

DESIGN PROPOSAL FOR AFRICAN HERITAGE CENTRE, BADAGRY.

A Study of Effective
Preservation of the Artefacts.

By

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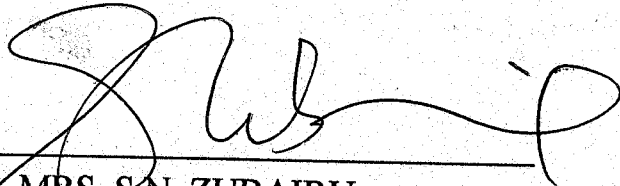
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CERTIFICATION

THIS THESIS REPORT ENTITLED "AFRICAN HERITAGE CENTRE BADAGRY" BY ALABI G.B.O. MEETS THE REGULATION GOVERNING THE AWARD OF DEGREE OF MASTER OF TECHNOLOGY OF ARCHITECTURE (M. TECH ARCHITECTURE) AND APPROVED FOR ITS CONTRIBUTION TO KNOWLEDGE AND LITERACY PRESENTATION.



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DECLARATION

I DO HEREBY DECLARE THAT THE WORK PRESENTED IN THE THESIS FOR THE AWARD OF MASTER OF TECHNOLOGY IN ARCHITECTURE, AS NOT BE PRESENTED EITHER PARTIALLY OR WHOLLY FOR ANY OTHER DEGREE NOR IS IT CURRENTLY BEING SUBMITTED FOR ANY OTHER DEGREE.



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DATE

DEDICATION

This work is dedicated to my Inspiration, Arc. (Miss) Folake Alabi. I followed your footpath and I thank God, I never regret it.

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Audhu bilahi mina Saytani Rajeem, Bisimilahi Rahamani Raheem.

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ABSTRACT

There has been this cultural renaissance up from times gone-by stressing the need for Africans and Africans in Diaspora to re-align and re-assert their cultural values and rich sense of heritage. This consciousness has been on the build-up both from within and beyond Africa resulting in innumerable movements under different guises all giving credence to blank consciousness. Pan-Africanists and Blackists worldwide have been continuously and unrelentlessly trying to abridge the vacuum between our rich memorable past and future that lies ahead.

At such a time of great importance to African sons and daughters, there lies the need to formalize a conception around which these laudable goals would be given credence. This gave birth to the idea of an African-Heritage centre to serve as an invisioner and also an out-post of this movement gaining momentum worldwide. This centre would provide under the best conditions available a befitting mind of Afro-cultural knowledge (anthropological, socially, cultural, technologically and politically) in tangible forms and the same time providing means of re-enacting these wealth of knowledge gained from the centre through dramas, festivals, concerts and symposia. This centre would be used to create the emotional and psychological atmosphere for the emergence of a justly humane and harmonious atmosphere for sense of being that has eluded we Africans for quite some time now.

At the end of the research, befitting arguments and advanced would have been made in purporting the authenticity behind choosing such a deserving proposal for the conscientization of the party derailed percentage of Africans, who have almost entirely lost their sense of heritage.

CHAPTER ONE

1.0 INTRODUCTION

The need for an African Heritage center has become apparent. As will be noticed, there has always been this drive, their motivation and zeal by people who share a common sense of identity, history, race or civilization to come together periodically to express their sense of oneness. It had been happening from earliest times. Notable civilization like Greece, the Jews, and the Arabs did this through their pan-Hellenic, Zionist and Arabic Festivals. Therefore Africa is no exception.

Moreover, the need to express or dramatize one's unity of interest or collective solidarity finds easy realizations under the following factors.

- (a) When that sense, unity and collective interest of people is being threatened.
- (b) Since culture and arts remains a solid base for mobilizing and channeling one's human emotions, this easily firms a rallying point for consolidating people's solidarity.
- (c) Festival has remained tools for optimal mobilization, in that the individual emotional responses and attributes can be unified and pulled under a sum-total definition as festivals, dramas and ceremonies.

The Black race remains a race that has suffered a lot from this cultural emasculation by the western world. The slave trade and colonization stands as evidence. There cannot be a better time for the revival of Black consciousness than now. Despite these attempts to emasculate the cultural integrity of the Black man, his culture and arts found increasing growth and expression in expatriation.

1.1 Aim of the study.

This research work is envisaged to satisfy the following aims

1.11 Aims

As there is this growing tendency of Black consciousness Worldwide, this project seek to address the functions of an art gallery for African Arts and artefacts, a specialized library for African History and culture and amphitheatre/plaza for communal interaction and a heritage museum.

1.12 Objectives

While making provisions for functions that will enable the African to conserve, preserve and promote certain aspects of the African tradition and culture;

1. There will be this flexibility in spatial organization placing more emphasis on organic dynamism.
2. Contemporary design solutions will be used, bearing in mind, the theme of this project.
3. There should be a strong emphasis on village communal Architecture where the village square functioning as a central plaza would be a point of focus here.
4. Simple audio-visual implements (slide tapes) would serve as most likely alternatives to real life artefacts. This would greatly reduce the scope of proposal and at the same time provide the next most suitable alternatives.
5. Lastly great emphasis would be placed on adaptability of project to physical/scenic characteristics prevalent on site and environs.

1.2 RESEARCH METHODOLOGY

For the purpose of this research, magazines, journals, books, libraries, photograph, illustration and interview were employed as means of advancing arguments, classifying points and for the purpose of consolidating the centre.

1.3 SCOPE AND LIMITATION OF STUDY

1.31 SCOPE

This proposal is intended to provide the following spatial requirements which would go a long way in realizing the already laid down goals and objectives discussed earlier so as to befit and most directly satisfy the salient need for an African-Heritage centre that would meet the challenges of not just this present age but the times ahead.

Basically, functions to be provided for will include the following:-

- (a) An art gallery (for exhibitions and also for display of artefacts on temporary basis).
- (b) A heritage library comprising basically of detailed chronological study of Africa through time. This would be organised along:-
 - (i) Anthropological
 - (ii) Historical
 - (iii) Cultural
 - (iv) Political/Economic/Technological

This should also cater for audio-visual implements for enhance study. It should serve as a source of intangible evidence for ideas, abstractions, philosophies, myths and Religion.

- (c) A mini Museum – Artefacts of immense socio-cultural value on temporary loan from other African countries are to be displayed here. Emphasis is on better security.
- (d) Amphitheatre – This would be used for re-enactment, dramas, entertainment and recreation.
- (e) Lecture halls/study rooms – these are basically for lectures, symposia and seminars.
- (f) Offices for managerial staff running and maintaining the complex
- (g) Sea – view restaurant
- (h) Festival centre
- (i) And lastly, the integration of complex to the environment through proper use of landscape so as to offer an indescribable scenic beauty to this unique facility.

1.32 LIMITATION

Particularly as a study of African heritage centre as they meets the needs of the populace. No feasible data on this subject is readily available as such as concise information can be obtained as to the extent of development and patronage.

1.4 IMPORTANT OF STUDY

Borrowing the sub-titular heading in Ogbu Kalu's book, "African Cultural Development". I would infer that the most important purpose of this research would

be the usage of "culture as an anchor" to prevent a changing society from drifting astray". The systemic abrasion and consequent erosion of African values by the Western world leaves no one in doubt as regards the paucity and emphemerality of purpose in the ability of our African leaders to stabilize the ever-changing political, social, moral and economic structures of the continent. This lack -luster effacement of tenacious African cultural concepts have even made some European historians like H. R. Trevor Roper to believe that African has no History nor Historical precedents.

If culture should then be employed as a rallying anchor, its contribution in the development of novel societies and the resultant factors that arise would, be easily tackled. But before this can be done, culture should be studied in a time dimension so as to understand fully why the continual adaptation of man to changing climate and physical trends re-organizes and realigns it resultant values.

Badagry and it environs, being a society of immense socio-cultural value would benefit greatly from this scheme. A greater national and international awareness would be drawn towards this area of immense historical value though greatly under-utilized. It is rich tourist and cultural potentials would be tapped and used for the betterment of this interestingly rural society.

Another important factor to be borne in mind is that this research would provide a clearer stop-gap elixir to the socio-cultural/political vacuum created by colonialism and it s resultant by-effects.

1.5 PROBLEM STATEMENT

Bearing in mind the uniqueness of this proposal, it is quite obvious that realization would be hindered by certain factors.

1.51 SECURITY

This remains one of the most important problem statement till date. Some years back, there was a continual disappearance from the National Theater, Iganmu, Lagos of Nigeria artefacts which later resurfaced in the Western World. This lack of befitting security network of security and physically manipulated gadgetry system could have done a greater good. This neglect of security measures has turned out to be the bane of the failure of our Museum Institutions in remaining a mirror into our past.

1.52 DESCRIPTION OF CLIENTELE

Having borne this problem in mind, I have decided to make the level of awareness of this proposal an African affair since every nation incessantly reiterates the necessity of cultural awareness and revival, I then decided that the best way to make this proposal a reality is to make it a national affair through the commission for Museum and Monuments on whom the power is vested, such that consequently it would be an international affair within the African context. As such, member African nation would be conscientized on the essence of making it a continental affair. Through this way; antiquates that can be acquired would purely be out of the countries wish and in the spirit of Africaness.

1.52 FUNDING AND MANAGEMENT

Since the center is going to be more of a research/re-enactment centre, it would not be much of a project – generating profit. That is the more reason why it has to be incorporated under the commission for Museum and Monuments who are vested with the power through Federal government Grants to establish and run such centres.

1.53 PROPOSAL BEING ESTABLISHED AS CENTRE OF BLACK CONSCIOUSNESS.

This problem statement would have been an insurmountable one, if not for the uniqueness of the proposal to be realized. One question which anybody would most likely ask is, "if this African - Heritage Centre is established in Lagos, what of other African Nations, don't they have a right to own one or have one established within their locality?, Is it only Nigeria that demands such a befitting establishment? "Since antiquities cannot be acquired for permanent display anywhere outside the territorial confines of any nation, it is best to develop this proposal as an out-post of Black-consciousness which would easily be repeated anywhere else within the African continent through their subsequent commissions empowered to develop such ventures.

If ever any object of antiquity or cultural heritage is to be on display, it would be either as a grant from the brother nation or as part of cultural troupe on tour in the country at hand and as such being used exclusively for temporary display. In this way, the socio-cultural heritage and integrity of the Nation or civilization concerned would be repeated and upheld. Antiquities shouldn't be stolen or acquired illegally just because one wants to establish a centre for Black-consciousness and Heritage within the continent.

This likelihood will definitely make the proposal economical and easily affordable by any member African nation that consequently wishes to embark on this great endeavour.

1.6 DEFINITION OF TERMS.

- (i) **NEGRO** - Member (or outside Africa, descendant) of one of the black-skinned African peoples south of Sahara.
- (II) **ANTHROPOLOGY** - Science of man, especially of the beginnings, development, customs and belief of mankind.
- (III) **HERITAGE** - That which has been or may be inherited.
- (IV) **CHRONOLOGY** - Science of fixing dates
- (V) **DIASPORA** - the dispersion of the Jews among the Gentiles after the period of exile (538 BC)
- (VI) **ARCHEOLOGY** - Study of ancient things, especially remains of pre-historic times.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 NEEDS FOR SENSE OF PRIDE IN THE AFRICAN HERITAGE.

The need for this cultural revival can be expressed in the comments of our prominent-Black Sons like Marcus Garvey, Malcolm X, President Seke Toure of Ghana and Major General Olusegun Obasanjo.

In the world of Marcus Garvey, a West Indian who lived mostly in the U.S.A. "Black men, you were once great, you shall be great again. Lose not courage, lose not faith, go forward. The thing to do is to get organized; keep separated and you will be exploited, you will be robbed, you will be killed. Get organized, and you will compel the world to respect you. If the world fails to give you consideration, because you are black men, because you are Negroes, four hundred million of you shall, through organization, shake the pillars of the universe and bring down creation, even as Samson brought down the temple upon his head and upon the heads of the Philistines" (Ronald Segal)

This goes to elucidate that the need for a Black Awareness to bolden the emotional and psychological atmosphere for creating a sense of solidarity and oneness among blacks couldn't come at a better time than now. He invariably stressed this necessity for Blacks to be back home and build a variable civilization that would challenge the white man's reported and arrogant claim on civilization.

In the words of one of the greatest sons of Africa, Malcolm X, he stressed the need for that sense of pride in the African Heritage as a means of restoring the battered image of the Black man through a rational homeland and cultural heritage with which

to fight back those who had for years propagated a heritage of shame and despondency for the African. He said thus:- "Our History and our culture were completely destroyed when we were forcibly brought to Americans in chains. And now it is important for us to know that our history did not begin with slavery's scars. We come from Africa, a great continent and a poured and varied people, a land which is the new world and was the cradle of civilization. Our culture and history are as old as man himself and yet we know almost nothing of it. We must recapture our heritage and or identity if we are ever to liberate ourselves from the bond of white supremacy. We much lunch a cultural revolution to unbrainwash an entire peopleArmed with the knowledge of the past, we can with confidence chart a course for our future. Culture is an indispensable weapon in the freedom struggle. We must take hold of it and forge the future with the past".

In his own assertion, president Seke Toure had emphasized that culture could be utilized as a revolutionary advancement progressively through an admixture of the ancient and modern and also through the collective effort of the African by adopting culture as a tool for enrichment of human consciousness and being. He enuciated such in his historic statement that "culture is an accumulated experience which modifies man in a linear progressive and qualitative manner, but with additional qualitative phases of mutation. The result is a new man, a new society, more skillful and more apt, integrating to an ever-increasing extent, the means and end of action, and perfecting to ever-greater extent, technology and means of action".

As would be rightly seen, culture has always served as a means of uniting the aspirations of a collective essence, holding them together and pushing them to greater heights.

And lastly, to draw credence from the words of General Olusegu Obasanjo, the then Head of State of Nigeria, when commissioning the National Arts Theatre, Iganmu, on September, 30th, 1976, said thus:- "The crystallization of decades of efforts to give clear and practical expression to the yearnings of our people to revive and promote our cultural and artistic heritage.

2.2 GEOGRAPHICAL BACKGROUND OF AFRICA.

Africa, from geographical records is the second largest continent in the world. It is four times as big as the United Nation and about two times the size of Europe. With this vastness of size and landmass is accompanied also, a plenteous contradictions.

One of these contradictions lies in the fact that the continent is geographically spread on both the Northern and Southern Hemisphere. The Northern part of this continent experiences seasonal occurrences similar to that of southern Europe where midsummer is in June and mid-winter in December whereas the Southern Hemisphere is a reversal of the above.

One other strange contradiction lies in the fact that even though Africa is surrounded by water and has the second largest lake in the world, it has more and barren land made so because of lack and inaccessibility of water to the hinterlands. Glaring examples of such barren lands are the Sahara Desert and the Kahalari Desert where neither man nor beast can comfortably make a home of and the issue of rainfall remains a pride. Beside this appalling barrenness of land lies huge forest areas mostly along the Equator covering about one quarter of the continent. These forest areas with their dense undergrowth and always provided impediments and penetrable barriers. Some of these rain forest regions have swampy forests to which are not easily navigable. The continuity of rainfall throughout the year makes it difficult to properly ascertain the climatic trend.

Little wonder then, why these geographically created impediments had remained barriers for so long. It has goes to explain why certain tribes and civilizations had remained side by side for hundreds of years and yet they never met one another and they grew up speaking different languages and having diverse cultures. This also explains why certain civilizations ever really learnt from, or passed on their knowledge to their neighbours. But with time, and owing to the gregarious nature of man as a social animal, these barriers were penetrated from time to time and tribes could travel from one part of the continent to another. This also goes to explain why for a long time, the coastal fringes of Africa has been in constant rapport with alien civilizations whereas the interiors remained uniquely acculturized.

Lastly, there abound the great number of Africans whose origins can easily be traced to the intermarriage between the original inhabitants and these settlers. Rapid changes and technological advancement had endangered a greater acculturation and in-depth study of this powerfully latent continent, which would always be unmistakably referred to as the "Haven of the Black Race".

2.3 HISTORICAL SURVEY OF AFRICA.

One issue that remains of greatest controversy in modern History is the issue of the position of the Negro race in the hallmarks of civilization. It has been continually argued for and against. Some historians allude the birth of civilization of Egypt and consequently since Egypt is geographically within Africa they owe it to the Black race. Some emphatically say, "No". One very obviously contemptuous remark was made by the great French Oriented traveler, a naval officer and a linguist after visiting the wonders of Egypt and Ethiopia explaining in warmful indignation, "How are we astonished when we reflect that to the race of Negroes, at present our slaves, and the defects of our extreme contempt, we owe our arts and sciences, and even the very use of speech!" Well, really sad to bear, coming from the lips of a fellow human being.

This resultant diversity of argument stems from the fact that the continent of Africa has, if not any other thing, presented an incoherence of ethno-cultural chronology from the earliest times, probably due to uncompromising effect of geographical, climatic and physical factors. Bearing this in mind, let it now peruse through a historical survey of Africa as presented by certain Historical Scholars.

It is historically agreed that it was on the continent of Africa that the earliest civilization of which we have written records developed. It is thought that around the time when this civilization was dawning, about 6,000 B.C, the Africa people arrived from Asia to Africa and drove the original inhabitants, the Bushmen and the pygmies, further south. It was the Phoenicians, known for their Navigational facts and prowess that made the earliest attempts. Around 1,000 BC, they were encourage by king Solomon who gave them a maritime base at the Gulf of Agaba from which to conduct their voyages, the influence of these their earlier voyages abound across the Sahara, because the gravities of the Phoenician chariots has been found there. This time, the Sahara wasn't all barren as now and as such, it was made easier to travel across it.

Another attempt at discovering the hinterland was made around 600 B.C. By the Pharaoh of Egypt Necho who sent another batch of Phoenician explorers through the Red Sea, further down. They returned back years through the straits of Gibraltar, but unfortunately, not must of their discovering could be passed down through History. With time, Egypt's southern neighbour, called Cush by the Egyptians but later re-named Nubia having its capital at Mere, north of Khartoum, learnt the secret art of Iron smelting from Egypt and from there it spread all through Africa.

After about 100 years, another Phoenician sailor called Hammo, made a similar attempt with a fleet of 60 ships and about 30,000 men and women, their aim was to

establish colonies along the West Coast but whatever happened to the colonies is all History now.

Around this time that the Phoenicians were establishing themselves in Africa, two other empires were doing such simultaneously. They were Greece and Roman, the Greeks were establishing colonies in Cyrenaica, Libya and about 332 B.C., they founded the city of Alexandria. Also at around the same time, the Roman began to impound North Africa and about 146 B.C., they had captured Carthage and consequently dominated Africa. The name "Africa" is attributed to the Romans but then it only referred to an area existing in what is now Tunisia and part of Libya. Their trade influence stretched as far as South Kenya.

As Rome controlled Egypt then, invariably they controlled Africa. Nevertheless, the Greeks continued their exploration eastward. It was in one of those voyages that they discovered the Axianites originally from Yemen, across the Red Sea had conquered and overthrown the kingdom of Cush. It was also this time in question that this people accepted Christianity. Most of North Africa had been Christianized by Rome until around AD 415 when the Vandals from Spain devastated Roman Africa as far as Tripoli. The Byzantine Empire, centered on Istanbul, occupied these lands about 100 years later but this rule was however short-lived. Following the death of Mohammed in AD 632, the spread of Islam assumed tremendous dimension which resulted in the near-total Islamization of the entire North Africa including Egypt, leaving out only Ethiopia which was protected by its mountainous terrain, they remained Christians.

Historically speaking, it was just shortly before these Islamic invasions of Africans that the first of the African Kingdoms began to arise. The first was Ghana, it lasted from 6th to the 12th centuries A.D., stretching from the North of the modern Ghana Republic to the Senegal river and middle Niger. From a Historian's account, there

were basically two big towns being separated six miles apart. One of these towns had a Muslim population and the other, basically pagan, they built their houses with stone and wood.

Following its overthrow in 1240 by a new empire, Mali or Madingo, there was a greater perpetration of the Islamic faith, the frontiers stretched from the Atlantic Coast to almost the Lake Chad. On a historian's account, the Mali Empire had a greater emphasis on security.

Another rival empire was the Songhai Empire which stretched from there down to Timbuctu, about 200 miles from the capital Gao. A much stronger Islamic influence on the continent was extorted during the reign of this empire. This was evident in the fact that the greatest of its rulers, Askia Mohammed, visited more Arabian cities, exchanging cultural and lingual differences and even exchanging over 300,000 pieces of gold for such pleasantries. With a stronger Islamic influence, Askia Mohammed was able to move further south invading the Hausa towns of Northern Nigeria, extending the frontiers of his Empire and at the same time establishing a center of learning in Timbuctu. This consequently profitable business then than any other trade.

It was the powerful expansionist propensity of these empires that resulted in smaller African tribes uniting together out of fear to form their own kingdoms. This move brought about empires like the Hausa kingdom in the West, the Borno and Ashanti kingdoms is what is known as modern Ghana, there was also Oyo, Benin and Congo.

It is to be noted that it was at the peak of the Songhai Empire that the Europe explorers started developing an interest in Africa. These explorers were later followed by Missionaries spreading forth, western education and Christianity

It was soon to be, though a little bit too late, that our fore-fathers realized that this socio-cultural romanticization with the European was more or less a "dining with the devil." These European explorers, accompanied by missionaries were later followed by traders. The traders that came under the false pretext of selling gold and ivory consequently unleashed their game plan. What was their mission? An appalling, dehumanizing and totally evil trans-continental laundering of human being subjected under inhuman conditions, just for the purpose of cheap manual labour as slave trade subsequently resulted in a loss of about 400 million blacks over a period of 300 years. History would never forget and probably never forgive the untold damage that this evil trade has done to Africa. It is invaluable, incalculable, and unquantifiable.

For more than three centuries, from the early 1500's to the early 19th century, this terrible slave trade was carried on by the Portuguese, French, English and the Dutch traders. They were helped, most unfortunately, in their collection of slaves by Arab and African traders who faced the unhappy people extricated purely against their wish to march to the coast where they were sold off to the European traders.

It was partly because the Africans had to flee from their homelands because of slave trade and also because the Empires were fighting amongst themselves that most of these empires slid back into their primeval tribal system. For example, the Congo Empire who fought with the Portuguese in the 17th Christian Missionaries for about three hundred years until another set of missionaries arrived in 19th century and found out that barely a minimum of their spirited efforts was left behind.

These colonizing influence spread further southward, though less is really known about East Africa than up North. Southern Africa was consequently colonized by the Europeans. The dehumanizing effects of their colonialist influences still abound there

till present day in the tele-guided massacre of restive black youths clamouring for equal opportunities and self-rule.

Towards the end of the 18th century when the implications of their evil deed had dawned on them, Christians in Britain began organizing spirited through belated efforts to obliterate this pernicious trade. The move brought about a movement led by William Wilberforce that put an end to slavery. In 1788, an African Association which later developed into the Royal Geographical Society formed in London, started sending our explorers to the African continent. Notable ones among them were Mungo Park, John Speke, David Livingstone. These explorers were able to go into the hinterlands and it wasn't long before they proved that there was much wealth yet to be explored within the continent and also the development of the rail system at that time facilitated their adventing spirit. Africa was yet to experience another stylized era of domination by Europe. This time now, it was through colonization of these newly discovered lands. It ultimately led to the Berlin conference in 1884 organized by the German statesman, Bismarck. Fifteen years after this conference, Africa had been divided between six European countries – Britain, France, Germany, Italy, Belgium, and Portugal. These African colonies were either directly ruled by the Europeans or they became protectorates.

This colonization of Africa and the development of the rail system coupled with the discovery of minerals in abundance brought about the establishment of mines and plantations in Africa. Once again the Europeans needed cheap labour in these mines and plantations. There were offers for monetary compensations but most of the Africans who still preferred their farms were recruited forcibly against their wish to distant farmlands. With time, better organized colonial system of government that at least catered for the welfare of the Africans were established. It is through this hallmark of historical antecedents and predicaments that Africa had survived today

with so-called independent countries better off as puppetry establishment of their colonial masters under yet another guise now known as neo-colonialism. A political run-down of Africa today shows two clearly distinct forms of government:-

- (a) The self-acclaimed life presidents and rulers exhibiting larger – than – life political propensities but interiority “mirror-images” and automated puppetries immersed in their master’s image and merely singing their master’s praises e.g. the Neo – Colonialists.
- (b) The blood – thirsty, “spirit – filled” enthusiasts of ill conceived and ephemeral revolutionary tendencies who always barge themselves, in a la “coup d’etat,” by the slightest provocations promising high heavens and ending up worse off than their self-acclaimed contemporaries e.g, military putsches.

It is only at very few places that a sincere drive at Pan – Africanist re-acculturation and re-orientation are taking place throughout the continent.

All these point to the fact that the “Heaven of the Black Race”. Africa was left worse off politically by their European mentors than it was in the days of yore. It simply elucidates that they left power against their wishes but immediately found out-posts of perpetration in most of our premature and self-styled pan Africanists who wouldn’t wait at the slightest given opportunity to express their greed and selfishness.

THE PLACE OF THE NEGRO IN ANCIENT HISTORY.

This interesting topic cannot be discussed without the admixture of Biblical and historical inferences. From researches conduct by Biblical scholars, Ham, the second son of Noah, was the progenitor of the Cushites (the Ethiopians). This has been clearly quoted in the tenth chapter of Genesis, summarized thus:- we read, “And Cush begat Nimrod: he began to be a mighty one in the Earth. He was a mighty hunter

before the Lord..... And the beginning of his kingdom was Babel and Erech, and Accad, and Calneh, in the land of Shinar. Out of that land, he went forth into Asshur (marginal reading) and builded Ninevah and the city Rehobolt, and Calah: The same is a great city (this has been marginally read in the English Bible). We are also drawn to the influence in chapter 11 that it was the Cushites who built the tower of Babel where "they found a plain in the land of Shinar". We are also drawn to historical accounts that it was after the scattering that resulted from the building of the tower that the sons of Ham spread and found themselves in the land called Egypt where they employed the skills of their fore-fathers and guided by tradition erected pyramids in imitation of the celebrated tower. The famed Historian, Herodotus said that the tower was six hundred and seventy feet high or rather one hundred and seventy feet higher than the great pyramid of cheeps.

Here then comes the great argument for and against the Black Race - these enterprising people that founded Babylon and Nineveh, settled in Egypt and built the pyramids, though, descendant of Ham, "Were they Blacks?"

A school of thought claims that even though the Negroes were descendants of Ham, that when these great civilizations were going on, the descendants of Ham had not come in contact with the climatic conditions that produced the Negroid race.

From the earliest times, the complexion of the descendants of Noah and been known and Ham was obviously darker than his brothers, the root of his name Ham, in Hebrew, Hamam, conveys the idea of Hot and Swarthy. Similarly, the Greeks regarded the descendants of Ham from their black complexion as Ethiopians, a word signifying burnt or black face. The Hebrews called them Cushites signifying probably a kindred meaning.

This draws us to the next argument, whether these enterprising people were the ancestors of the Guinea Negro with all their peculiarities and tendency towards degradation and servitude. The answer remains "yes". It is historically affirmed that as the whole of the descendants of Ham, started their operations from Asia, pervaded Africa westward and southward. By the time of Homer, they had not only occupied the Northern portions of Africa, they had spread as far as Sudan having penetrated the Sahara down to the coast.

From historical precedents, it was alleged that the Ethiopians had traveled deep down under the vagaries of changing climatic conditions. But this had neither brought a change in the Black colour nor the texture of their hair. Historians are therefore alleging that this resultant migrations under certain climatic conditions had caused a resultant face in their intellectualism as evidenced, in the pygmies of central Africa. It is then being asked whether this fall into barbarism had resulted in the physical degradation and intellectual derogation that abound central Africa, which has subsequently resulted in slave trade. White protagonists have used this to argue that this was why Negroes of central Congo have for thousands of years represented a dormant civilization with little or nothing to offer as regards Arts and Architecture. But this fact remains unfounded in the fact that throughout History, there has always been cases of stronger and more virile tribes subjugating the weaker ones. It happens everywhere. If that argument is put up, then why hasn't the Jews who spent for hundred years in Egypt not been able to account for anything learnt from Egypt. They were tent – dwellers before their bondage and after they remained so. Three things are to be verified.

1. If there were actually no architectural remains from central Congo.
2. The Jews demonstrated similar indifference to socio-cultural Adaption of the Egyptians civilizations.

3. The argument being put forward by pro-caucasian and as per benefits of slave trade in an ill-conceived idea. Africa would have been better off without the slave trade. The extent it has gone in the mid fifteenth century when it was visited by the Europeans would have engendered enough platform for better and harmonious socio-cultural emancipation.

Similar condition abound then between the African Empires and the Medieval Europe, there was the same Caste system, the same social order and even organized political system that resulted in better trade and manufacturing endeavours.

One factor that might be possible for the “indifference” of the African to arraign acculturation might be due to the fact that Africans had had permanent social and political structures undisturbed for years. Most African civilizations had actually never been used for foreign enslavement until the slave trade. Another factor that probably caused the longevity of the Ethiopian civilization is their propensity as a peace – loving, people who instead of embarking on invasion and expansion like other Empires of that time recognized the necessity of upholding the godly axioms of “live and let live”.

This was demonstrated by the Ethiopian king when the king of Persia sent out spies as emissaries to the king of Ethiopia. He answered thus:

“Neither has the king of Persia sent you with these present to me because he valued my alliance, nor do you speak the truth, for you have come as spies of my kingdom. Nor is he a just man for if he were he would not desire any other territory than his own, nor would he reduce people into servitude who have done him no injury. However, give him this bow, and say these words to him;
“The king of the Ethiopians advises the king of the Persians, when the Persians can thus easily draw a bow of this size, then to make war on the Macrobin Ethiopians

with more numerous forces, but until that time let him thank the gods. Who have not inspired the sons of the Ethiopians with the desire of adding another land to their own”.

How do we justify the purported argument of the ill – minded pro-caucasians that if not for the in human slave trade, Africa would not and would have remained a dark continent?

Only History will justify their claims.

2.4 AFRICAN PEOPLE

A great variety of peoples, languages and cultures are found on the continent of Africa. Thus the word “African” is misleading if it suggests much more than the person called African identifying themselves with that continent rather than with another. Many types of classifications could be vowed to differentiate certain African people from others.

Racial Groups

Racial criteria are the least satisfactory means of classification, since they are based on observation of relatively few physical characteristics, which cannot be precisely measured because their historical and genetic origin are relatively unknown.

However, it is possible to recognize some general physical differences among several more or less distinctive groups. The most numerous and the most widely distributed of these groups are the ‘true’, or forest, Negroid, who inhabits most of sub-Sahara Africa. They have brown to dark brown skin color, kinky or woolly black hair, broad and rather flat noses, and everted lips. Their height varies greatly, but all are over 5 feet’s (150 cm) tall.

Another racial group are Bushmanoids (Capoids), small population of whom live in southwestern Africa. They are represented by the son (Bushmen) and Khoikhoi (Hottentots). Bushmanoids average a little over 5 feet in height, and their skin, which tends to wrinkle, is more yellow-brown in colour than that of Negroids. Their short black hair is tightly spread and most of them, especially the female, have fatty deposits on the buttocks, a feature called Steatopygia.

Most of people in Northern Africa belong to the Caucasoid physical type. The Caucasoid in sub-Sahara Africa arrived in comparatively recent times from Europe and Asia, and cannot yet be regarded as indigenous there.

Finally, there are numerous populations, such as the Fulani in the regions just south of the Sahara in West Africa and many of the Somali, who appear to have acquired their characteristics from both Negroid and Caucasoid ancestors. These people may be most properly regarded as "mixed".

Linguistic Groups

A widely accepted classification list of four major language families, none of which bears any more similarity to any of the others than do the Indo-European languages to Chinese. The languages belonging to one of these families, the Congo – Kordofanian, are spoken by most of the people in sub-Sahara Africa. Within this great family are 11 subfamilies of languages Each consist of a number of languages more closely resembling one another in the use of sounds and meanings than they resemble the member of the other subfamilies. They are similar to one another in the way that the Germanic languages are similar to the Romance of Slavic languages within the Indo-European family.

One of the best known of the Congo-Kordofanian subfamilies is the Bantu. It is composed of several hundred languages spoken by the people of most of Equatorial, East and Southern Africa.

The three other major language families – the Nilo-Sahara, the Khoisan, and the Afro-Asiatic are also divisible into subfamilies. Each subfamily, in turn, is divisible into smaller sub classification, each indicating a still closer degree of relationship that never reaches the point of mutual intelligibility until the specific language is reached. Among the best known of the Afro-Asiatic subfamilies are the Semitic and Cushitic, which contain language spoken by many peoples in Northern Africa and the Middle Nile and Horn region.

Cultural groups

Just as racial “boundaries do not correspond to linguistic boundaries, neither correspond precisely to cultural or ethnic boundaries”. One attempt to summarize certain general differences among style of life in various region of sub-Sahara Africa is that by Melville J. Herskovits. In the human factor in changing Africa, he recognized seven culture of the inhabitants share a particular combination of social and cultural characteristics that makes them distinguishable from the people of any other area.

The Khoisan area of Southwestern Africa is inhabited by the Khoikhoi and San peoples, both essentially nomads living in small sands with relatively simple politicians and religion institutions. The San make their livelihood by hunting and by gathering wild plants, and the Khoikhoi primarily by raving cattle. They regulate the politics of the peoples and through their common membership, help reduce the friction between the respective communities and defend them against threat from the

outsiders. Within this area the people further south tended to form rather large complex political units or states, of which the Zulu is one of the best known.

The area called the Eastern Horn, named for the eastward projection of continent south of Arabia, had close cultural affinities with Egypt and the Asian Middle East than with the remainder of Africa. It is also marked by considerable internal heterogeneity, although Islam is a unifying force.

In the Congo Basin the Pygmies simple life based on hunting and gathering, contrasts greatly with the more complex arrangements of the most of the other people of the area. Some of the people such as the Kongo, Kuba, and Lunda, created large, complicated political states through conquest or federation.

Stretching westward from the Congo area in a relatively narrow, forested belt is the Guinea Coast area. The people of this Zone have a relatively high population density supported by agriculture that surpasses that of most of the non-industrialized world in its productivity. Particularly in the central part of the region, such people as the Ashanti, Dahomeans, Bini and Yoruba developed complex and comparatively wealthy states.

The people of Western Sudan are more dependant on cattle, which are absent in the forest Zone; styles of clothing and housing differ from those to the south, and Islam is the dominant religion of the ruling classes in the cities. It gave rise to succession of empires, such as Ghana, Mali, Songhai, Kanem-Bornu, and the Fulani – Hausa, beginning about 5th century A.D. and ending only with the advent of intensive European colonialism in the 19th century.

Such a classification of culture areas cannot do justice to the richness and diversity of the variations either within or between areas. However, it does serve to point up the inadequacy of such general term as "African" or "tribal".

2.41 ORAL TRADITION

The African tradition of oral literature is a rich in content and variety as that of many other major cultural area, folk or civilized, past or present. This tradition is less well known to the Western world than in African art, for it has not been studied extensively and has received little publicity.

According to John C. Messenger of Ohio state University "It has been estimated that there exist in Africa over a quarter million myths, legend and folktales. Most of the prose narrative share types (plots) and motifs (incidents, characters, and objects) with those found in other culture areas of the Old World, indicating a unity brought about by diffusion. Each African society, however, has fashioned these elements in its separate literature according to its own cultural deposition.

Proverbs are employed frequently to give point and add colour to conversation, and their skillful use is a mark of erudition and elegance of speech in African societies. Many proverbs are subtle and can be understood only by those who are familiar with the culture of the user. Examination of a body of proverbs would provide significant insight into a culture's basic values.

Riddles have been studied far less in Africa than proverbs, because they are told mostly by children. Ordinarily they are couched in the form of a statement rather than a question, and the connection between query and reply can be subtle and require deep understanding of the cultural matrix for comprehension.

Storytelling is a fine art in Africa and is professionalized in some societies. Folktales usually are told at night during the dry season, and the interplay between narrator and audience has a highly dramatic quality. Riddling often proceeds storytelling, and the folktales is punctuated with music and song, with participation by the listener. A question composed by the narrator may be answered by the audience, or the audience may act as a chorus answering solo songs.” (John C)

2.42 THE ART

The art of Africa are fully understandable only in their cultural contexts. The usual museum exhibit of the “naked” object, stripped of its associate features, is a pitiful fragment of the object in all its panoply. To began to understand an African mask for example-not merely to appreciate it form —one must clothe it again in its contextual accompaniments: the costume, movements, gestures, music or sound effects, staging, and even lighting of the masquerade presentation. All of these aspect of the masquerade to the on lookers, for whom the “arts” were an integral part of their daily lives.

“The cultural context of an African sculpture, dance, or folktale includes not only its immediate surroundings but the entire ethnographic environment in which its appeared and functioned. The cultural context of African arts has a historical dimension, which is not as well understood as its anthropological framelessness, but changed along with their societies”. (Roy Sieber)

African arts have in turn influenced western culture. America Jazz Rhythms, fundamentally Africa origin, are an obvious example of this cross-cultural fertilization. Modern European painters and sculptors discovered Africa art in the first decade of 20th century and undoubtedly drew inspiration from it, especially the fauvist and Cubists.

2.43 RELIGION

The varieties of indigenous African religious expression are even more numerous than the languages spoken on the continent. Each traditional society developed its own system of fact and ritual intimately related to its distinctive culture and not deliberately exportable to others. In many areas, however, these systems have given way to the two great proselytizing religions of middle Eastern origin – Islam and Christianity.

2.41 TRADITIONAL BELIEFS AND PRACTICES.

Despite the local variation that makes each indigenous religion distinctive, certain features are widespread throughout sub-Saharan Africa. Among these is the view that the universe is a unity of being, not a combination somehow of the physical and the spiritual, of the body and the soul.

Since religion so permeates the life of community and people and is so much a part of daily activity, few societies have any organization resembling a church. Full-time professional clergyman or a priestly class are similarly rare. Priests, diviners of the future, rainmakers, curers, and other wonderworkers are usually just members of the lineage or community who have acquired special religious skills. In some societies they may be the king or chief; in others different persons whose ritual services are necessary to the proper performance of the task.

2.43.2 NON INDIGENOUS RELIGION

Both Islam and Christianity have long histories in Africa. By the 4th century, Christianity has gained a dominant position in the religious life of Mediterranean African as far west as Carthage. Beginning in the 7th century, however, its influences

was largely swept away. Ethiopian Christianity, established in the 4th century but not widely propagated among the people until the 6th century, survived in isolation.

In modern time Islam has won many additional convert across broad front in West Africa. Its influence in some section of that regions forest zone has been increased by intensified southerly migration of Muslims from the Western Sudan”.

Estimated of religious affiliation in Africa are only rough approximations, because various denominations employ different methods of counting members and the data convey little information about the depth of religious commitment.

However, as defined and enumerated in the World Christian encyclopedia, about 45% of the population is Christian, 43% is Muslim, and 12% adhere to tribal religion.

Of the three major religious traditions, Islam appears to have an advantage because it requires a less drastic revision of the traditional outlook of life.

CHAPTER THREE

3.0. RESEARCH AREA.

EFFECTIVE PRESERVATION OF THE ARTEFACTS

3.1 INTRODUCTION

Some valuables are found in the museum, such valuable includes paintings, sculptures, and furnitures amongst others. Such valuables must be adequately store and preserve.

Preservation in these context means protecting artefacts against natural processed of destruction which might be caused by physical or chemical decay or attack from organism such as insect, pest or mildew. Storage on the other hand means to put works of artefacts aside for future use.

Nigeria as a developing country lack the technical know-how and the materials used in the preservation of the artefacts in advanced countries.

The present method of sun drying, use of gamalin 20 and ketract for termite and rodent control is absolute. The storage areas are also exposed to harsh conditions. Though it mighty be argued that most of our museums buildings are initially not designed for the functions they now performed but then that is not enough reason for exposing work of art to such harsh conditions.

The approach of gross cleaning with soap and water or mentholated spirit and repairs with do-it yourself glue presently used in our museum can sometimes be satisfactory but most often irreparable damage can be done in a few seconds by the most simple and apparently harmless materials. A competent professional restorer will know how

to clean and repair the object to the original artist intension, bearing in mind however, the fact that the patina of age be preserved.

3.1 GENERAL REQUIREMENTS FOR EFFECTIVE PRESERVATION OF ARTEFACTS

To effectively display a collection of artifacts, the following simple rules should be adhered to.

- (i) Avoid storage area near heaters, radiators or fire places
- (ii) Avoid displaying items near moisture or excessive dampness.
- (iii) Moisture can cause rust, mold, mildew and warping, avoid any environment that tend to get damp.
- (iv) Keep Art collection away from direct sunlight which can fade or discolour the object.
- (v) Always store artefacts off the ground.
- (vi) Avoid attic that becomes extremely hot in the summer.
- (vii) Store artefact where there is no tendency of radiant getting there.

3.2 DESIGNING AGAINST CLIMATIC ODDS

3.21 WIND AND AIR MOVEMENT

There are two main sources of trade winds on this part of the globe. They are the North East Trade Wind and the South West Trade Winds. Other local wind like land and sea breezes may exist too.

In museums, winds can blow paintings and pictures off their places if they are not well anchored. Sculpture pieces can be equally fled and eventually destroyed by

strong winds. Museum objects lost this way may never be regained in its natured or original form.

Moisture or dust can be blown into the interior as driving rain and sand storms respectively by the action of strong winds.

The blow of strong winds can be quite discomforting to occupants, in this case the staff and visitor of the centre. Strong winds can be destructive to both the building and the landscape materials.

NEED FOR AIR MOVEMENT

Air movement through the space (display areas) is important for proper ventilation and circulation.

Some artefact may on their own begin to produce offensive or undesirable odour. For instance, when an environment factor like moisture comes in contact with a leather product like drum or bag. With the help of air movement, the odour produced can easily be removed.

A proper ventilation of the display room will lessen or even eliminate the action of bacteria.

Air movement will also remove excess heat generated in the display area which otherwise would be discomforting to the centre visitor.

A high relative humidity could be associated with mould or fungal growth. But good ventilation could remove any humidity hence a reduction and possible a total elimination of any fungal growth.

CONTROL OF WINDS

Physical features for windbreaks could be very helpful in the control of winds actions. Such features may include trees, walls and even buildings.

The plant materials (trees) permit a certain amount of air to pass through them causing less turbulence solid screens. The trees have a greater total area of shelter. They are therefore better for use as windbreaks.

Wind may cause eddies to form in between building. This kind of effect is undesirable in museum environment since we could have such spaces in between building for outdoor exhibitions. However, where such spaces occur either by design or accident, a careful landscape of the space with well foliage plants is recommended.

It is worthy of note that the use of plant materials may be cheaper than that of solid screens. Use of building may be possible only in instance where they already exist. Wind velocity is usually reduced towards the ground surface. It is therefore advisable that buildings are kept low rise to that minimal negative effects of winds as experienced. Plant materials can screen building better when they are low rise than highrise building. Plant height may not be tall enough to screen tall buildings.

Length by length arrangement if building influences air movement or winds. This result in a channeling or funneling effect. The wind gains speed in between the buildings. A situation like this where wind moves at increased speed cannot be good for outdoor exhibitions. Such a situation is better avoided in the design and if they must exist. Should be well protected with well foliated plant.

3.22 DAYLIGHT AND GLARE

Glare may arise from sky reflections. This is very common in especially hot-humid climates. It is worthy of note that the site for the proposed project is Badagry – a hot – humid region. Much of the glare type of be experienced in this project shall therefore be of this type.

Glare may also arise when sunlight is reflected from the surface of the ground and light coloured walls of other building. This is most common of hot-dry climates.

EFFECTS OF DAYLIGHT AND GLARE

Daylight could be comforting. The one experiencing daylight derives great joy, pleasure and refreshment from it. It is desirable. Daylight is necessary for vision.

Glare brings discomfort, distraction and hence undesirable, it also retards visibility.

POSSIBLE CONTROL OF GLARE

In especially hot-humid climates, large openings allow for glare to be experienced. Low overhanging eaves of wide verandahs are used to obstruct the views of most of the sky. This principle could be used in other ways by pergola covered verandahs over which creepers that loose their leaves during winter are grown. But caution should be taken to that the interior do not undesirably end up being gloomy.

Landscaping of the ground surface with lawn, shrubs and trees could eliminate ground reflection from light coloured walls of other buildings could be taken care of by the use of trees.

Small and carefully positioned windows would also reduce glare.

QUANTITY AND QUALITY OF LIGHT.

The quantity and quality of daylight varies under different situations. That which allows for high quantity may not produce the best quality for viewing.

3.23 HEAT AND SUNRAYS

Heat in the environment is often gained through direct survey and cloud refractions terrestrial sources and from surrounding bodies.

MATERIALS AND EFFECT OF HEAT

Heat could have telling effects on artifact and other museum objects. Those of wooden origin could be made to warp as a result of heat action. Clay products may crack. Leather materials could harden and shrink. Textile materials, paintings and paper could get damaged when exposed to ultraviolet radiations and the center visitor's comfort is tampered with when they experience heat and exposure to direct sun rays.

CONTROL OF HEAT

Shading devices, horizontal or vertical could be useful in eliminating direct rays from gaining entry into the interior. This consideration should be given most especially to tall buildings where roof eaves and vegetation cannot shade much of the building.

The use of trees will help cut sun's rays from falling directly on the building or even gaining entry into the interior. Trees can also help cut off heat emitted from surrounding body. Terrestrial heating can be reduced by grass cover through evaporation.

A good orientation of building is openings, having them directly away from the path of the sun eliminates or reduces the possibility of direct rays gaining entry into the

interior. A well achieved orientation and positioning of the openings could eliminate the need for shading devices.

Dark coloured surfaces absorb and emit heat more than light coloured surface. Light surfaces reflect more heat. It is therefore advisable that external walls are painted light that they may absorb less heat.

Light weight materials warm up quickly. Walls which are glazed, the construction and checking of light weight materials warm up quicker than walls which are massive. It is therefore more advantageous to use walls which are massive and reduce lightweight materials and glazing to a minimum possible.

In the planning and construction in relation to heat balance. It should be borne in mind that whereas complex shaped increases wall area hence more area for heat gain and should be discouraged, a simple shape gives the minimum wall area hence a reduced heat gain, for example, the square and circular shape.

Flue position and mechanical installations, if at an edge of the building losses its heat to the environment while of internal contributes heat to the interior. This is more so for upper floors. Flue position is best at the periphery of the building.

The average temperature of internal surfaces should preferably be below or at least equal to the air temperature.

3.24 MOISTURE

Moisture can be obtained from various sources: from precipitation, from damp rising by capillarity in the ground and humidity in the air.

MATERIALS AND EFFECT OF MOISTURE

Moisture produces some undesirable effect when it comes in contact with some materials from which museum objects are made. When moisture comes in contact with wooden objects (sculpture of wood, doors of wood e.t.c.) fungal growth and a quarter decay of these objects is heightened. Metallic objects react with air and moisture to rust. Museum objects of clay could swell in the presence of moisture. Leather products like drum, bags and shoes becomes weak and produce offensive smell in the presence of moisture content in the air is high.

CONTROL OF MOISTURE

Control for moisture should include any measures taken to prevent moisture from gaining entry into the interior or removal of any already in.

Run-off the roof over walls could increase the relative humidity of the interior or even damage the walls and foundations. The introduction of roof gutters could reduce or even prevent this.

Rain carried almost horizontally by wind as driving rain may gain entry into the interior through openings such as windows. This driving rain can force its way through louvres windows to the interior. The use of louvres should therefore be discouraged. Window sills can aid drain water off walls. This method of construction is desirable and should be used to control moisture entry into the interior.

Damp rising by capillarity from the ground through building materials to increase humidity in the interior can be put down with the help of damp proof course.

Good natural ventilation through well positioned openings reduces humidity in the interior. Mechanical means like the use of air conditioners, extractor fans can equally helpful in reducing humidity.

In masonry and brick constructions, significant quantity of water can condense and subsequently evaporate (without being apparent). The use of such materials could be advisable.

Moisture control can be further achieved by locating possible moisture producing areas such that moisture is not blown by wind to the display areas.

3.3 PROTECTION OF ARTEFACTS AGAINST FIRE HAZARD.

The prevention, detection and combat of fire through appropriate design, specification choice estimated in our museum in Nigeria. However, with the increase in the frequency and magnitude of building fire incidences and the associated losses, it is obvious that adequate measures is needed to protect artefacts materials against the incidences of fire outbreak.

This research work will only focus on the passive precautionary measure as it relates to galleries and storage areas in museums, because of the wide scope nature of fire protection in museum.

A. FIRE ALARM SYSTEM

Automatic fire detection system should be fixed to areas which are remote, seldom visited and where fire can likely start take hold or cause damage before they are discovered. A general alarm can be raised either by a person actuating a manual alarm or public address system.

B. COMPARTMENTALIZED

This involved the subdivision of Galleries and storage area into horizontal and or vertical compartments compartmentalization ensures reasonable fire safety by restricting fire spread for a reasonable length of time this is achieved by using fire resistant walls and floors to prevent vertical and horizontal fire spread.

C. MATERIALS AND CONSTRUCTION

Museum must be designed and supervised throughout construction to ensure that in the event of fire, they will resist collapse for sufficient period of time to allow for evacuation of occupant and artefacts materials and also maximize spread of fire. Fire resistance of construction material can be assessed by their stability, integrity and insulation.

The nature and type of materials used for this buildings must be highly resistance of fire, therefore, materials specified must conform with such standard.

D. GENERAL FIRE DEFENSE

Facilities must be incorporated into galleries and storage areas to automatically put out fire whenever they occur. Automatic sprinkler system using water as the extinguishing medium have been universally adopted as one means of achieving this purpose. However, artefacts object that can be destroyed by water should be kept in special vault they cannot be reached by water.

3.4 CARE OF ARTEFACTS MATERIALS

LEATHER

Leather may be attack by insect and to fungi growth in extremely damp condition.

The best preservatives for leather is the leather dressing (British Museum). This is prepared by mixing together 70zs (an anhydrous lanolin) with cedar wood oil, 11fl.0zs, bees was, ½ OZ and hexane 11fl.OZs. The dressing is highly protective and will do much to restore the substance and life of the leather, leaving behind a soft sheen and very pleasant cedar smell.

WOODS

Two of the greatest enemies of woods are temperature and humidity and of the two, it is extremes of humidity that will do the most damage, though fluctuation of heat is also dangerous and should be avoided as far as possible.

Fungi also affects artefacts and can be treat by the use of fungicide (“permosan 116” and “cuprinol penta 116”). Preventive method that can be done include proper ventilation and impregnating the end wood of the timbers with water proving agent such as linseed oil or wax.

Another enemy of timber is the insect. In many ways the insect is a greater danger than fungi and temperature/humility, as the attack can take place at any time. One of the safeguards is cleanliness. However, fumigation is the most effective and reliable method.

METALS

The preservation of metals can be more difficult due to diverse nature of metals. Some are soft, some are tarnish, some are liable to diseases while others are not. For the above mentioned reason, metals will be treated one after the other to best discuss how they could be preserved and stored.

SILVER:

The principal malady that affect silver is tarnish. This is the formation of thin film of silver sulphide on the surface. How then can silver be cleaned to achieve the beautiful blue-tinted glistening high polish, and at the same time preserve it?

Liquid treatment is certain the safest, quickest and the cheapest. For silver that is badly tarnished, the following treatment is recommended. Put a piece of aluminum sheet about 6 square or a couple of square feet of aluminum foil at the bottom of a bowl. Place the pieces of silver to be cleaned into this aluminum, making sure that they all touch it. Cover the silver with a hot solution of washing soda in water about 5% strength is sufficient. Do not be alarm by the fumes that rise, the silver is being cleaned by an electrochemical treatment.

When storing silver, it is of first importance that it is done in as moisture proof a manner as possible. It may be put away wrapped in several layers of soft tissue paper should be absolutely dry.

GOLD

Gold seldom needs any other cleaning than polishing with a soft cloth, piece of cotton wool or very soft leather. As with silver, care should be taken that the cleaning material used are scrupulously clean and has no any foreign bodies that can cause abrasive effect. If a piece of gold work need cleaning, nothing stronger than a 2% solution of lissapol should be used.

Never touch-up a gold leaf covered material by using bronze powder either in size or in cellulose lacquer. The effect is very liable to appear garish.

COPPER AND ITS ALLOYS:

Like silver, copper can be tarnished by sulphur impurities in the air with materials with which it comes in contact. Beside this, one its greatest enemies is moisture, especially moisture, with fresh air, which contains oxygen.

This condition will oxidize copper very rapidly causing a very thin film to dull the polish at first, and green deposit later.

Copper can be cleaned by the dip electrochemical method mentioned earlier for silver. Obstinate stains, tarnish or oxidation on copper utensils may be removed by brass polishes available in shops.

If brass is badly corroded, it may be cleaned with a very strong alkali such as washing soda solution i.e sodium carbonate in water.

Bronze has come down to us in many forms – beautiful statuettes and other objects, art. It should be cleaned with the greatest care to preserve the beautiful patina of ancient bronze. Bronze has special diseases called (bronze diseases) and this is usually evident as a bright green spot, which soon begins to spread. To treat it, unbleached bee wax should be dissolved in turpentine heated in a double boiler. The wax should be cut up into small pieces. This should then be applied with brush or cloth to the bronze.

LEAD:

Lead's own problem is "dull green appearance" which usually is a natural oxidation which takes place by contact with air. This is lead's own patina, which is not only attractive but also protective. Lead is one of the softest metals and therefore, very

prone to damage from effect of hard polishing, scrubbing with a brush or in advertent accident when moving.

If lead corrodes heavily. It has a white incrustation appearance. The may be removed by careful application of a very weak solution of hydrochloric acid on small area which is then washed off with an equally diluted solution of ammonium acetate. Lastly it must be rinsed freely with plenty water.

TIN:

Oxidation can affect tin; it forms greenish blue which may be clean in a similar manner to silver, electrochemical or if the oxidation or corrosion is obstinate, gentle physical cleaning with a fine powder such as jewelers rough is sufficient.

IRON AND STEEL:

Iron and steel objects are difficult both from the point of view of protection and cleaning. Both Iron and Steel are affected by rust, and once this has got a firm hold, it can be almost impossible to completely eradicate.

Rust which has got are firm grip can first be treated with softening it with paraffin oil for several hours before it is then worked upon with an abrasive powder or paper. A better method is applying a commercial softener called "Plus-gas fluid" "A" firstly before applying a rust removal called "Jenolite". This is then clean with soft wood.

MARBLE STONE AND SCULPTURE

Sculpture and caving in stone, weather marble, limestone, sandstone or igneous rocks such as basalt and granite are by no means immune from attacks either by decay from atmosphere or fungi. The problem will differ depending on whether they are outside or inside the building.

Article of stone outside have to contend with wind and rain and by their situation be attack by mildew. The cleaning of blemishes from mildew stains or other causes is best carried out by using paper pulp.

The replacement or rather fabrication of missing parts of antique sculpture is something that should not be done. It is not possible to stimulate the techniques and genius of artist from the past to the extent that an arm or part of the face can be happily replaced. A part from that, any construction carried out with plasters or cement will become quite obvious with the passage of time.

PAINTINGS

Paintings are amongst the world's most precious possessions. Great masters of past and today have left in colour their visions and their inspiration. The legacy which they have given should be preserved, loved and respected with every possible care.

A painting whether it is on canvas, wood or any other surface should be treated with greatest respect and the placing, hanging and movement should be carefully worked out before being attempted. The safest place for a picture is on a wall with a very slight inclination out from the wall of about 5°. This fulfils two purposes; the picture will be easier to see and secondly it will not be easy for dust and dirt particles to be deposited on it.

The most comfortable height from the viewer's point of view is to have the center of the picture level with the viewer's eye. The reason for this is to avoid the picture suffering from falling down the wall, the reason being breaking of fixing. Precaution is regular inspection at least every 12 months of the hanging material and the clips or ring that fix the hanging material to the frame itself.

Picture can be preserved by control of temperature and humidity. Ideally for works of art, the relative humidity should be fixed some where between 45% - 60%.

If pictures are to be stored, they should be stocked in a safe cupboard or closet with a sheet of heavy cardboard between each one. Incidentally, they should not be left too long in a dark place, especially in the case of oil painting, as darkness tend to alter oil-colors.

It is often tempting to remove old dirt varnish, stains and fly marks or to think that a small tear can be mounted by a simple patch. It is important to know that touching the surface of a painting with any type of solvent is running a very great risk, which should not be taken at all. Never also, allow haphazard dusting of a picture surface to avoid damaging picture. When removing a picture from the wall, it should be done by taking it from the wall with one hand at the top and one hand underneath the frame, and never by gripping the stretcher.

GLASS, PORCELAIN, IVORY AND JEWELRY

GLASS:

Glass can be affected if exposed for a long time in very damp conditions. The storing of glass should be in a dry condition as possible. When put away glass should never be wrapped in tissue or other papers as this can harbor damp, and it should always be in shelves when there is adequate ventilation.

When washing glass the water should not be too hot. The water can contain a weak detergent and each piece should be washed separately. Rinsing should be with cold water before it is dried with a soft dried cloth.

To mend breaks in glass is the most difficult task, as the joints are almost certain to show unless they are conveniently along a cut or engraving in a glass. Adhesives that gives reasonable results include; 'Araldite 101' and 'Araldite 103'.

PORCELAIN: The cleaning of hard fire porcelain, oriental porcelain or stone ware is comparatively easy, as these are non-porous and will not absorb water or other materials. Before cleaning however, the pieces should be carefully inspected for cracks or imperfections in the glaze, and if they are of considerable value, they should be treated separately. The cleaning is done in the same way as that of glass.

The repair of broken pieces of porcelain, earthenware or terracotta is difficult, because unless the joint is got back to a hairline, the pieces will never go together again, there will always be some distortion.

IVORY AND BONE:

Ivory and bone are both easily affected by heat and moisture, which can cause distortion and warping like wood. Surface cleaning of ivory and bone however may be carried out with warm water as a little detergent, preferably done with a piece of cotton wool or soft cloth which has been dipped into the liquid and well ring out. Rinsing should be done with the minimum of liquid and should be thoroughly dried as soon as possible.

When carrying out a repair on broken ivory or bone pieces, adhesives such 'Durofix' Isinglass or one prepared from white shellac would be appropriate.

JEWELRY:

Jewelry should be treated very circumspectly. If a claw setting has not been employed, the adhesives may vary widely and can easily be attacked and the stones

which it is made up loosened. Generally speaking, dusting with a small brush of puffing-up very gently is sufficient for its cleaning.

CHAPTER FOUR

4.0. CASE STUDIES

In order to get familiar with the layout of African Heritage centre, existing and related centres are required to be visited or studied.

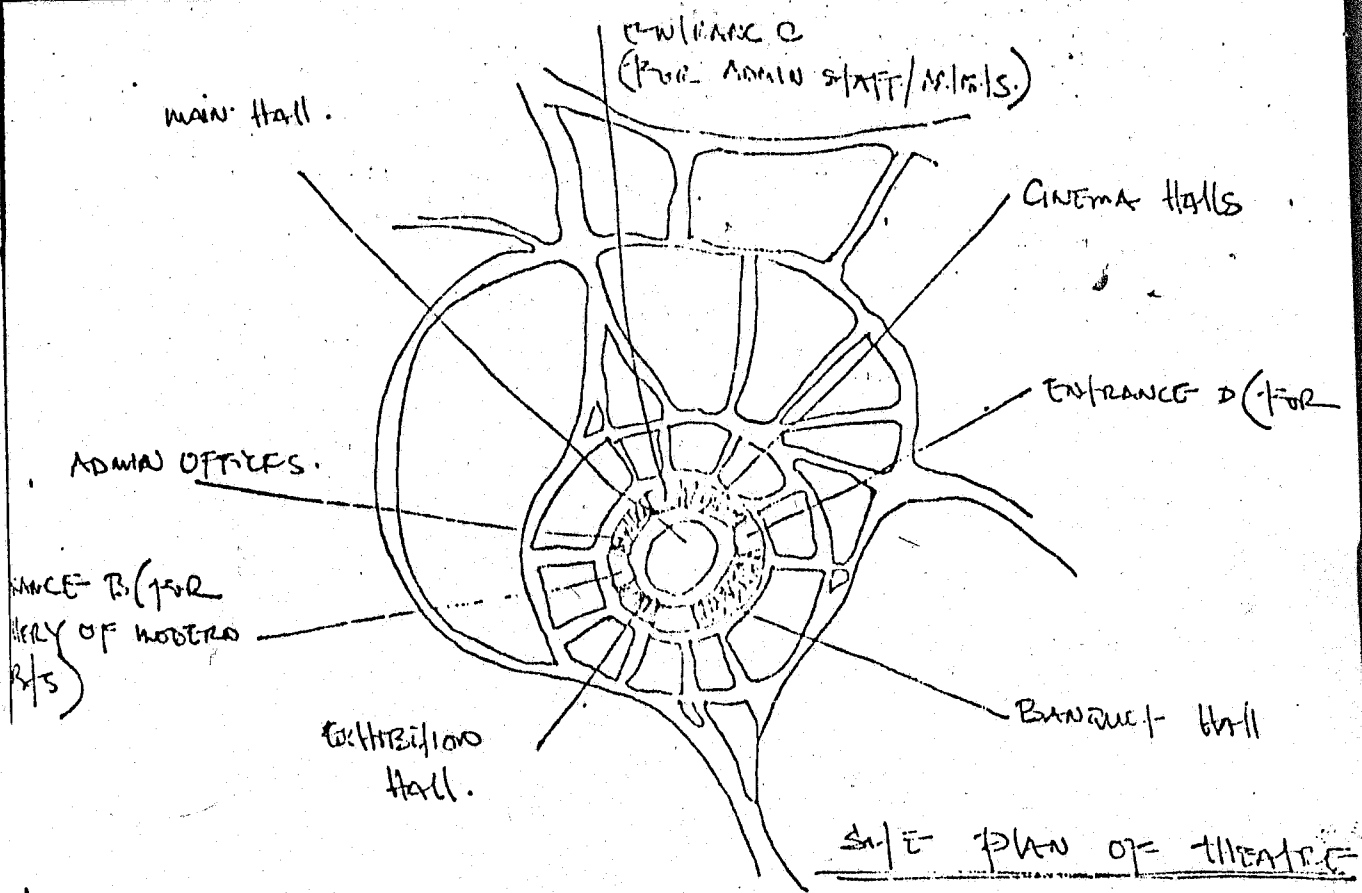
For the purpose of this study, four centers have been selected as case studies. They consist of National Arts Theatre Iganmu, Onikan National Museum, Lagos, Kaduna National Museum and Sogetsu Art Centre, Tokyo.

4.1 NATIONAL ARTS THEATRE, IGANMU

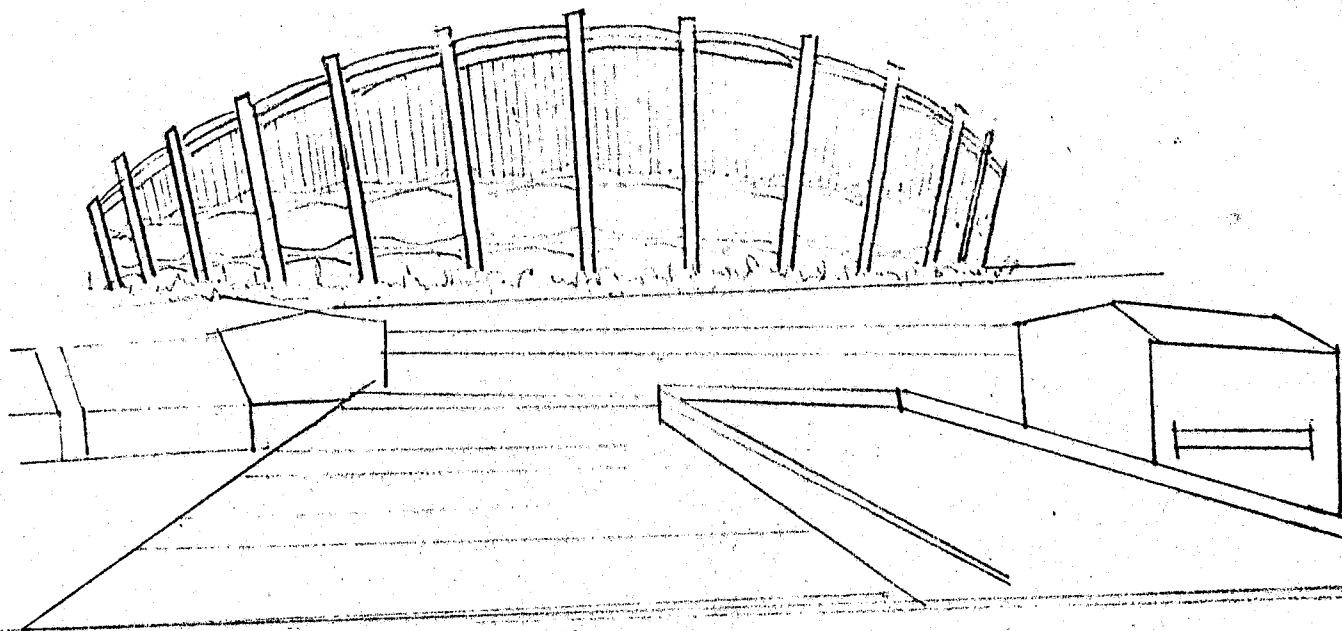
Built in 1976 and commissioned in the same year, its main function was to propagate and encourage our cultural expression. It also hosted the 2nd World Black Festival of Arts and culture in 1977, the complex covers an area of 23 hectares and is about 31 metres above the ground level. It has a main hall that seats 3,000 people if the storage is used as arena and this main hall is capable of accommodating 5,000 people if the proscenium stage is used. It has 2 cinema halls that accommodates 650 people. The Banquet hall has a capacity of 1,200 and is equipped with a language simultaneous interpretation system. There are 2 exhibition hall, a press center centre with 5 telex groups and groups of external telephone line, a television transmission center, several offices and a basement parking space for 250 cars.

It has four entrances, through V.I.P., lounge Gallery for modern Art, Administrative staff and artists and lastly, the public entrance. There are numerous lounges, lobbies and bars.

The inadequacy of dressing rooms has caused the re-conversion of circulation space into dressing cubicles.



- Agglomeration of spaces and functions around the main hall suggests the concept behind the National Theatre.
- Extra parking facilities



Approach View

Fig 4.1

NATIONAL ART THEATRE, IGANMU

4.11 MERITS

- I. It is aesthetically okay.
- II. Well equipped and has adequate facilities
- III. The National Art Theatre, Iganmu is well planned and well oriented.

4.12 SHORTCOMINGS OF THE NATIONAL THEATRE.

The design was regarded as a failure because it fails to reflect African culture. The design being lifted from Sophia, Bulgaria without any consideration of tropical factors, the undulating spherical roof structure has continued to be leaking till today.

Two 800-ton chillers installed in 1976 and additional 400-ton chillers installed in 1991 has still proven inadequate in air-conditioning the main Hall which is about 3 times the size of the Bulgarian version.

The water cooling system installed in 1975 have not functioned because the cooling system tower always leaked due to inadequate training of technicians for maintenance.

In the words of the General Manager, Mr. Jimmy Atte, featured in the times property column of July 30, 1993, as regards maintenance, he said that, "Government would want to do it but there are other pressing issues that government would want to do. I believe, a stitch in time save nine, it is one of the major assets of the Federal Government of Nigeria and should be given desired attention". (Atte, J. 1993)

4.2 NATIONAL MUSEUM, ONIKAN, LAGOS

It was used as a conservation of traditional works of Nigeria. It was conceived in 1933 by Mr. E.H. Duckworth, former Editor of Nigeria Magazine. It was meant to preserve national antiquities. The Federal department of Antiquity came into being on

July 1943 at a meeting in Government House, Lagos. This Museum came into being in 1957.

It contains over 20,000 objects ranging from Fine Arts, Applied Arts, Archeological and domestic equipments to ethnographical terracotta's and bronzes, Ogboni, brass work, Egungun costumes and Ibibio facemasks.

Increase in staff strength has shown the increase importance. It is situated on King George V. Memorial Park. It is bounded in the South by Yoruba Tennis club, Tafawa Balewa square to the North, to the West by state House/House of Assembly and lastly, to the East Department of customs and Excise and other Government Offices. It is located in Metropolitan Lagos. It occupies a land mass of about 1.25 hectares. It is accessible through Awolowo road by tarried vehicular/pedestrian path. Sculptural work decorates lawns.

The rear of the two-storeyed part of Museum contain offices, storage and workshop units. There is a staff access through the military road at the rear of site. It is fenced with painted metal bars. There is a craft village containing a museum, kitchen and a parking space for fifty visitors.

Exhibitions held in the Lagos Museum are the most frequent on average of one exhibition in 2 months.

Fig 4-2

NATIONAL MUSEUM, ONIKAN, LAGOS

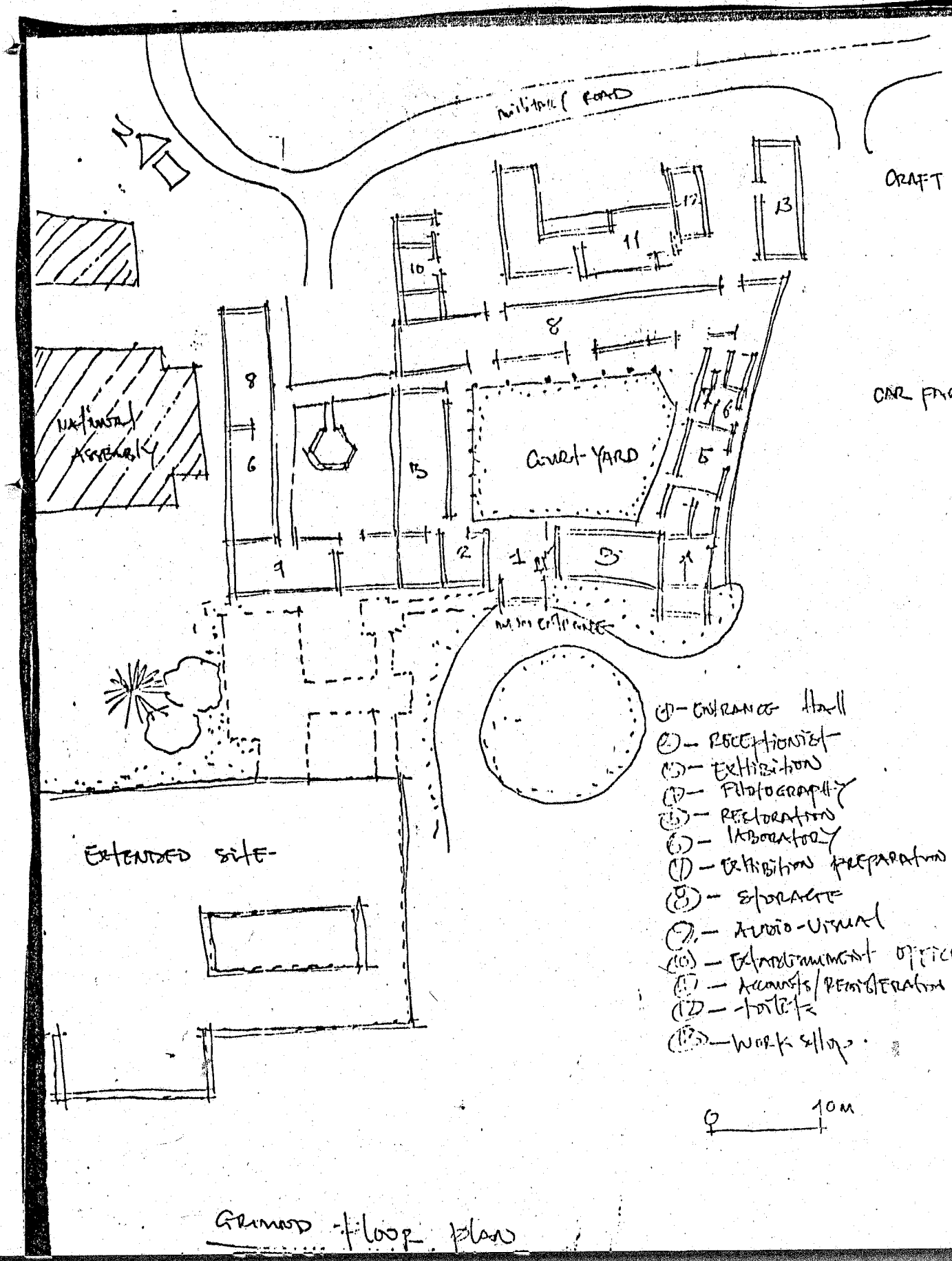


Fig. 4.2 Shows the number of adult and children that visited the Museum throughout the year.

MONTH	1994	1995	1996	1997
JANUARY	3212	2168	-	-
FEBRUARY	2898	1731	-	1301
MARCH	2827	4899	-	2663
APRIL	-	5452	2756	482
MAY	2324	1234	1340	1532
JUNE	4544	2226	1780	2889
JULY	653	3976	3208	3457
AUGUST	342	2170	1654	-
SEPTEMBER	438	2106	1400	-
OCTOBER	908	-	1197	-
NOVEMBER	1915	-	1456	-
DECEMBER	-	-	1736	-

SOURCES NATIONAL MUSEUM ONIKAN, LAGOS.

Information Department

4.21 MERITS

- i. Easily accessible
- ii. The Museum is well equipped
- iii. Well landscaped
- iv. It was well fenced

4.22 DEMERITS

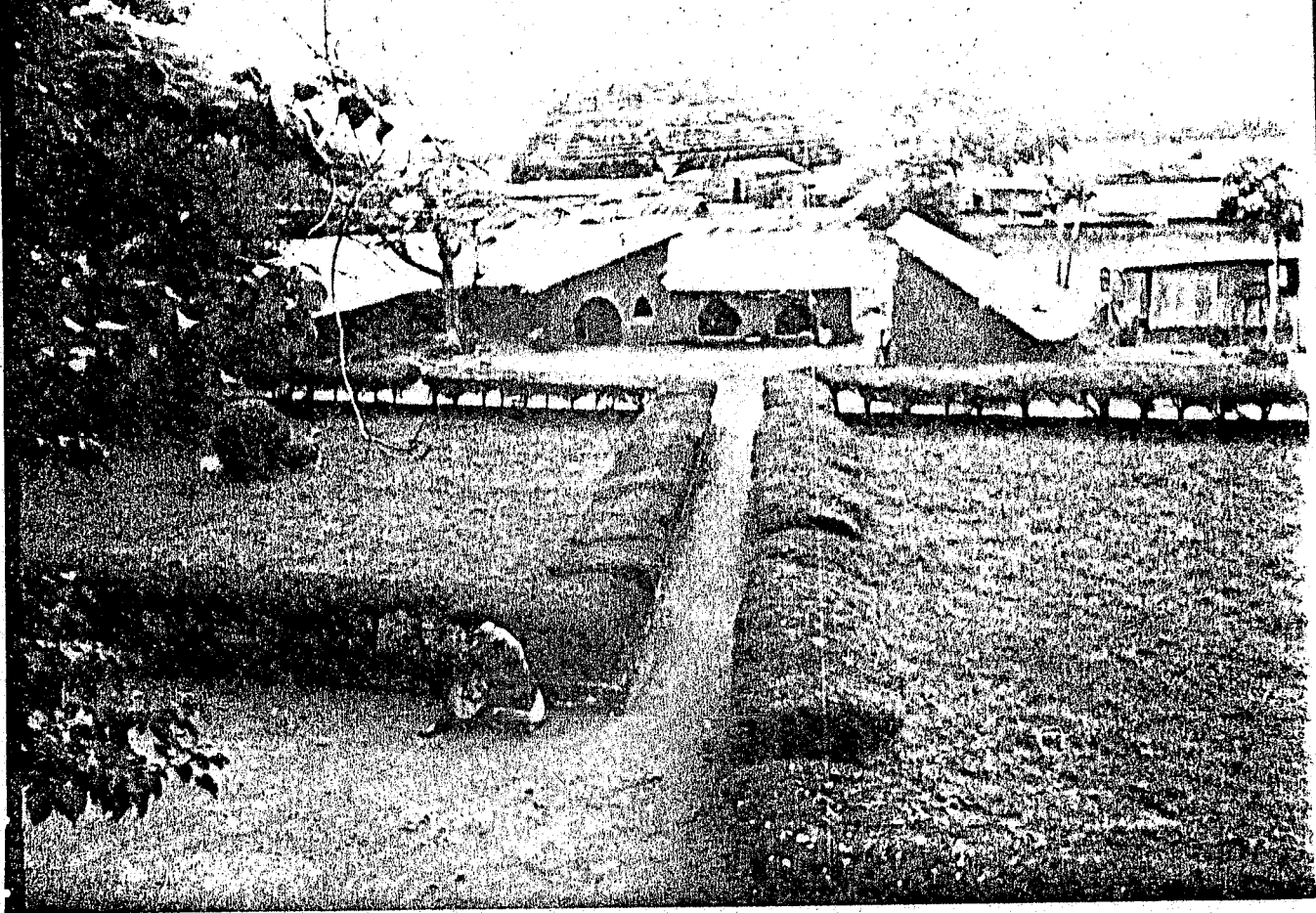
- i. Disables are not considered in the design of the museum.
- ii. The museum is not well maintained

4.3 KADUNA NATIONAL MUSEUM

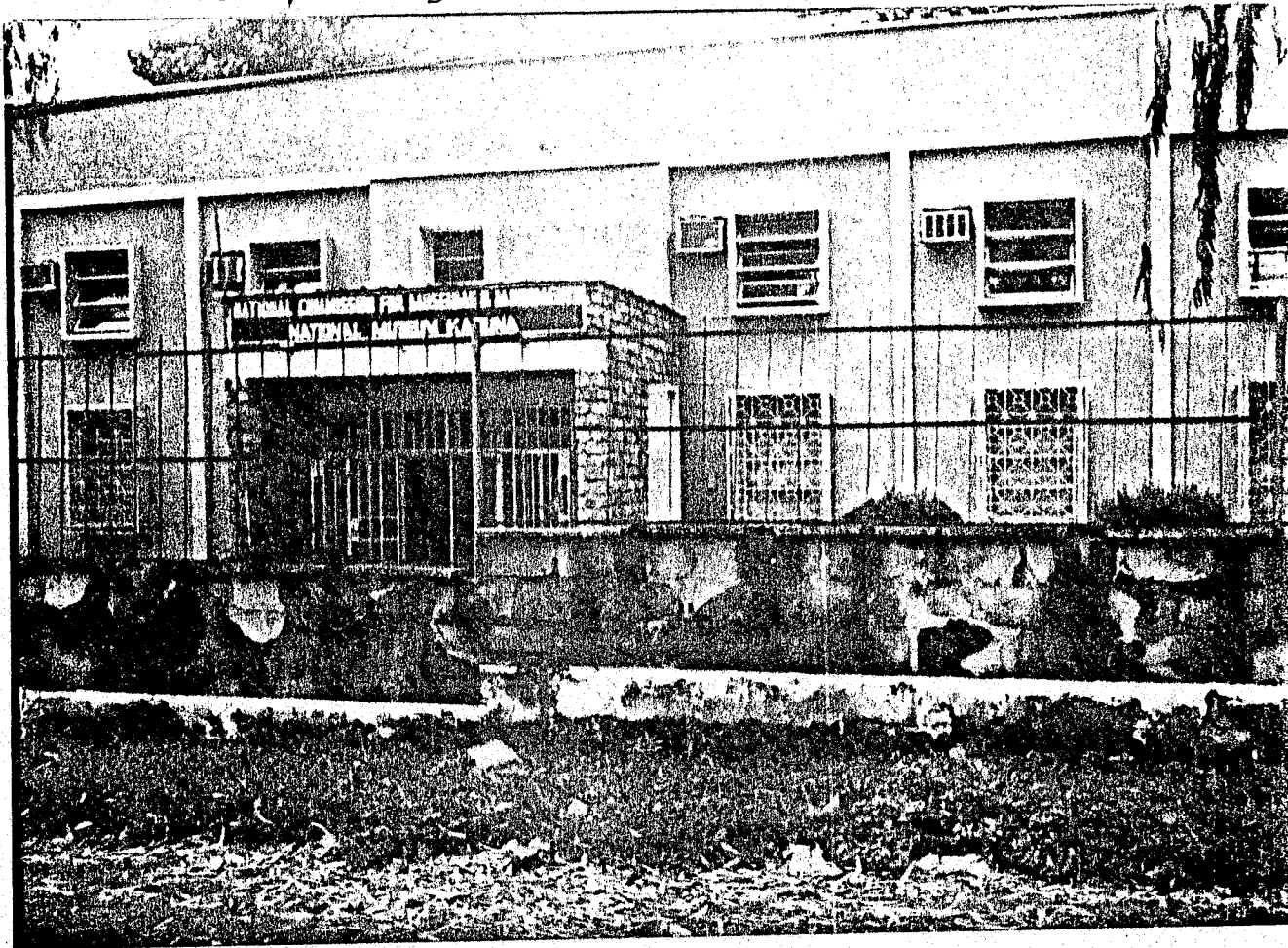
Attendance to museums depend on several factors which influence attitude toward museums. These factors include; facilities and programme of the museum, location (accessibility), historical significant of the sites collections, frequent of exchange and organization of exhibitions. From statistical data obtained for the period from 1985 to 1995, the largest number was recorded in 1994.

Attendance to the museum fluctuates depending on the programme. Looking at the average monthly attendance to the museum, there is a fluctuation pattern throughout the year. Peak periods July and August (Long vacation), Sallahs and December (Christmas) correspond with public holidays and school holidays (see table 4.3)

The national museum in Kaduna was opened in 1975 and was donated by the defunct North central State. The premises of the museum was later expanded to accommodate the craft village. The total area covered by the museum is 2120m².



Craft Village



Approach View

Fig 4.3
KADUNA NATIONAL MUSEUM

Table 4.3 showing the figures including adults and children that visited the museum throughout the year.

MONTH	1994	1995	1996	1997
JANUARY	41	29	13	22
FEBRUARY	29	21	8	8
MARCH	63	38	25	36
APRIL	19	8	11	12
MAY	39	19	20	25
JUNE	57	55	12	30
JULY	51	25	26	17
AUGUST	53	30	23	23
SEPTEMBER	57	34	23	16
OCTOBER	112	37	75	26
NOVEMBER	35	28	32	27
DECEMBER	50	48	45	32
TOTAL	606	372	313	274

SOURCE: KADUNA MUSEUM INFORMATION DEPARTMENT

4.31 COLLECTIONS

Archeological artefacts of stone age materials and sculptures from Nok, Yelwa, Ibo, Ukwu, Ife, Benin ethnographic materials such as masks, currencies, musical instruments, art and crafts and textile.

4.32 FACILITIES

Archeological galleries (63m²), ethnography (17.64m²), modern art galleries (17.2m²), stores (42m²), photo laboratory (8m²), offices (58m²), antique store (24m²), laboratory (24m²), library (32m²), toilet (5.2m²), craft shop (30m²), restaurant (50m²) and craft village (156m²).

4.33 MERITS

- i. Easily accessible
- ii. The craft village is well equipped and so far regarded as the best in Nigeria.

4.34 SHORTCOMINGS OF THE KADUNA NATIONAL MUSEUM.

The Kaduna National Museum was not designed originally for this purpose, therefore, has its functional shortcomings.

The site parking space are very inadequate and narrow. Natural lighting is almost non-existing.

Circulation is artificial, air conditioning units circulation is un-coordinated. This hampers viewing of objects.

The floor are of terrazzo which are very slippery hence not suitable for large crowds. Windows and doors are of plain glass which transmit heat.

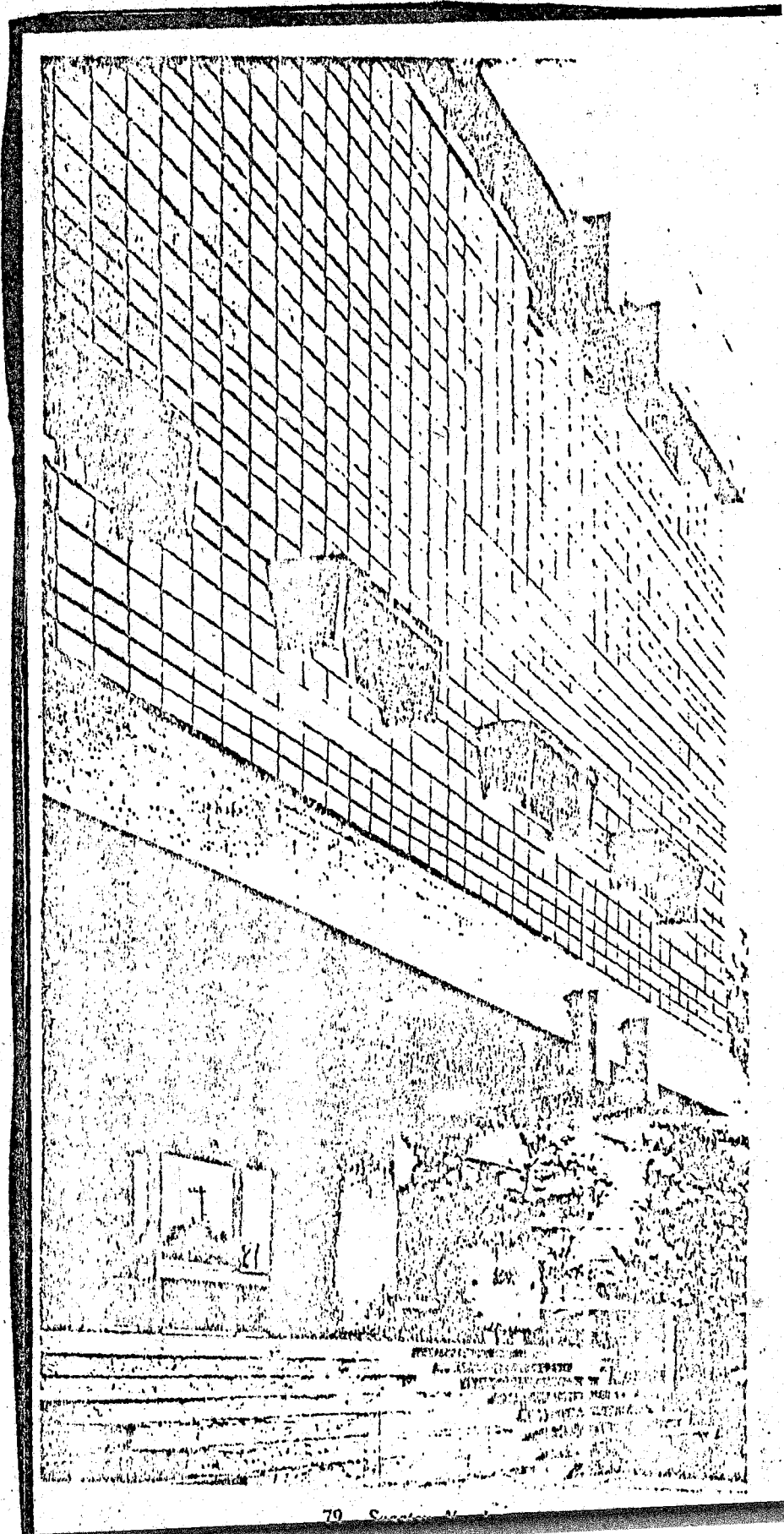
4.4 SOGETSU ART CENTRE TOKYO

- Designed by the famous Architect, KENZO TANGE
- Has the same carpentry effect in its giant twin beams checked out to grip the thick edges of floor and roof plate.

- The massiveness of form is immense and has been used by Tange to launch his fourth creative phase – (Beans, windows and all other minor elements are subjected to the massive whole).
- The Art Centre is basically raised on a deeply recessed, glazed entrance that lies between the forecourt and the rear sculpture garden.
- From the forecourt entrance, a visitor ascends eight steps which run the full length of the sculpture.
- These steps, having semblance to Greek stylobate is used in detaching the open foyer from the busy street.
- From the street elevation, the center represents an almost impervious façade, interrupted only by row of glazed windows dominated in the shadow of the roof project, together with a row of six little hooded slits on the second floor level.
- Tange has used the roof of the partially sunken auditorium as the floor of the entrance foyer and as the sculpture garden.
- The planning is basically a “U” shape of three wall fencing away from the traffic with the fourth one covered with glass and overlooking the rear courtyard.
- The exterior of the blank wall facing the street and sides are finished with heavy blue ceramic tile laid in width of random course providing a liveliness that brightens the monstrous bulk of structure.
- Such device give the Art centre a strong image devoid of grossness.
- It is most importantly a building for the display, teaching and encouragement of various activities e.g. flower arrangement.

Fig 4.4

SOGETSU ART CENTRE, TOKYO .



4.41 Merits

- i. It is aesthetically okay
- ii. The structures are well oriented
- iii. The centre is well equipped

4.41 Demerits

- i. There is no provisions for the disables in the design
- ii. Windows and doors are of glass which transmit heat.

CHAPTER FIVE

5.0 FACTS ABOUT BADAGRY (PROJECT LOCATION)

5.1 BRIEF HISTORY OF BADAGRY.

History of Badagry can best be dated as far back as the 16th century, just before the advent of the slave trade. Having a lingual affinity with the border town of the Republic of Benin, Porto-Novo, one would not be far from the conclusion that they originated from Benin or that certainly, at a particular time in their History, they had transmigrated there as a result of the intensive wars during the slave trade. The original was "Agbadagreme" meaning, the farm of Agbada in Egun language. It was adulterated to Badagry by the Europeans.

The earliest arrivals of European trade merchants in the 16th and 17th century found the town already developed locally, having well defined settlement patterns to the extent that had even developed the Local Government system with a recognized Oba (king), village chiefs and a highly evolved system of revenue collection.

5.2 SOCIAL CHARACTER

The Badagry indigenes basically belong to the Negro race with dark skin, curly hair and thick lips. They belong to the coastal ethnic groups of the century sharing a unique language "Egun" with the people of Porto – Novo in the Republic of Benin.

The socio-physical trait of facing marks is practice being gradually forgotten. They are festive-loving people giving greater credence to masquerade festivals, religious rites and communal functions .Special planning requirements that cater for the housing of special masquerade rituals and festivals are included in some of their houses.

5.3 RELIGION

Irrespective of their earlier interaction with the Europeans and their religion, Christianity, most Badagry indigenes are fervently attached to their pagan practices and worship. This factor is not only peculiar to them since it abounds in other parts of Africa. There is always an ancestral deity for every compound and every village community centrally located in the compound or village and as such, shrines always dominate the centre of the village squares and compounds.

5.4 GEOGRAPHICAL LOCATION

Badagry falls within the latitude 6° North and latitude 6° West. It is a small coastal town along the western part of the country being separated by the Badagry lagoon from the Bight of Benin. It lies to the southwest of Lagos with a boundary along the Lagoon. The boundary was defined by a British Declaration contained in the Treaty of cession of July 7th 1863 and reaffirmed on May 15th 1886.

Badagry is mainly approached by road through the Lagos Badagry expressway which makes the town about 57 km from main Lagos. This has replaced the old Badagry road through Abeokuta in Ogun State. Through the Bight of Benin, Badagry is accessible to other west Africa coastal towns. It is similarly navigable through the lagoon.

5.5 ECONOMY

Due to the location of the Ogu people in the Zone of coastal Lagoons and creeks, fishing remain their main occupation. This contributes significantly to the economy and nutrition of the Ogu people, with buyers coming from Lagos Metropolis and Yoruba hinterland. The main catch for which Badagry became famous as a fishing

settlement are sawfish, Tarpon Shark amongst others. Other aquatic resources such as Crabs, Shrimps, Snail and Crocodiles are also prevalent.

In view of the economic importance of fishing, the state Government has established fish farms in the area. The 1.6 acres Alakotomeji fish complex is provided with fishing inputs and infrastructures. A fishermen training school is also established at Yovogan-Badagry.

The cultivation of Maize and Cassavas and the tendering of coconut trees which grow wildly along the coastline provides varieties of product for economic and nutritional advantage.

As a result of the existence of abundant palm trees, basket, sleeve tray, and mat weaving are principal craft among Ogu women and children. More widespread is most weaving using sedge grass.

The finished products: Mats, Broad – Brimmed hats, Rain proof covers, Brooms amongst others are produced for sale to neighbouring settlements and international markets.

Pottery making is equally an important craft with clay quarries, potting factories and pot pyramids dotting the landscape.

The clay is artistically designed in different shapes and serves a variety of purposes such as water pots, vases, earthen wares.

The Agbalata International Market which cover a wide areas from Marina end to the swamp market. There are three other traditional night markets: Jubiless, Hunto and verekete. They have been in existence for over two centuries.

5.6 EDUCATION

Badagry Local Government Council could be regarded to as the cradle of Western Civilization because of the introduction of Christianity in Badagry in 1842, and the subsequent establishment of the first known school for Western Education in the country in 1843 which was then known as "Nursery to infant church".

In 1845, the C.M.S. established two other schools which were placed under the supervision of Messrs Edward Philips and Williams March.

The Catholic Mission settlement which was founded in 1874 had convert school, dormitory and cemetery. The first teacher training school in Nigeria was established at Topo-Island which lies between the sea and the lagoon.

Today the Local Government Counsel houses good numbers of both public and private primary and secondary Schools while Badagry Grammar School and a State Model College established at Kankon are among the best public schools. The First French Language Training and Consultancy Tertiary Institution in Nigeria, the Nigeria French Language Village, and the Administrative Staff College of Nigeria – beehive of administrative and management trainings in Nigeria are also located within the jurisdiction of the Badagry Local Government Council.

5.7 TRADITIONAL HERITAGE

Despite the fact that Christianity had its inroad into Nigeria through Badagry, this has not taken away the Badagry people from their traditional ways of worshipping the

Supreme Being (Jiwheyewhe Mawu Ose) through lesser gods such as Ogun (god of iron) and Hevioso (god of thunder). There are many temples and shrines that dot the landscape of Badagry where these gods are being worshipped.

Being mainly fisherman, the Ogu people also worship Olokuna water deity which is usually appeased to for abundant fishes. Elegba which is the accursed Satan is also worshipped by the people around March or April.

The traditional religion of Badagry people are closely associated with various festivals as Christianity is associated with Christmas/Easter and Islam is associated with Ed-el-kabir and Ed-el-Fitri. Celebration of festivals and dances such as Avohumide, Zangbeto, Olokun-Hunga, Kabito (Egungun) Oro, Igunnuko, Gangbe, Agbaja, Akogun and others, where the use of traditional Sato drums and variety of rafia based costumes are prominent are means by which the people rekindle their traditional heritage.

5.8 TOURISM

Badagry area is naturally blessed with all the potential of present day sophisticated tourism which if well managed could turn Badagry to Mecca of Nigeria. Ranging from the natural breezy and refreshing sandy beaches lined with beautiful coconut groves to historical relics and monuments left behind by their earliest contact with Christianity and Merchants of the unfamous slave trade, the tourism industry in Badagry has lots to offer any intending visitor or investors.

There is the Obas Palace, the tomb of the first slave Merchant, the site of fallen Agia tree, the 1st Storey Building, the first Administrative Block, the coconut Grove, the relic of Tans Atlantic Slave Trade, the beaches, the early Missionaries cemetery, the

Boglotomb at Gbogbele beach, the Ogu Toplisen Shrine, the Agbalata Market, Whispering Palm and host of others.

The list of attraction one could see in and around is endless and for a properly executed excursion or visit, a whole day would be required by any visitor or tourist to explore the tourism potentials of the Ogu people as they continue to do what they love most that is receiving and entertaining visitors.

Thus a holiday in Nigeria without a visit to Badagry is like a visit to Mecca without getting to the Kahaba.

5.9 CLIMATIC CONDITION

5.91 TOPOGRAPHY

The surface area of Badagry consist basically of plains below 5 metres above sea level gradually descending shortly towards the lagoon, have a large expanse of sand beaches along the lagoon, the rest comprises mainly of sedimentary rocks of sands, stones and clay composition. The abundance of clay in the interior makes it a ready tool for building construction.

The effect of drainage is achieved and confined to ponds simply as a result of depressions that occur through the high water table in the relatively flat terrain.

5.92 TEMPERATURE

Badagry is constantly insulated because of its latitudinal location of 6° , the days are normally long because of this effect of solar radiation, this resulting in sunset of as late as 7pm. Averagely, the difference between the shortest and longest days are constant allowing for a difference in the year of only about 40 minutes.

Despite the heavy input of solar energy, weather is fairly cool as the lagoon breeze temperaments the heat. Mean daily maximum temperature is usually above 27°C annually but both the mean maximum temperature and the mean annual maximum temperature increase from the breeze towards the interior because of the effect of the lagoon in moderating the western temperature. Mean annual temperature is usually 30°C, the cold hamattan at times pulls down the area daily temperature below 18°C only in the months of December and January. The mean annual maximum temperature is above 21°C and does not exceed 27°C.

The balance between incoming solar radiation and outgoing earth radiation is reflected by the daily range in temperature. Usually in the mornings of the months, January and December, it is usually very cold.

Summarily, it is coldest at nigh and hottest at mid-night.

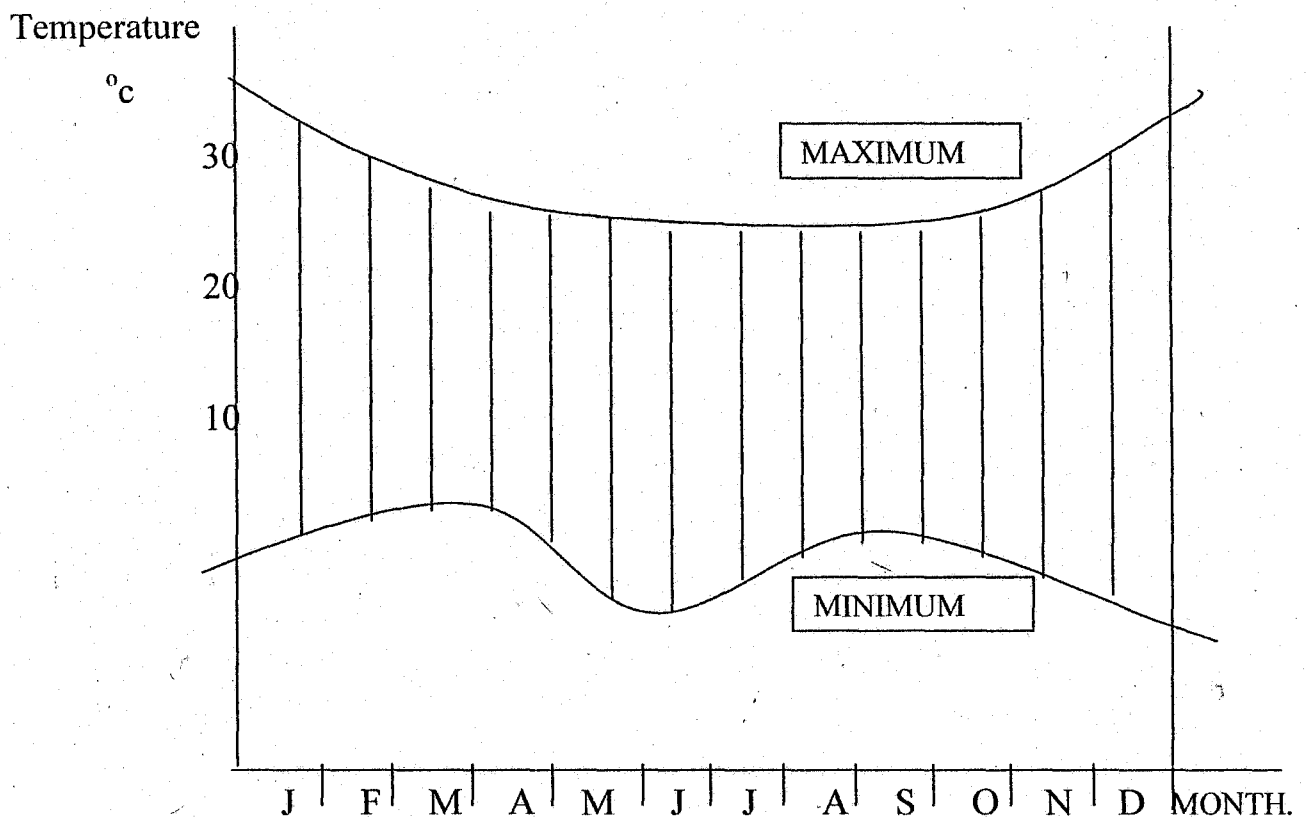


FIG 5.92 MAXIMUM AND MINIMUM TEMPERATURE RANGE.

5.93 HUMIDITY

Relative humidity is high all through the year. For the daily variation, the relative humidity is highest at 7.00 hours (Nigeria time) when the temperature is normally low and this pervades through 80% of the year round. As temperature increases, the relative humidity gets reduced until a minimum of between 30% and 50% is achieved around 16.00 hours.

The combination of high humidity and temperature encourages the breeding of insects whereas the high humidity all year round precipitates the growth of fungi and mould.

Relative humidity

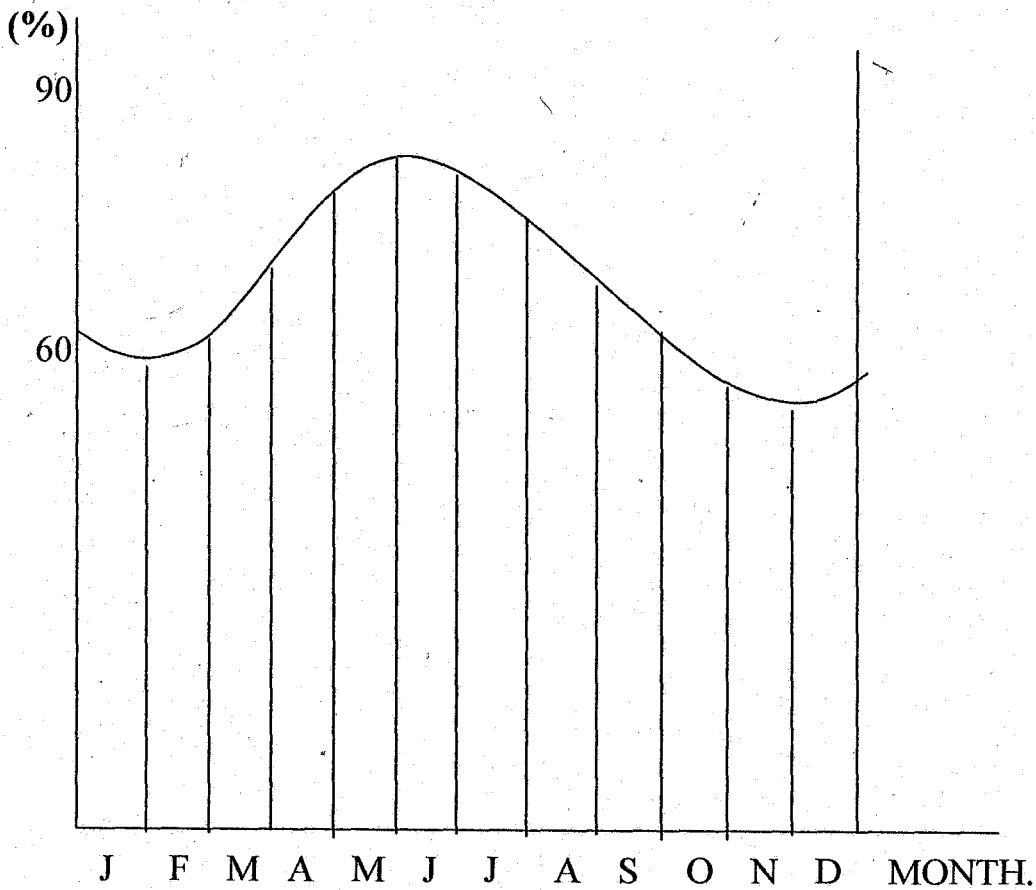


Fig. 5.93 Mean Relative Humidity

5.94 RAINFALL

A long wet season lasts from April to July/August this elapses and then is succeeded by another short wet season that lasts from September to October. There the comes the period of dry season from November to March.

However, there is no constance of this rainfall trend. At times it gets excessively prolonged and at times: quite short: Total amount of rainfall is about 400mm.

Rainfall (mm)

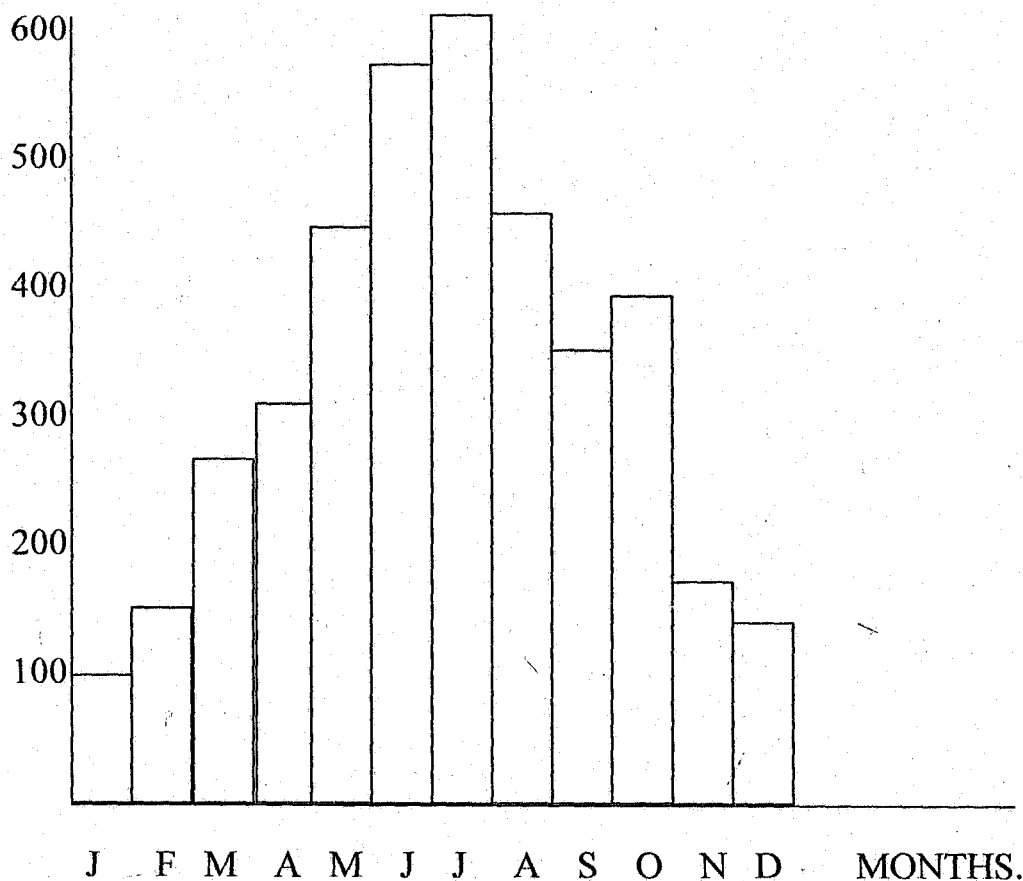


Fig. 5.94 Annual Rainfall Distribution.

5.95 VEGETATION

Badagry is relatively flat, water-logged and of low sandy ridges. With the exception of a short forest, the rest are dumps and stretches of willows and coastal grasses, one such example is "paspalum vegeatum".

A wealthy array of beach line coconut trees abound here, this tree also serve as a source of building materials for the inhabitants. The leaves are normally dried and used as roofing materials while the stem is normally used for pillar because of its resistance to termite attack and tough resistance covering of the leaves extracted from branched are either used as ropes or used in the art of basket weaving.

Further domestic use of this tree is still made in the use of its fruit pod as sponge for bathing while the fruit has been extracted from consummating purposes. The liquid from its oil serves as oil for household purposes, they have locally given the coconut tree the axiom, "tree of life".

The palm trees also abound within this area from which they get their local wine and also building bamboo used for specific building purposes.

The vegetative composition of Badagry thrives continually because of the climatic conditions prevalent and this has also necessitated an abundance of building materials which provides an economic source of construction after a little bit of processing has been done using local or contemporary means.

CHAPTER SIX

6.0 SITE SELECTION

Factors that would determine the choice of location should broadly come under the following considerations:-

- (a) Climatic Factor
- (b) Accessibility, light, water, utilities
- (c) Sizeability
- (d) Zoning requirement and regulations
- (e) Other related factors.

Two locations, Oshogbo and Badagry will be considered under the above named factors to determine the one most suitable for the African Heritage Center.

LOCATION A (OSHOGBO)

(a) Climatic factor

- Oshogbo fall within the rain forest region with high annual rainfall, high humidity and high daily temperature. A good potential factor.
- Good, Scenic and gentle topography.

(b) Accessibility, light, water, utilities.

- About 250km from Lagos
- Means of access only through land and rail. Land means of access is through the Dual-carriage road from Ibadan through Iwo, Ede and finally Oshogbo which is in a bad state.
- Utilities and communication are fairly okay since it serves as the state capital.

(c) **Sizeability**

- Moderately big town.

(d) **Zoning requirement and regulations**

- Well laid – out zoning requirement and regulations

(e) **Other related factors**

- Good tourist potential because of the presence of the Oshun River and it is horde of related annual festivities.

- There is an enviable presence of western tourists and interestingly a prominent number of Europeans serving under the various shrines and divinities.

LOCATION B (BADAGRY)

(a) **Climatic factor**

- Falls within the swampy regions with high annual rainfall, high humidity and high daily temperature. A strong potential factor.

- Relatively flat, picturesque terrain.

(b) **Accessibility, light, water, utilities.**

- About 57km from Lagos.

- Accessible through the Lagos Badagry expressway.

- Since it falls within the Lagos metropolis, extra means of access through sea and air is an added advantage.

- Mutual intellectual interaction feasible

(c) **Sizeability**

- Fairly big town

(d) **Zoning requirement and regulations.**

- Already laid – out but fairly exploited.

(e) **Other related factors**

- Good tourist potentials, because of its historicity as regards the slave trade Era.

- Recreational and tourist facilities sprouting up encouragingly within the vicinity and environs.

- Presence of International cultural institutions already present at strategic places.

From the above – made comparative analysis, it is most apparent that Location B (Badagry) serves a better alternative as regards accessibility and tourist potentials.

The feasibility and viability appraisal of site B indicates a most apposite sitting for such a laudable project.

6.1 LOCATION OF SITE

The site is located at Badagry Beach which is parallel to the Badagry/Seme boarder, on the left side just some few minutes drives from Badagry roundabout.

6.2 SITE CHARACTERISTICS

6.21 TOPOGRAPHY

The site is relatively flat.



6.22 VEGETATION

The site is an environment of profound natural beauty with sandy beach lines with coconut trees, it is characterized by the sparse distribution of shrubs and ground cover.

6.23 SERVICES

Services in this content include facilities that aid the provision of telecommunication, electricity and water supply.

All there are readily available on the site in the form of telephone lines, electricity supply with major power lines at the boundary of the site, and pipeline for water distribution.

6.3 ACCESS AND CIRCULATION

The site is accessible through the major trunk road from Badagry roundabout and inner road from town centres. The site is some minutes drive from Badagry/Seme boarder and also accessible through the Badagry Beach.

6.4 SCENERY AND MAN-MADE FEATURES

There is an access road leading to the site, there is also walkways on the site leading to the beach and various places where farming activities took place.

There are also series of seaside huts very close to the beach.

CHAPTER SEVEN

7.0 DESIGN CONCEPT AND CONSTRUCTION

7.1 DESIGN

7.11 DESIGN PHILOSOPHY

The design philosophy of this research work is the “application of architectural solution to the preservation of African heritage”.

7.12 DESIGN APPROACH

Numerous methods exist by which design can be approached. Out of these methods are canonic approach, pragmatic approach and analogue approach.

Analogue approach is employed for this project. Analogue approach is the translation of conceptualized form into structural form by integrating the design functions into a particular form. This entails the production of functional flow Chart and manipulation of same into required structure shape.

7.13 DESIGN VIABILITY

There are some facts that would make a design not viable. These facts should be one or two or more combination of these few listed facts:

- (a) Improper feasibility study
- (b) Cost scopless project design
- (c) Lack of cash flow
- (d) In appropriate technology
- (e) Poor specification
- (f) Bad sitting of project
- (g) Wrong timing

- (h) Saturated condition of project populated

The above enumerated facts are considered in this design as much as possible.

7.14 FUNCTIONAL RELATIONSHIP

Functional relationship for this project assumes two parts. The first is the general site functional relationship while the other part is the structural functional relationship.

The factors considered in relating the institute functionally are:

- (a) Easy and clear vehicular circulation
- (b) Well defined pedestrian walkways
- (c) Internal and external user relevance of structures
- (d) Noise rating
- (e) Inter-structural functional relationship.
- (f) Proximity cost benefit

The structural functional relationship are done in consideration of

- (a) Inter functional connections
- (b) Sequential and logical order of functions.

7.2 CONCEPT DEVELOPMENT

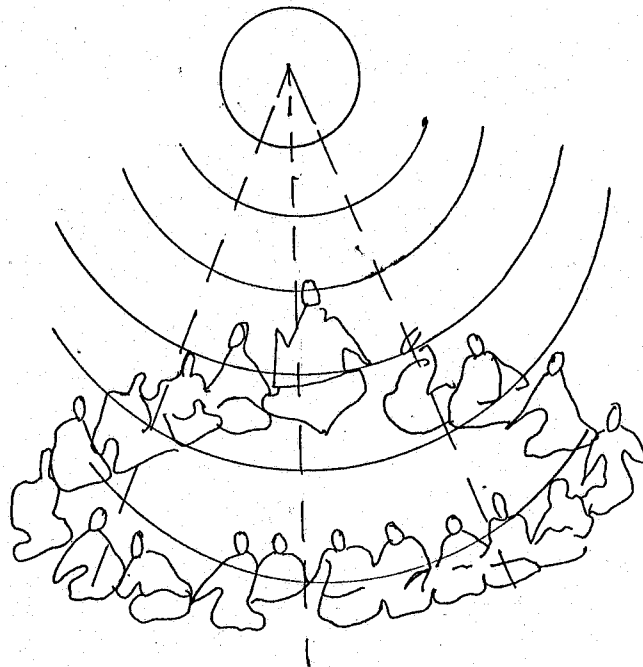
7.21 THE CIRCLE – THEME SYMBOLISM

In all traditional and contemporary African societies, the sun and the moon have always been regarded as the sources of Rhythm, harmony and balance in nature. They are seen as the celestial tools of God in sustaining a rhythmic and harmonious balance to life and existence.

That is why lot of socio-cultural activities consciously and unconsciously re-enact this ideation in the circle-theme symbolism, e.g, the communal gatherings for moonlight games, the tribal war dance and also most importantly, the circular conception of form, for shelter.

Fig. 7.21 THE CIRCLE – THEME SYMBOLISM

e.g - The moonlight gathering



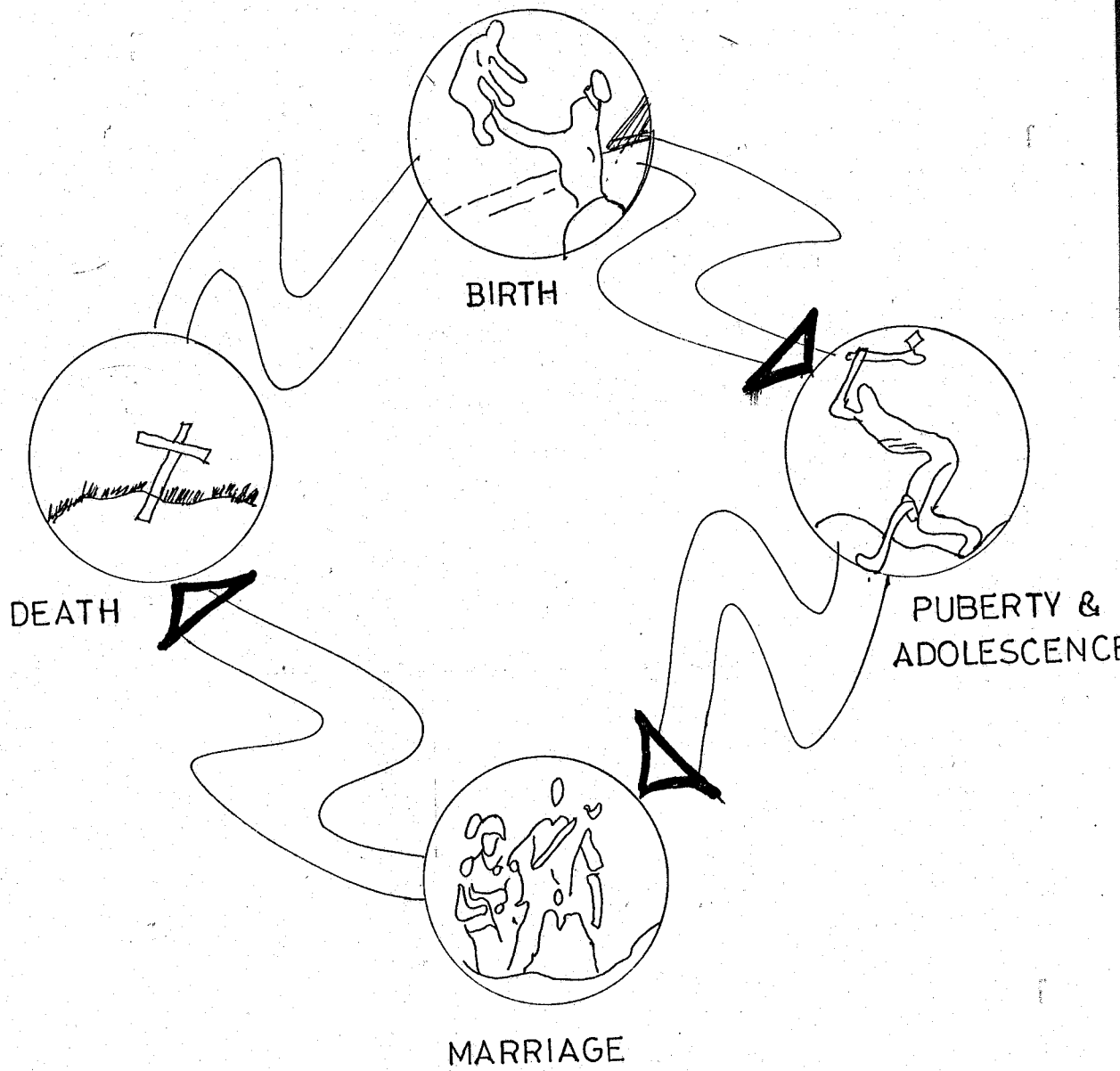
7.22 THE ETERNAL CYCLICAL CONCEPTION OF TIME

The periodic alternation of daily activities, day and birth, death and re-incarnation, night, the lunar months and the agricultural season have resulted in the African-centric conception of time in an eternal cyclic re-occurrence.

This mythical conception have elsewhere been reffered to by M. Eliade as the “Myth of eternal return”.

Fig. 7.22 THE ETERNAL CYCLICAL CONCEPT OF TIME

E.g. The Life Circle



7.3 DESIGN COMPOSITION AND SPACE REQUIREMENT.

MAIN COMPLEX

	Dimension(M)	No on plan	Area (M ²)
Entrance porch	r=5 8	1	105 72
Reception	20 X 25	1	500
Stair cass	6 0 x 3 4	4	81 6
Library	20 8 x 12 2	1	253 76
Computer room	8 x 6	1	48
Store	5 x 4	1	30
Library Office	4 x 6	1	24
Class room	10 x 8	3	240
Class room store	5 8 x 5 2	2	60 32
Class room area WC	1 2 x 1 8	6	12 96
Lobby	1 2 x 5 4	1	6 48
Security post	5 4 x 5 2	1	28 08
Gallery 1	(14 8 x 2)+(1 8x7 4)	1	134 58
Gallery 2	10 x 14.8	1	148
Gallery 3	10 x 14.6	2	292
Dilevery 1	8 x 5.4	1	43.2
Dilevery 2	9 x 6	1	54
Store 1	5 x 5.6	1	28
Store 2	7.2 x 5.6	1	40 32
Photo studio/class	11 x 6	1	66
Dark room	3.3 x 5.6	1	17.82
Chief Photographer office	5.6 x 4	1	21.6
<u>CANTEEN</u>			
Eating Area	12.6 x 10.2	1	128.52
Kitchen	54 x 6.8	1	36 72
WC	1.2 x 2.2	1	2.64
Store	4.8 x 3.2	1	15 36
Bath	1 2 x 2 2	1	2 64
Cleaners	5.4 x 9.4	1	50 76
Cleaners Area WC	1.2 x 5.8	4	27 84
Lobby	2.2 x 1.2	1	2 64
Store	2 7 x 2 8	76	

	Dimension(M)	No of plan	Area (M ²)
Changing	3 x 1 2	2	7 2
Indoor games	8 7 x 9	1	78 3
Outdoor games	21 x 13 3	1	279 3
WC	1 2 x 1.8	4	8.64
Lobby	1 2 x 1.8	4	6.0
Store	3.9 x 3 2	1	12 48.
<u>AUDITORIUM</u>			
Stage	5.1 x 2.2	1	11 22
Store	3 0 x 2 2	2	6 6
Seating Area	23 x 11 4	1	262 2
Balcony	10 x 5	1	50 0
Stair	2.8 x 5	1	14 0
WC	1.2 x 1.8	4	8 64
Lobby	1.2 x 2.4	1	2 88
Project room	2.4 x 3 4	1	8 16
<u>CRAFT VILLAGE</u>			
Craft centre 1	6 8 x 7	1	47 6
" "	2 6 8 x 9	1	61 2
" "	3 6 x 6.6	1	39 6
" "	4 6 x 6.6	1	39 6
" "	5 12 x 8.6	1	103 2
" "	6 r = 25	1	491 07
Store	5 4 x 8	1	43 2
Craft store	8 x 8 6	1	68 8
Changing	3 x 3 6	2	21 6
WC	1.2 x 1 8	4	8 64
Bath	1.2 x 1 8	2	4.32
Lobby	3.6 x 1 2	2	8 64
AMPHITHEATRE	r = 32	1	804.57

	Dimension (M)	No of plan	Area (M ²)
<u>ADMIN.</u>			
Office 1	6 x 5.4	2	64.8
Office 2	4.2 x 5.4	3	68.04
Comp. room	6 x 7.2	1	43.2
WC	1.2 x 1.8	6	12.96
Lobby	7.4 x 1.2	1	8.88
Managers Secretary	8 x 4.9	1	39.2
Managers Office	8 x 4.9	1	39.2
Managers lounge	7 x 6	1	42
Accountant	8 x 4.9	1	39.2
Sec. to Accountant	8 x 4.9	1	39.2
Gurantor's Office	8 x 4.9	1	39.2
P. R. O	8 x 4.9	1	39.2
Board room	12.6 x 10.2	1	128.52
Tea room / Kitchen	5.4 x 6.8	1	36.72

SEA VIEW RESTAURANT

	Dimension (m)	No of plan	Area (m ²)
Kitchen			33.16
Changing		2	7.23
WC		1	2.43
Bath		1	2.43
Lobby		1	34.52
Dilevery		1	32.144
Indoor eating Area		1	172.85
Outdoor Eating		1	160.72
Fountain	r = 3	1	28.29
Store			9.56
Office			10.21

7.3 MATERIALS AND CONSTRUCTION.

7.41 BUILDING MATERIALS

The choice of building materials for a project like a museum must be considered with utmost sensitivity. Sensitive to safety in terms of fire and theft, durability and also aesthetics.

Most of the primary construction materials are concrete, as this would ensure a long lasting stability of the museum. Wood panels, steel, ceramic and synthetic polymers are also used in various areas of the museum.

7.41.1 FINISHING AND PAINTING

The museum and the centre at large would have to possess the character of an exhibit in terms of its architectural composition and form.

The finishing materials applied on the building would help in achieving this and therefore a wide range of finishing materials such as marble and granite walls. Mosaic tiles forming different themes, carving and appealing paint colours are used in the entrance porch, step and wall to promote this quality of the centre.

A consistent colour combination of appealing shades and tones are subtly used to achieve this feat.

7.41.2 Doors

The doors are basically access ways linking two partitioned spaces and this come in various sizes, shapes , colour and of different materials mainly aluminium and wood. In specifying types of doors, the number of people expected to pass through are considered along with the control desirable. Glazed doors in aluminium frame are

provided in the reception hall, Restaurant among others. Kitchen and workshop however, are specified with doors that have high fire rating.

7.41.3 Windows

Windows in the museum are of two types. These of high level nature that are located along the gallery walls to provide lighting and ventilation and also provide enough wall display space. They are tinted with a chemical compound to reduce the absorption of heat and the penetration of sun rays which can cause glare and damage to the artefacts.

7.41.4 Roofing and Ceiling

Roofing provides a shelter cover for any building and is very important guarding against rain and other harsh elements of weather. The centre roofing system is a mixture of concrete slabs over the sculpture gallery and the lecture hall to provide space for possible expansion and a main roof cover of aluminium long span roofing sheets and tinted Perspex skylight to admit daylight into the galleries.

The ceiling of the galleries are finished in light reflecting colours and have a curved shape to scoop light from the admitting source and spread it within the room. In the lecture room, acoustic ceiling boards and sound cushioning materials are used for improved audible qualities.

7.42 CONSTRUCTION

The construction principle used is the framed construction principle where a means of controlling the thickness of the external walls by making them separate from the load-bearing framework is provided. The framework of beams and columns can be erected higher and quicker than a solid bearing structure with greater freedom in planning. It provides flexibility in design and independence in cladding materials.

The soil type and nature dictates what kind of foundation to be employed. On the site of African Heritage centre is a compacted and well-drained site therefore, a strip foundation is used to anchor the centre building to the ground.

A combination of concrete columns and beams make up a high percentage of the museums structural system as the construction method warrants such a network. The structural quality of the floors is provided the use of concrete floor slabs for the ground floor and a hollow clay pot top floor slab.

The external walls and the internal walls play a very decisive role in the character of the museum. The interior walls are responsible for the accommodation of artefacts and also responsible for the ushering of visitors through the different spaces they carve out.

In the museum walls are two types of demountable partitions and fixed partitions in some cases the former act as exhibitions themselves. Made of concrete and wood, the door provide on interesting flow system through the museum.

CHAPTER EIGHT

8.0 DESIGN SERVICES

8.1 ELECTRICITY AND LIGHTING.

In this particular design, strict adaptation of electrical codes of wiring and fitting should be adhered to, to avoid as much as possible, fire accidents. They will also be required to meet durability standards as the building is a public building and is in constant use. By achieving this, switch and socket locations and heights should be of convenient choices and dimensions.

8.2 WATER/DRAINAGE

The need for water is very important in public centres as it will also be used in lavatory, fountains, restaurants amongst others. A water recycling system from the river to the pool and back will be adopted: the likes in the water sprinkles.

All spring water from the roof will be drain through polyvinyl chloride pipes to concrete gutter covered with concrete slab and channeled to the existing lake adjacent to the site.

8.3 MECHANICAL SERVICE

The galleries require a certain kind of atmospheric condition at all times. Therefore, the use of artificial cooling systems and dehumidifier are employed in form of a centrally controlled air conditioning unit with outlets into the galleries, offices, and lecture room via ducts that can be passed through the ceiling and floors.

8.4 PLUMBING

Most of the services that may have to be accommodation for this project will be under area and will include the following:

- i. Sewer pipes
- ii. Electrical supply cable
- iii. Water main
- iv. Telephone cables

In planning the layout of these, there must be adequate coordination between the various municipal bodies in charge of these services if a logical and economic plan and installation programme is to be formulated.

Sewers are not generally grouped with other services due to their lower flexibility. Hence they must be given priority, they should be laid along paved way. The specification has to duct size, cover and access for the board concerned will determine any particular services.

8.5 ACOUSTIC

Sound is absorbed by a mechanism which converts the sound into other forms of energy and ultimately into heat. Most manufactured materials depend largely on their porosity for their absorptivity. Many materials, such as mineral wools pads, and blankets, have a multitude of small deeply penetrating inter communicating pores. The sound waves can readily propagate themselves into these interstices, where a portion of the sound energy is converted into heat by frictional and viscous resistance within the pores and by vibration of the small fibres of the materials.

If the materials is sufficiently porous, and of appropriate thickness, as much as percent of the energy of an incident sound wave may be absorbed in this manner.

When sound wave strikes a panel, the alternative pressure of these wave against the panel may force it into vibration. The resulting flexural vibrations use a certain amount of the incident sound energy by converting it into heat.

If the panel is massive and stiff, the amount of acoustical energy converted into mechanical vibrations of the panel is exceeding small on the other hand, if the panel is light and flexible, the amount of energy absorbed may be very large, especially at low frequencies.

Absorption by porous materials normally is large at high frequencies and small at low frequencies. Absorption by panel vibration is small at high frequencies but may be large at low frequencies. Both of these types of absorption are important in the control of sound in rooms.

By using them in the proper proportions, it is possible to control the absorption of sound throughout the audible range of frequencies. This is what should be considered for auditorium acoustic requirement.

8.6 FIRE SAFETY

Fire in building are nearly man-made that is, resulting from error or negligence.

The principal aim of fire precaution are simply to safeguard life and property and are achieved by

1. Reducing fire incidence
2. Controlling fire propagation and spread
3. Providing adequate means of escape to occupant of building.

The architect role is in the prevention, detection and combat of fire through appropriate designs, specification and choice of materials

8.61 MEANS OF ESCAPE

In the event of fire within a building , people within should be able to escape to reach a place of safety within the building in safe conditions.

(1) Escape Route

In designing escape routes, the architect should be able to visualize possible source of fire and predict the cause of smoke, heat and hot gases, he should also have an idea of how many people will be using the route at peak hours, the way they move, their speed, familiarity with the building and tendency to panic, all the factors should be considered for safety in any design.

When considering the design of escape routes in buildings, it has been found that time available for escape determines the safest mode of escape efficiency.

Escape routes for this project will be protected with smoke control facilities and fire resisting doors.

(2) EXITS

The number of exist required depend on the function of the building, degree of risk, availability of functional fire fighting equipments and number and characteristic of occupants.

Exists would be located such that it will be unlikely for fire to block them all at the same time. Travel distance for any occupant would not exceed 45m, this is based on the theory that a mobile adult can travel at the distance of 15m per minute.

8.62 SIGNS AND NOTICES

A major cause of panic is the inability of occupants of building to see escape routes in case of heavy smoke and darkness. In some cases, people especially visitors trapped in a burning building may not even know the escape routes.

Building will have escape route signs and Exit sign will be bold and places at 2-5m interval and will be illuminated at all times.

8.63 FIRE EQUIPMENT

In spite of all precautionary measure taken at the design and construction stages, the risk of fire is not completely eliminated. There is therefore need to have in-built fire equipment like fire alarms, detector and fire fighting equipment.

Detector will indicate that fire has been noticed within or around a building but will not do anything to control as a consequence. A detector system need to be coupled with an alarm system which could be trigger on pre-recorded instructions on evacuation. Active control of fire requires the provision of extinction systems, automatic sprinkler installation are, the most common. When properly integrated into the design and installed, they have been found effective in suppressing fires and hereby curtailing the extent of damage.

8.7 SECURITY

Security men will be placed at the entrance gates to check the flow of people and vehicles in and out of the center. Special guards also will be strategically placed and equipped with telecommunication gadgets in case of thefts or disorder within the set-up.

The zoning within each structure in the design checks the flow pattern of people and vehicles with closed circuit television cameras linked up to the central telecommunication system.

The galleries will also be computerized to enable the security detect (immediately) missing of any artefacts.

8.8 MAINTENANCE

Maintenance can be defined as works undertaken in order to keep, restore or improve every facility i.e part of the building, its services and surrounds to a currently accepted standard and to sustain the utility and value of facility B.S 3811.

Effective building maintenance requires inspection of the building, correct diagnose of the defects that is determining the defect and implementation of correct remedial measures, all these should be based on sound technical knowledge.

8.81 MAINTENANCE INTERVAL OF BUILDING COMPONENTS

Maintenance intervals vary depending on effects of weather over time and natural decay, normally wear and tear, and extent of vandalism or misuse NBA construction consultant (1985), in a study, outline average maintenance interval for building components due to normal wear and tear. The life expectancies and maintenance intervals vary materials as shown in Table 8.81a.

Table 8.81a .

Life cycle and maintenance interval of common floor finishes

	Mineral	Life (years)	Maintenance interval (years)
1	Carpet	10	3 - 4
2.	PVC tiles	15 - 20	5
3.	Linoleum	15 - 25	5
4.	Woodblock	45 - 60	Polished yearly, resand and reseal every 10 years
5.	Wood strip	60 - 65	Polished yearly, resand and reseal every to years
6.	Terrazzo	50 - 65	9 - 10
7.	Granolithic	50	9 - 10
8.	Quarry Tiles	50 - 65	6 - 7

Source: NBA construction consultant (1985)

ROOF

The NBA study (1985), recommends that all roofs should be inspected at one or two years intervals with a checklist of potential defects.

Flat roofs should be inspected annually. In areas of high pollution, inspection may need to be more frequent. The average life expectancies and maintenance cycles of some common roof materials are shown in table 8.81b below.

Table 8.81b.

Life and maintenance of common highly roofing materials

	Mineral	Life (years)	Maintenance interval (years)
1	Built-up felt	15 - 20	3 - 4
2.	Asphalt	20 - 60	6 - 7
3.	Clay tie	25 - 70	4 - 5
4.	Concrete tie	20 and above	Very durable
5.	Asbestos cement	26 - 40	Generally 6 - 7 depends on air pollution
6.	Zinc		Generally 6-7 depends on air pollution
7.	Granolithic	50	Generally 6-7 depends on air pollution

Source: NBA construction consultants.

SERVICES

Electrical installations: Any wiring that is more than 35 years old is out of date and should be replaced (NBA 1985). Light should be inspected replaced every six months.

Lifts: The expected life of lifts before refurbishment or replacement is 20 to 40 years (NBA, 1985). Suspension ropes however, have a life of only about 6 years. Lifts should be checked every six months under a planned maintenance programme.

Water supply, plumbing and sanitary services: Over flow pipes, taps and ball valves should be checked periodically depending on frequency of use. Binds and channels in the pipe work should be inspected and cleared yearly.

Drains should be water-tested every 2 to 3 years. Soak away pits should be emptied periodically.

Air-conditioners: These should be checked every six months and serviced annually.

8.9 SOLAR CONTROL

Glasses are with varying degree of opacity to solar energy. Some work purely by absorption, others by a combination of reflection and absorption. The various types may be tinted bronze, grey, green or in the case of the reflecting type, gold. Most types can be obtained in toughened form or incorporated in double glazing units.

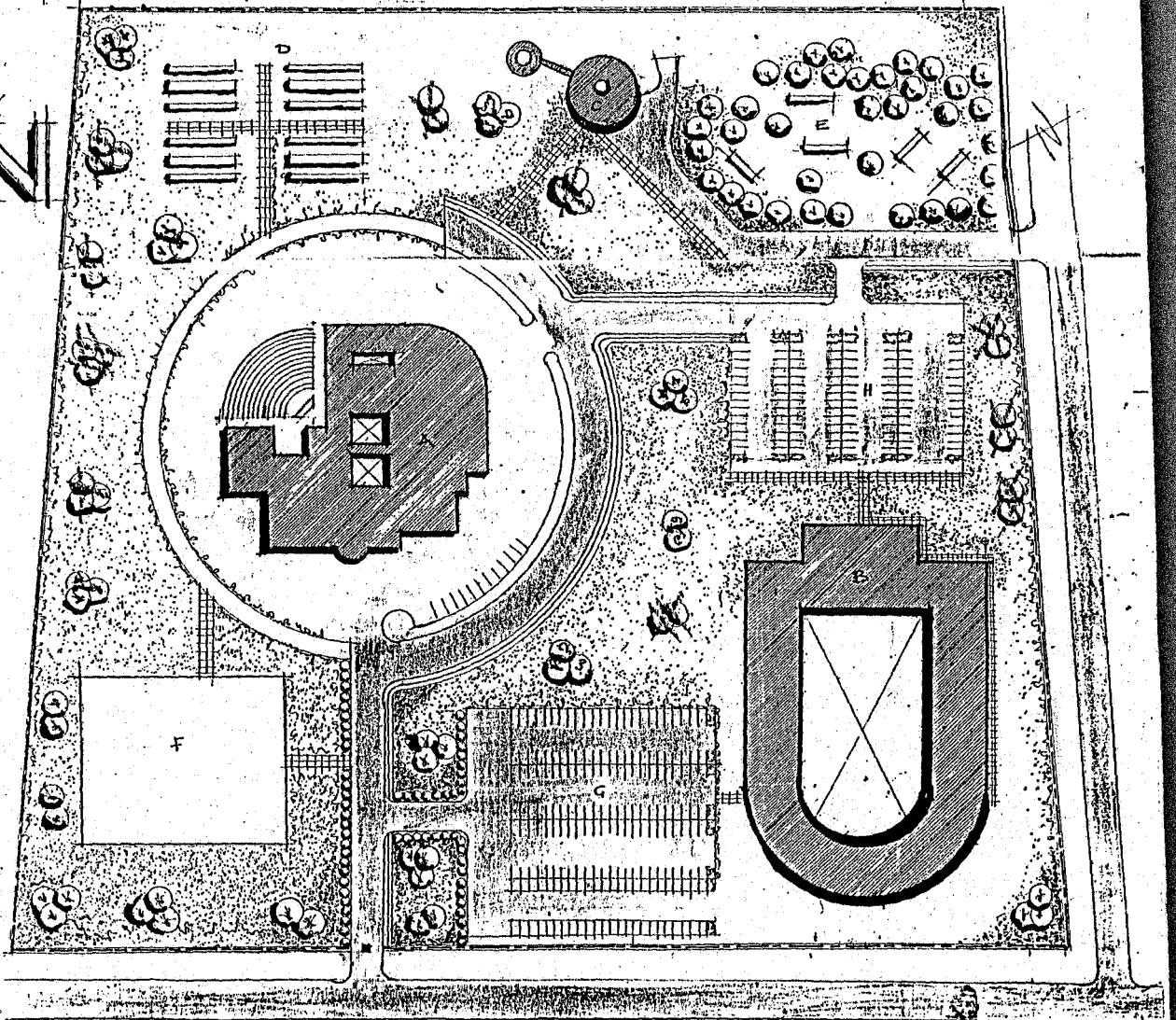
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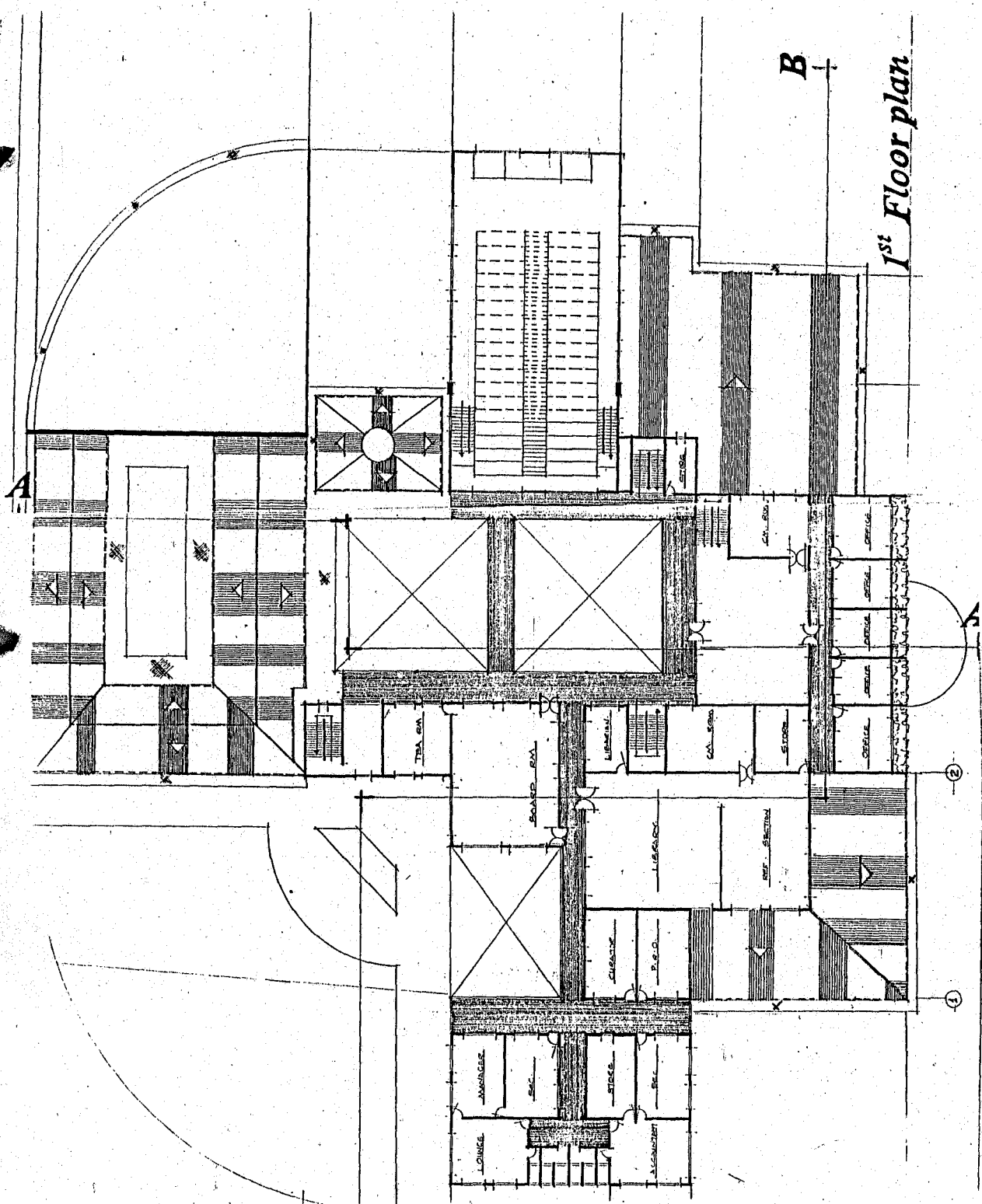
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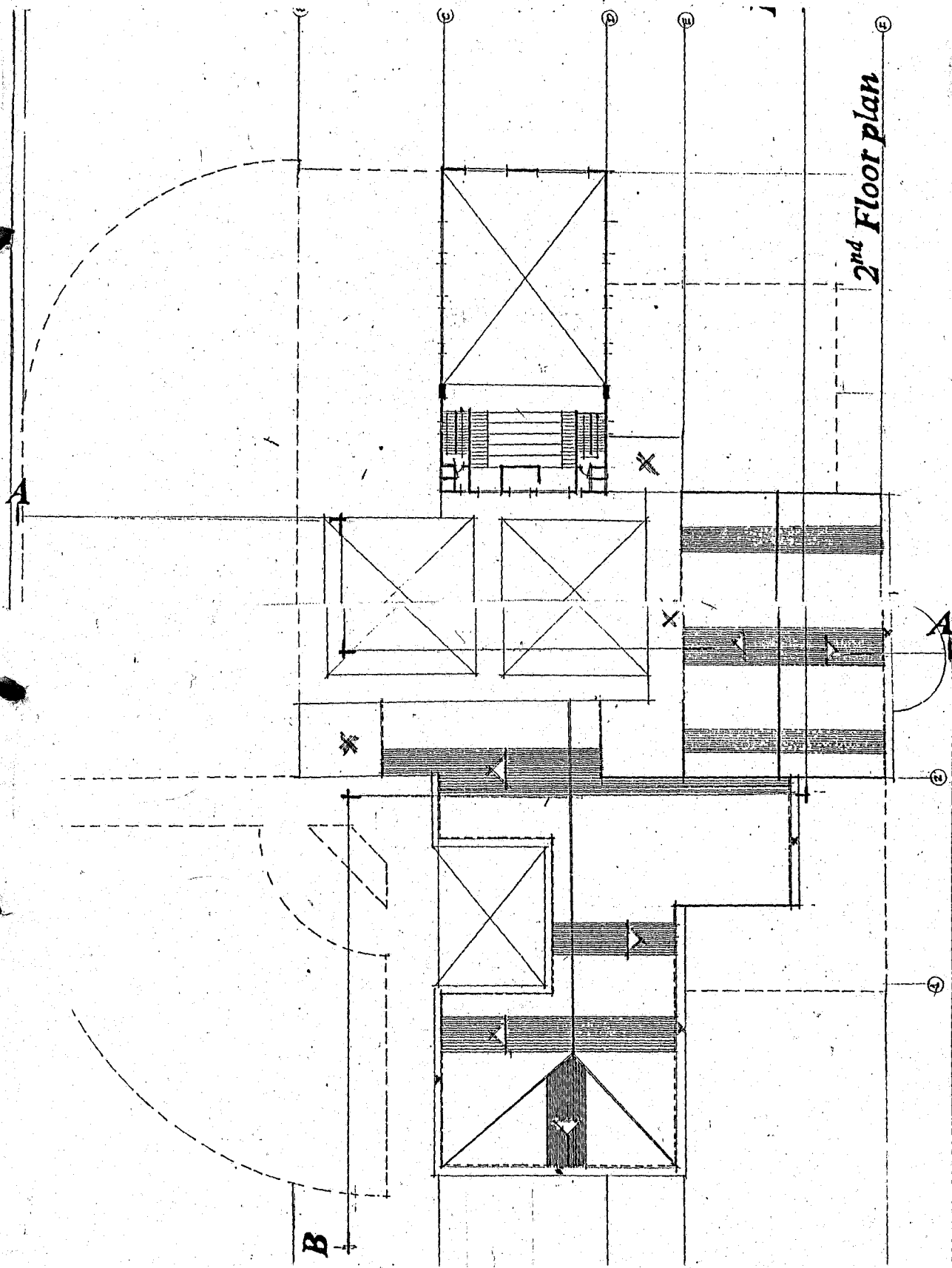
SITE PLAN

BADAGRY BEACH





1st Floor plan



2nd Floor plan

B

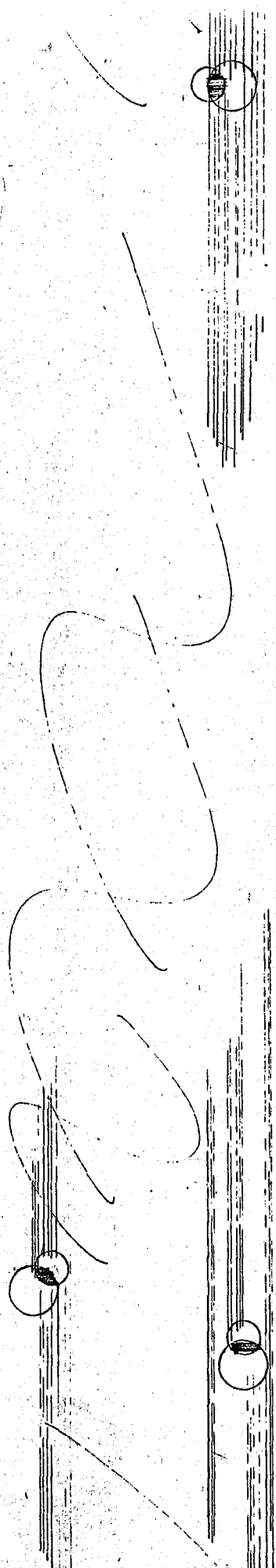
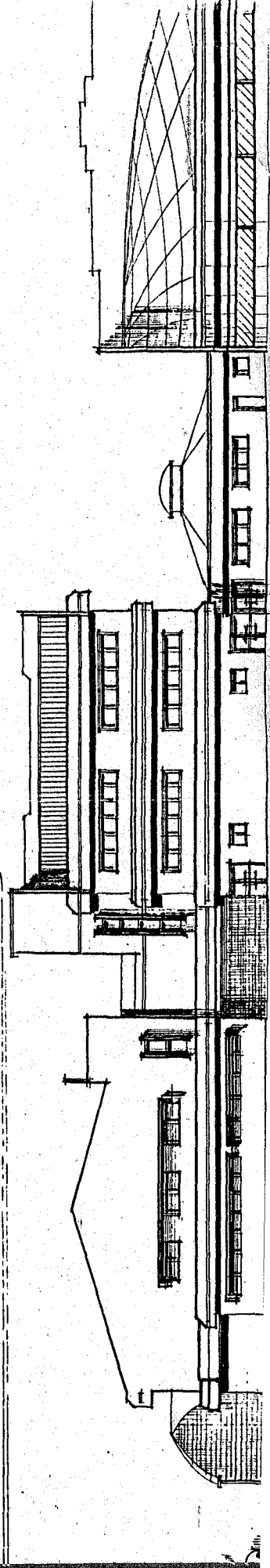
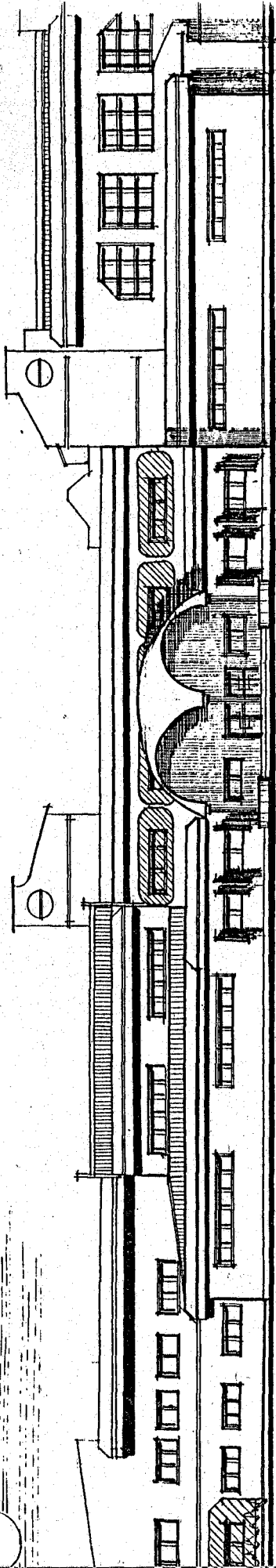
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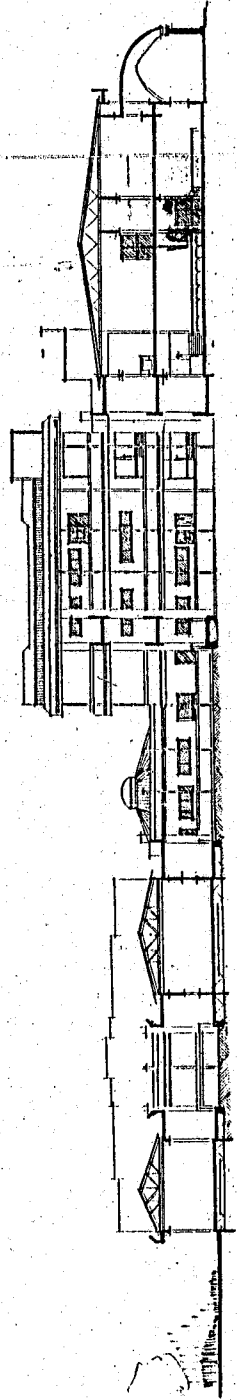
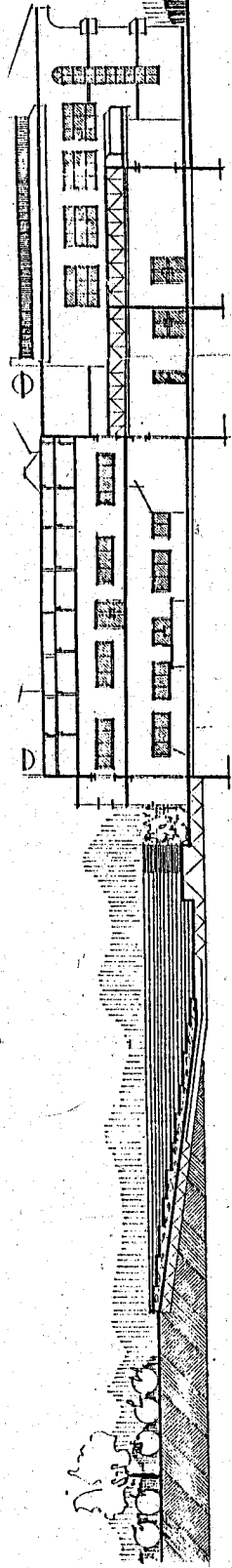
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1

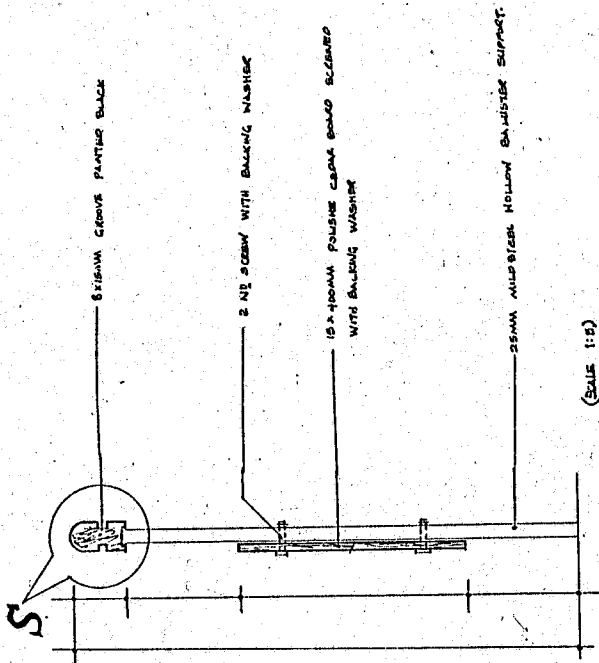
Approach



Section B-B

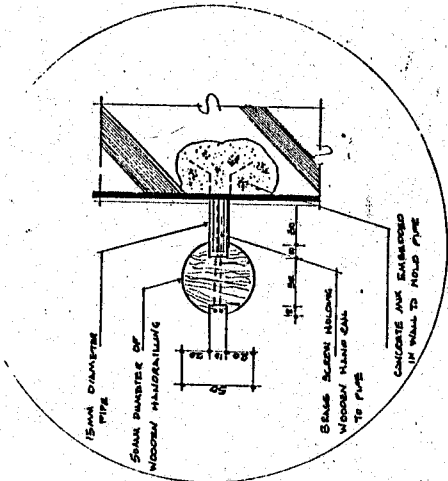






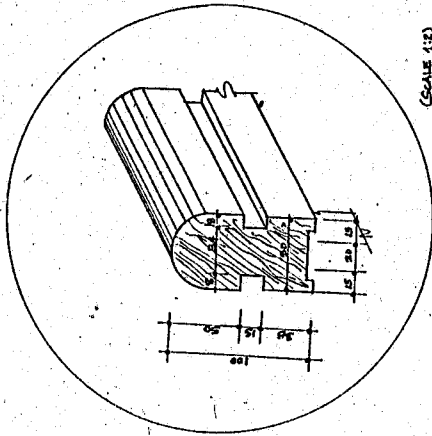
(SCALE 1:2)

SECTION THROUGH HANDRAIL



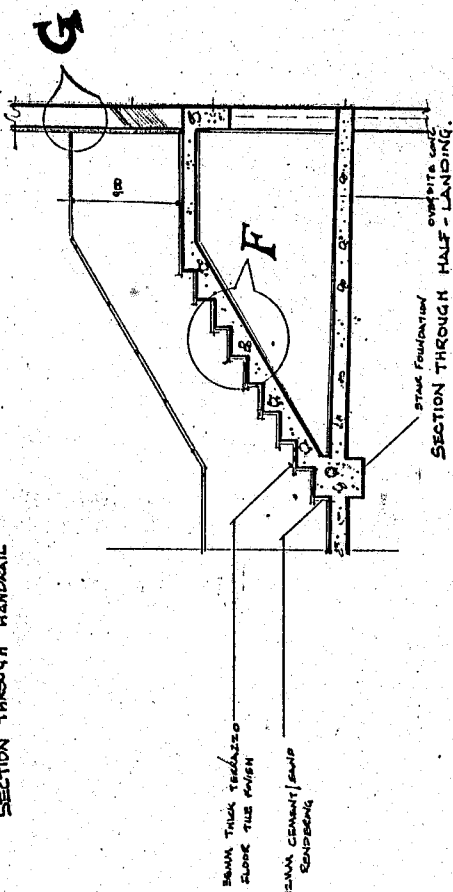
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Detail at G

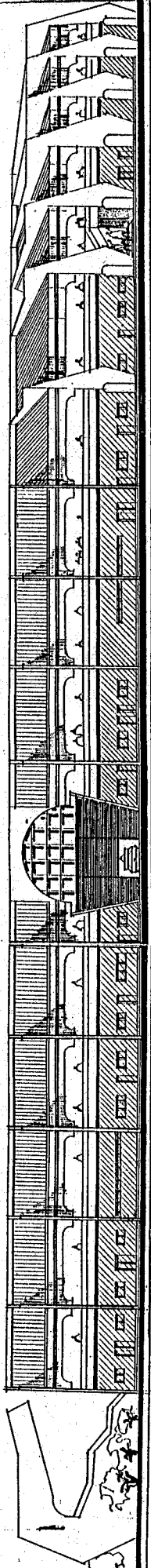


(SCALE 1:2)

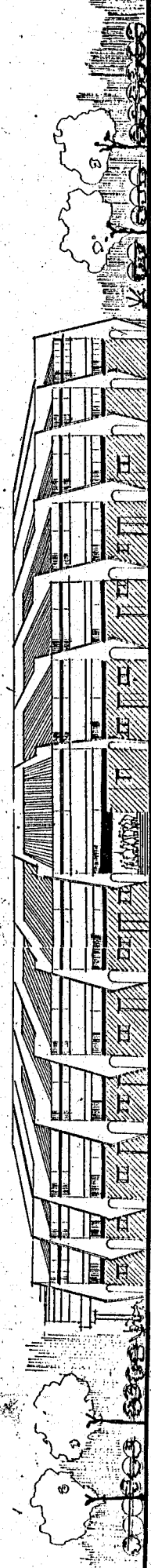
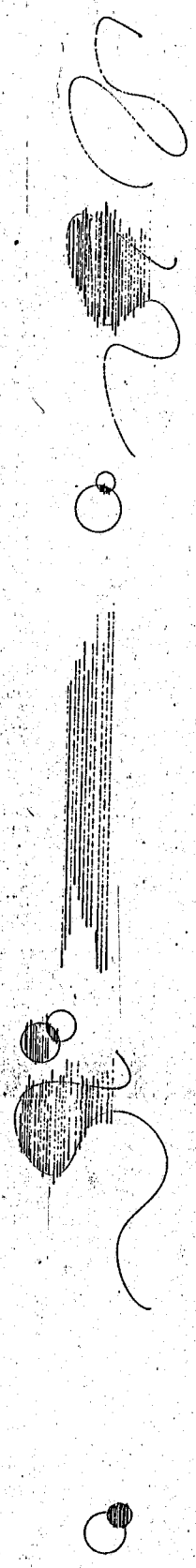
Detail at S



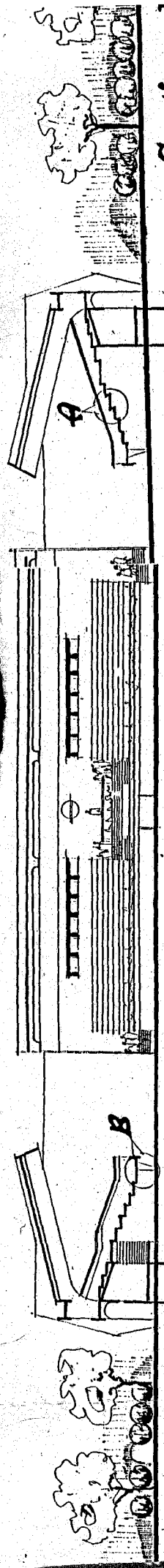
AFRICAN HERITAGE CENTRE, BADAJOZ



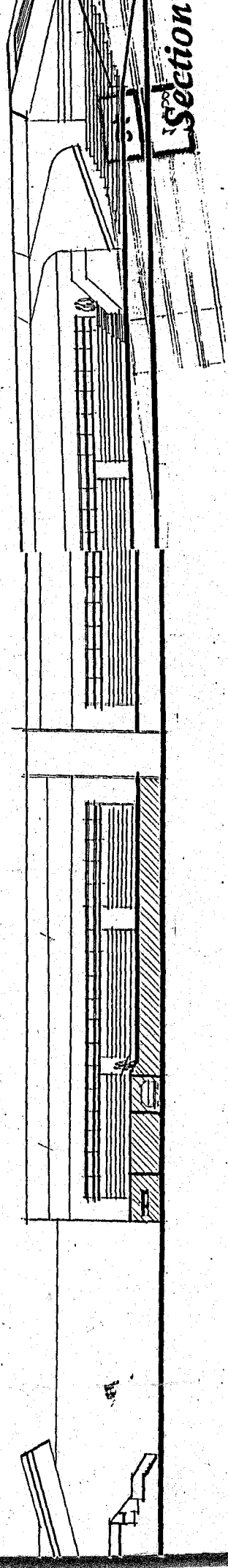
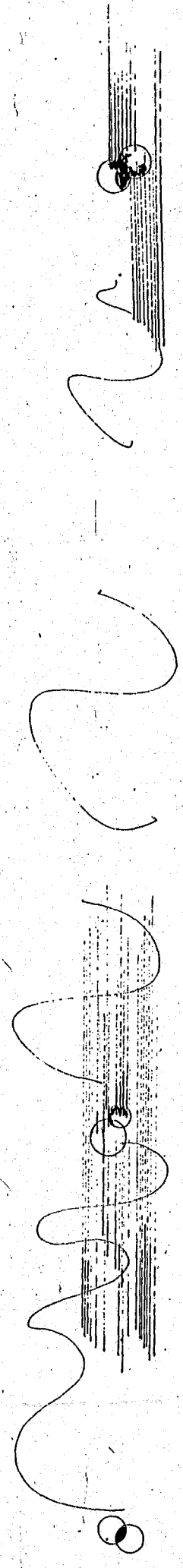
Approach Elevation



Right Side Elevation



Section 2



Section