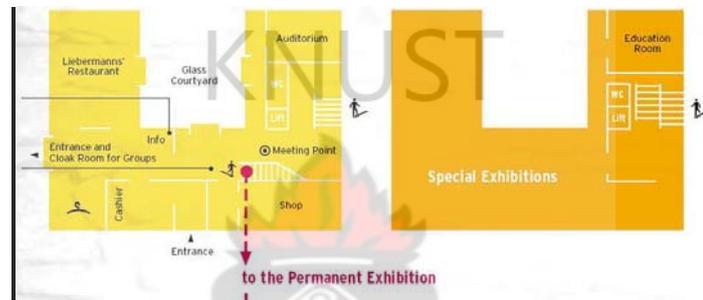
Figure 4.18: Spatial configuration of old part of the museum

Courtesy of www.homepages.ucl.ac.uk/~ucsapba/basu_libeskind_labyrinths.pdf (accessed 2008 April 15)

Below is Rafael Roth learning centre that supports the education role of the museum
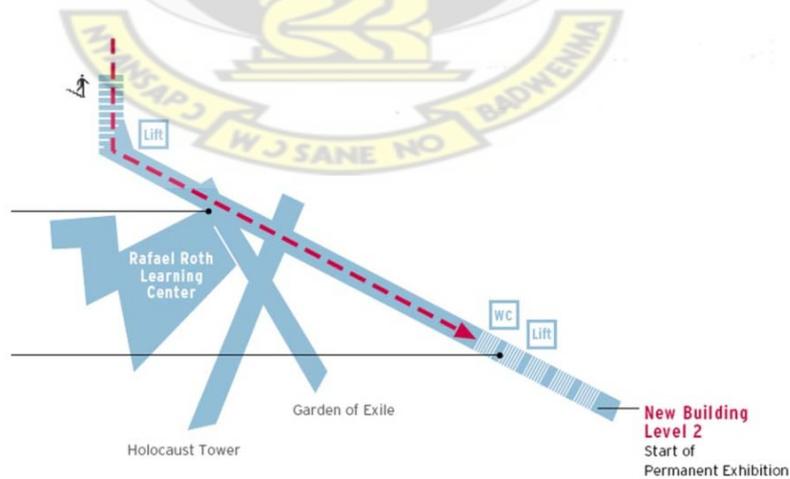
Figure 4.19: Sub-level floor plan of Jewish museum

Courtesy of www.homepages.ucl.ac.uk/~ucsapba/basu_libeskind_labyrinths.pdf (accessed 2008 April 15)

Summary: Through deconstruction of symbols and concept meaning can be given to architectural designs that can mean a lot to a nation, interest group and to the ordinary museum visitor. Through careful research on the history, culture and aspirations of the Jewish people, the author succeeds in depicting the aforementioned both in the building form and in the spatial configuration of the museum.

4.2.3   Kwame Nkrumah Mausoleum

The study of Symbolism in an Iconic structure

The mausoleum was chosen because of its pan- African posture being the resting place of Kwame Nkrumah, a great advocate of the pan African agenda.

Undoubtedly pan Africanism remains the dream and hopes of Africa as a continent in the 21st century and is still very relevant. Nkrumah was as a person a symbol first for the liberation of the African continent and the hope for a united and prosperous continent. Dr. Don Arthur is the author of the mausoleum and museum. He set out to portray Nkrumah as a man of the world as well as a true African. The following informed the design.-

The Planning and Positioning Of the Various Components

The entrance to the site is from the 28th February High street. In positioning the statue, the author had to consider a common statement that people made about Kwame Nkrumah, that he lived a century ahead of his time. However the author realized that the bond of 1844 was also signed on the 6th of March, almost a hundred years to the day of independence (6th March, 1957). To the admirers of Kwame Nkrumah the author felt that he had traveled a hundred years back in time to untie the Gordon Knot that kept this

61

country under colonial rule. The distance from the 28th February high street to Nkrumah's statue is therefore a hundred steps on the average.

Figure 4.20: Entrance view of Kwame Nkrumah Mausoleum

(Courtesy: http://www.travelblog.org/Africa/Ghana/Greater-Accra/Accra/blog-170382.html) [accessed2008 February 21]

The Design Composition

The central statue of Dr. Nkrumah

The statue symbolizes and animates the vision Nkrumah had for Ghana and the entire Africa. - "forward ever, backwards never". The statue seems to point to the vision of Africa this was a man who was passionate about the unity of Africa.

The pond

Moving towards the mausoleum it is flanked by the pond with flautist in it showing reverence to the hero. The horns are animated by the passage of water through them. This brings the set up alive when the water generates sound as visitors move along.

The mausoleum and museum

The mausoleum provides a front for the statue the museum is subterranean and does not Compete with the mausoleum for attention. Rhythm, contrast and harmony were the main principles of design used in the project.

Concept and architectural interpretations

In elevation, the mausoleum is designed to look like the county's state sword. When a president is sworn in, .he lift's up the state sword and then puts it down. This reflects the fact that Nkrumah pledged allegiance to Ghana and was loyal. it is said that in his tenure as president he never did anything unconstitutional.

When you take a good look at the elevation you can also see a partly buried sword. This is a sign of peace. At one time Kwame Nkrumah said that all people must all burry our swords in peace.
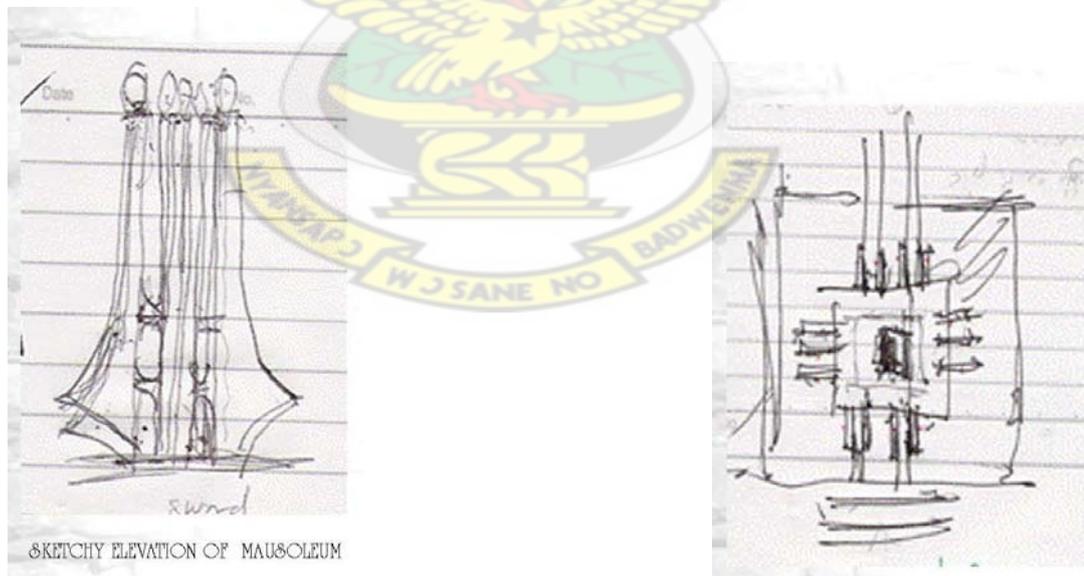

Figure 4.21: conceptual sketches of Kwame Nkrumah Mausoleum

(Courtesy: http://www.travelblog.org/Africa/Ghana/Greater-Accra/Accra/blog-170382.html [accessed2008 February 21]

The fourteen structural members symbolize the fourteen principal tribes in Ghana. These structural members are bound together and this suggests that all tribes in Ghana must unit as was the wish of Osagyefo Dr.kwame Nkrumah. The marble cladding also symbolizes the eternal legacy of Nkrumah since it is known as the everlasting material.

Like in the Taj mahal, you cannot see the coffin when you lift the casket. Kwame Nkrumah's controversial personality is responsible for this. After his overthrow, it was forbidden to even display his photograph. He had quite a number of enemies, which is why a void was created between the casket and his coffin. The entire set up achieves a structure that is an icon in every way. It can be seen from all directions and in a way manages to grip the attention and emotions of visitors.
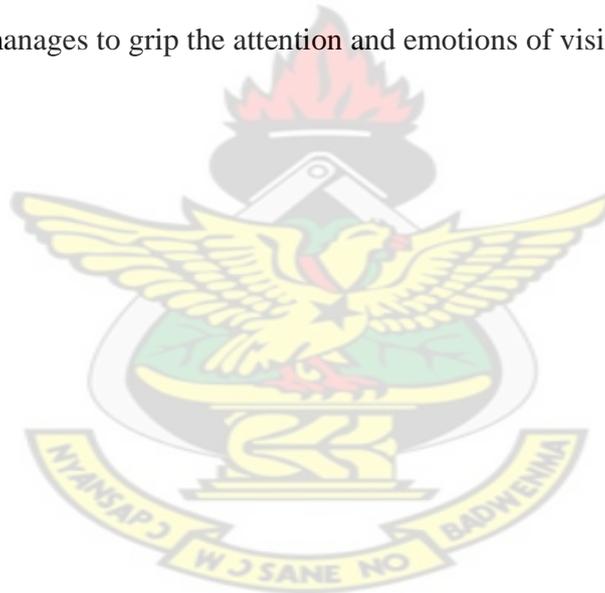
4.3 Application of Research in Design thesis

As part of requirements of Master of Architecture submission, a design thesis was embarked on by the author. In several ways the content of above research were incorporated to produce a facility that is African.

4.3.1 Design Evolution

Design Brief

From the studies conducted prior to the study and the aims of the main interest group, the cape coast municipality a design brief was developed.

Table 4.10: Cape Coast municipality development policy

NARRATIVE STATEMENT	OBJECTIVE VERIFIABLE INDICATERS	MEANS OF VERIFICATION	ASSUMPTIONS
Goals: Equipping the youth in KEEA District with employable skills	540 given vocational training by 2004	Monitoring, records/annual reports contractual agreements	The District Assembly committed to start the project. Initial funds are partially available
Purpose: To give employable skills to about 40% of JSS leavers in KEEA in the next eight years	60, 80 & 100 youth who are financially handicapped are identified annually and given training for the first three years more	Physical inspection/monitoring records	District Assembly commitment. Donors assist... to fund the project
Outputs: 60 more youth trained to become artisans each year from October 2003	More and more youth qualified as carpenters, masons, seamstress, hairdressers etc.	Monitoring/records Annual Evaluation report based on agreed benchmarks	-do-grandaunts prepared to set up workshops
Workshops, equipment, tool and other materials made available for the trainers each year	Qualified professionals to teach the artisans. Equipments and tools purchased for the trainees	Records to indicate that tools and materials have been purchased	
Activities: 1. a)			

Courtesy: http://ghanadistricts.com/districts/(accessed 2007 December 29)

65

Brief was shape to achieve the following:

- Encourage visitors to stay for longer periods at the facility

- Encourage daily exhibition of African culture

- Increase both foreign and local patronage of facility

- Provide some sensitization and training for the youth and adults regarding
 African art and history.

BRIEF
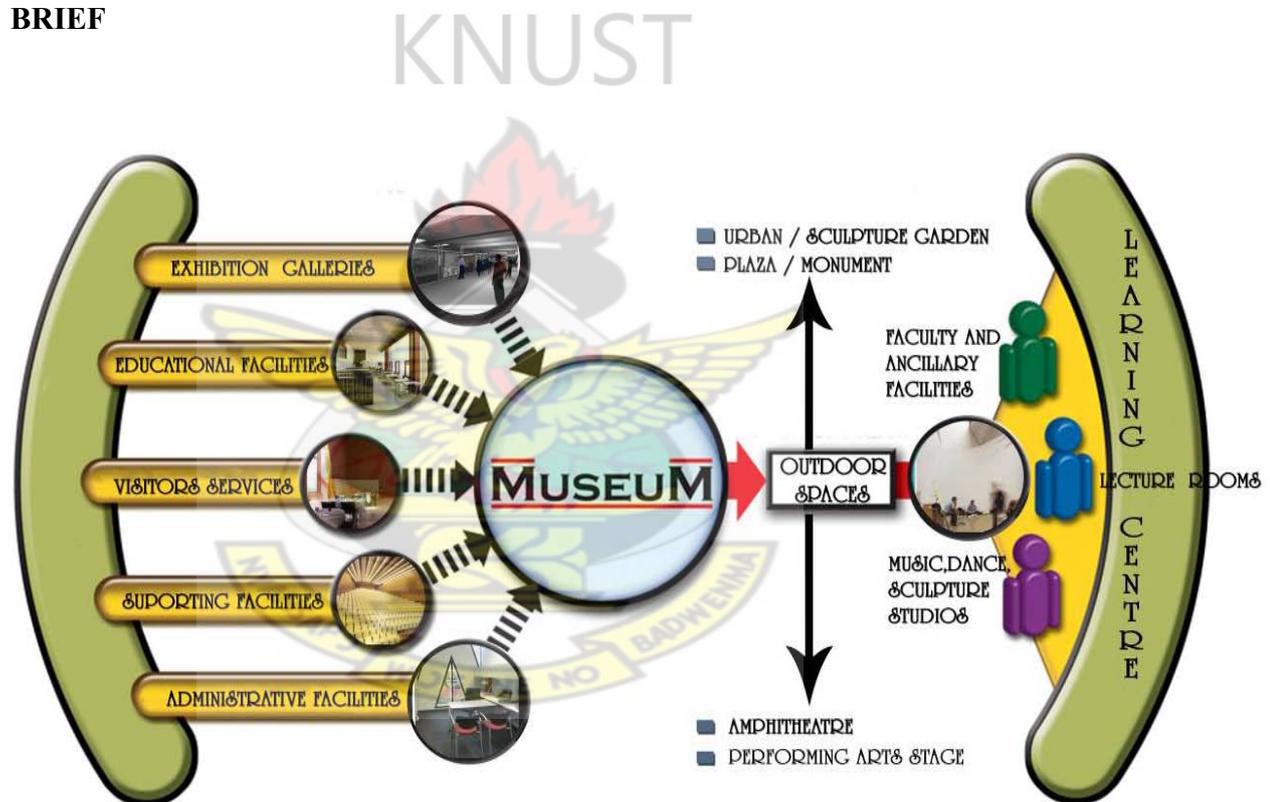
Figure 4.22: Developed brief

Courtesy: Design thesis – Center for African art and History (Cape coast), May 2008

4.3.2 Accommodation Schedule

Training Centre			
(Category) Facility	**Area(m2)**	**Remarks**	**Security Zoning**
Library	**280**		
Reading Area			**3**
Book shelves			**3**
Store			**4**
Staff Room			**4**
In-out section			**4**
Studio Spaces			
Dance studio	**200**		**3**
Music studio	**140**		**3**
Sculpture and	**140**		**3**
Craft studio			
Lecture Rooms	**300**	At 100m^2	**3**
Faculty office	**50**		**4**
Lounge/catering	**60**		**3**
Career advisors office	**30**		**4**
Distant education	**60**	Lecture room	**3**
	1200m^2		
Museum			
Exhibition Galleries			
Pre- history	**370**		**1**
Ancient cultures	**335**		**1**
37th to 16 century	**480**		**1**
European exploration	**540**		**1**
European conquest	**540**		**1**
20th century 1900-1945	**540**		**1**
The post colonial era 1945-1993	**480**		**1**
Contemporary African history	**700**		**1**
Special Exhibition 1	**700**		**1**
Special Exhibition 2	**400**		**1**
Special Exhibition 3	**400**		**1**
Virtual Museums	**280**		**1**
	5,800m^2		
Visitors Services			
Entrance Hall (foyer)	**345**	To receive visitors	**3**
Orientation room	**150**	group visitors	**3**
VIP room	**100**	Also serve as sick bay	**3**
Information counter	**25**	With PA system	**3**
Cloak room	**25**	With locker and racks	**3**
Ticket Offices	**15**		**3**
Toilet facility	**20**	Conveniently spaced	**3**
Souvenir Shop	**25**	Independent exit	**3**

Catering Facility	**400**	Independent exit	**3**
Meeting Point	**100**		**3**
	1200m²		
Educational Facility			
Museum Research Rm	**50**		**1**
Library/Archives	**600**		**1**
Multi-purpose lecture theatre	**150**		**3**
Docent Room	**25**		**3**
	825m²		
Supporting Facilities			
Curatorial Office	**30**	Depending on staff	**4**
General Office	**35**	levels	**4**
Registration Office	**30**		**2**
Design office/Studio	**35**		**4**
Staff Conference	**30**	With conference table	**4**
Building Mngt. Office	**20**	and chairs	**4**
Security control room	**30**		**4**
Building automation	**20**		**2**
Exhibition Inspection room	**25**		**2**
Conservation Laboratory	**24**		**2**
1 Object Laboratory			**2**
2 Conservation storage			
	280m²		
Artifact Storage			
Paper Works Storage	**140**	Paper artifact	**4**
Textile/costumes	**105**	Textile artifact	**4**
Oil Paintings	**110**	Oil paintings	**4**
Organic 3d Works	**200**	Organic artifacts	**4**
Inorganic 3d works	**220**	Inorganic artifacts	**4**
Photograph storage	**105**	Photographs	
Metal works storage	**170**		
	1050m²		
General Storage			
Crate storage(For incoming/out going crates	**70**	At 250m2 Air-conditioned	**4**
Packing material	**60**	Air-conditioned	**4**
Display Equipment	**60**	Air-conditioned	**4**
Publications	**35**	Air-conditioned	**4**
	250m²		
Workshops			
Carpentary workshop	**40**		**4**
Photography studios and dark room	**40**		**2**
Cleaners storage/ duty room	**10**		**4**
Uniformed staff	**20**	With lockers	**4**

changing room			
Loading Bay	700		4
	820m²		
TOTAL: 30,190m²			
OUT DOOR SPACES			
Plaza	5000		3
Amphitheatre Stage	300		3
Toilet facility	40		4
Backstage/changing	100		4
Store	100		4
Parking	1000	On street parking	3
	6240m²		

Table 4.11: accommodation schedule for Design thesis (May 2008)

Courtesy: Design thesis – Center for African art and History (Cape coast), May 2008

Grand Total: 18,000m²

- All plant rooms/ducts/lifts shaft, staircase, circulation, corridors and unusable

  spaces inclusive.

Security Zoning Summary

Zone 1: Collection area- accessible to the public

Zone 2: Collection area- not accessible to the public

Zone 3: Public area – not used for collection

Zone 4: Non Public area- not used for collection

Courtesy: Design thesis – Center for African art and History (Cape coast), May 2008

4.3.3 Planning and design guidelines

1) **Display areas** :- specimen on display must be displayed on one of the following

    I. In show case

    II. Freestanding on the floor , on plinth or   support

    III. On walls

    IV. On panel

    V. On LCD screens in the case of the virtual museum space.

2) **Circulation pattern**

    I. Sequential circulation; is appropriate for a chronological arrangement or where a storey line needs to be followed from the start to finish. This kind of movement is found in the pyramid and unicursal maze.

    II. Random circulation: suitable where random viewing is required. This circulation patterns required at the permanent exhibition hall. Thus circulation pattern within display areas must be considered to allow free flow and good vision.

2) Must have controlled lighting , either natural or artificial lighting

3) **Security** :adequate security measures must be taken to protect specimen on display .there should be segregation between public areas and non public areas

4) Consider specimen sizes to be displayed.

5) **Technical requirement of the museum** – Consider receiving, preparation, and storage and conservation aspects of museum and provide enough security to these areas and if possible link to the display areas.

6) **Environmental control** – temperature and humidity must be kept constant indoors.

7) Allow spaces for public parking ,bus parking and service parking

8) Reduce number of openings of exterior walls to allow good surface for display of objects.

9) **Entry and exits**; checking of entry into museum by turnstile or electronic detection helps to maintain security. Similar entrance. arrangement must be made.

10) **Fire**; the necessary checks must be put in place to prevent and stop fire

4.3.4   Philosophy and concept of design

1.   Design Philosophy
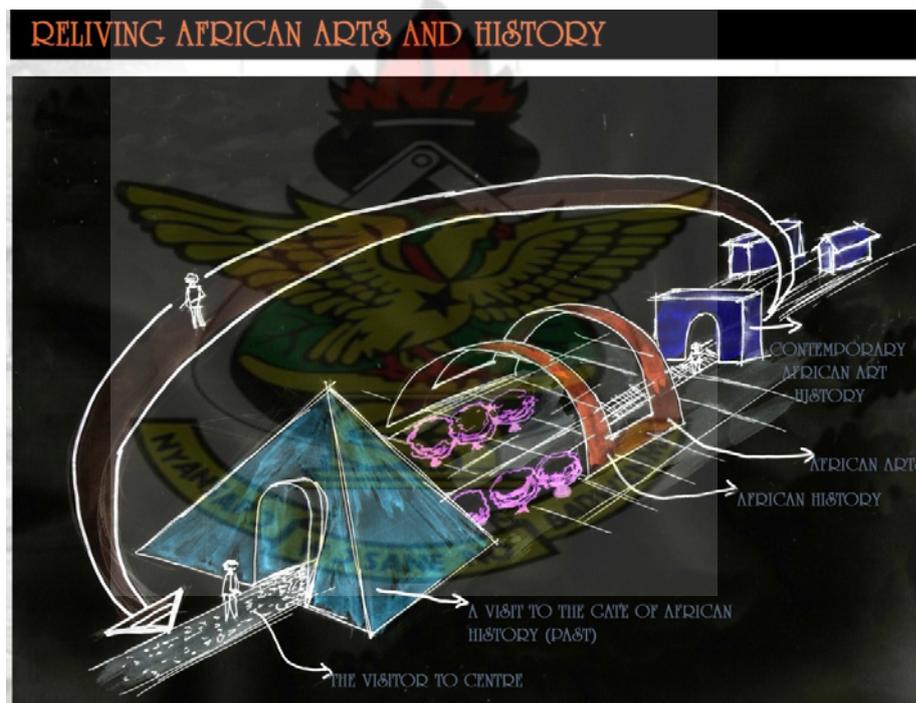
Figure 4.23: Design philosophy sketch

Courtesy: Design thesis – Center for African art and History (Cape coast), May 2008

A BBC Report Describes Africa As A People With Their Future Rooted In Their Past. Hence the Need To Re-Experience The Various Times In History For A Better Understanding Of African Arts And History. The Design Of the centre will therefore adopt a More Interactive Approach in Exhibiting African Arts and Telling the History the African Way. The Above Will Primarily Be Achieved Through Symbolism, both Abstract and Literal.

2. Concepts

Concept of life, death and after life

"There are no clear dividing lines between human existences, it is a dynamic process involving the decrease and increase of life force and there are different levels of life and death." Andersin Allan. This belief can also be linked to ancestral worship and the belief that they communicate and guide the living in so many ways.

Africans in relation to death believe in reincarnation. Reincarnation in African belief system is identified by similar characteristics found in the new, which can be multiples of same. The facility can be said to be African because it reminds the observer of what use to be or is now.

Triple Heritage concept
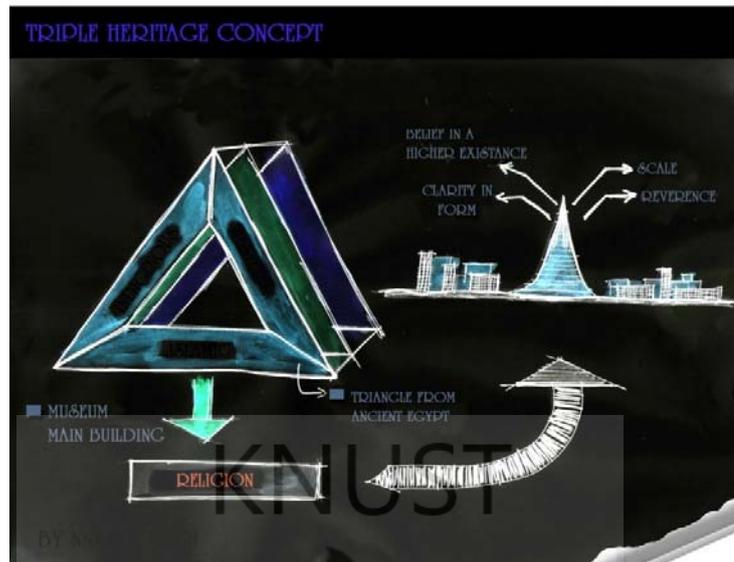
Figure 4.24: Triple heritage concept sketch

Courtesy: Design thesis – Center for African art and History (Cape coast), May 2008

The triple heritage concept traces the roots of Africa and brings those characteristics that that can cause a re-experience of the past. The concept is adopted in the composition of the main museum building.

To achieve this various element and features that were most prominent will be chosen to form the building fabric to depict African art and history.

4.3.5   Conceptual Site Planning

The site was planned with telling of the history and show casing what African art is at first glance. Some considerations were major in determining the various placements of the three main sections of the facility: the Amphitheatre, Learning centre and then museum. The above considerations can be put under history lines and show of art.

73

- To tell the history of Africa the first structure visitors experience is the amphitheatre that gives them some orientation to the facility and what the various spaces they will be experiencing stand for. This orientation is oral showing how history was documented in the past and handed over to the next generation.

- From the amphitheatre the visitor has views into the training centre studios were African arts, music and dance is exhibited. The constant drumming and dancing adds and creates the African setting of rhythmic celebration of our culture.

- The visitor finally moves on to the museum whose composition is base on the triple heritage giving it different components symbolizing how dynamic history and mean of its documentation is now. At this stage the curatorial skills of management staff is used to present the history of Africa in different ways.

The display of the Arts start with the female sculptures placed at the entrance to the facility. The human figure forms an essential part in African arts as will be establish in the cause of the report. Sculpture is female to denote birth. The visitor is reborn as the pass through the entrance for a re experience of African art.

The shape of the site also provided opportunity to enhance the experience of the facility. Access is from the south west end of the site the shortest end of the site, allowing a wider angle of view at the entrance and creating different view as the visitor draw close to the main building. This was also for security purposes to make sure all movement onto facility is checked. These major influences resulted in the following conceptual site plans:

Option one
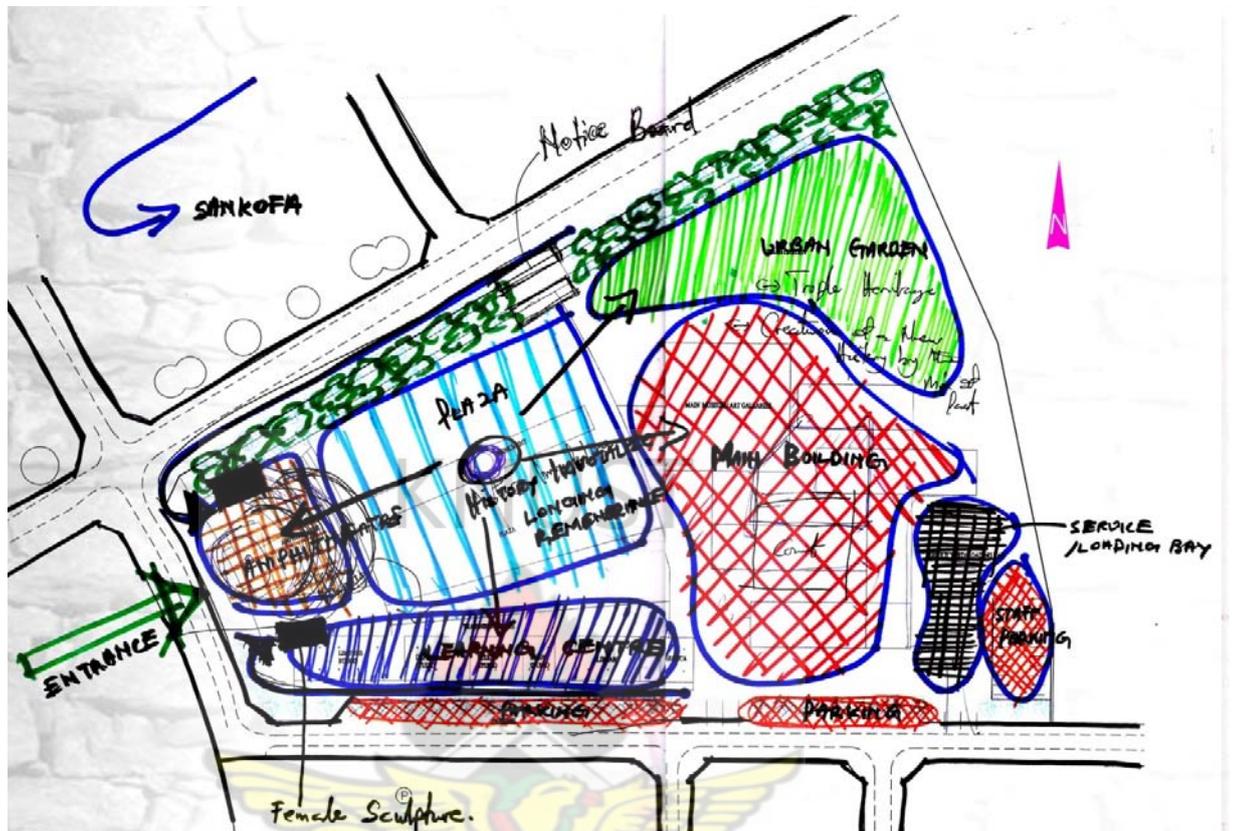
Figure 4.25: Option one- conceptual site planning

Courtesy: Design thesis – Center for African art and History (Cape coast), May 2008

The above conceptual site plan has all the features talked about in the introduction above. Here on – street parking was considered to free site from any vehicular movement and achieve a pedestrainized space.

From the parking areas visitors have to walk back to the main entrance to suggest going back "Sankofa" a local symbol, that emphasis the importance of learning from the past.

The learning centre is linear for proper orientation and to also serve as an edge to the site. This provides display opportunities to for display to attract passersby to the facility.

The central plaza space is to take care of the spillover from the amphitheatre in time of big outdoor functions like Panafest festival and other local festivals that draw a lot of people. On regular days it will serve as a community space which user of the centre can enjoy.

Final option
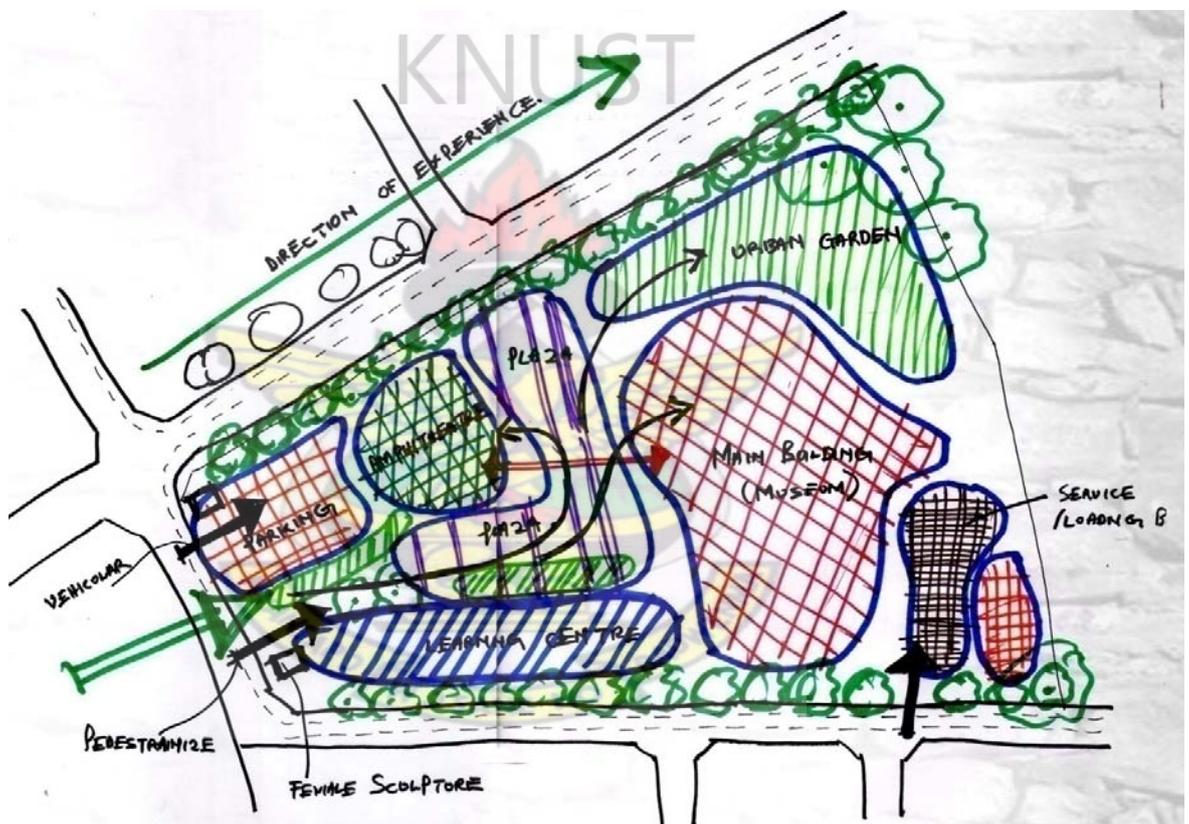
Figure 4.26: Option two- conceptual site planning

Courtesy: Design thesis – Center for African art and History (Cape coast), May 2008

The final conceptual site plan has some changes from the first option. These are:

- On street parking was gotten rid of for onsite parking for reasons of security and to meet the number of parking need. Parking shown above is for buses. Parking of private cars and vans will be place under the learning centre which is on stilts.

- The plaza will now assume a more enveloping posture around the amphitheatre and also link the rest of the facility to the urban garden.

- Landscaping consequently is used to block views of the cars and to take care of the purification of the air from pollution.

4.3.6 Description of design essentials

Due to the fact that the centre has strong ambitions to educate the visitors about mainly African art and history features and concept common to all of Africa were adopted into the fabric of the facility. To make the above meaningful the various underpinning of each element will be explained.

1. The Female sculpture pieces at the entrance of the cultural center

This sculpture is an application of the element of youthfulness in African art. It's of monumental scale to emphasis the importance African art attach to youthfulness. It is the first element experienced because in African art resemblance to the human figure is the most important element. In keeping with this the human face can be seen also on the façades of the museum building- the south and east facades.

2. The Amphitheater

As stated earlier the amphitheatre is to take care of the oral history part of African history but it is also used of activities of the performing arts and other cultural functions. The shape of the shape and the seating was base of the symbol of mother earth. This affirms the fact that African art-architectures are one that is in harmony with nature.

3. The Learning center

The design of the learning centre was inspire by a picture of slave bound together ready for shipping to their doom. The need to free slaves then is as real as the need to free and fill the minds of the youth today. It also stands to symbolize the struggle of the slaves and it's dedicated to them. That's why it has no name but "Learning centre". It's for all the unknowns who suffered.

The structure is an abstraction of the hoop roof building. There are several units to simulate the typical African setting of building units close to each other. These units are linked together by a circulation corridor to symbolize the rope use to tie the slaves then. The various units are put on stilt to reduce the foot print of building on the ground and allow the south – eastern winds to blow across the site.

Buildings in many African countries like Tanzania were built on stilt. The same was adopted by the Germans in the construction of their bungalows during the colonization of the continent. The studios in the units face into site serving as show cases for passing visitors. The canopies that flank the unit are to shield the space from the western and eastern sun to achieve comfortable internal climatic conditions.

4. The museum block

The design of the museum block was based on two concepts, the triple heritage concept by Nnamdi Elleh and the labyrinth aesthetic of museum design concepts. These will be described briefly below.

5. Pyramid and adjacent blocks

Circulation based on the labyrinth aesthetic. The unicursal path can be found in the pyramid offers a more define path for entry and exit whiles the rest of the building has a multicursal mode offering several directions of movement. This allows visitors to truly experience all the spaces in an organized flow. These two blocks are linked by the sky walk, the visitors from the multicursal section to the unicursal via the roof garden on top of pyramid for exit to start point.

Based on the triple heritage concept the museum building form evolves from the application of symbolism choosing some prominent features /symbols to define the period and also to illustrate the triple heritage of Africa. These are prominent features that were derived from the concept:

- The pyramid represents the indigenous African Architecture and is the most prominent and longest lasting structure built followed by others like the great Zimbabwe. It also stands for the past. On top of the truncated pyramid is the dome fashioned to symbolize the future. By implication we build on the past-Sankofa.

- The international style represents western influence. Nnamdi Elleh describes this as a gift from the western world to independent African states. This influenced the designs rectilinear nature.

- The arches and the dome represent the Islamic Architecture influences of African Architecture. Dome can be seen in elevation and arches in section of the permanent exhibition spaces.

6. The entrance to the pyramid

In keeping with Ghanaian traditions the visitor is offered water. The calabash in between the ramps symbolizes this gesture. The calabash together with the ramps forms the African symbol of birth- birth of a life force, of African architecture. Hence the exhibition starts from the past and assumes different forms on different level as exhibition continues. Ramps symbolize the growth of the life force.

7. The grand court

The grand court is more or less the part the three components above overlap. In traditional African religion the courtyard has various religions and spiritual importance as well as daily use. It is belief the ancestors dwell and communicate to people in these spaces making it a space of communication with the supernatural. Islamic mosques also have courts as integral and import part of the building. In the grand court are the hanging pipes, 54 in number representing the spirit of all African countries. These pipes have holes in them representing the channels of communication with the supernatural. The holes tap down breeze of wind to create a mystic effect. The whole set up creates a shading effect over the court.

8. The sky walk and accessible roof of the pyramid

The skywalk effect is similar to that of the Kakum Park to educate tourist on some of the site they can visit after tour of the centre. This leads to the accessible roof on the third floor. It is said the limit is the sky. In the sky the hope of the African people is captured n the walls to educate visitors about what Africans collective aspire to achieve. The skywalk then is the link from the now to the future.

9. The Urban Garden

Author sort to bring facility closer to nature through landscaping. The true experience of African Architecture is in the midst of nature.

10. Landscaping

Hard landscaping

The most relevant of hard landscape element used are as follows.

- Garden seats are designed to have their profiles forming Ghanaian Adinkra symbols. This is to exhibit some of Ghana's culture in the arts. To give the facility a rustic look some local materials like the sandstone pebbles is use around the pyramid. This is supposed to add some emotion of transition. Other elements like pavers are given earthen colors all in an attempt to achieve the rustic feel. All other elements like lamp post and street are all designed specially with African meanings to them.

Soft landscaping

- Trees on site are varying in heights and nature. Some are evergreen like (delonix regia) and others are deciduous like the (ixora species). The variation is to remind on lookers of the changing times and also dynamism in history (time).

- Shrubs are used in area where views across are very important and also to guide visitors to the various parts of the facility

- Ornamental flowers are used to depict Africa's immense riches both in resources and culture.

- Water bodies. The major landscape feature is the calabash at the entrance with its fountains of water as talked about earlier. The fountain was chosen because water is continually recycled to avoid issues of mosquito and also to refresh the air and subsequently the visitor at the entrance.
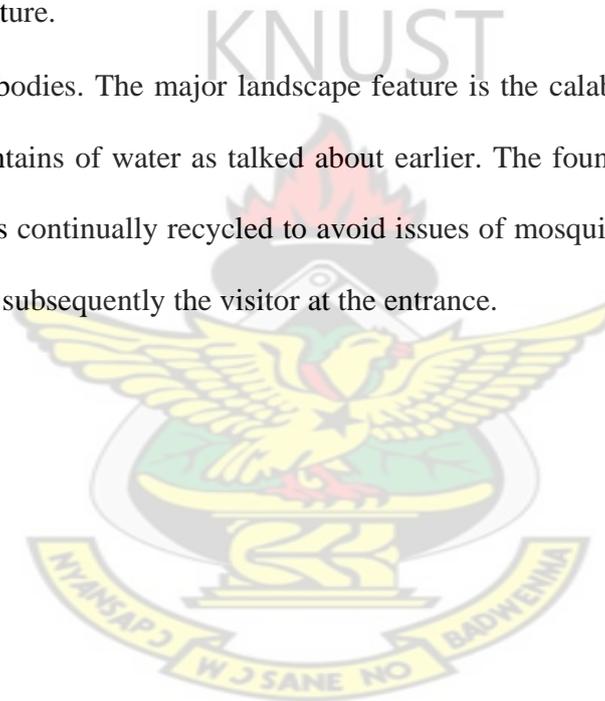
CHAPTER FIVE

5.0 CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the conclusions of the study based on the analysis of the findings. The second part contains recommendations that are worth considering based on the analysis.

5.1 Conclusions

- Africa's communal living is still predominant. As realized from the interview with respondents, majority of 40% (table 1, Response on the number of family members) live in big families. As a result, the functional planning for indigenous African homes hasn't changed much.

- There is generally low awareness and understanding of African cultural identity and Architecture amongst respondents.

- Due to lack of sensitization most people interviewed believed current trends in the building industry which uses mostly expensive and imported material and technology is better than the indigenous methods of building.

- People generally indentify African Architecture by the aesthetics that is evident of the envelope of the building. These aesthetics according to respondent is mainly in the form of symbols and reliefs on walls floors and other household furniture.

- Education and sensitization was unanimously pointed out as the means of evoking and restoring African identity in African culture and Architecture. Respondents generally were not aware of the benefits local technologies and Architecture when developed would bring them. Also the incorporation of cultural centers into proper planning of the neighborhood was added as part of the solution.

- The study area had a lot of potential for the development of tourism. Some of the benefits it brings to the local population are, to name a few, employment, foreign exchange earnings, high patronage of local business like hotels and wares from the arts and crafts industry.

- The study area has the potential to exhibit and educate both African tourists and foreign tourist on African arts, Architecture and History.

- The case studies show two ways of using symbolism in cultural buildings. In the first instance is a literal use of symbolism in the Kouga Culture centre. Here symbols can be seen clearly in the building form. The Kouga culture centre also uses local building materials and technology in achieving the building form. Spaces and forms are ultimately configured based on the beliefs of the South African people. On the other hand the Jewish Museum in Berlin uses an abstract form of symbolism. Here symbols are deconstructed and cannot be seen clearly but need further explanation of the symbol for one to have an understanding.

5.2 Recommendations

- There is the need for sensitization of the local population around cultural sites. This will help the local population better explain and present African culture and its identity to the visitors. General sensitization program can be done through media, entertainment and sensitization seminars by the local government and NGOs.

- Development of cultural centers and African cultural buildings. These will serve as Iconic buildings to help in setting the tone for a greater development of African identity in African Architecture. The above centre when developed will take advantage of the influx of tourist in places like Cape Coast to sell the image of African.

- Government by way of policy can help in the development and promotion of local building material and technologies. Government can subsidize initial pilot schemes like housing and making them in the long run cheap to build and use. The private sector can also invest in pilot projects (housing) like the one mentioned above. This will hopefully give some confidence to the individual to follow suit.

- The J.H.S and SHS curriculum must be revised to teach more of African history. Research in the universities should be well funded if any useful technologies and materials are to be developed for use. The ministry of education has to make technical education more relevant by teaching students how to use developed indigenous African technology. Architecture schools in Ghana have to see the

revision in its syllabus to make eventual Architects trained to be more sensitive to the issues of African Identity and African Architecture.

- The national house of chiefs has a role to play. Our traditional system needs to be made more relevant and effective. This will help in the nurturing of the culture of Africa and hopefully will reflect in subsequent design of buildings.

- From the angle of tourism, The Ghana tourist Board should develop other interesting cultural sites that will take advantage of the huge numbers of tourists in the study area to propagate the African identity. Proper documentation and presentation of such sites should be done to sway the interest of tourist from colonial Architecture and its attractions to what can be identified with as African.

- As part of requirement for this Masters program, a design thesis was embarked on. Appendix II shows the design of a Cultural Centre (Centre for African Arts and History) by the author and this was located at Cape Coast in the study area. The author recommends this thesis as a guide to the development of similar facilities. This facility is fashioned according to the main purpose of museums: to educate. It will serve as a centre for sensitizing people to the issues addressed in this thesis. It will hopefully be an icon when developed and it is expected to serve as a visual guide to what African buildings particularly cultural buildings should look like.

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Appendix I

Interview questions

1. What is the size of your family?

2. What do you understand by African art and architecture?

3. Have you ever been sensitized about African arts, architecture and history? YES OR NO.

   If answer is yes, in which way?

4. Would you want to know more about African art and architecture? YES OR NO.

5. What would you want to know about African art, architecture and history?

6. What makes our buildings African and what makes them not African? Explain

   - Aesthetics (form &material)

   - Function (spatial organization)

   - Climatic consideration

   - Both

7. Do you think buildings that are being put up today in the township are African or exhibit any African identity? YES OR NO.

8. Given a choice between current building construction style and a cheaper and more earthly construction type which one will you choose?

9. Do you think the coming of the Europeans had any impact on the development of indigenous technologies and culture? YES OR NO.

10. How can we return to our ways of doing things before colonization? Explain.

11. Do your family members gain anything from the tourism industry? YES OR NO.

12. What benefits are they getting from the tourism industry?

13. Is tourism helping the local population improve their welfare? YES OR NO.

14. Which of the cultural sites in the regions have you visited?

  a) Castles and forts

  b) Shrines

  c) Kakum national park

 d) Others

15. Do you support the idea of putting up a centre for African art and history to help sensitize people about African culture? YES OR NO?

16. What benefit do you think that will bring to the local population?
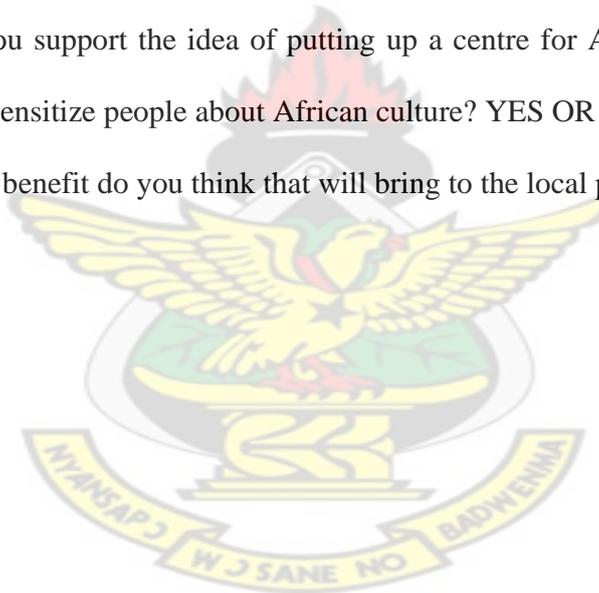
Appendix II

Design thesis –Centre for African Arts and History

Block plan   Site pl

Ground Floor Plan

93
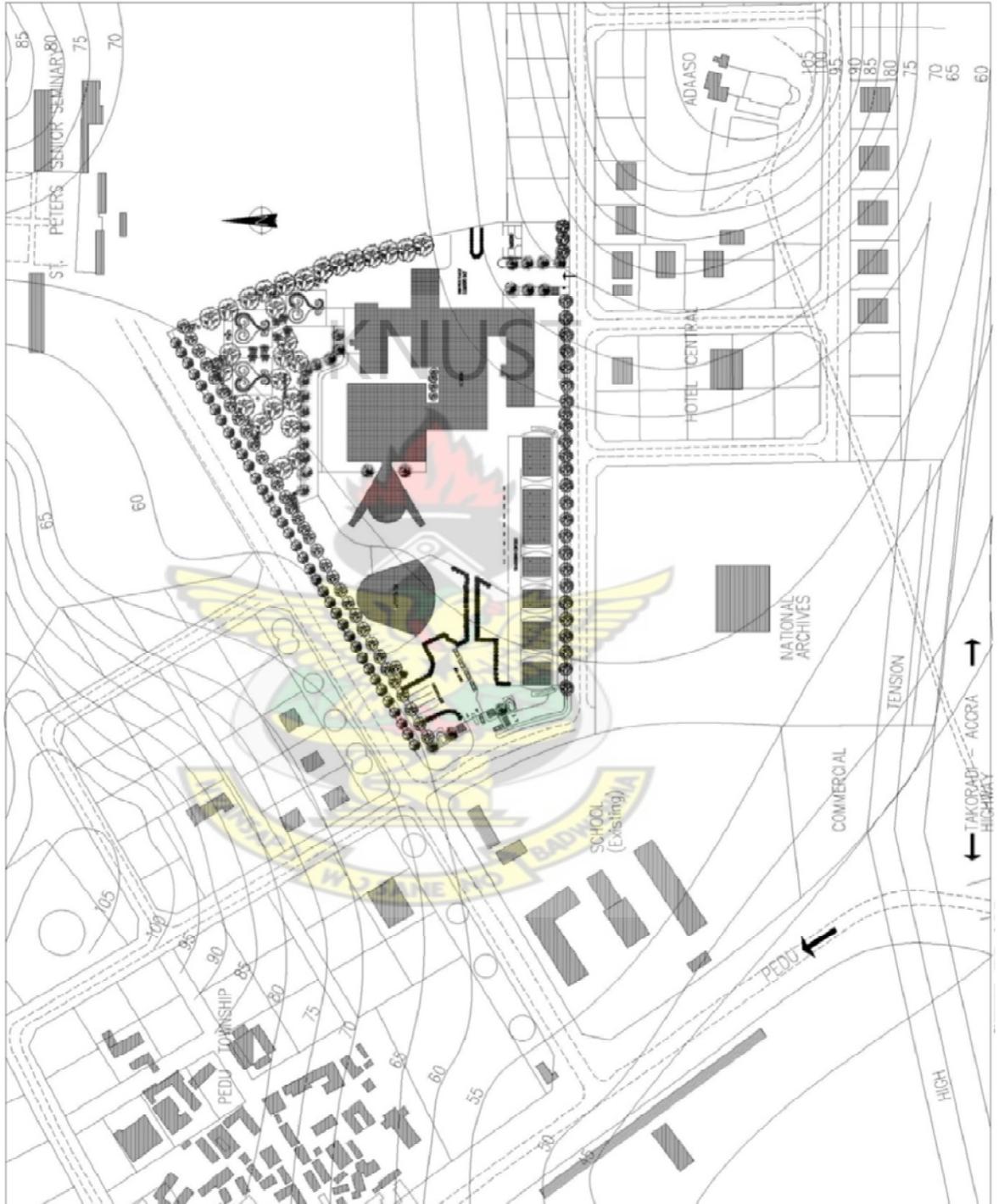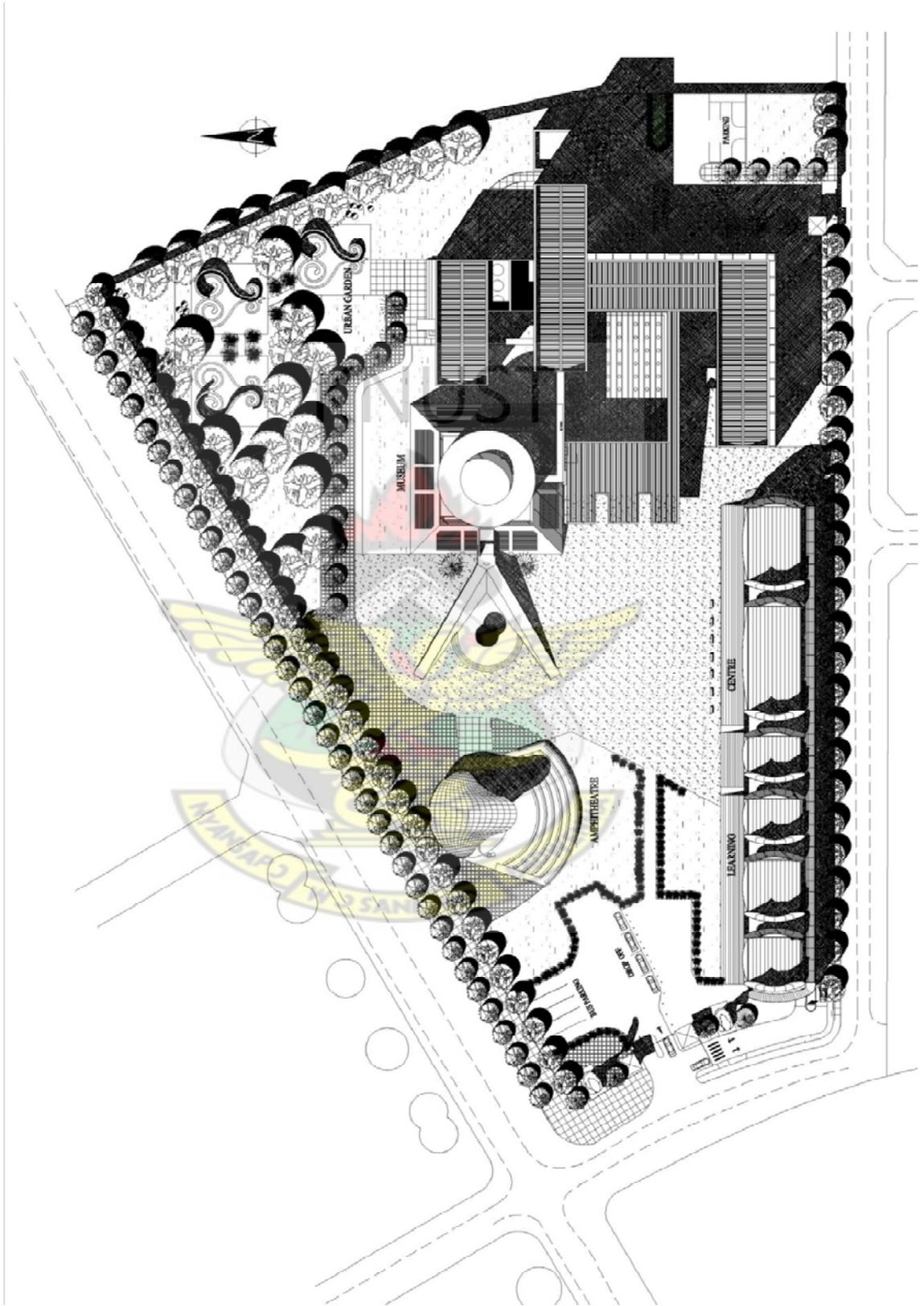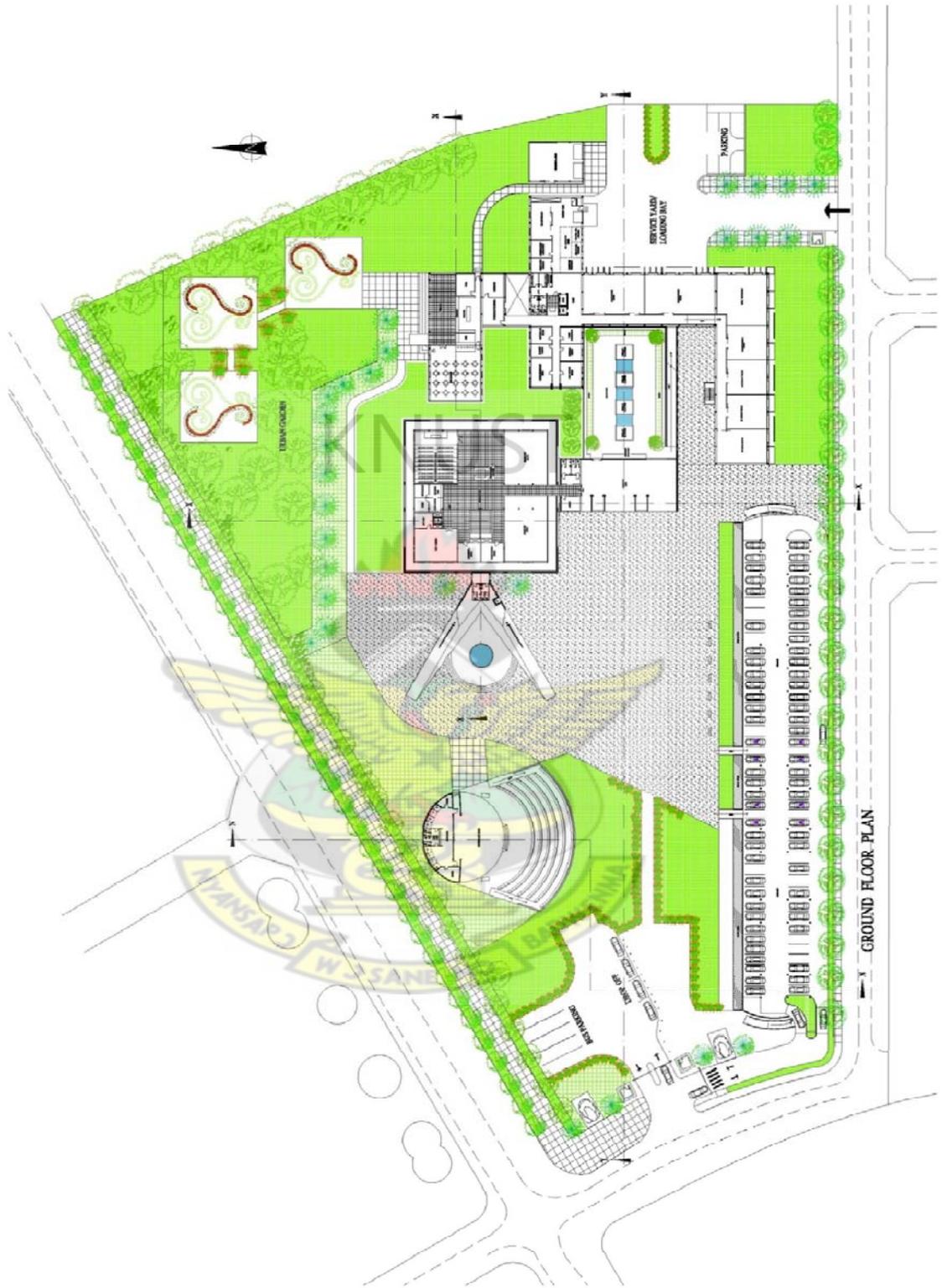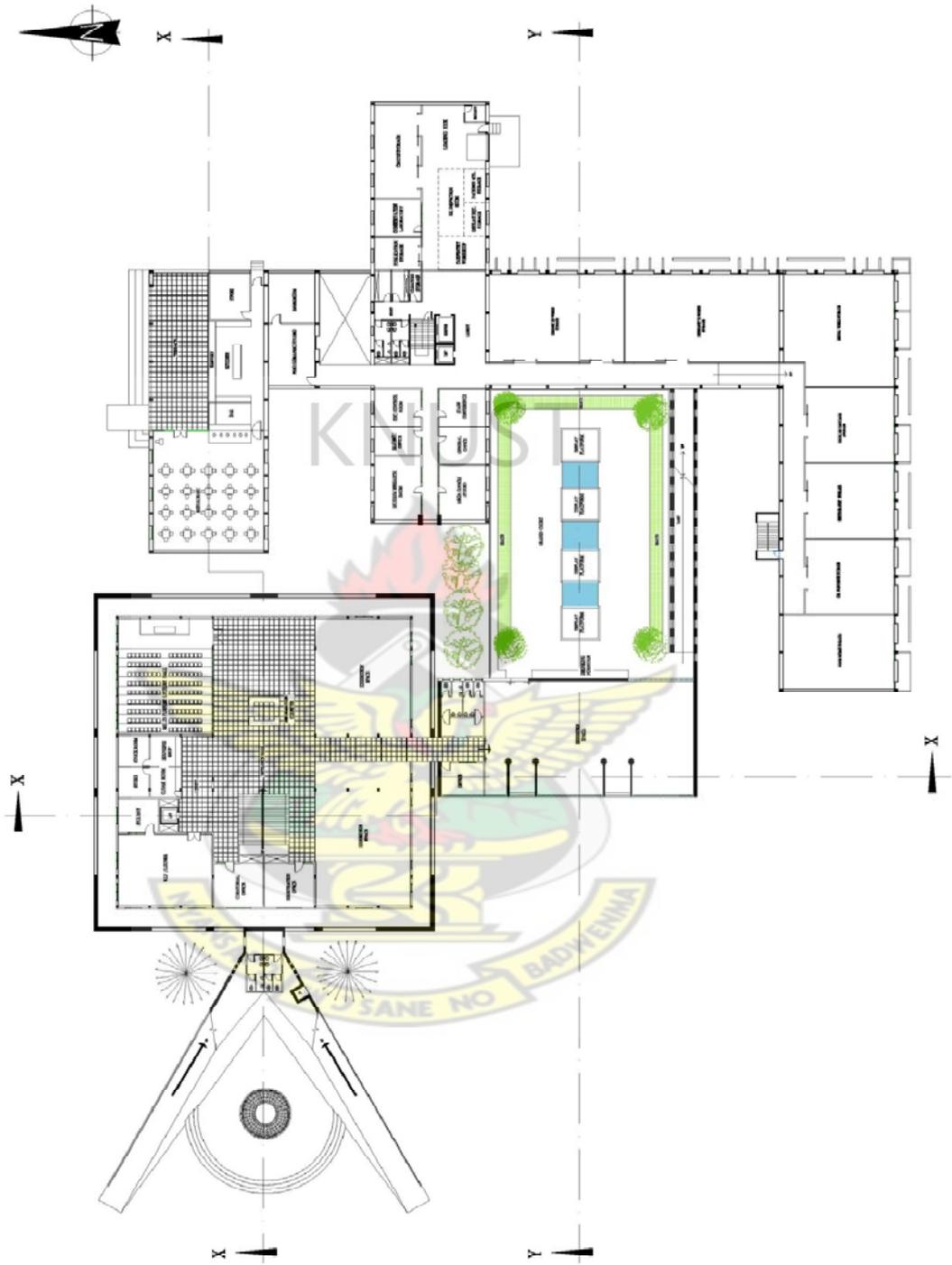
Ground Floor Plan (Museum)

94
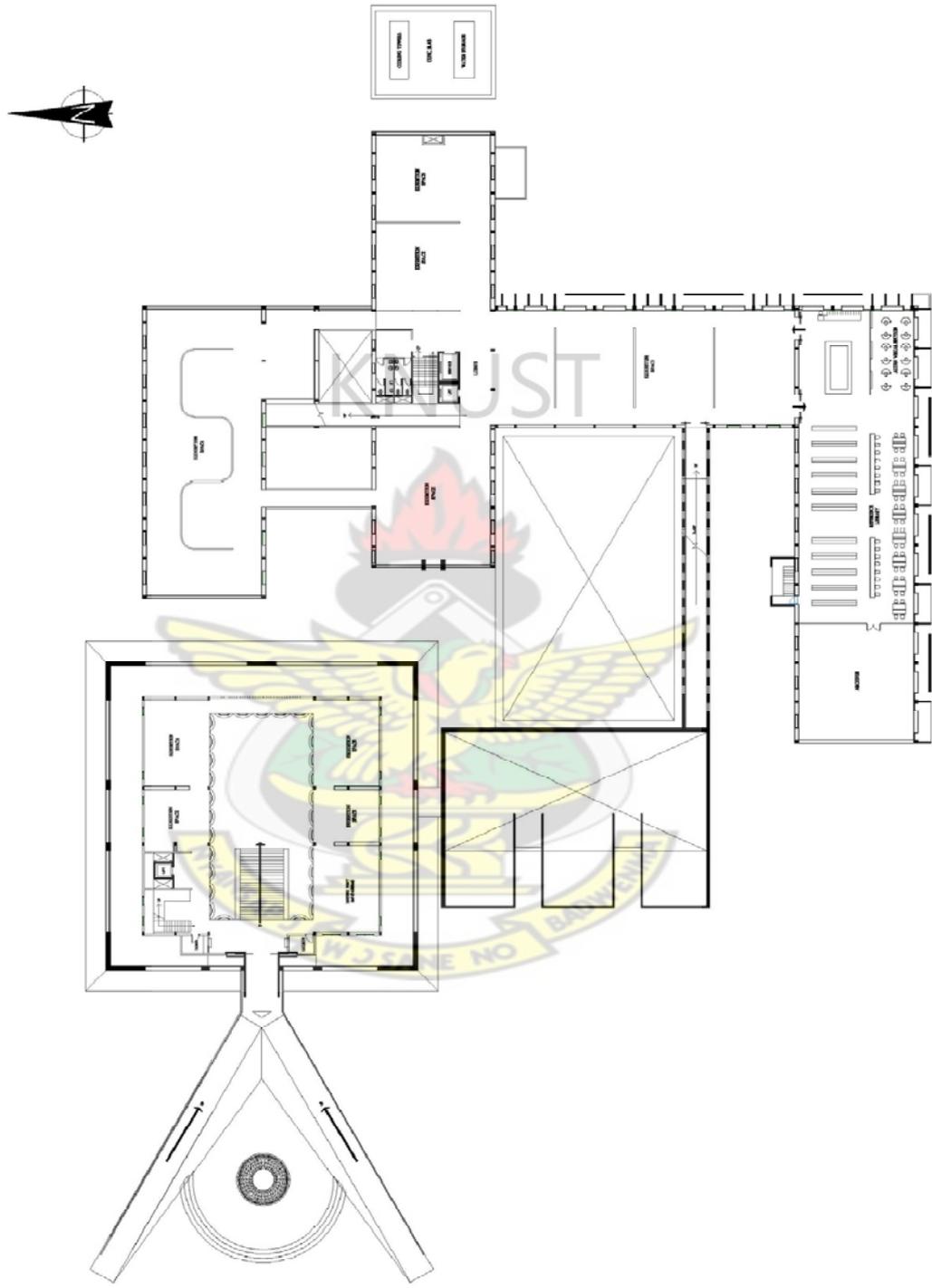
First Floor Plan
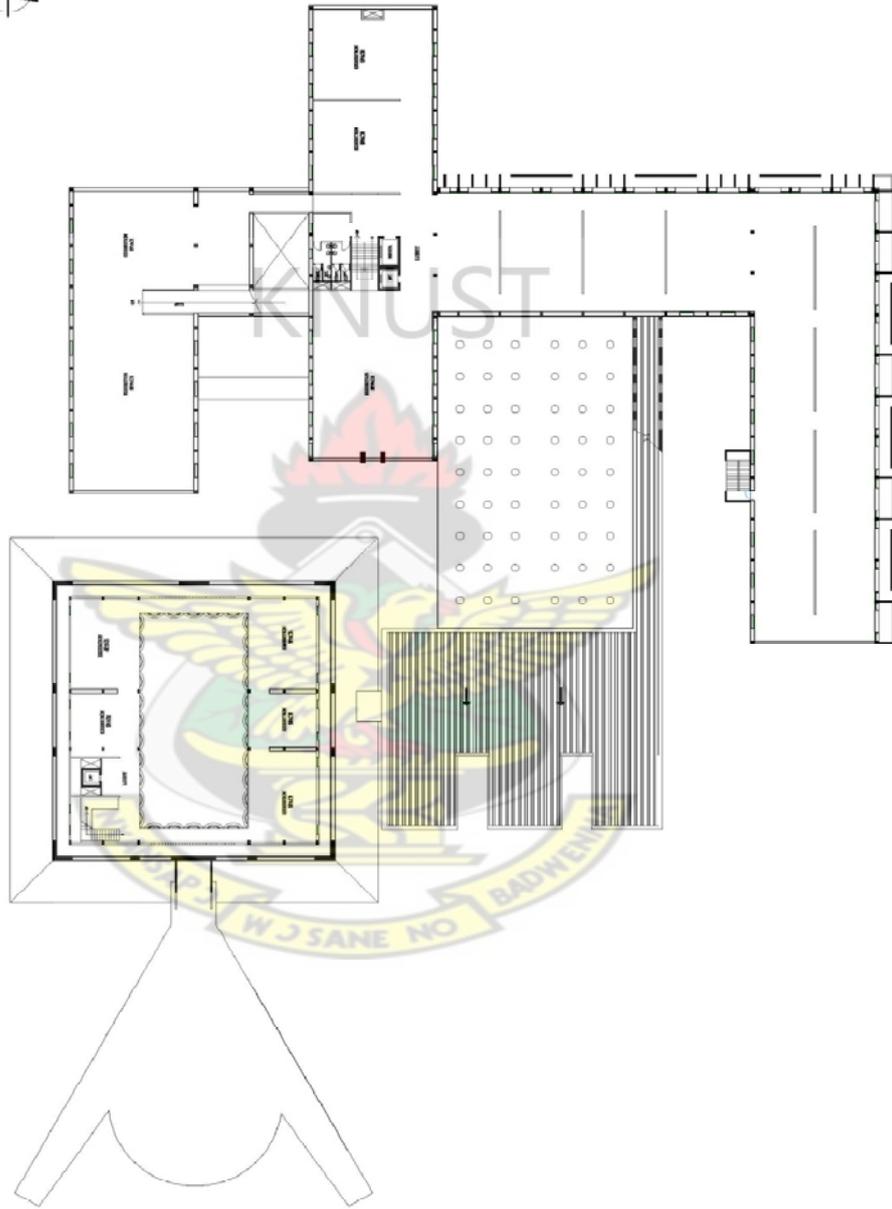
Second Floor Plan
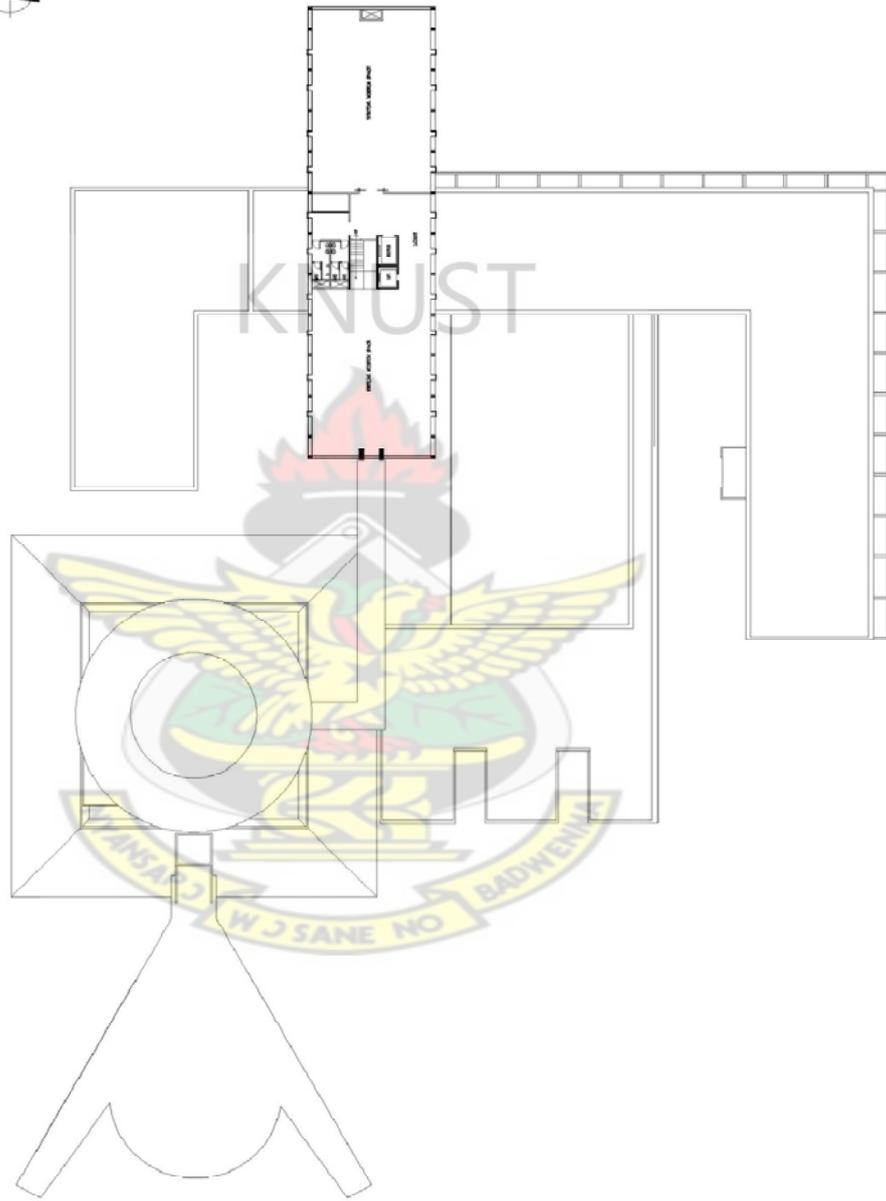
Fifth Floor Plan

Roof Plan
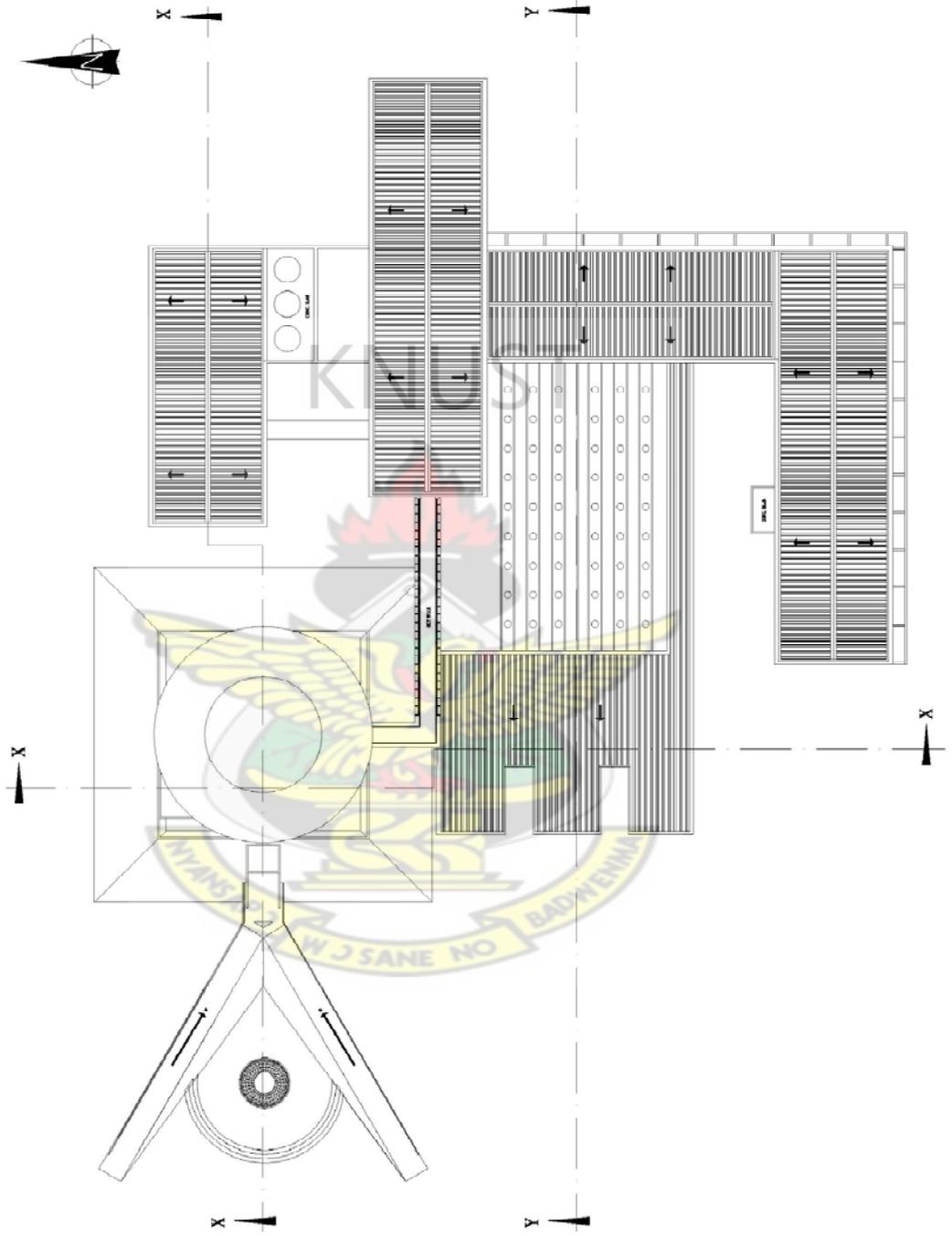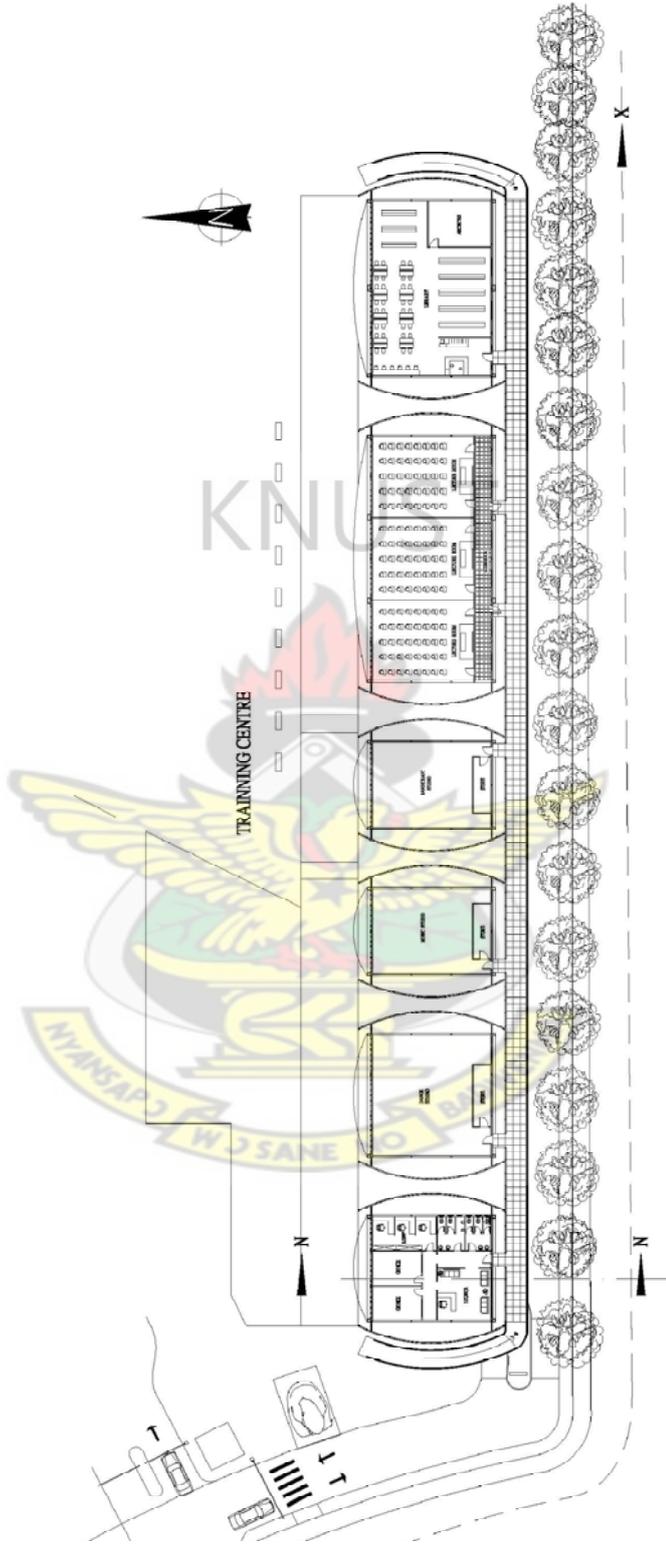
Ground Floor (Training Centre)

SOUTH ELEVATION

NORTH ELEVATION

Elevations

100
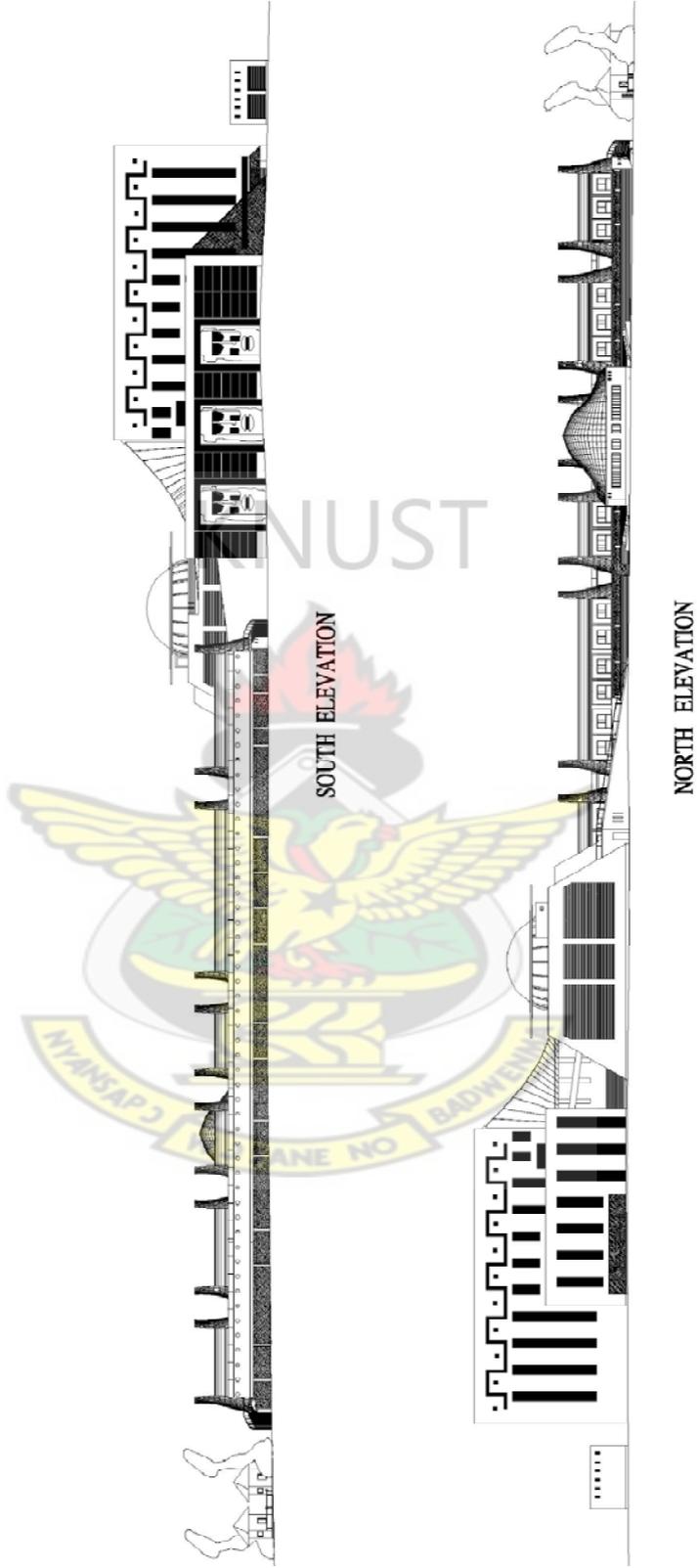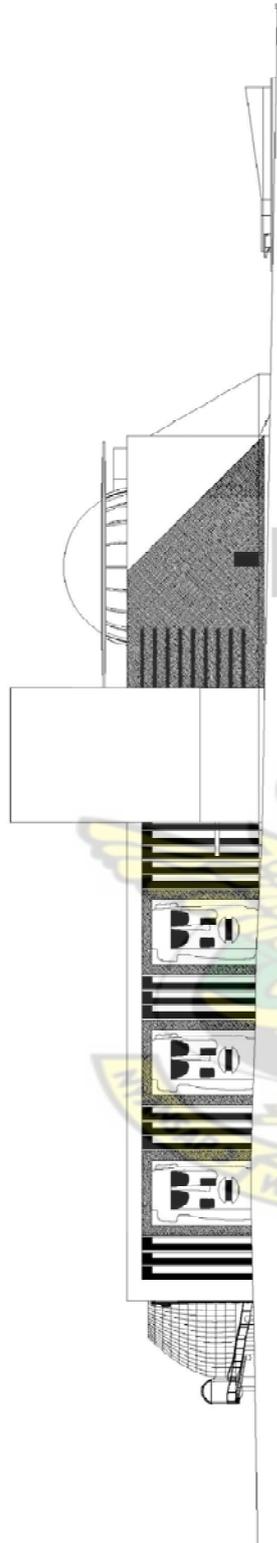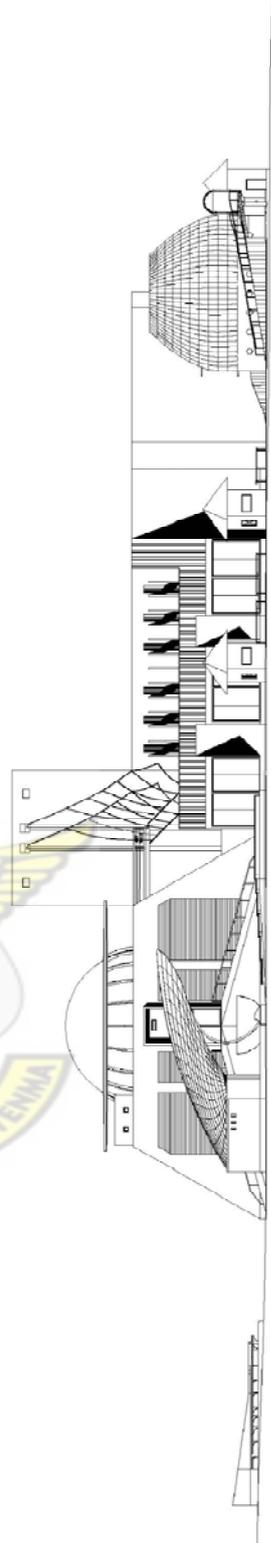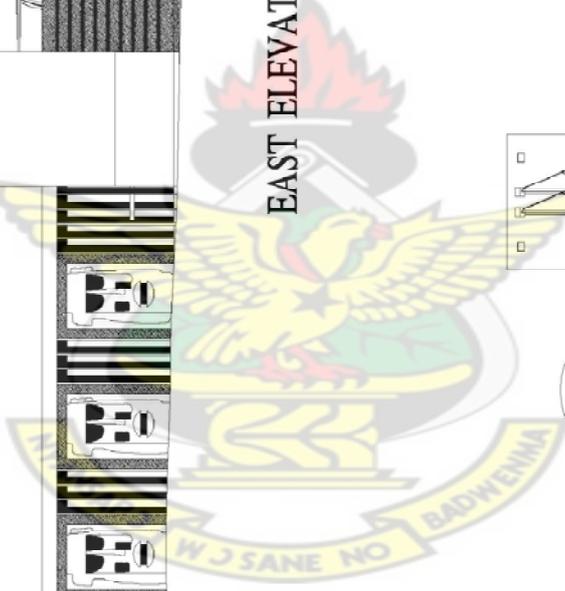
EAST ELEVATION

WEST ELEVATION

Elevation

DETAILING OF GRAND COURT

Grand Court

KNUST

EXHIBITION SPACE

EXHIBITION SPACE

EXHIBITION SPACE

DETAILING OF PYRAMID

Typical Sectio

103

VIEW OF AMPHITHEATRE

AREAL VIEW OF FACILITY

VIEW OF MUSEUM AND WATER FEATURE
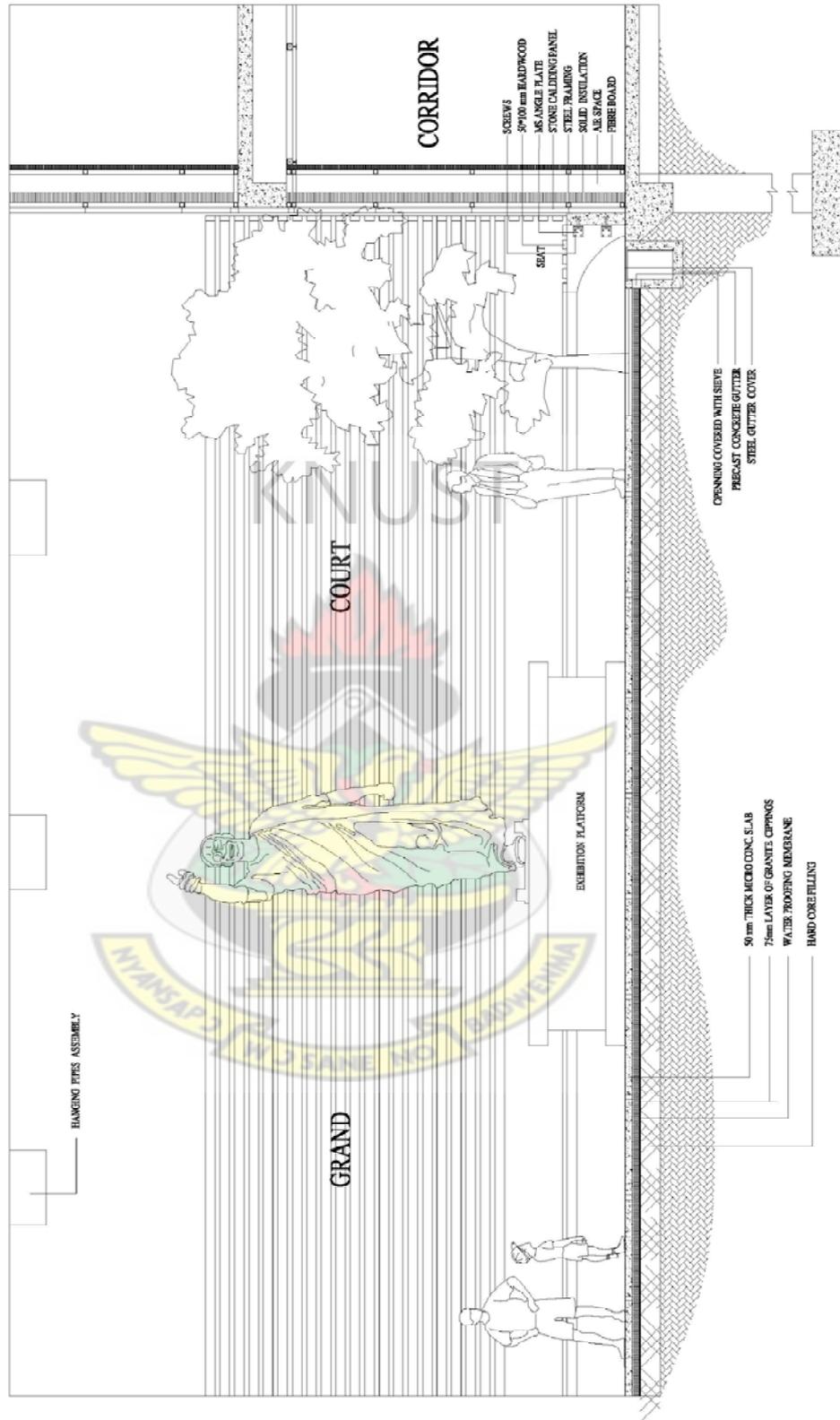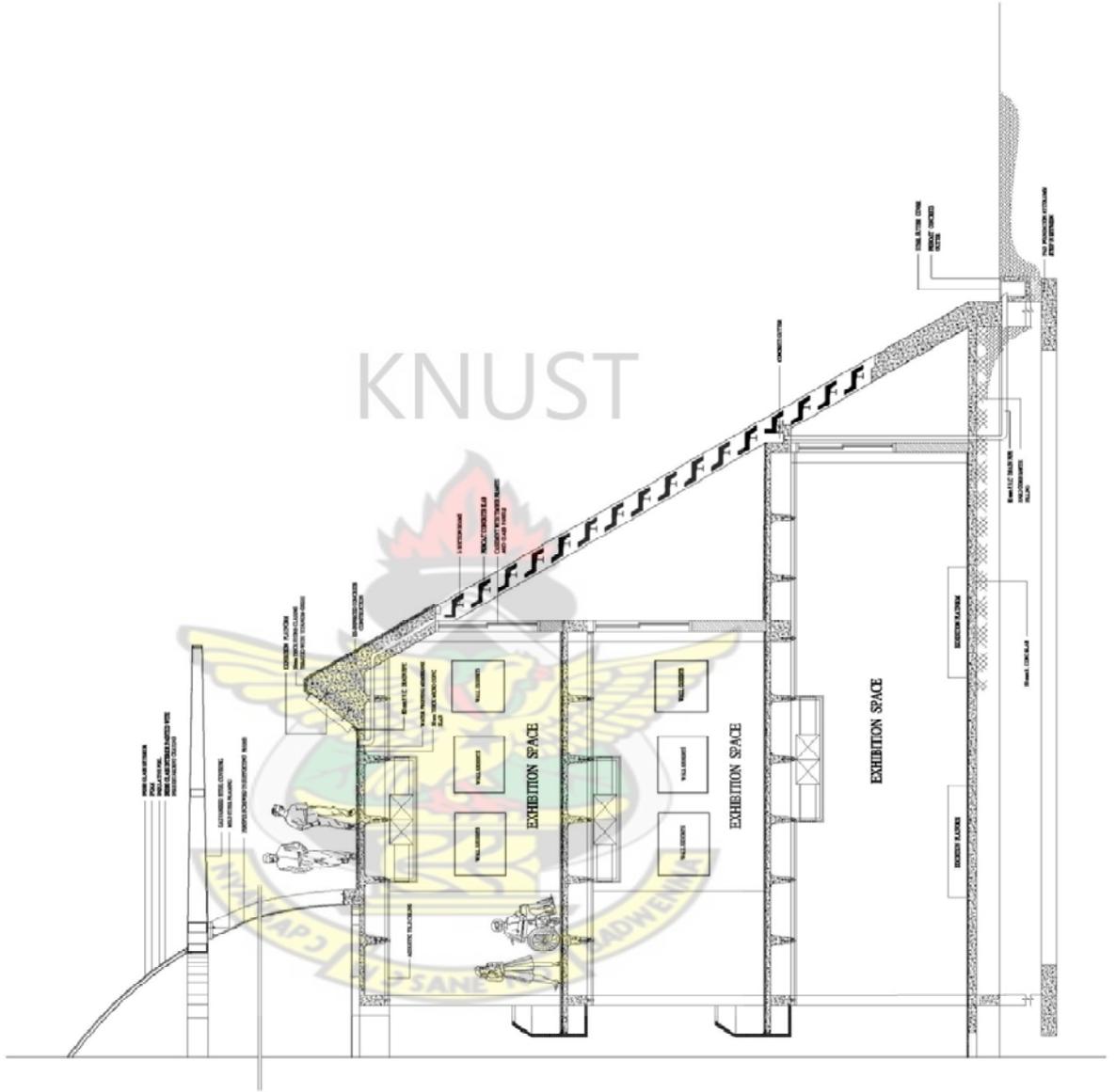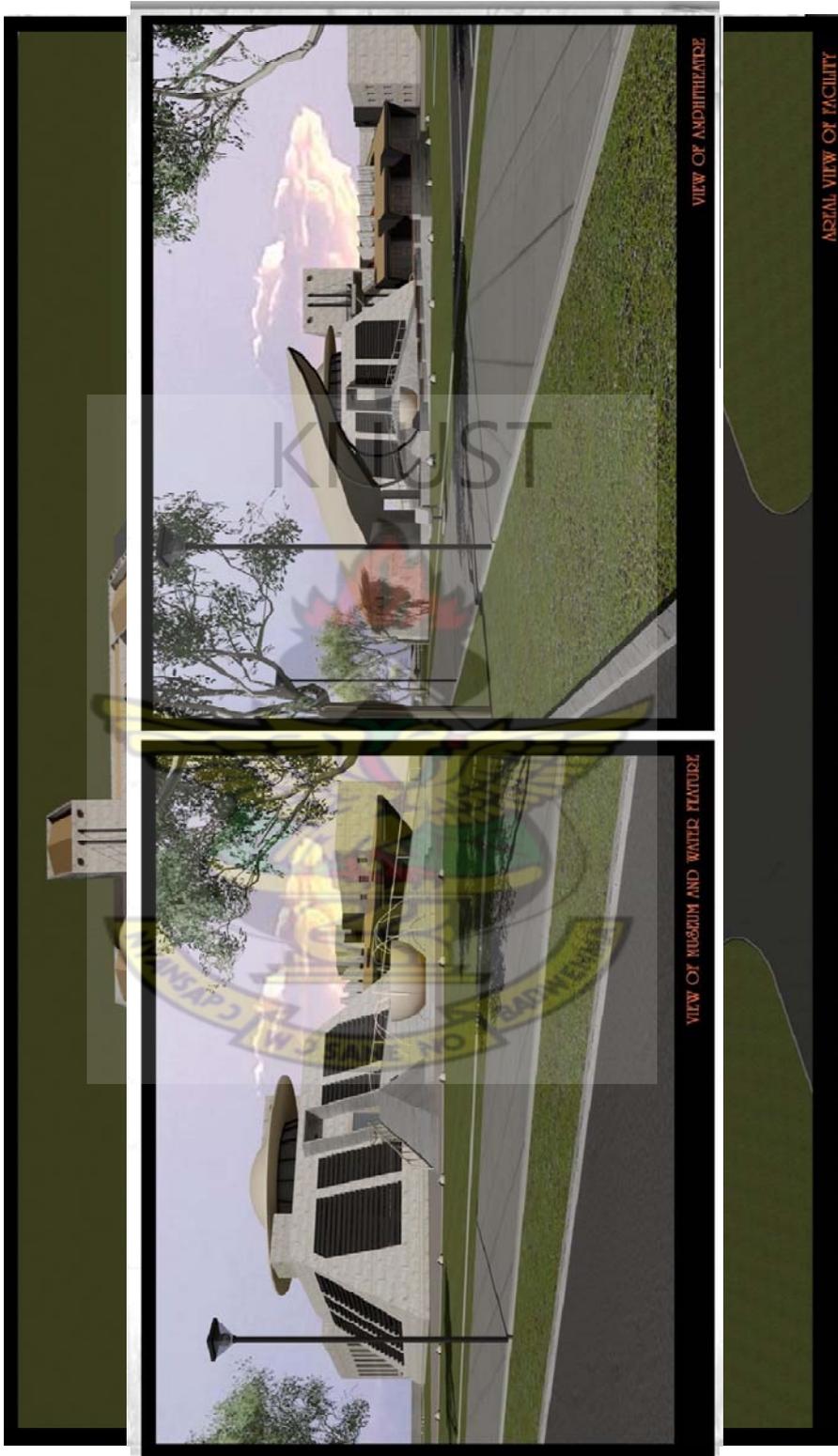
Perspective View of Museum and Amphitheatre
Panoramic View of Centre

104

VIEW FROM EXIT POINT TO SKYWALK

VIEW FROM ROOF TOP TO EXIT POINT

VIEW OF MUSEUM SHOWING THE HANGING PIPES AND SKYWALK
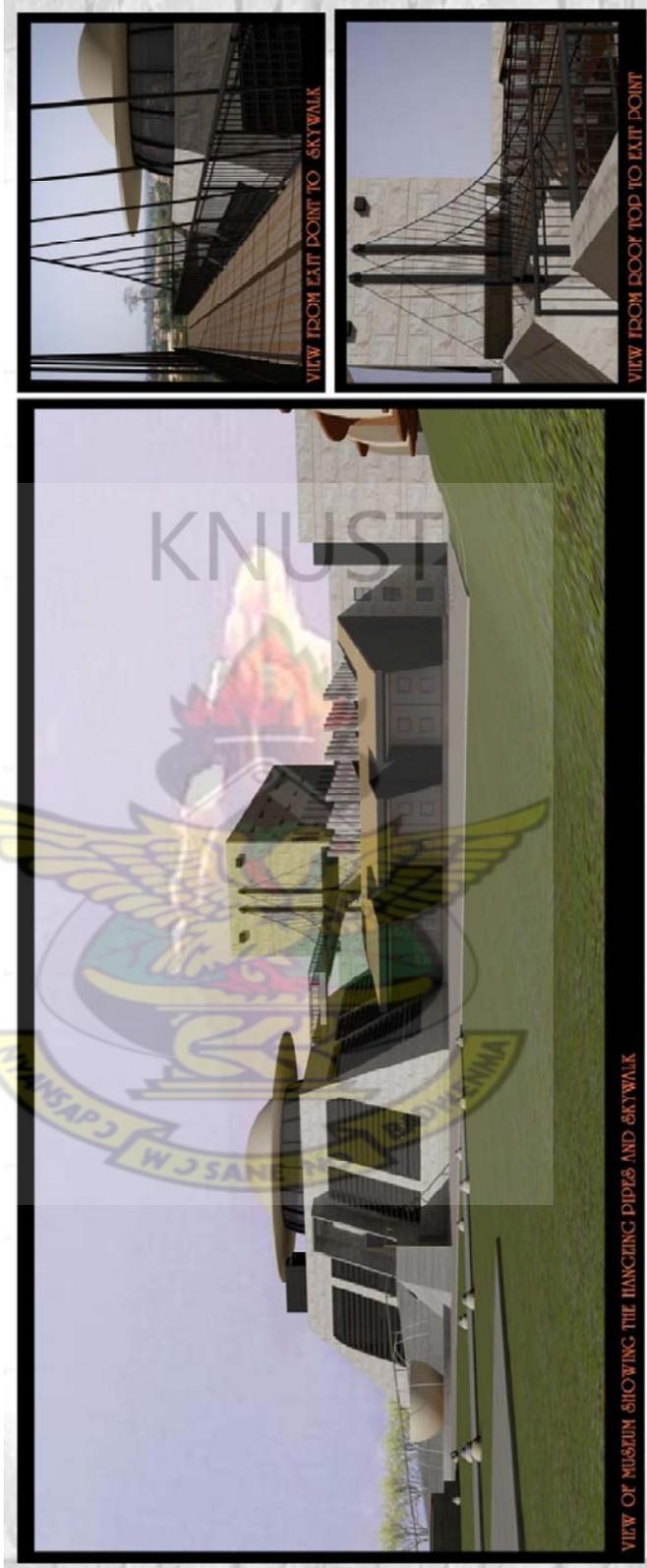
Perspective View from parking area
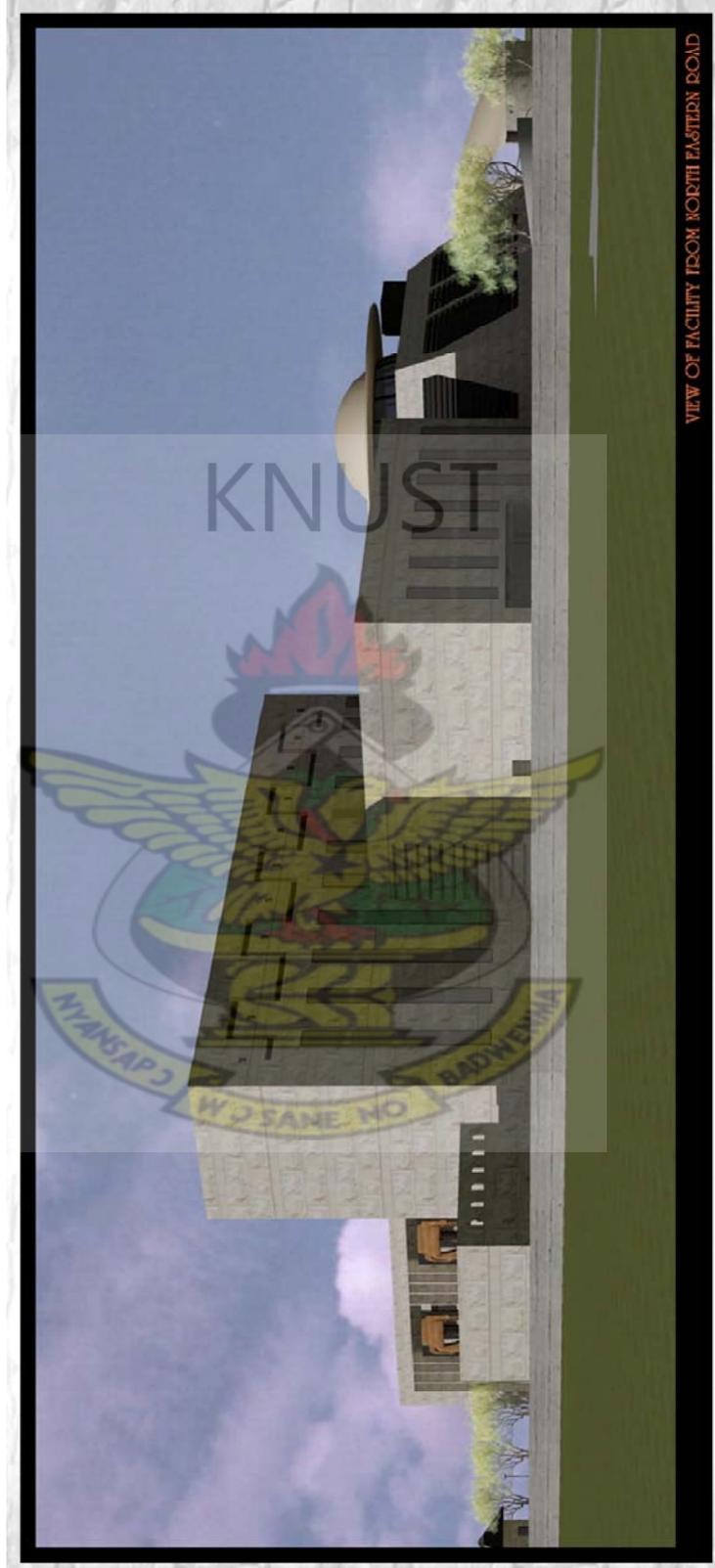
Perspective View from Seminary

VIEW OF FACILITY FROM NORTH EASTERN ROAD

SOUTHERN VIEW OF TRAINING CENTRE

SOUTHERN VIEW OF TRAINING CENTRE

VIEW OF TRAINING CENTRE FROM MAIN ENTRANCE

WESTERN VIEW OF THE TRAINING CENTRE

Close up view of Training Centre

107

ARIAL VIEW OF FACILITY

Panoramic view