OLUMO ROCK TOURIST DEVELOPMENT SCHEME, ABEOKUTA.

(A Blend of Architectural Design Forms with Natural Landform)

By

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A thesis submitted to the Post-graduate School, Ahmadu Bello University, Zaria in partial fulfilment of the requirements for the award of the M.Sc. degree.

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JULY, 1984.

DECLARATION

I, Oyesiku, Ibitola Omolara, do hereby solemnly declare that this dissertation is an authentic and original documentation of my research for the award of the 'Master of Science' degree of Ahmadu Bello University, Zaria; and that all references therein have been duely acknowledged.

Signed

Oyesiku, Ibitola Omolara — 30th July '84 — Date

Approval

Supervisor — 30 07 84 — Date

Head, Department of Architecture — Date

DEDICATION

To God, Margaret and Nelson for all they have done.

ACKNOWLEDGEMENTS

The compilation of this thesis would be very incomplete without giving due gratitude and thanks to those who contributed to it at one stage or another.

I am greatly indebted to my mentor, Akin Odeyemi, who was with me through and through, from the very beginning to the very end; giving good advice at times when it was needed. To him, I am very grateful. Gratitude also goes to my screening mentor, Dr. Swedtzfeger who was with me at the earliest stage. I would also not forget to mention Professor E.A. Adeyemi, my head of department and a very good critic; nor the other lecturers who took an additive interest in my work, Mr. Shim Adesina and Mr. E.Begko, the M.Sc. thesis co-ordinator, all of whom I am appreciative. I am also thankful of vital information and attention given to me by Mr. Naseer Adelu, the Tourism Officer in the Ogun State Ministry of Trade and Co-operatives - he was extremely helpful. Gratitude also goes to the Information Officer at the Japanese Embassy, Dele, Femi, Foye, Mr. Bolade Apampa, Mr. K.B. Olurin, Tunde and Dipo Odeyemi. I am most most appreciative of their help. I also acknowledge Dr. & Mrs. O.A. Smith and Dr. A. Aganga, who have been very nice throughout the course.

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Ibitola Omolara Oyesiku
17th July, 1984.

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CHAPTER ONE

INTRODUCTION

1.1 Philosophy

Ill spent leisure or absence of recreational facilities is associated with personal and social dangers that affect every one. This underlines the necessity to enhance the quality of life for urban communities by providing a wide range of opportunities for recreation.

With more leisure time, higher incomes and increased mobility, there is a growing incentive for people to search for an escape from routine, to find out about their own or other peoples environment. The result of these incentives or motivations is Tourism.

Tourism involves the movement of a large number of people, organized movement and activity (often in groups), modern transportation, recreational facilities and housing. A successful tourist industry is governed predominantly by the attitude of the people of a town, area or country in making visitors welcome, by providing them with the services and comfort of reputable standard and at the same time furnishing interests unique to the setting.

Tourism and holiday - making at local, national and international levels, either singly or in combination may constitute big business in counteries; thus bringing with it overseas capital and local currency, at the same time

increasing opportunities for local employment and the sale of local arts and crafts.

1.2. Background to Tourism

1.2.1 Travel and Tourism: It is universally known that man has always travelled. Travel has always been with us; the earliest nomads were the original travellers. Travel and tourism are almost, but not quite synonymous. Infact tourism is a relatively recent phenomenon and the word only appeared in a dictionary for the first time in 1811.

After man settled down on the land and increasingly became urbanized, travel was for the few who could afford it, or for special commercial and political (military) purposes. For many centuries travel for culture and recreation was primarily a genteal upper-class activity. Commercial travellers; merchants and landowners have also existed through much of recorded history. Explorers, soldiers and sailors, historically, have experienced a rigorous kind of travel. With the exception of group migrations a rather separate category, most people did not travel far often prior to the twentieth century.

Modern tourism, in which a very sizable minority of the population of the civilized world participates, is a product of industrial affluence and leisure which came up late in the nineteenth century. It differs from "travel" in significant quantitative and qualitative ways. Tourism involves modern transportation, housing and recreational facilities that were quite unknown before the industrial revolution. As a result of all these, it involves greater numbers of people, more generalized objectives

and more highly organised movement and activity, often in groups. One of the distinctive differences between travel and tourism is between individual and group movement.

1.2.2 Advent of the Industrial Revolution:

The arrival of industrialization in the nineteenth century produced an intensive urbanisation and a new configuration of the social class which brought a redistribution of income and a diffusion of certain models of behaviour towards the lower class. Means of transport was better and it was evident that this contributed an advantage to travels for recreational motives.

The affirmation of industrial capitalism brought transformation in touristic structure or tourist trade. In the first instance, the middle classworkers were motivated to travel out. This period witnessed the birth of the first form of touristic organisation and the establishment of reception equipment, big hotels with specific equipment and specialized personnels, which localized in major European capitals; e.g. Hotel Ritz was established in London in 1889, Rome in 1993, Paris in 1998 and Budapest in 1913. Thomas Cook organised the first recorded organised tour in England, which he later extended from Europe to America and gradually to other continents. However, modern tourism got really underway in 1936 when at the instigation of its Trade Union Representative, the International Labour Organisation (ILO) adopted the first convention that was to bolister serious movements to promote paid holidays and therefore tourism. The ILO, that year recognised the right of employees to leave with pay.

The main potential for tourism markets is made up of wage-earners and their families. The main potential for tourism markets is made up of wage earners and their families. The right to rest and free time has not only been acknowledged by foremost international bodies but it has also been enshrined in many constitutions and national legislation.

The World Tourism Conference in September 1980 in Manila, the first of its' kind, gave birth to the Manila Declaration on world tourism, which was adopted by 107 states and 91 delegation formally recognizes the right of every citizen in be world to holidays and emphasizes the eminently social, cultural and political motivations that states must respect to facilitate to holidays. The recognition of the right to leave without pay is certainly a mainstay of the Manila Declaration and even goes further in its intention that t this right should not only be recognised but also assigned the same priority as the right to work. World tourism Day was declared as the 27th September every year.

1.3 Tourism in Nigeria

1.3.1 Tourism Development in Nigeria: It has been depressingly slow and has taken nearly fifteen years for tourism to make any impact. During this period it was mainly the efforts of the private sector in the travel trade with only nominal support from the Government. In 1971, the government commissioned the African Development Bank to conduct a survey to determine whether Nigeria had tourist potentials. The report was not particularly encouraging but concluded that the main inhibiting factors against tourism development was the lack of an effective administration and inadequate infrastructure. In 1976, there, the Federal Military Government Promulgated the

Nigerian Tourist Board Decree No. 54 and the Board was inaugurated on the 15 September, 1978. The decree has provided clearout guidelines to development and has also given a wide range of operational possibilities for those involved in tourism both at national and state levels. One of the main functions of the board is to encourage Nigerians to take their holiday in the country. The Nigerian Constitution recognises tourism as one of her economic activities, which is a fundamental right of any Nigerian citizen to embark on without molestation or harassment.

1.3.2 Tourist Spots in Nigeria: Apart from agricultural and petroleum resources, there lies yet untapped a vast resource in the field of tourism on which many countries both in developed and developing worlds, form the bedrock of economic development, growth and sustenance.

With several game parks, a couple of warm springs, lakes, scenic landscape (in Plateau areas), a large reservoir of historical festivals, cultrial landmarks and numerous traditional festivals the country is a definite tourist destination (when even the mangrove swamps in Trinidad and Tobago is a tourist attraction for fishing and bird-shooting) if only the consciousness of these available resources can be aroused in our peoples and the world at large. Existing Tourist Spots are shown in Map 1.1.

1.3.3 Nigerians and Tourism: Nigerians are great travellers, they travel daily and widely, both locally and internationally. Infact, more internationally than any country in Africa. The unfortunate aspect is that their objectives are more often than not contrary to tourism.

Few Nigerians on holiday abroad engage themselves in activities expected of tourists.

Tourist Spots in Nigeria



Map 1.1.

or holiday-makers, who are supposed to relax, rewind from routine, visit attractions and go sight seeing. Rather, they go on marathon shopping expeditions, returning home tired, unrefrashed and unrested, only to resume official duties and studies.

Within the country also, Nigerians travel out of their working stations at weekends, in large numbers to attend funerals, chieftancy and wedding ceremonies, anniversaries, house warming parties, one ocassion or the other.

Given the fact that Nigerians are not tourist orientated, the home base - federal and state governments are meeting the challenge. Both levels are undertaking positive steps towards the development of the tourist industry, assured of the fact that Nigerians will be eventually geared towards the tourist sights within the country.

1.3.4 The Need for Tourism Development in Nigeria

Nigeria is a very vast country with a population of 65 million people (1963 census) comprising of more than 250 ethnic groups, with varied cultures and tradition. Wide deviations exist in religious beliefs and social behaviour. In view of these differences, there is a vital need to encourage tourism development to help in diffusing information and in influencing attitudes within and without. Development of the tourist industry will directly or indirectly provide benefits for Nigerians, who

stand to gain both socially and economically by the prescence of international tourists (tourists from outside the country), who will create a demand for local goods and services.

This will all add to national prosperity and as facilities within the country are improved more domestic tourists (Nigerians and Expatriates living within)will be encouraged to visit other parts of the country other than which they live in.

CHAPTER TWO

The Site & Its Forces

2.1 Location

The site is situated in Abeokuta, capital of Ogun State, located on 7.10'N and $3^{0}20'E$. Abeokuta lies in the South West Basin of the country and is about 100 kilometres from Lagos, the capital city. To the north some 70 kilometers away is Ibadan, capital city of Oyo State and largest city in West and Central Africa. Abeokuta has an urban population of about a quarter of a million.

The town is set amidst a group of granitic rocks of pre-cambrian undifferentiated basement complex, the central, highest and most famous being the Olumo Rock, rising to a height of 137 meters above sea level. "Abeokuta" which means 'under the rock' derives its name from this natural monumental relic. Here, at the base of the Olumo is the site, off Alatishe Street between Ikija and Ikereku neighbourhoods.

Location map shown in Fig. 2.1

2.2 Historic Significance of Site

The Olumo Rock is sacred in the history of Abeokuta, as the place which offered the earliest settlers protection from inveding

Abeokuta in Nigeria



Fig 2.1.

marauders, guarantoeing them relative peace.

After the conquest of owu in the bloody owu war of 1821, the rock became the rallying point for the re-grouping of the Egba, who fled from their original home in rain forests to look for refuge. The first Egba to live in the caves under the rock gave it no name, neither did the three brothers Jibulu, Oso and Olunle who joined him later. They regarded the rock as no more than 'Apata Nla' (a huge rock). 'Olumo', its integretation 'Oluwa fi mo' meaning 'God has put an end to it '(our wanderings) was the name given to the rock when the main group of refugees had arrived; By the year 1930, the main body of the Egbas had already settled at the present site. They gave the name, Abeokuta to the town which sprung up around Olumo, literally meaning 'the Lord built it'. This is probably from the fact that the rock interior is made up of of caves. From be top of the rock it can be appreciated that Olumo was a perfect bulwark against external invasion. Since that time onwards the Egbas have regarded Olumo rock as their protective shrine and make annual sacrifices to its deity.

The oracular faith of the Egbas in the rock is attributed to some metaphysical predictions which assured them of their safety under Olumo's protection. On their arrival they found in it, evidence of the fulfilment of that prediction. Today the Egbas show their pride in origin by adopting an anthem in cognisance of the rock - 'I shall rejoice on the Olumo'.

Olumo Rock features so prominently in the life of the Egba that no programme of the town's celebration is regarded as complete without it being proceeded by the booming of guns by traditional hunters from the Ruck top.

This is inclusive of the New Yam festival. Another salient feature of the rock is the yearly worship of "Orisa Igun" (God of longevity) by women, lasting 30 days. During this worship, sacrifices are made to 'Orisa Igun' by the offerance of goats, rams and some other animals.

Many mystical tales are told of the rock. It was said that an attempt was once made to blast the rock, by foreigners (whiteman), searching for precious minerals. The rock surface split some metres away from the drilled spot, pus and blood gushing out. They were taken to the Alake of Egbaland the natural ruler and were sacrificed to 'Orisa Igun'. The drilled spot was cemented up and bears a surves mark AT3 on it. It has also been claimed that the removal of the Holy Trinity Church, Ikereku from its location near the foot of the rock was as a result of incessant molestation of the place by all sorts of imps and spirits from the rock.

A century later, in 1930, when Oba Ademola II entertained prominent Egbas in the famous 'Lisabi Feast of Unity and Co-operation', he rededicated the rock once more as a monument of faith, perseverance and patriotism.

2.3 Physiography

Topography: Generally, Abeokuta has a hilly terrain dotted with several inselbergs, rising to an average of about 100 m above level. The terrain is broken by the major river, river Ogun flowing in a southerly direction. The river Oyan, its largest tributary is perennial whilst the smaller ones are mostly seasonal. The river is characterised by small and medium sized rocks in its bed. The site slopes aways from the rock base on all sides and towards the road on the west, thereby eliminating the

formation of stagnant pools of water.

Geology and Soil: The geology of the area falls into the Pre-Cambrian undifferentiated basement complex belt. The formation dates back as fare as 600 to 3,500 million years ago. This Belt is dormant and very stable. The rock is granitic and has an iron-cap surface that is resistant to weathering. The lateritic soil type exists here. Being light and wet, the soil reflects more heat than darker soils and is not too sensitive to temperature changes. It warms up and cools down over a period of time.

Vegetation: As this is basically a forest region, occuring in the relic rain forest in derived Guinea Savannah Belt, thick foliage in different layers prevents most of the radiation from penetrating. This results in cool pockets of air existing below tree canopies. Parts of the rock surface are covered by thick weeds. The northern part of the site is composed of bunched trees and weeds growing amongst boulders. This also occurs to the south of the rock base.

Vegetation and Geology shown in Fig. 2.2

2.4 Climatology

Rainfall: In these parts convectional rainfall is the main type, but interruptions by inselbergs at times give rise to relief or orographic rain (shown in Fig. 2.2) Rainfall is very heavy with two maxima occuring in June and October. Total annual rainfall is 1625 mm. As rainfall is very heavy and falls at an angle (because of strong winds), design for immediate drainage of rainwater is of utmost importance. Also, it will be necessary to design against driving rain to avoid rapid weathering of building materials. Rainfall histogram shown in fig. 2.3.

Temperature: Mean monthly temperatures are relatively high. A maxima of $27.7^{0}C$ occurs in

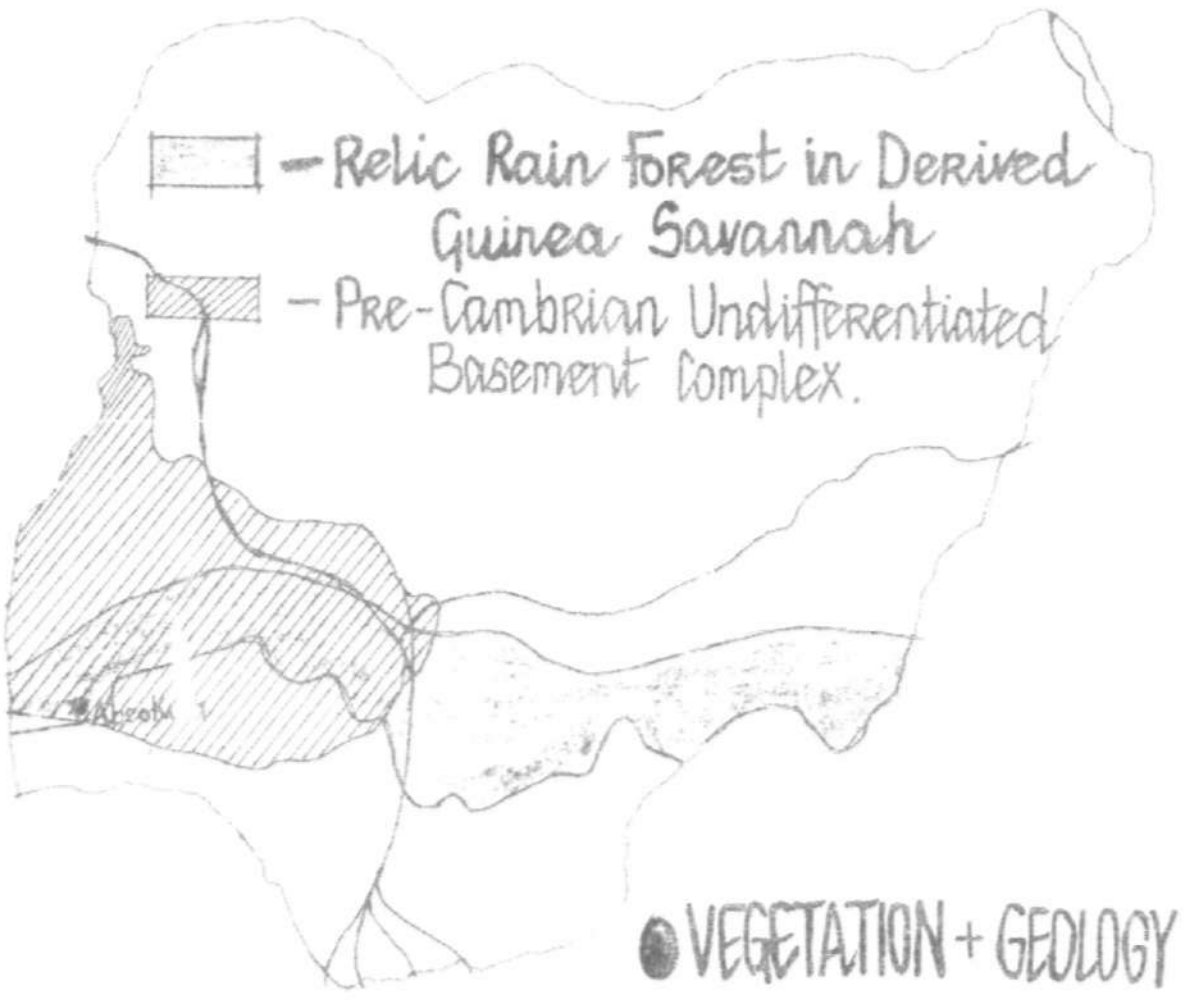
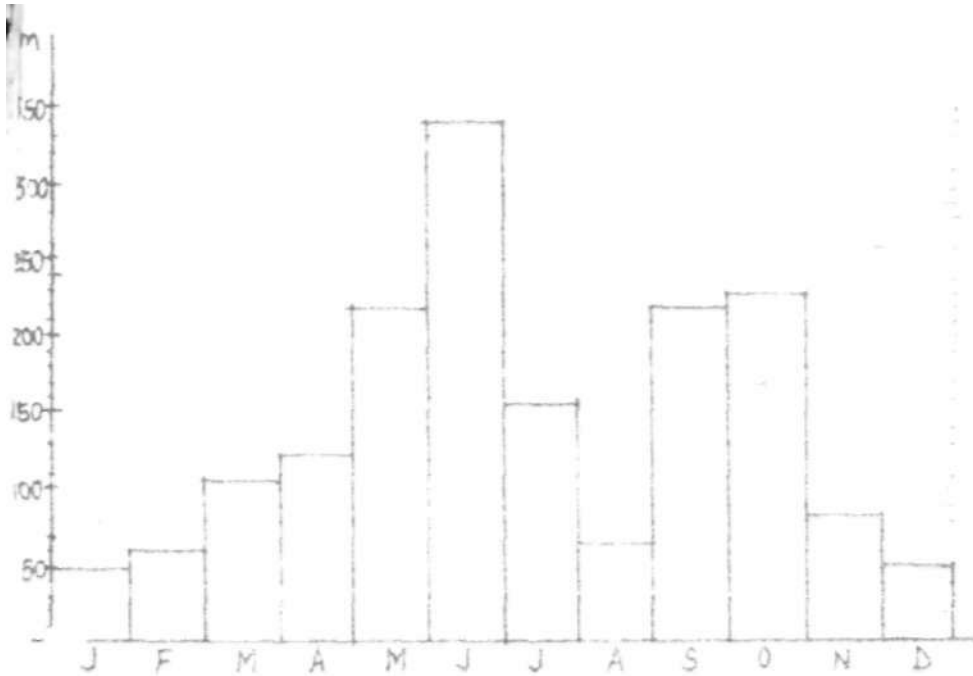

- Relic Rain Forest in Derived Guinea Savannah
- Pre-Cambrian Undifferentiated Basement Complex.
VEGETATION + GEOLOGY

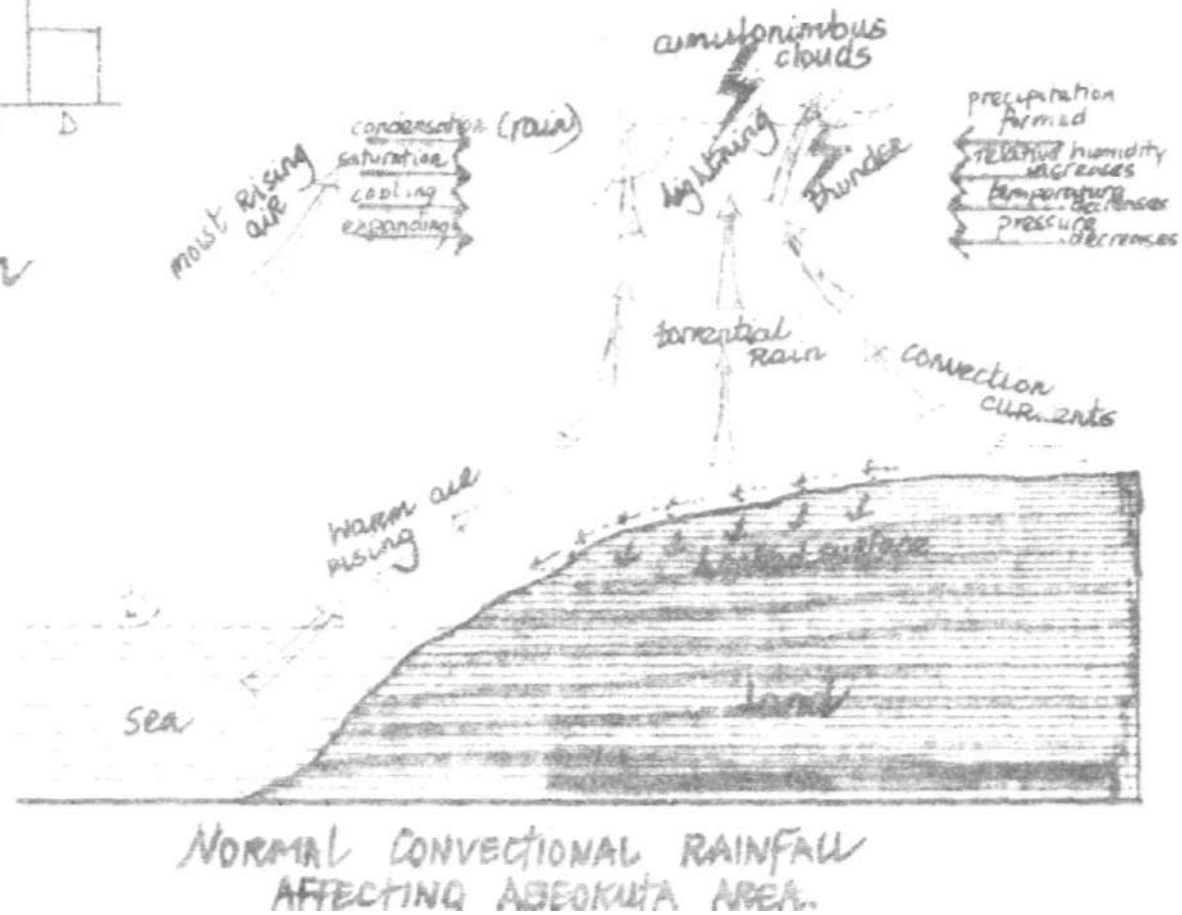
Fig 2.2.

RAINFALL



- Two Maxima - heavy rains
- Total annual rainfall = 1625mm

Fig 2.3(i)



NORMAL CONVECTIONAL RAINFALL AFFECTING ABEOKUTA AREA.

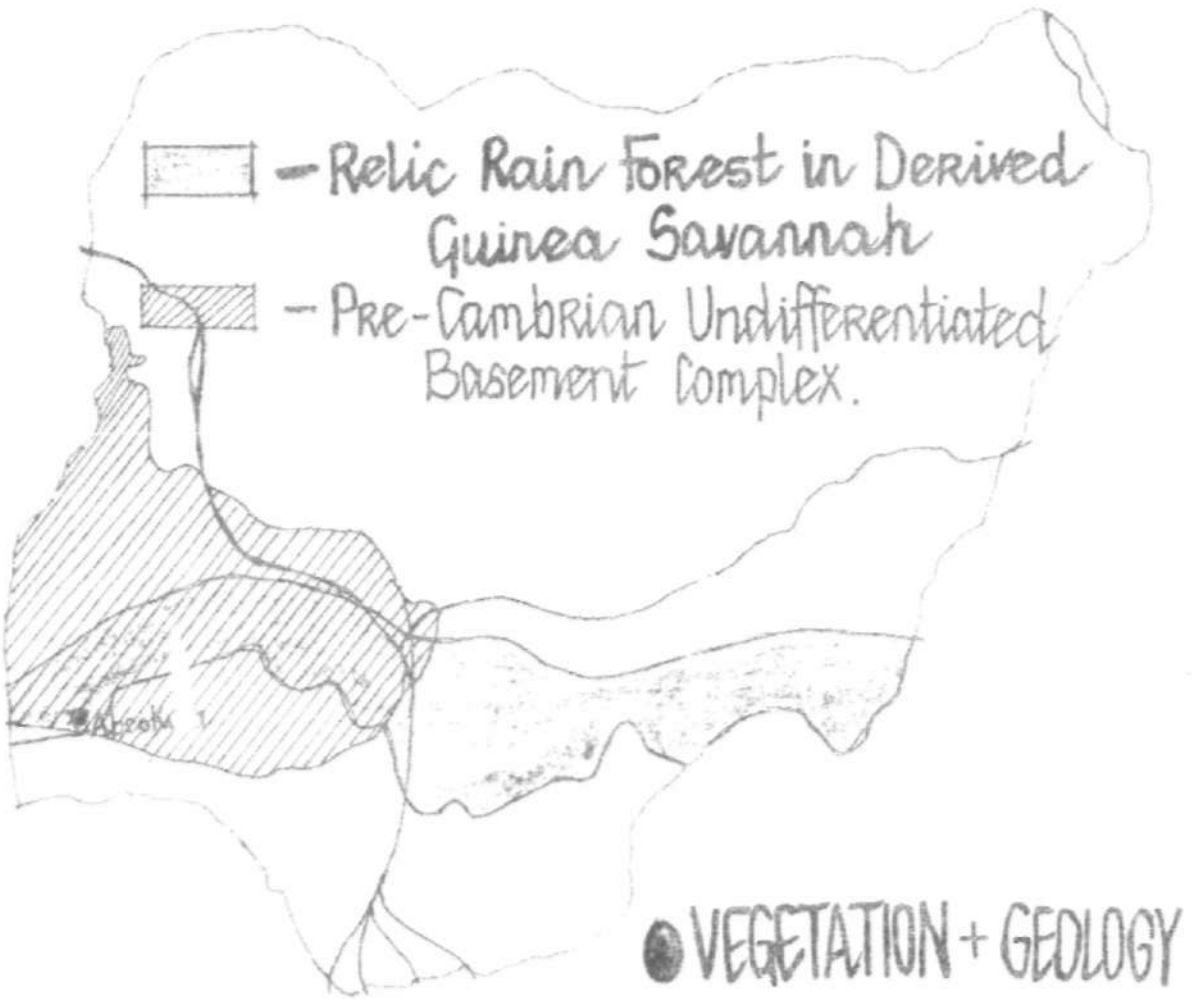
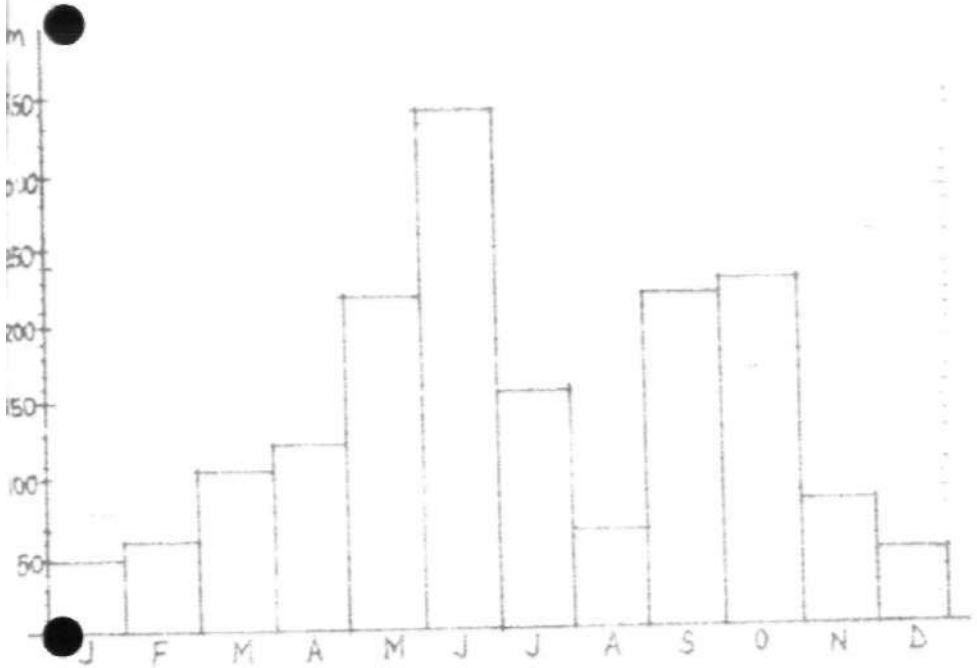

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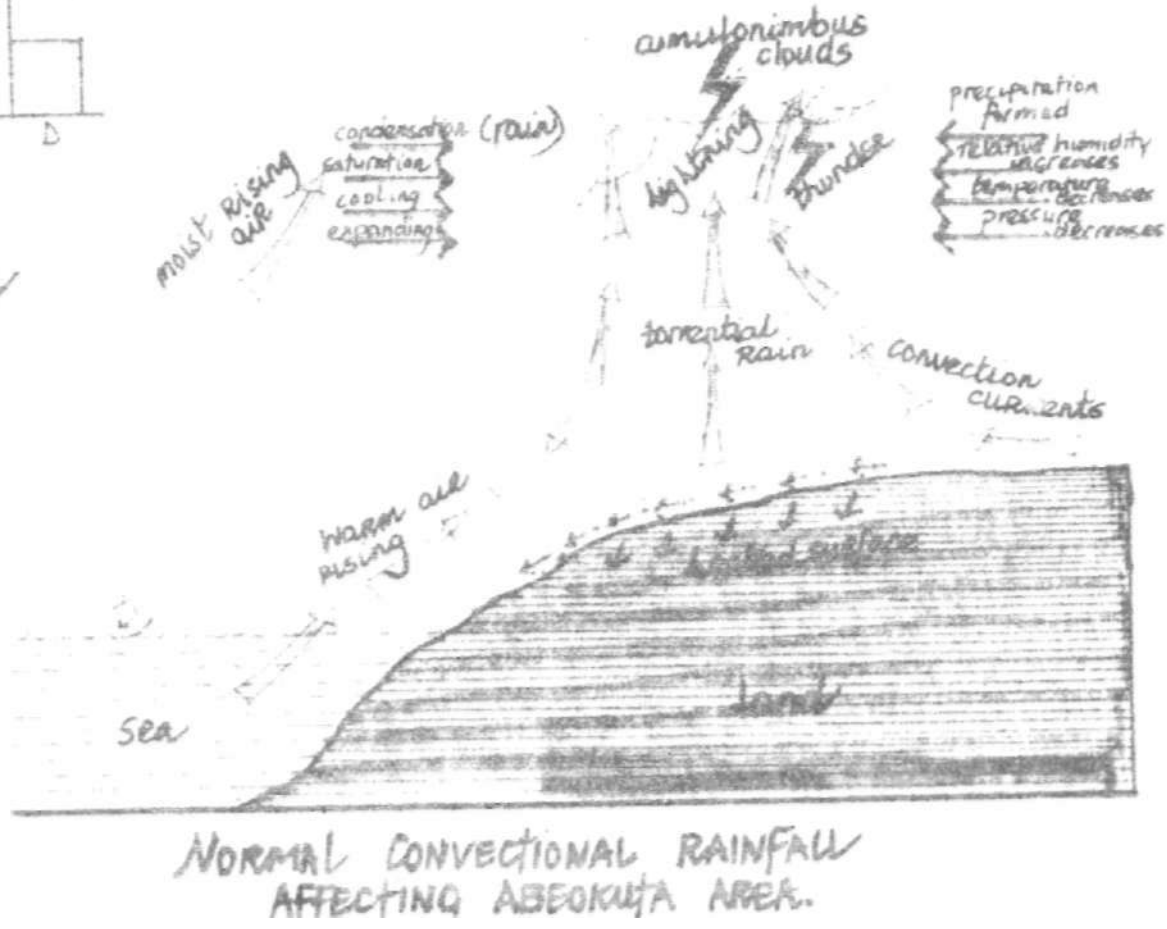
Fig 2.2.

RAINFALL

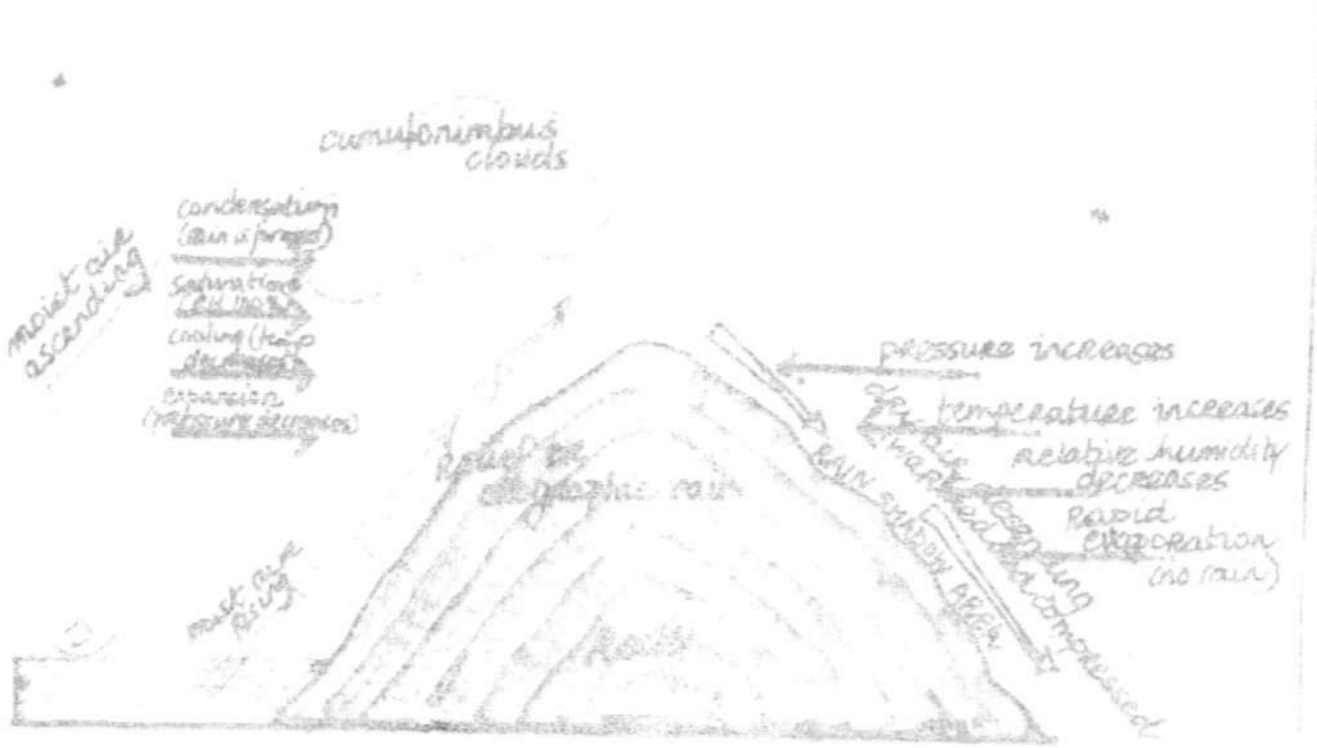


- Two Maxima – heavy rains
- Total annual rainfall = 1625mm

Fig 2.3(i)



NORMAL CONVECTIONAL RAINFALL AFFECTING ABEOKUTA AREA.



OROGRAPHIC RAINFALL CAUSED BY RELIEF OF THE LAND.

Fig 2.3(ii)

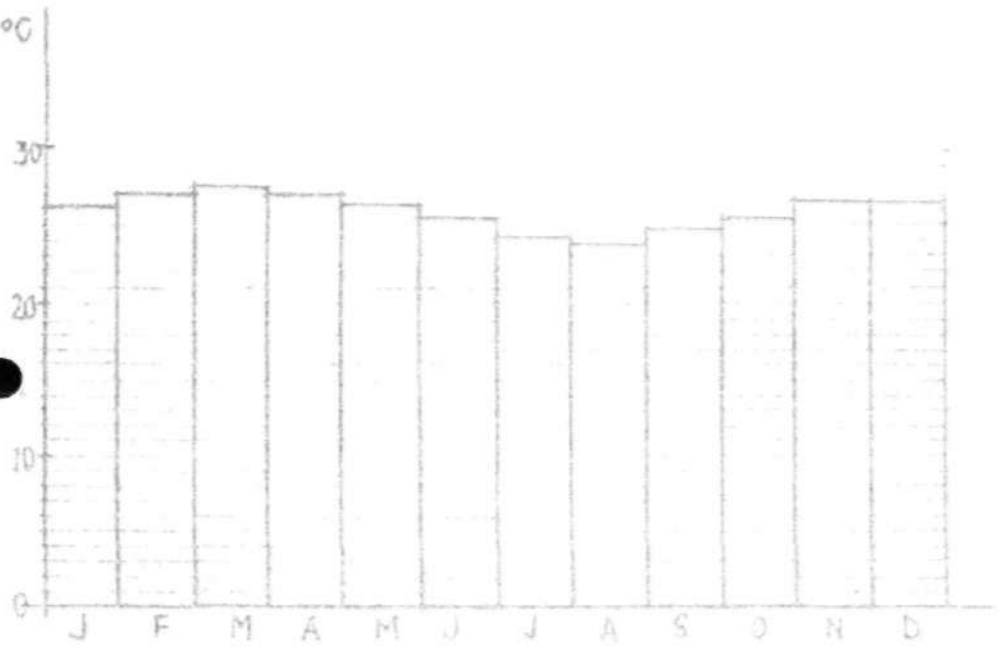
March with an average annual temperature of 26.2°C. Diurnal range of temperature is marginal because of the cloud cover and wet soil which warms up and cools down slowly. High temperatures are not desirable and cause discomfort, the design should aim at achieving air movement within and between buildings to promote cooling. Temperature Histogram (Fig. 2.4).

Relative Humidity; This is directly related to temperature, as temperature influences the actual amount of water vapour present in the air and thus dictates the moisture - carrying capacity of the air. Relative humidities are high with an average annual figure of 85%, the lowest figure recorded in March corresponding to the highest temperature. As discussed earlier air movement needs to be created to decrease the degree of discomfort. Building materials should have low absorbent co-efficients or should be designed to reduce absorbent rate. Fig. 2.5 shows Relative Humidities.

Atmospheric Pressure: The average annual atmospheric pressure is 11.7 mb. This has a lot to do with winds. The south westerlies blow toward low pressure areas resulting in heavy rainfall. Increase in altitude is accompanied with a corressponding decrease in pressure and so stronger wind bracing would be necessary. Fig. 2.6 shows Atmospheric Pressures.

Wind: Two major winds dominate - the south-west and north-east trades. Out of these two the south-westerlies predominate. They are moisture laden and are accompanied by heavy rainfall. from March to October. The north-east trades b/w November - February do not feature as strongly. However, they are dust laden and during this period temperatures drop (due to considerable loss of heat by radiation from the earth) to dew point giving rise to

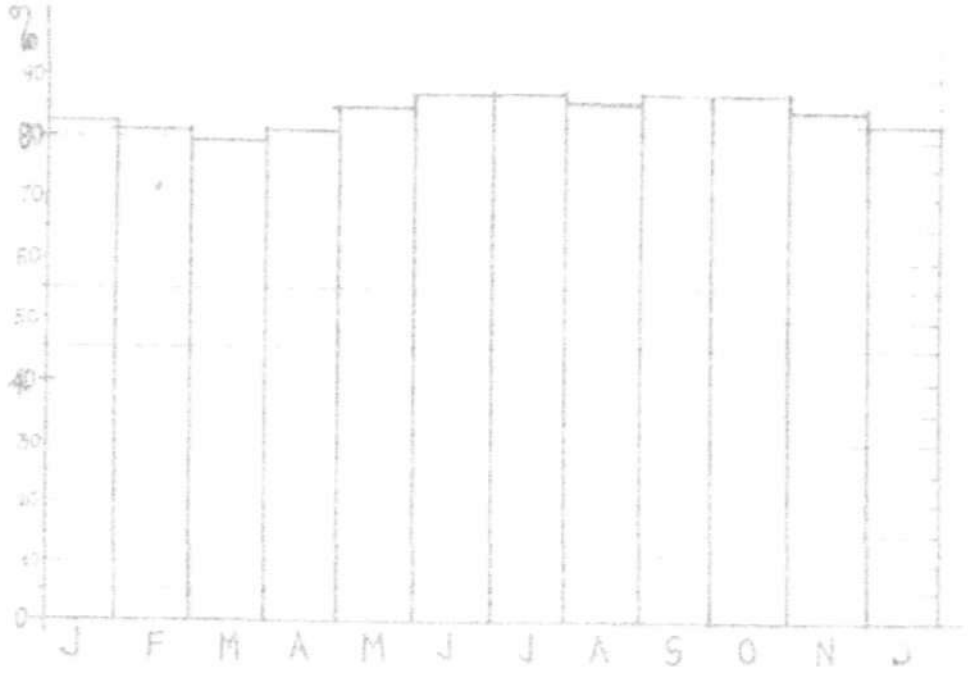
TEMPERATURE



- Mean monthly temps. are relatively high.
- Maxima of 27·7°C in March.
- Average annual temp. is 26·2°C.

Fig 2.4

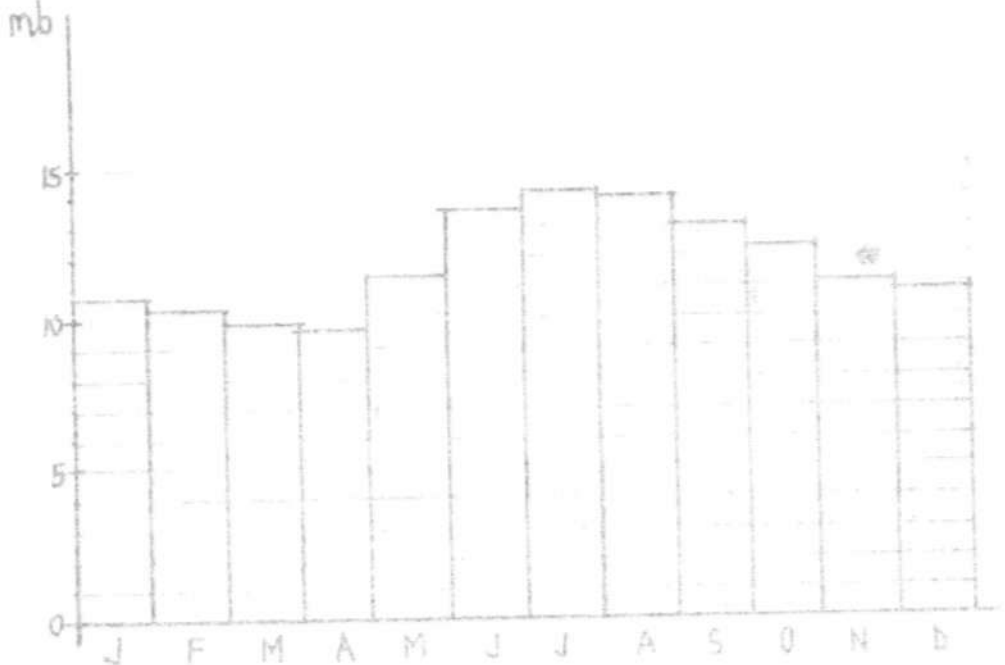
RELATIVE HUMIDITY



- High relative humidities
- Average annual figure of 85%

Fig 2.5

ATMOSPHERIC PRESSURE



— Average annual atmospheric pressure is 11.7mb

Fig 2.6

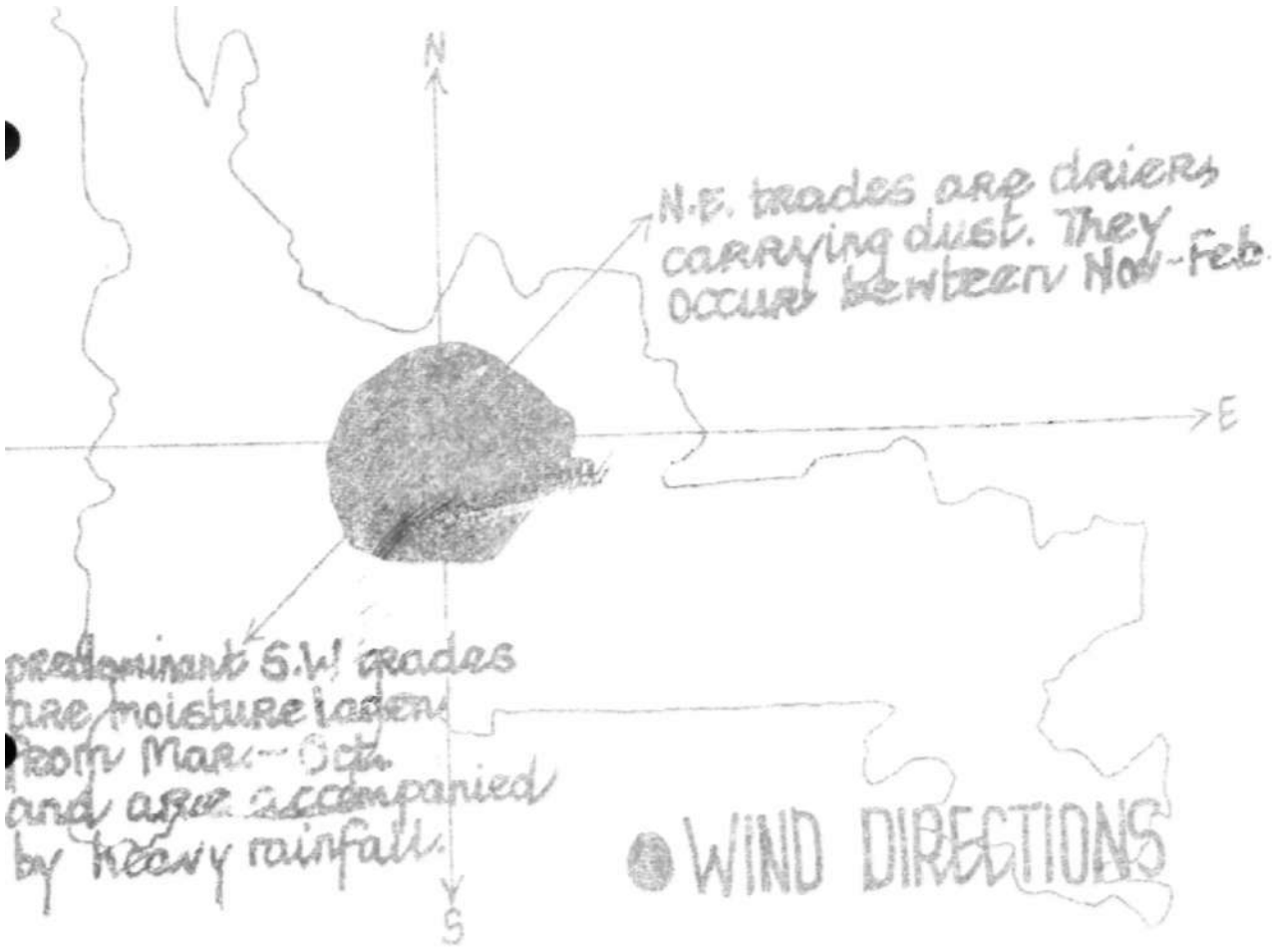
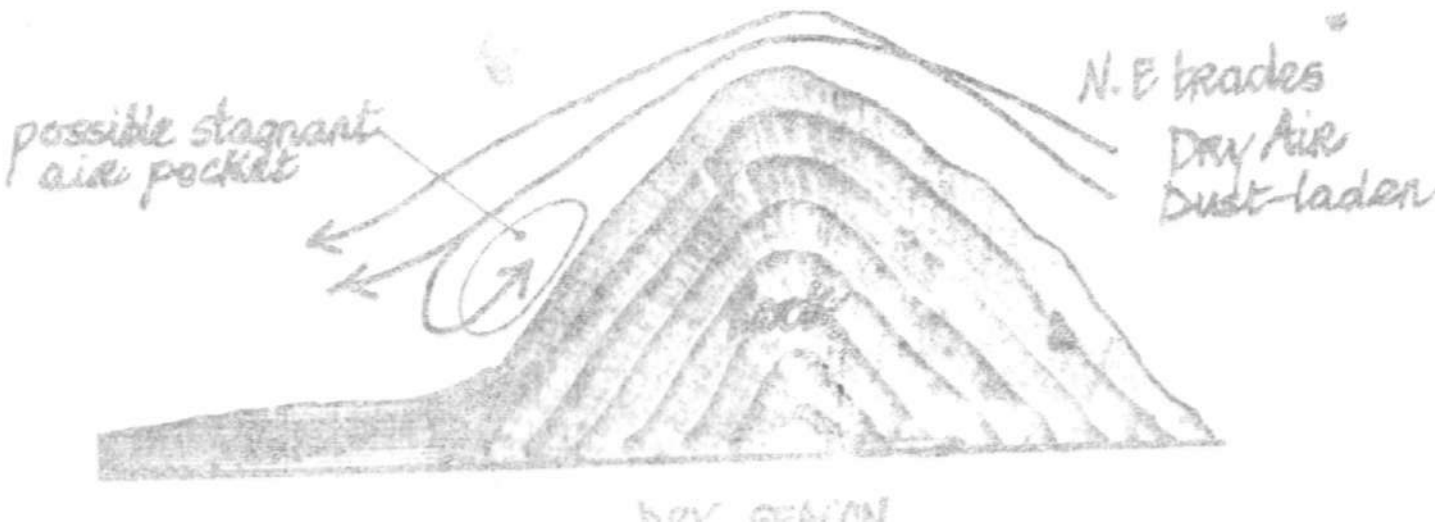

N
E
S
N.E. trades are driers carrying dust. They occur between Nov-Feb.
predominant S.W trades are moisture laden from Mar-Oct. and are accompanied by heavy rainfall.
WIND DIRECTIONS

Fig 2.7.


possible stagnant air pocket
N.E trades
Dry Air
Dust-laden

early morning mist or fog. In addition dust particles reduce visibility. With increased daylight, renewed isolation clears the fog, although dust particles continue to float in the air, settling in a thinfilm over objects. The north-east trades at times cause possible stagnant air pockets after descending slopes. (Fig. 2.7).

2.5 Infrastructure

2.5.1 Transport Network

Air: The town as at present is not connected to other parts of the country by air. However, in the masterplan, provision is made for an airport.

Road: Abeokuta is connected by Federal highways to neighboring towns e.g Lagos and Ibadan. There are motorable roads leading to the city which is accessible from the Itoku - Igbora Road. Taxis ply the town at costs ranging from 20k to 30k.

Rail: The national national network of the Nigerian Railway coporation connects Abeokuta to other capitals via many small towns.

2.5.2 Services

Water Supply: Abeokuta has pipe borne water carried to all parts of the town by the state water corporation water on the site need only be tapped from the mains.

Electriticy: The whole town is electrified by cables running to all parts. Presently Olumo rock site is lit up by floodlights.

Sewage Disposal: There is no proper sewage disposal on the site or its environs. Neighbouring inhabitants still engage in pit-holes and the like. Sewage disposal however exists in other areas of the town.

CHAPTER THREE

SITE - A DESCRIPTIVE STUDY

3.2 Existing Site

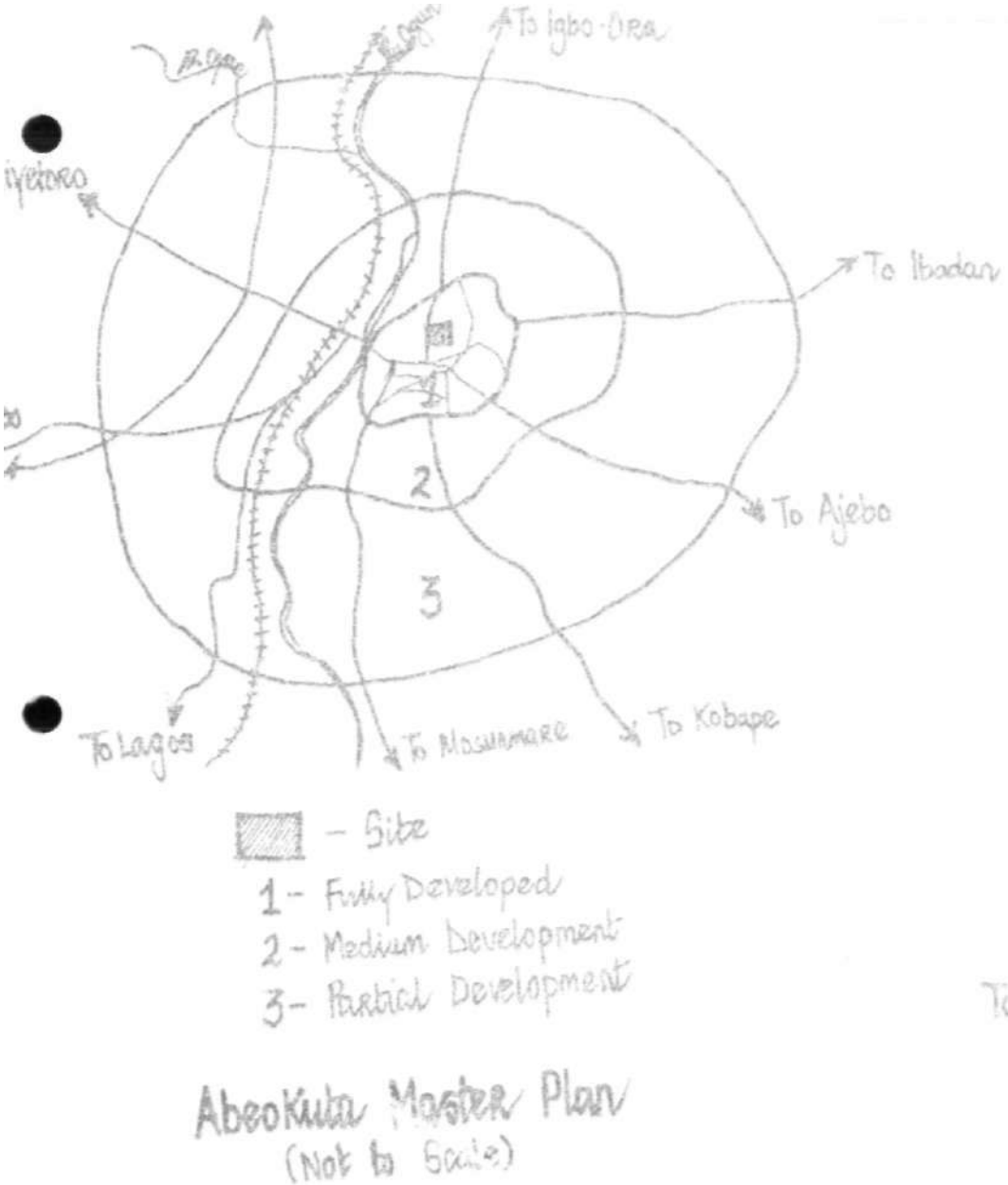
3.1.1 Access: The Olumo Rock Site is at present approached from the southern route. The most popular access is from Sapon, past Itoku market, via the cenotaph (dedicated to Egba warriors - Alatishe, Lisabi, Sodeke...), onto the Igbo - Ora Road (See map 3.1, refer to map 2.1). The narrow Olumo have, off this road (named Alatishe street) leads up to iron gates, breaking a concrete wall fence which bounds the site.

3.1.2 Enviromental Condition: Adjacent areas to the rock site are densely built up and predominantly in residential use with much commercial activity occuring in front and within the houses. The rock environs are not in good sanitary conditions. Domestic refuse, both human and household are strewn over some parts. The odour emanating from the decay of this refuse is offensive to the nose whilst the actual dumping itself, constitutes an eye-sore. Refuse is burnt, with thick dark smoke pouring into the atmosphere creating atmospheric pollution. Residents urinate and excrete openly in broad daylight without inhibition. Most of the houses are built in mud and lack toilet or drainage facilities.

3.1.3 Facilities for Tourists:

Car Parking: A relatively level space at the rock base has been provided for car packing. It parks only ten to fifteen cars at any one time.

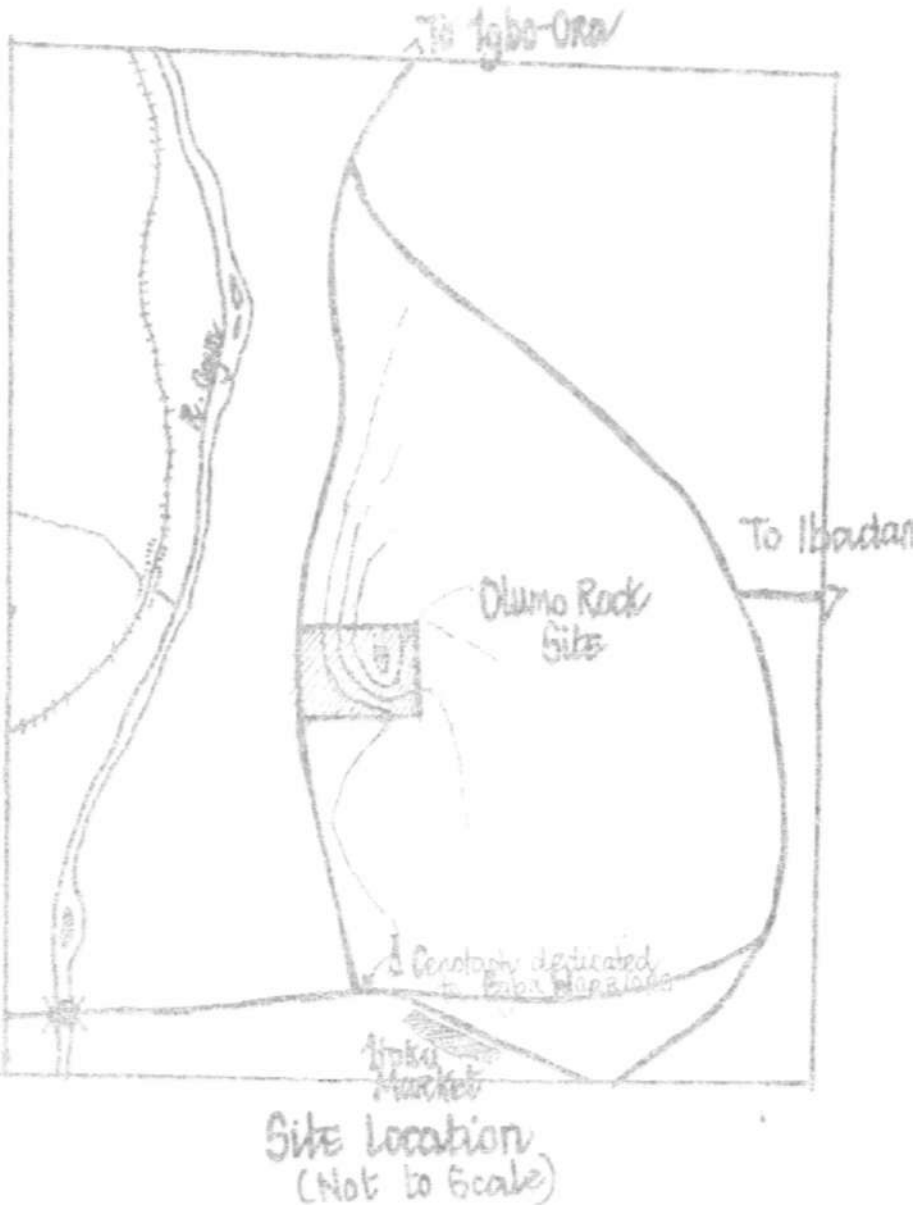
Catering Facilities: This aspect is practically non-existent. There is no reception where tourists can be received or lounge where they can relax.



▨ – Site

1 – Fully Developed
2 – Medium Development
3 – Partial Development

Abeokuta Master Plan
(Not to Scale)



Site Location
(Not to Scale)

Fig 3.1

A wooden shack at the foot of the rock, supposed to serve as a canteen/bar does not function. However, some women in the neighbourhood sell cold drinks (in coolers) to thirsty and tired climbers. There are a few park benches provided where tourists can sit. /The Rock Lander Hotel (Private - Owned) in the neighbourhood offers Catering and Boarding./.

Climbing Facilities: Series of steps have been integrated with the rock from base level to facilitate easy access up the rock. Fencing, both in metal and concrete have been put up in certain areas to guide and protect climbers. Also available are guides who pilot tourists through some difficult parts.

Caves & Shrine Yard: In the eastern part of the rock mass exist some caves. Some of them are partitioned with non-structural mud walls to form chambers. There are three main caves.

One measuring about 7.5m long and 6m wide, has slab - like stores which might have served as seats used by warriors during meetings. Another cave 20m long and 17m wide, appears to be actually dwelling place. It consists of a couple of rooms and a kitchen at the end of a acemdor (The latter is obvious from some grooves in the floor of the cave which must have served as grinding places). At the extreme end is another big cave which is incoporated with an outdoor area, forming the shrine. The cave consists of outer and inner chambers. This is where the devotees of Orisa Igun (three old women) dwell. In the shrine - yard there is an 'Oju - bo' through which 'Orisa Igun' is worshipped; a smaller one for 'Sopono'. There serve as another attraction to visiting tourists, apart from the actual rock - climbing.

Remains of materials used by the early settlers are stored away in one of the cave chambers.

Sanitary Services: The toilet built at the rock base is no longer in use. Wild weeds and grass are growing out of the floor slab. The whole unit is dilapidated.

3.2 Survey Reports

An empirical analysis of Olumo as its exists currently is revealing. Visitors to Olumo were interviewed and some of their responses were tabulated in the following tables[1].

As of now visitors come daily, first intens. On a typical week day, the number of visitors is usually below twenty. The survey mounted gave the following results (Table 3.1)

Day	No of Visiting Groups	No. of Visitors
Tuesday	6	19
Saturday	21	89
Sunday	49	149

Since Sunday was a peak period, all other tables are with reference to the survey mounted on this day.

1 SOURCE: Ministry of Trade & Co-operatives, Ogun State.

The origin (where they reside) of the tourists was also tabulated. (Table 3.2).

Origin	Visiting Groups No.	%
Lagos	18	38
Abeokuta	18	38
Ibadan	6	13
Epe	2	4
Agege	1	2
Ifo	1	2
Ijebu	1	2
Oshogbo	1	2
Kano	1	2

The largest no. of visitors came from the west, there was only one party from the north and none from the eastern parts on that ocassion. The means by which tourists got to the site was also recorded and tabulated in Table 3.3

No. of Visiting Groups	Means of Transport
23	Private Cars
4	Buses
15	Taxis
7	Foot

The majority of visiting groups came in their private cars while batches of students came in their school buses. Also of interest was the no. of visitors who reached the summit (Table 3.4).

No. of Visitors	Attained Summit Level
93	Yes
56	No
Total 149	

Those that did not reach the summit gave reasons. 48 attributed it to fright on their way up, whilst 8 gave the reason of fatigue.

Presently there is no official fee paid by tourists. In practice, however, guides demand money from tourists during the climb. This makes tourists realise their dependency and so they don't hesitate to negotiate with the guides. The devotees of the shrine also like to receive taken fees whenever tourists visit the shrine yard. Tabulation below shows fee imposed on tourists. (Table 3.5)

Fees paid to guides	No. of Visitors who paid
Less than 49k	13
50k - 99k	9
₦1.00 - ₦1.99	10
₦2.00 - ₦4.00	7
Above ₦4.00	2

The collection by the guides totalled up to about ₦60.00, which was quite a substantial amount considering that tourists did not pay small and some groups did not pay al all.

3.3 Evaluation

The problems and existing situation of Olumo have been lengthily discussed. Although the massive rocks standing on one another remain an attraction to tourists, the Olumo Rock site as a tourist centre is wanting in many aspects. Most of the facilities expected of such a centre are either not provided or are make-shift in cases where they exist.

- Access to the site is greatly underplayed and does not give a heraldic approach to a site with such historic and cultural background
- The car park provided is not capable of parking tourists' cars during peak periods.

- There are no relaxing facilities for tired and thiesty climbers or any other fun - giving facilities (apart from rock climbing).
- There is no decent form of sanitation.
- Artifacts that should be shown off as rare relics are stored away in an obscure chamber.
- The enviromental situation leaves much to be desired.
- Climbing to the top of the summit is tedious and hazardous in some parts.
- Guides are scruffy, unkempt and illiterate, exhibiting bad practices of extorting money from tourists.

This is not an ideal situation. However, its crowd - pulling attraction would be greater if the environment is cleaned up, enhancing facilities are provided and wide publicity is given to the spot.

3.4 Need for a Development

The importance of the 'Olumo' to the Egba is almost unrivaled as any other within a community. It arouses the desire to bring people from far and near to acknowledge and appreciate their movement. This involves large numbers of people converging on a spot. It is therefore mandatory to provide functional facilities to give visitors some degree of comfort within the site. Existing situations of 'Olumo' are much below any acceptable standard, more so for a 'show-piece'. There is the need to create an attractive 'tourist image' which should be as original as possible to give a personality to the site, thereby giving an 'atmosphere' and identity. It is also essential that the site be given a proper planning orientation.

3.5 Statement of Intent

3.5.1 Aims and Objectives

1. To preserve the distinctive nature of Olumo as a place of historic and cultural interest.
2. To view the development of Olumo not in isolation but as part of tourism to Abeokuta with other places of interest like the Ake Palace, Igbo Lisabi, the Adire Market, Aso-Oke weavers at Ijaiye, Carvers at Itoko, etc.
3. To make provision for active and passive recreational activities within the rock vicinity.
4. To improve the visual amenity of the area, at the same time enhancing the attractiveness of Olumo.

3.5.2 Goals:

1. To divert interests of Nigerians, few of who leave the territory yearly to explore others' habitats towards domestic tourism.
2. To create financial resources thereby enevring that recommendations are feasible, enabling the centre to be self-supporting, possibly profit-making with an might to earning some foreign exchange.

CHAPTER FOUR

CASE STUDIES

In a bid to develop any brief, it would be necessary to engage in a brief study of some tourist centres both away and at home. They would not necessarily serve as a yardstick to this development since the localities and market demands differ, but as a guide to the general needs of tourists. Three cases, which vary widely have been looked into; one from home and two from abroad.

As previously dicussed, tourism development in Nigeria has been depressingly slow and so most existing centres are in similar or worse off conditions than the Olumo Rock Site. It becomes difficult to dicuss such centres under any criteria as there are no facilities existing for tourists at these centres, apart from the actual tourist attraction or activity as the case may be. This resulted in the picking of only one example from home; one of reputable standing and with relevance to the thesis.

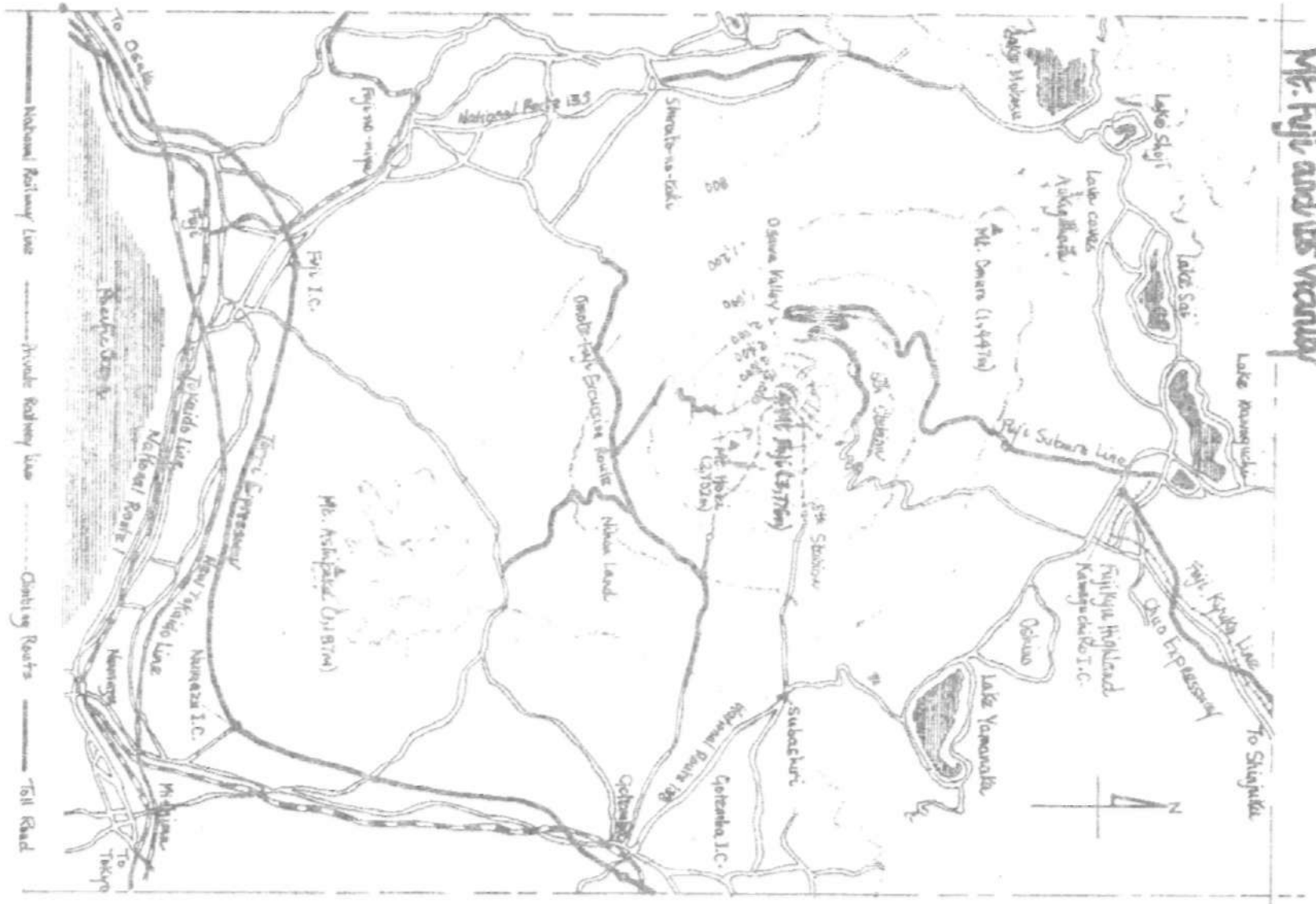
4.1 Mountain Fuji, Japan.

Sacred Mt. Fuji, the highest, most celebrated in Japan, conical in shape, has a base area of 90,760 hectares and a diameter of 38km; a summit of 800m across and 4km in circumference, and rises to an altitude of 3,776m. It is a dormant konide type volcano, it's last eruption being in 1707. (Fig. 4.1). In the past, development of this huge mountain and its vicinity tended to be retarded because of thick layers of lava and volcanic ash. With the advent of the 1960's Mt. Fuji came into the limelight for large scale development projects bringing the vast expanse of land at the foot of Mt. Fuji closer, with Tokyo as a core. Situated on the main island of Honshu, it has come to symbolize Japan to all people over the globe. Japan's



CONICAL Mt FUJI AS SEEN IN THE EARLY AFTERNOON

Fig 4.1.


Mt. Fuji and its vicinity
Lake Motosu
Lake Shoji
Lake Sai
Lake Kawaguchi
Lake Saiko
Mt. Omuro (1,940m)
Fuji Subaru Line
Fujiyoshida Highland
Kawaguchiko I.C.
Oshino
Fuji Kyuko Line
To Shinjuku
Lake Yamanaka
Oshino-Fuji Expressway
Oshino-Fuji Excursion Route
Mt. Fuji (3,776m)
5th Station
Mt. Hoei (2,702m)
Mt. Ashitaka (2,148m)
Gotemba
Gotemba I.C.
Subashiri
Subashiri Route
National Route 138
Fuji-Hakone Line
Fuji
Fuji I.C.
Fuji-no-miya
National Route 139
Shimizu-no-iriki
To Osaka
Hakone/Izu Area
Numazu
Numazu I.C.
Numazu/Hakone/Izu Line
Hakone/Izu Route
Tokaido Line
Pacific Ocean
To Tokyo
N
National Railway Line
Private Railway Line
Existing Route
Toll Road

22

Map 4.1.

Japan's oldest anthology contains many poems on Mt. Fuji.

Site:- Five main lakes which exist at the foot of the mountain are tourist spots. Primeval forests exist on the Aokigahara plains giving rise to a fauna. Mountains of lower altitudes like Omuro and Hoei surround the Fuji. Motorable access to the 5th station is provided. (Map 4.1), From this point there are numerous climbing routes taking tourists to the summit. Abundant underground water has contributed to the development of paper and textile industries at the foot. Expressways and rail lines link the tourist spot to Tokyo, capital city of Japan.

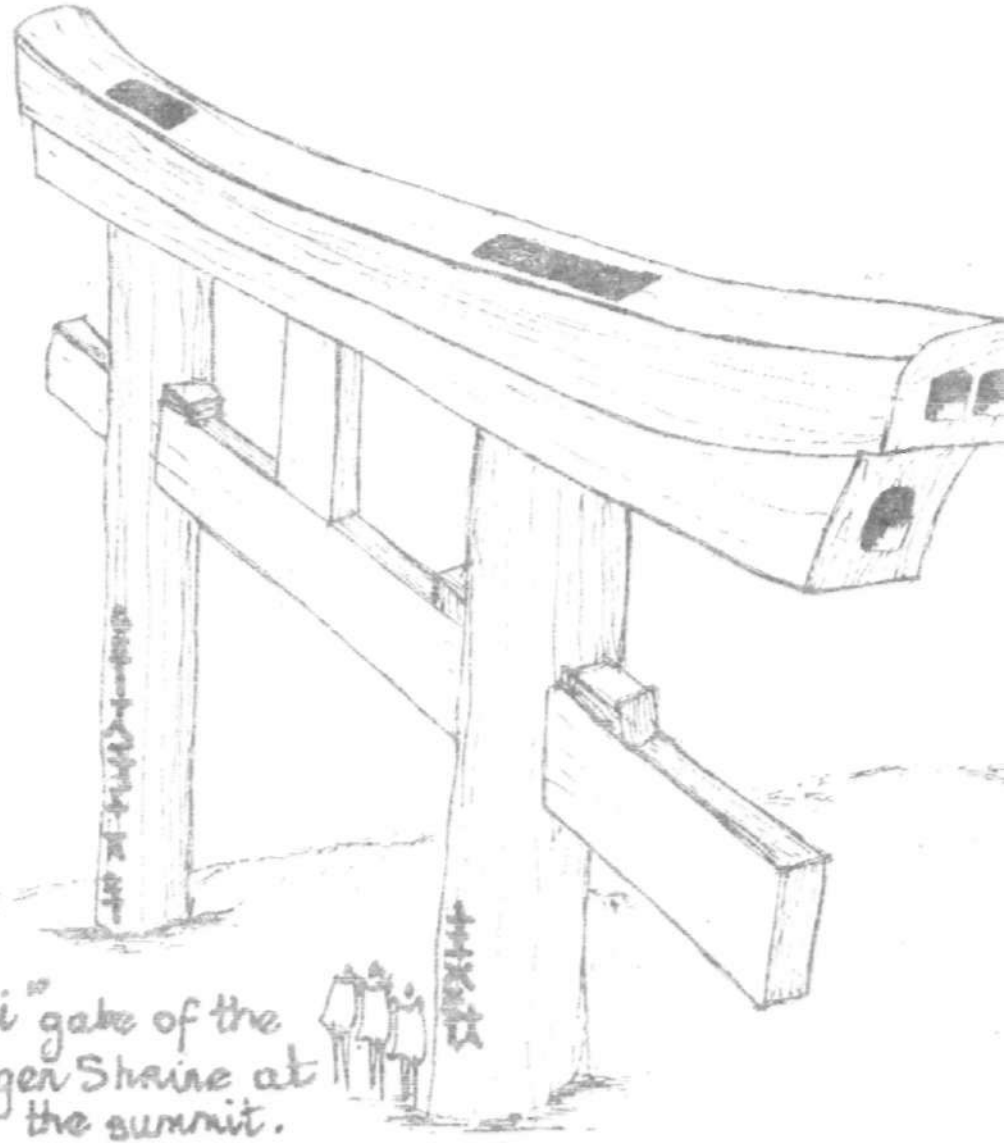
Facilities:- Most of these are situated at the foot of the mountain. They include the famous Sengen Shrine, restuarants and associated catering facilities, souvenir shops, spring baths and lodges. A transport network taking tourists to 1,200m from the summit is provided. On the mountain slope, there are 20 rest huts where tired climberes can rest. At the summit is the world's highest radar station and the large 'Torii' gate of the Sengen Shrine - latest product of modern science and traditional religion thus exist together, (Fig. 4.2). Here also there are rest huts which offer refreshment to tired and thirsty climbers.

Buildings: The rest huts on the mountain slope are in form of shelters made of timber framework and cladding on stone bases. Building types at the foot are predominantly Japanese with the typical layered roofs, timber being a main element of construction. (Japan is in the temperate zone and 68 percent of Japan is forest cover).

Tourist Season:- The islands of Japan being in the temperate zone; summer, autumn, winter and spring seasons are clearly divided. This makes it only possible



Radar antenna dome at summit



"Torii" gate of the Sengen Shrine at the summit.

A product of modern science and traditional Religion

Fig 4.2.

for tourists to visit the spot during summer, when the summit bustles with people like an urban centre as against winter when it is a world of stillness the radar facility crew and occassional veteran climbers being the only souls to be seen. The season starts on July 1st with religious ceremonies held at the Sengen Shrine (foot of Mt. Fuji) to pray for the safety of the climbers. It lasts through July and August, folding up just about early September. Climbers range from the age of 5 - 9 yrs and total up to an average of 400,000 yearly.

Ascent: - This is with relative ease, resulting in the large no. of climbers recorded. The toll road running up to the 5th station bring Mt. Fuji closer. Tourists ascend the mountain slope by foot with the aid of sticks and ropes, bicycle, motorcycle and horse back. The latter three only possible to the 5th station, after which it is strictly by foot the rest of the way.

Critique:- The Mt. Fuji Site has been well developed to accomodate the large no. of visiting tourists. The development, however, is not entirely restricted to tourism; there is a tendency towards the beginning of an industrial sector right at the foot of the mountain which might eventually overshadow tourist activities.

Since ascent is with relative ease the mountain slope could have been put to more advantage. The idea of terracing could have been developed so that the buildings would be seen as a part of the scenic mass of earth - Mt Fuji.

4.2 Wikki Tourist Camp, Yankari Games Reserve, Bauchi State, Nigeria.

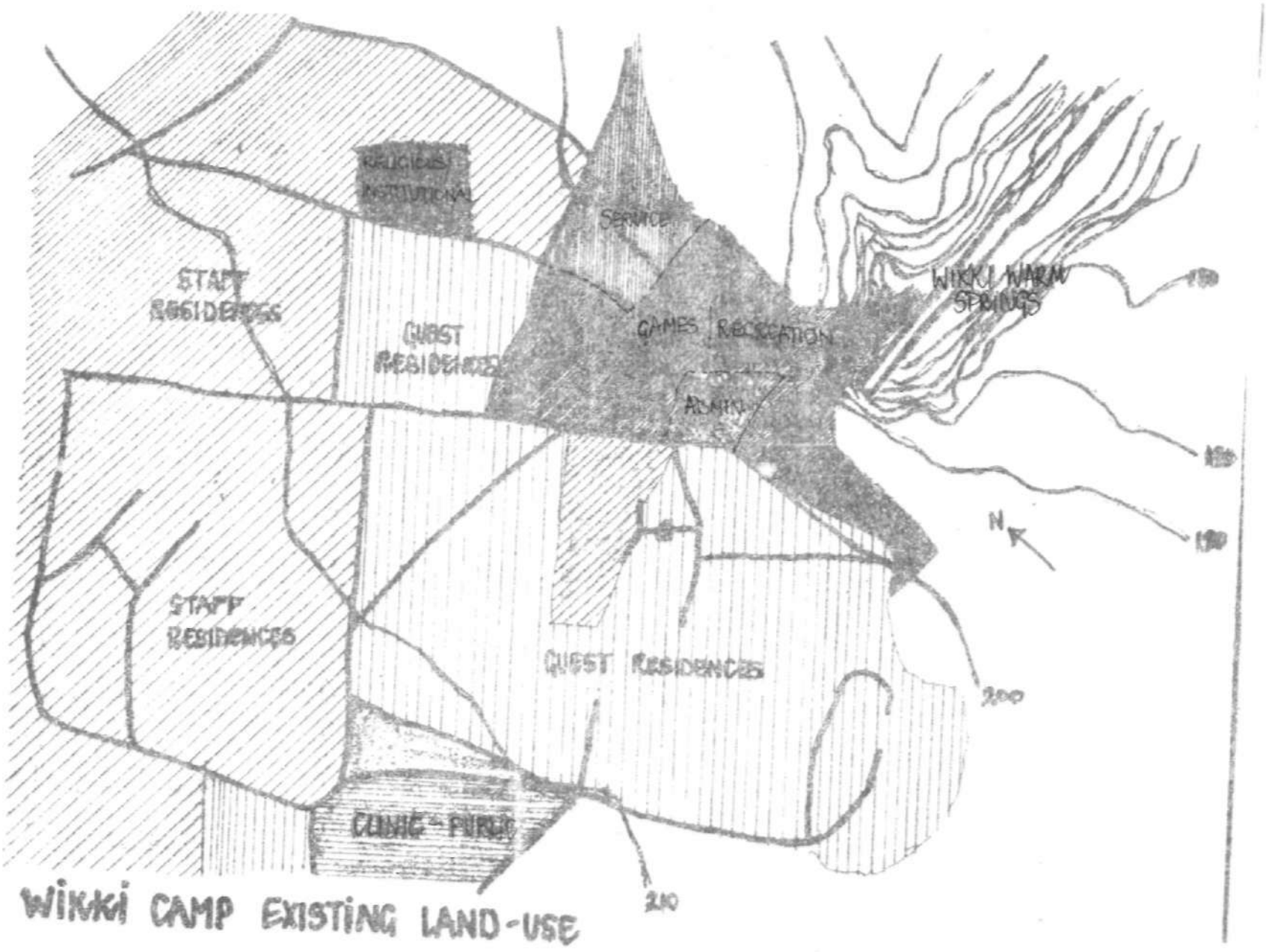
The Wikki Tourist Camp is situated within the Yankari Games Reserve, a wildelife preservation park in Bauchi. The reserve layout covers an area of over 208,236 hectares dotted with tiny hills and

YANKARI GAME RESERVE LAYOUT

Area over 804 sq. miles
208,236 hectares



MAP 4.2.



WIKKI CAMP EXISTING LAND-USE

Map 4.3.

warm springs. The largest and most spectacular is the Wikki warm springs where the tourist camp is situated.

Site:- The tourist camp lies to the south-west of the reserve (Map 4.2) near the Wikki warm springs, which was the obvious reason for siting the camp here. At this point fresh clear water, 9.14m wide and 0.914m - 1.219 m deep emerges from the base of a sandstone cliff. A uniform flow is maintained throughout with a constant temperature of about 31.1°C. From the existing land use map (Map 4.3), it can be seen that the camp is zoned into seven main zones, namely residential - guests and staff, recreational, administrative, service, institutional and health zones.

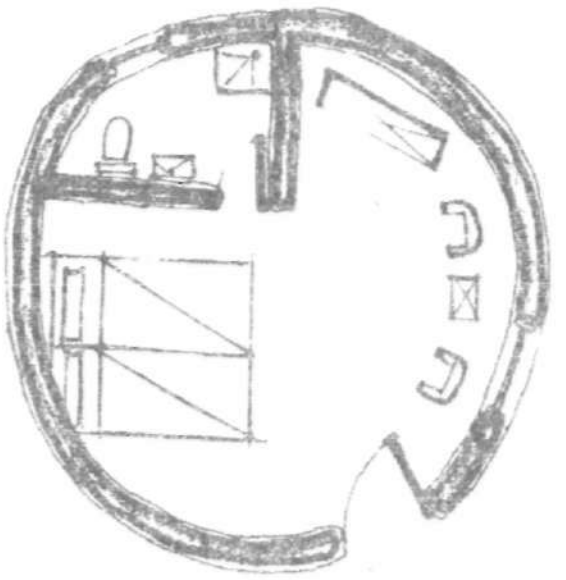
Facilities:- These include accommodation, totalling over 100 beds in single double or family - size thatch - roof rondavel chalets, V.I.P. chalets, provisions shop with bookstore, bar, resturant Kiosks, Clinical services, religious facilities, out-door area for games and recreations, small museum, staff accommodation and ofcourse bathing facilities in the warm springs, transport to the widlife confines.

Buildings:- Most of the buildings especially residential are rounded in shape and are arranged in clusters. Local matarials have been employed in construction; thatch for roofing material, timber for the roof construction and natural stone for some walls both in the interior and exterior of the buildings. Plan of a typical rondavel chalet for a couple is shown in Fig. 4.3.

Tourist Season:- The length of the open season varies slightly from year to year. Usually it is from November till June. Closure during the rainy season between June and October is because



RECEPTION AT W KKI CAMP.



PLAN OF TYPICAL RONDAVEL CHALET FOR A COUPLE.

Fig 4.3.

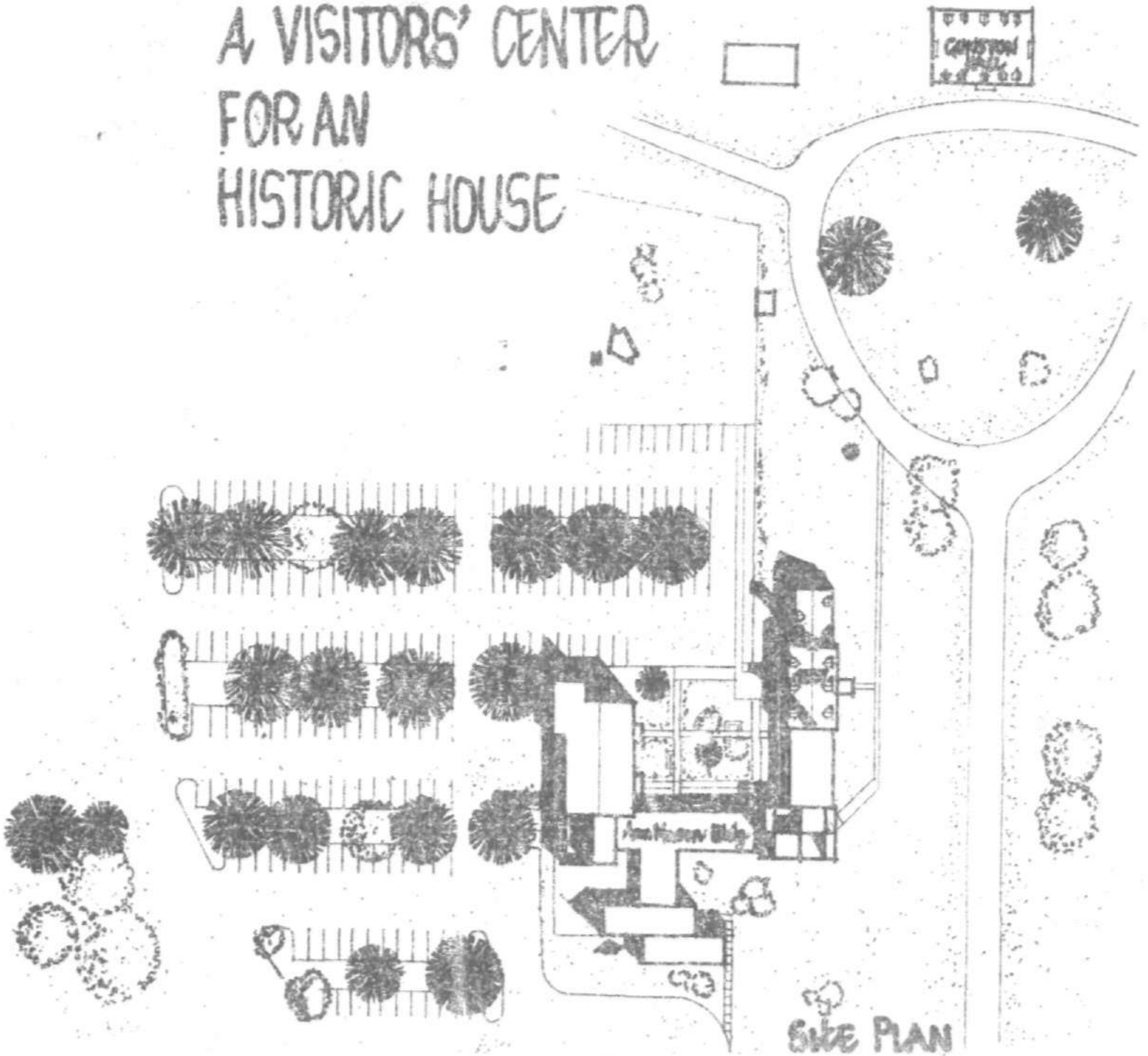
access to the wildlife confines becomes more difficult. The animals disperse when food and water become more available. Many species breed at this time and should have minimum disturbance.

Critique:- The facilities provided are fairly adequate. The inclusion of a souvenir shop and a library would be in order. This will enable tourists to take away something from the centre through which they would remember the times they had there. For the purpose of intellectuals a library would be appropiate, where books could be lent out to visiting tourists to read in their leisure time. A larger store or supermarket should be provided or the existing one expanded as during peak periods it does not meet the demands of the tourists. The buildings have been built in such a way as to be as close as possible to nature. This has been achieved in building form, orientation and material . There is an attempt to blend man-made forms with the environment - a natural environment that has been allowed to pre-dominate, where animals are free to roam around in their own habitat. However, good views and recreational opportunities around the warm springs have not been utilized to the optimum.

4.3 Ann Mason Visitors' Centre, Lorton, Virginia, U.S.A.

The visitors' center in Lorton, Virginia for the small eighteenth century home of revolutionary war figure George Mason - Gunston Hall, is really a large addition to a recent archive - office building (built in 1957). This resulted as the number of tourists increased and there was not enough room to house ancillary facilities. The architect, Philip Ives produced an 'out building' five times the size of the original.

A VISITORS' CENTER FOR AN HISTORIC HOUSE



His decisions were dictated by existing conditions.

Site:- The car park is directly accessible to the out building. Gunston Hall is some short walk away. It is possible to drive to its frontage. Tourists are therefore able to go through facilities provided for them in the out - building before being conducted round the historic house. Fig. 4.4

Facilities:- These include a reception, gift shop, exhibition gallery, museum, library meeting room (with projector facility), kitchen, stores, offices and a large car park for about 180 cars fig. 4.5.

Building:- The building appears like a group of small-scaled farm structures that might have been there all along; except, the new buildings are clearly from the present era. The roof slopes echo rural Georgian lines. The walls are brick and the roofing material is slate- both materials being the same as those of the eighteenth century Gunston Hall. The construction is in masonary bearing wall with either wood or steel roof framing depending on the length of spans. The construction cost was about ₦740,000 ($925,000). A view has been shown in fig. 4.6.

Critique:- Careful attention has been given to keeping the immediately visible volumes of the new building from competing with the 1950's structure, which no relic in itself - has gained compatibility through aging. The fenestration in the new construction also avoids competition by being either similar in proportion to the old, or so completely different so as to defy comparison (such as the clerestories). Clearly the building is highly visible, within a short walk from Gunston Hall, and does not threaten to visually overpower it, hence destroying the object of the tour. It is so sympathetically designed that it is a

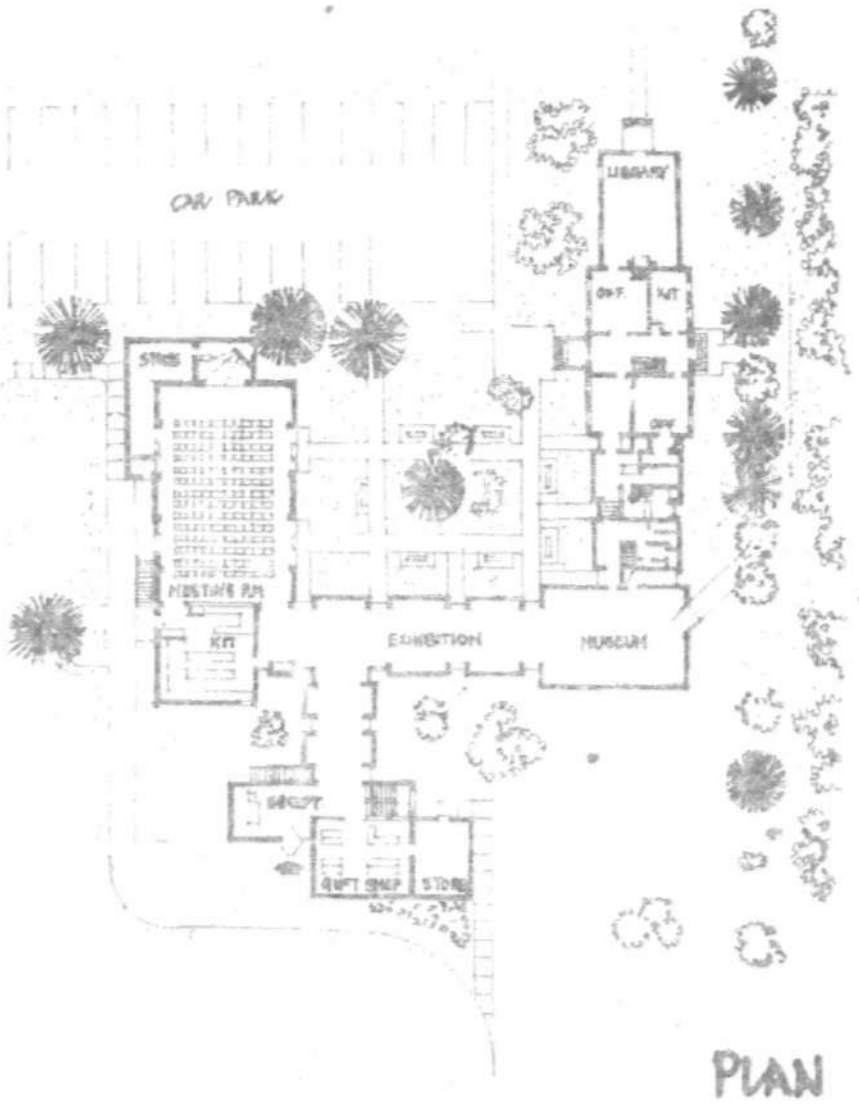
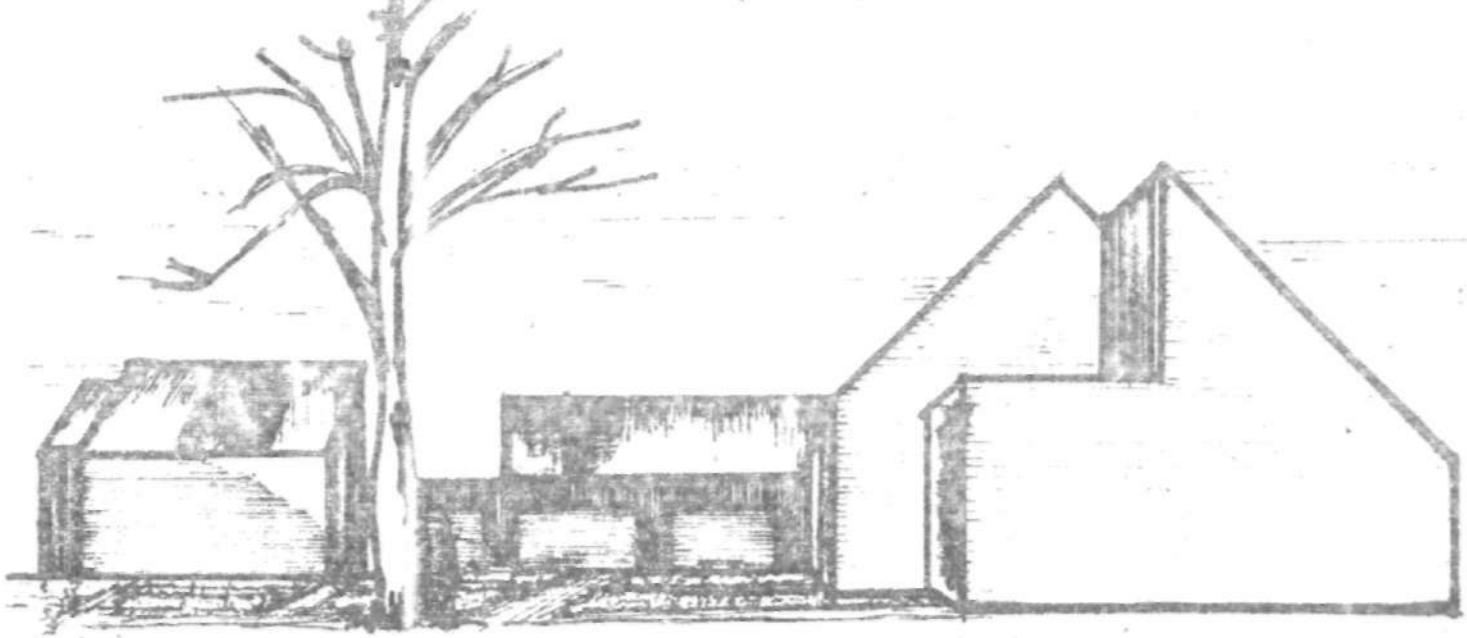

LIBRARY
STORE
MEETING RM
KIT
EXHIBITION
MUSEUM
GIFT SHOP
STORE
PLAN

Fig 4.5.



GUNSTON HALL



ANN MASON BUILDING.

Fig 4.6.

positive complement to the landmark which it serves, The car park, however, seams qüite large and may be underutilized. Tourist activity is all the year-round here - there is no defined season.

CHAPTER FIVE

DESIGN SYNTHESIS

After much has been said and done, decisions related to the site and the structures to be erected on it have been made. Much attention has been paid to the enviroment because the main tourist activity on site is basically an out-door affair. The site in itself has a character of its own - one of an organic nature, and so any addition to enhance it must satisfy environmental conditions.

5.1 Design Criteria (Fig. 5.1)

The criteria are grouped under the following:

Drainage: Olumo Rock Site falls into the rain forest belt and as such is characterized by two maxima of heavy rainfall. Large volumes of rainwater, therefore come into play and must be taken care of.

- all drainage pipes are to be laid according to slope.
- Design will be against driving rain to protect facades,
- Rain water will be drained off the roofs of buildings as quick as possible and away from the building.
- The minimum height of plinths will be equal to the maximum height of rain water splash (40 cm from the ground).

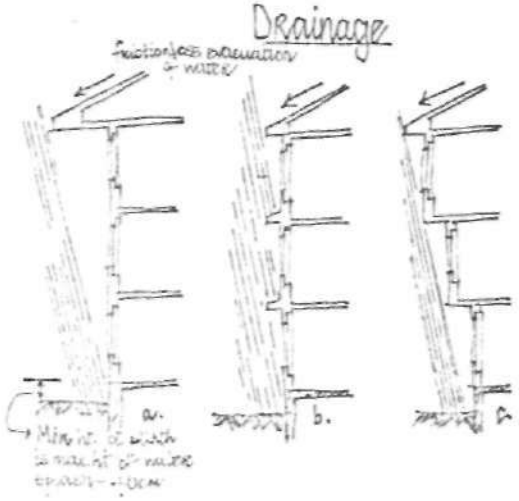
Landscaping:- The many uses of landscape will be employed on site (as against man-made elements) to help blend with the scenic mass of landscape - Olumo Rock.

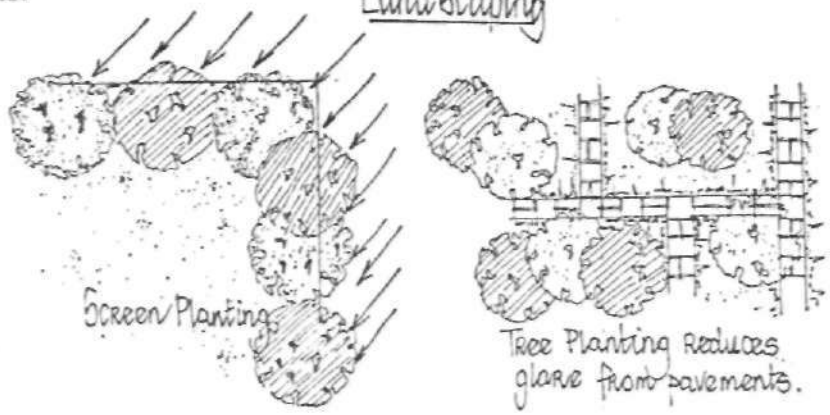
- Ground Planting will be used to bind the surface and reduce erosion caused by heavy rainfall in these parts.
- Screen Planting will be used to reduce the velocity of dust laden particles carried by the north - east trades.
- Tree Planting to serve as noise barriers for passive activity areas.
- Hedges and shrubs will be used as traffic islands and barriers, controlling human movements within the site.
- Deep tree planting of trees, will be employed to shade ground surfaces, to provide visual protection from radiation, reduce the effect of glare from pavements, provide comfort for car parking, to form cool places for relaxation and establish cool air movements.
- Landscape to be designed to avoid excess maintenance.

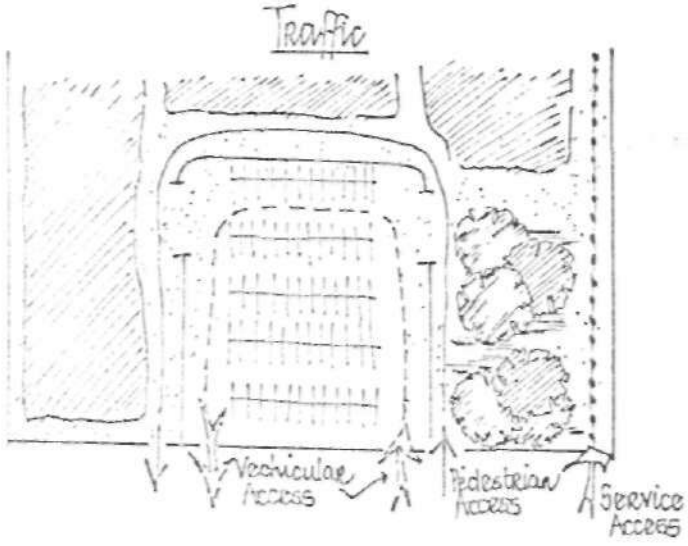
Traffic:- This criterion is highly essential because of the large numbers of people who will be visiting the site.

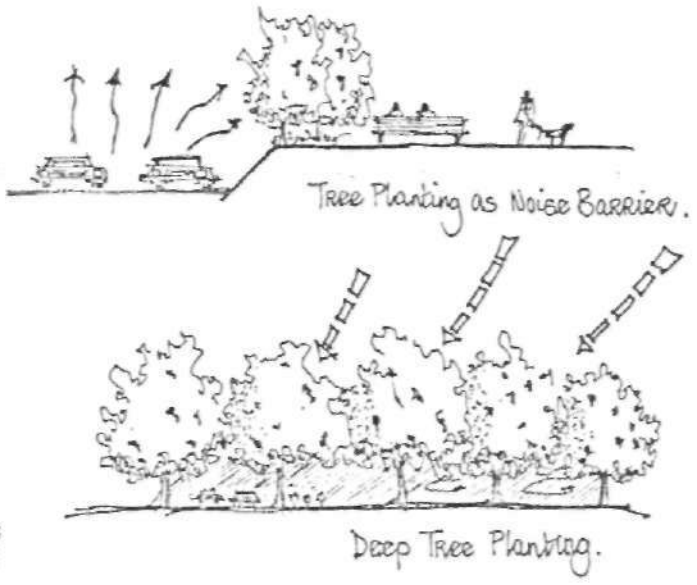
- all public vechicular traffic will begin and end in the car parking lot to be provided.

Fig 5.1.


Drainage
a.
b.
c.


Landscaping
Screen Planting
Tree Planting Reduces glare from pavements.


Traffic
Vechicular Access
Pedestrian Access
Service Access


Tree Planting as Noise Barrier.
Deep Tree Planting.

- all other vechicular traffic shall not exceed service routes / zones.
- Service accesses will be separated from public accesses and will be screened off.
- Pedestrian movements within site to be controlled by landscape
- Tourists to be guided from a reference point, through the site and back to the same point.

Structures:- These must be in sympathy with the natural setting so that they are viewed as part of it. They must blend with the land form and not overpower it.

- Only light structures will be put upon the rock surface.
- Nature shall prevail - no self-imposing structures shall be erected to compete with the rock - all buildings to be restricted to one floor only
- Local materials will be used to blend into the natural setting.

5.2 Plant Study (Fig. 5.2)

Plant material such as trees, shrubs and herbs are some of the fundamental landscape materials. The importance of plant cover lies in:

- Shaping the sensuons form of spaces
- distinguishing and expressing some activities
- maintaining good mirco-dimatic conditions for human activities

The imporatance of plant cover cannot be over estimated - but very often it is under-estimated and even not understood. Planting is often considered the "extra" in site development and usually the first item to be cut when the budget is tight. Criteria affecting selection of plant material are:-

Hardiness:- Whether the tree grows in the region where the site is, its general properties with respect to environmental conditions, reactions when growing close to paved areas and its susceptibility to diseases.

Form and Structure:- This includes the height and spread at maturity and the length of time taken to reach maturity, whether it is deciduous or evergreen, has good branch structure and bark colour.

Foliage, Flowers and Fruits:- This is dicussed under size, form, texture and colour. The significance of the flowers/fruit should be taken into consideration.

Care:- This involves the issues of transplant-ation from nuseries, maintanance and propagation.

A combination of the two sets of criteria led to the selection of the following plant material. These are to be grown in addition to the chosen trees and shrubs existing on site.

Trees

- AZADIRACHTA INDICA (Neem tree)

  A widely cultivated species. It has a dense

crown and glossy leaves which are crowded on the end of branches. The flowers are white and scented. It is a very endurable tree. Suited for screening it filters particles into interior spaces. It is also capable of providing good shade.

- DELONIX REGIA (Flame Tree)

This is also widely grown. It is a decorative and handsome tree. Its branches form a wide crown; flowers are bright scarlet and abundant. It is a fast growing tree. Suited for shade purpose, it will add colour to the site.

- COCOS NUCIFERA (Coconut Palm)

Found mainly in costal areas. It is a decorative palm. The stem is never straight, swelling up at the base. The leaves are large. It will be grown beside water bodies on site for aesthetic purposes.

- ELAESIS GUINEENSIS (Oil Palm)

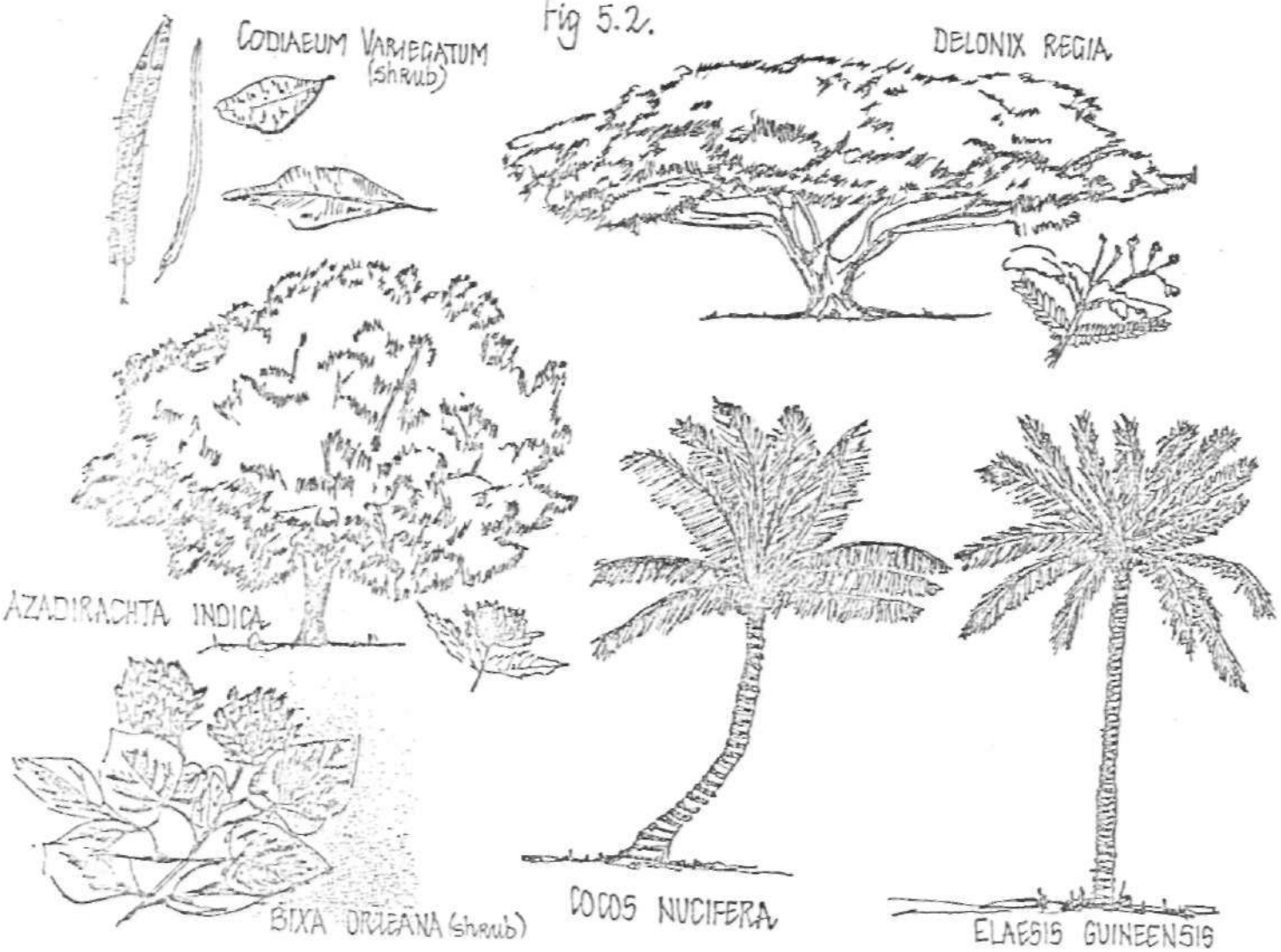
This has a wide distribution, (both coastal areas and often inland, especially in this vegetation belt. It is a stately, erect, handsome palm. It has a stout stem and large leaves. These will be planted along the entrance drive to give a heraldic approach to the site.

Shrubs:

- BIXA ORLEANA (Anatto)

Wide spread in the tropics. A large quick - growing shrub with pinkish flowers and spiny brown fruitsacont ining numerous red seeds.

Fig 5.2.


CODIAEUM VARIEGATUM
(shrub)
DELONIX REGIA
AZADIRACHTA INDICA
BIXA ORLEANA (shrub)
COCOS NUCIFERA
ELAEIS GUINEENSIS

The leaves are heart - shaped and shiny. The plant is handsome and decorative, suitable for gardens and makes coarse hedges serving as barriers.

- CODIAEUM VARIEGATUM (Croton)

Wide spread in the topics. It has numerous varieties. A highly ornamental shrub, up to 1.5m in height, it's leaves are glossly, variously coloured and and shaped in dark-green, yellow, pink and green. It will be used for traffic purposes and screening.

Ground Cover:-

- CYNODON DACTYLON (Star grass)

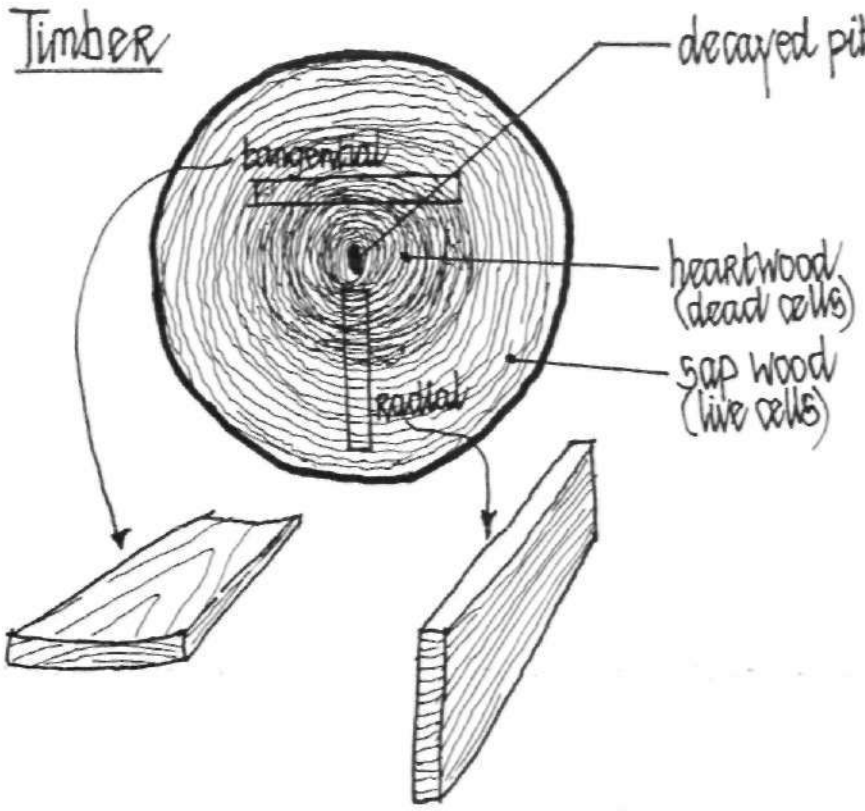
It is characterized by fine and long leaves with slender runners. It is easy to plant, grows fast and in turfs and will serve as a check against erosion and a binder for the surface.

5.3 Material Study (Fig. 5.3)

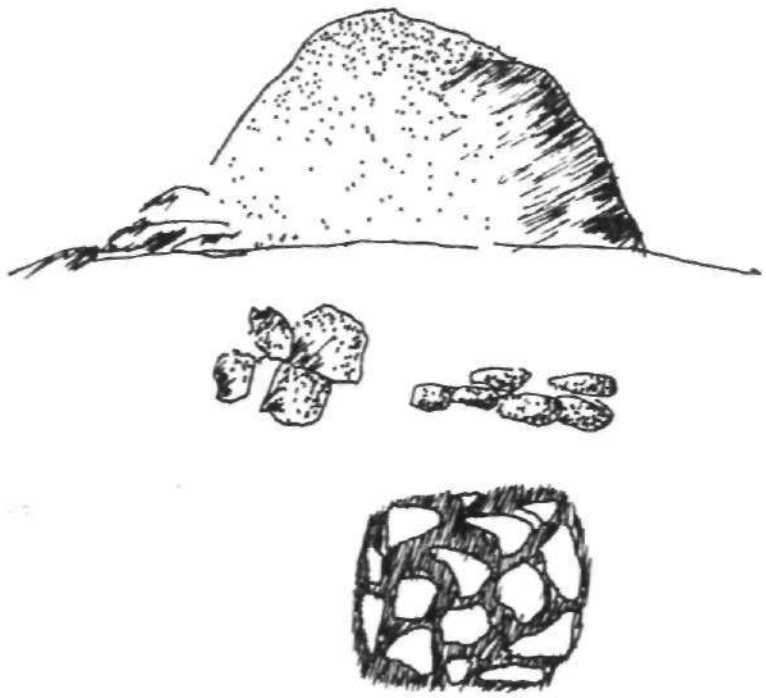
Nigeria has entered into an era of modernization, when it becomes fashionable to possess buildings of concrete precast elements, steel, glass and other imported materials; not for their permanence but as symbols of affluence. This results in those who live in buildings built of local materials like timber laterite and bamboo daubed with the 'poverty' stigma. This attitude is attributable to the often insanitary and unimpressionable appearance of most of these constructions existing even at the base of Olumo. These defects in traditional constructions are usually the

Fig. 5.3.

Timber

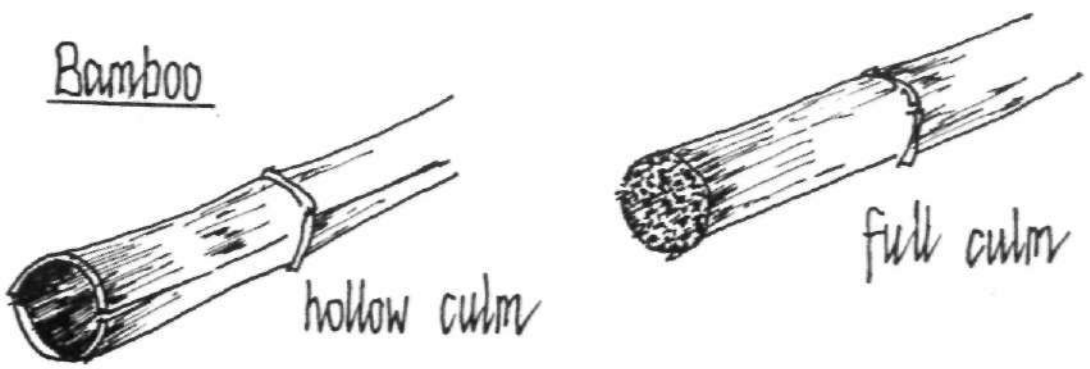


Stone



Random Rubble.

Bamboo



consequence of the manner of materials handling and construction. It is certainly not the local materials that are bad or deficient but rather the method of construction. With an adequate choice and effective construction method, this notion can be removed, for there are remarkable po possibilities in construction with our local materials inspite of their limitations. These can however be combated through effective research.

The three local materials which are to be employed in this proposal are timber, bamboo and stone. They will be discussed generally; their short comings noted and the solutions to them provided.

Timber:-

Research work on timber revealed that though Nigeria has a sufficient supply, expansion of the timber industry is still needed to embrace the use of all the species. This calls for the ingenuity of the architect, engineer and forest technologists.

In dealing with organic materials such as timber, one of the main objectives is to supress harmful alterations of the materials. Problems as such result from:-

i) Decay from Fungi and insects

ii) Absorption of moisture giving rise to warping and splitting

iii) Fire outbreak

iv) Direct sunlight, rein, humidity and chemical pollution affecting the wood colour and appearance.

There are three practical possibilities for supressing these harmful effects:-

i) Wood protection by construction design means:

- Structural arrangements and design

ii) Wood protection by selection of materials

- highly - resistant species, loss sensitive materials - wood or glue type.

iii) Artificial wood protection:- treatment with chemical protective media, paints or varnishes, which are introduced into or onto the material.

Taking into considerations all of the above with the help of Fig. 5.4, 5.5 and 5.6 and other studies, two timber species have been chosen - Afzelia and Iroko (hardwoods)

Their properties will be listed:-

Afzelia:- A Nigerian timber, strong, very durable, stable, heartwood naturally resistant to decay from fungi and insects, low fluctuation movement to moisture, finishes well with good appearance, available as a veneer, Reddish - Brown in colour, used internally and externally, irregular grain often interlocking, coarse even texture, comparative cost is average and average sizes are available.

TABLE 2: USE OF TIMBER IN CONSTRUCTION WORK

SPECIES	Heavy Eng. Construction 1	Gen. Building Construction 2	High Class Furniture 3	Utility Furniture 4	Bench Tops 5	Flooring 6
ABURA		I		+		3
AFARA		I		+		3
AFORMOSIA		+	+	+	+	2.Q.L.
AFZELIA	+	+	+	+	+	2L
AGBA		+		+	+	3
ALSTONIA		I		+		
ANTIARIS				I		
AVODIRE			+	+		
AYAN		+	+	+		2G
BERLINIA	r	+		+	+	2*
CEIBA				I		
DAHOMA		+		+		3
DANTA	b	+				I.B.G.D.
EKKI	+					2*
ERIMADO				I		
ESSIA	r					
GEDU NOHOR		+	+	+		3Q.D.
GUREA (scented)		+	+	+		2G.D.
IDIGBO		+	+	+		3
IROKO	+	+	+	+	+	2L
LIMBALI	+	+	+	+	+	2*
MAKARATI	+					1*
MAKORE		+	+	+		2
MANSONIA		+	+	+		
NUSSANDA	+					1B
MUBURA	r					
OBECHE		I	+			
ODOKO		I	+			2*
OGEA		I	+			
OKAN	+					A
OKWEN			+	+		2
OMU		+	+	+		2Q.D.
OPEPE	+	+			+	2L
OTU		I		+		
OZOUGA		+	+	+		
POGA				+		
PTERYGOTA		I		+		
SAPELE		+	+	+		2Q.D.
STERCULIA—(brown)						
(yellow)				+		
UTILE		+		+		2Q.D.
WEST AFRICAN ALBIZZIA		+		+		
WEST AFRICAN TEAK	+	+				

KEY TO SYMBOLS

r - rough constructions only

b - boats

I - suitable if completely impregnated with highly fixed preservatives

Q - quality floor, showroom, boardroom, hotel room, residences, etc.

L - laboratory floors, impermeable to acids.

B - light duty industrial floors with light trucking.

G - floors for gymnasiums

D - floors for dance halls

* - information obtained from sources other than Bulletin No. 40 of Forest Products Research Laboratory.

Fig. 5.4.

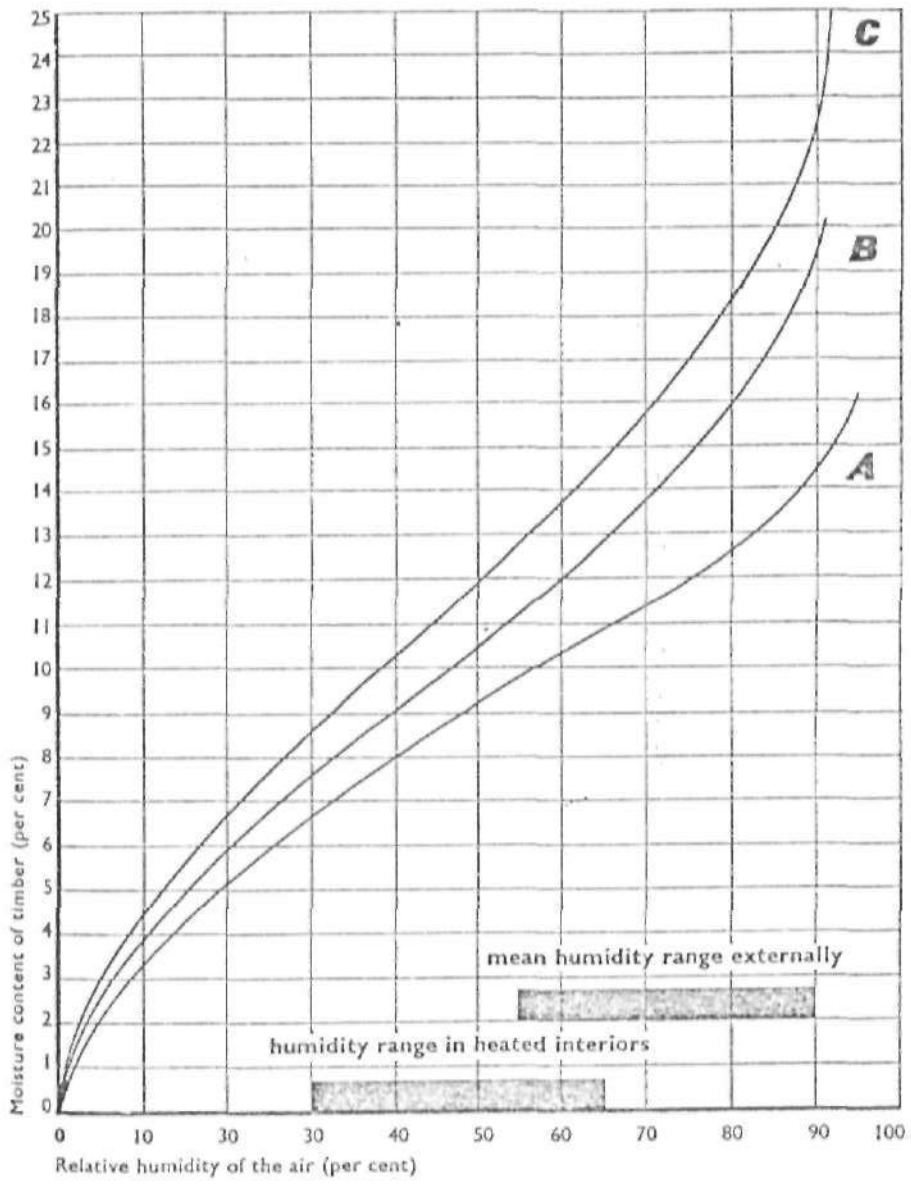


Fig. 26. EQUILIBRIUM MOISTURE CONTENTS FOR DIFFERENT RELATIVE HUMIDITIES: *The three curves represent the average values of hygroscopicity of three groups of timbers.*

USE OF FIGS. 25 AND 26: *The group to which a timber belongs is shown in Fig.* 25. *By referring to the appropriate curve in Fig.* 26, *the moisture content of the timber can be related directly to the humidity of the air. Given a range of humidity for the air surrounding any piece of timber,* (1) *the fluctuation in moisture content can be determined from Fig.* 26 *and* (2) *the amount of movement can be calculated from Fig.* 25. *For example, if a* 9 *in. wide flat-sawn board of ramin at* 12% *moisture content were to be used in a position where the average humidity of the air was as low as* 30% (*e.g. a radiator casing*), *its moisture content would drop to* $7\frac{1}{2}$% (*Curve B*). *The drop in moisture content from* 12% *to* $7\frac{1}{2}$% *corresponds to a humidity drop from* 60% *to* 30%, *i.e. a fluctuation of* 30%. *Referring to Fig.* 25, *the movement of flat-sawn (tangential) ramin is* $\frac{1}{8}$ *in. per foot width for each* 10% *fluctuation in humidity. The shrinkage of the board would therefore be*

$$\frac{1}{8} \times \frac{30}{10} \times \frac{9}{12} = \frac{9}{32} \text{ ins.}$$

Fig. 5.5.



Fig. 25. COMPARATIVE MOISTURE MOVEMENT VALUES FOR PRINCIPAL JOINERY TIMBERS. *The liability to distortion can also be gauged by the difference between the radial and tangential values, i.e. by the length of the shaded portion. This list does not exactly correspond with the list of selected joinery timbers given in Appendix I. Figures for African walnut, European walnut, meranti and sapele are not yet available. Central American cedar has the same figures as gedu nohor and mansonia has similar figures to lime.*

Fig. 5.6.

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Iroko:- A Nigerian timber, very durable and stable, heartwood naturally resistant to decay from fungi and insects, a good drainer with low functuation movement to moisture, requires grain filling before finishing, available as a veneer, light brown in colour, interlocking grain well figured, coarse even texture, used both internally and externally, comparative cost in average and good widths are available

Bamboo:-

It is about the oldest and one of the commonest building materials in the rural areas throughout the world's tropical and sub tropical regions. Its main setbacks are similar to that of timber:

i) Decay from insects and not fungi
ii) Absorption of moisture - warping and splitting
iii) Fire risk
iv) Joints - these have to be lashed as nails would cause splitting of the culms
v) Variability in sizes - not easily mechanized resulting in mere handicraft and more time
vi) Prominence of nodes or rings interfere with close fitting construction techniques:- low durability.

Despite all these setbacks, the ultimate tensile strength of some species of bamboo has been found to be about the same as that of steel at its yield point (average 1, 400kg/cm^2 to

2,800kg/cm^2). This high value attracts attention for its use in reinforcing concrete. However, various set backs occur in practice that make it impossible to make use of the complete tensile strength of bamboo when it is embaded in concrete as reinforcement. Poor bond strength between the two and low modulus of elasticity are two main factors that may prevent its effective use. Crackings, due to large deflection, bond slippage, shrinkage and swelling coupled with differential thermal expansion between bamboo and concrete is also a big problem. Remedies to all these problems will involve long processes which might end up several times the cost of the project itself.

All the above limitations result in the decision to use bamboo as an interior decor for counter / servery walls and furniture. The species chosen is Oxytenanthera abyssinica. It is available locally. The culms measure 7.5m to 15m by 3.75cm to 7.5cm.
Its uses are general.

Natural Stone

This material is already in use in various aspects - most commonly walls for the purpose of aesthetics and structure. More studies are however needed in classifying the various rocks into the different categories with their respective uses in the various aspects of building. The cost in preparation and transportation has

made the use of natural stone less popular than some man made products, which are often cheaper to produce and require less skill in cutting and laying, Nevertheless, in some areas natural stone for building remains traditional.

The major problems encountered with stone are:-

i) The joints are difficult - different sizes and shapes.

ii) Lamination along bedding planes

iii) Clearing and preservation

These can be overcome by:

i) The use of a hydraulic lime-sand mortar

ii) Laying stone on its natural bed-face.

iii) Steam cleaning - a popular and effective method.

The problems are easily solved and outweighed by the strength, permanance and durability of stone. It has been chosen because it will serve as a good base for timber with properties that do not make it suitable to be in direct contact with moist soil present in this climatic belt. Granitic random rubble work has been chosen. Granitic rocks are plentiful in the area and have been used admirably for such works. The joints will be well filled and flushed with mortar. It is quite cheap.

5.4 Site Planning Concepts (Fig. 5.7)

(Related to movement patterns)

S-concept: - This basically involves movement from one node to another in a curvy fashion. The concept is difficult to develop within a site.

It would work better in a building e.g. a museum.

Loop - concept:- In this case, a single modes constitutes starting and ending points. Movement starts at a point, continues in a closed circuit ending at the same point. The node serves as a reference point. It can be adapted within a site.

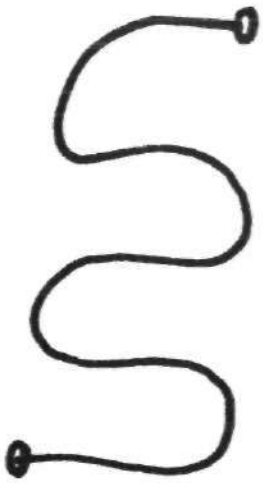
Horse-shoe concept:- This is quite a popular concept. Two modes are on a horizontal and movement within these two modes (one a starting point and the other the ending point), is in form of an arc or semi circle. It is an easy concept to develop, quite realistic and presently exists on residential commercial and institutional sites.

Multi - Nuclei Concept:- Random movement is the key word here. The nodes are scattered in no definite order. Each node is a nucleor. Movement therefore is not defined and is either from a node in any direction or towards it from different directions. Movements are said to be convergent or divergent. Not an ideal situation on site.

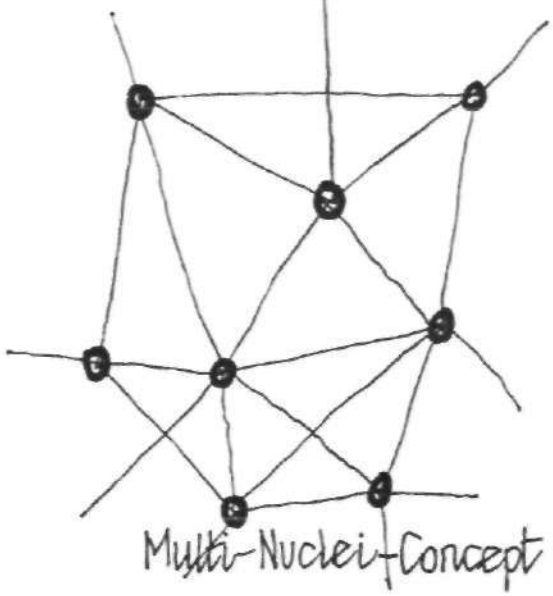
Y - Concept:- A lone node - obtains here. Movement is away from this node - divergent, and does not necessarily converge back to this node. Movement is however defined in three directions. The node here is strictly the starting point and might not be the ending.

Triangular Concept:- Three nodes form apex points of a triangle and movement along the sides is closed via nodes. The distance along

Fig. 5.7.



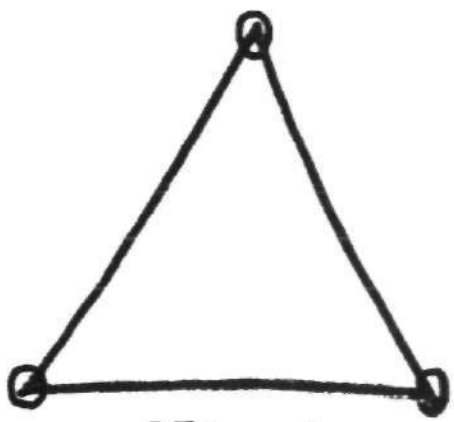
S- Concept



Multi-Nuclei-Concept



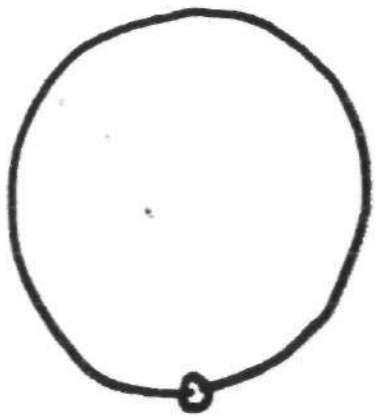
Y- Concept



Triangular Concept.



Horse-Shoe Concept



Loop - Concept

the sides are the shortest possible distances between any two points. This is adaptable if 3 elements are involved.

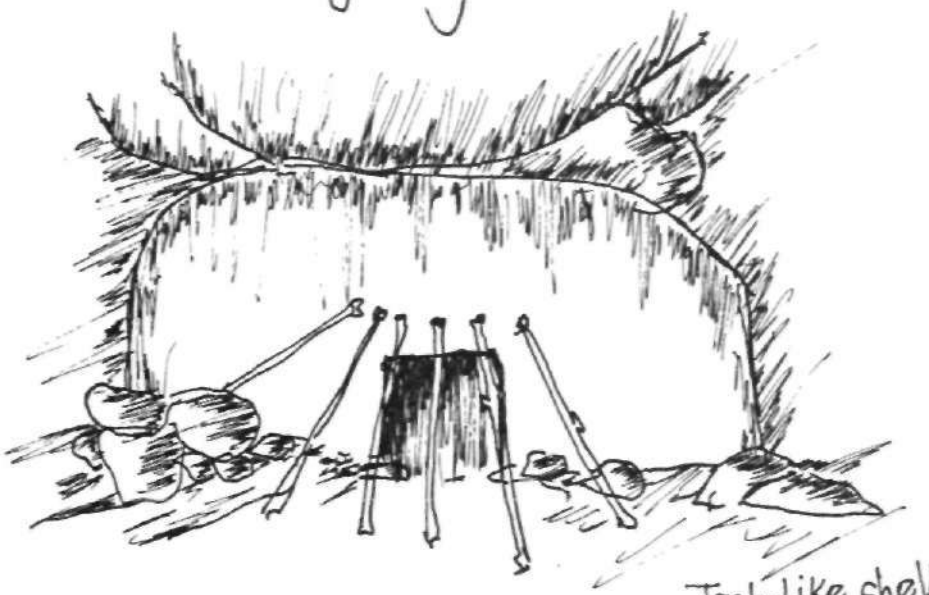
It is necessary to have embarked on such a review because the nature of the thesis demands it. Tourism involves large numbers and so there is a lot of human movement on site. People will move around in groups. This idea of group movements forms the basis of the site concept. Activities to be housed will therefore be oriented along movement paths of visiting groups. An ideal situation will exist, whereby visitors move round the site in a set pattern and return to a recognisable point from which they can leave the site. This situation will probably called for a closed arrangement where the node serves as a vital key - point or element. From the above pre - requisite it will be possible to arrive at the ultimate concept(s)

5.5 Visual Concept Fig. 5.8)

In the beginning, when the first Egba settlers took refuge in the Olumo vicinity, they used the available materials to make shelters to protect them against weather conditions. These were in form of branches tied together at the top to form a tent - like structure. This framework was then covered with large leaves and pieces of cloth. Some of them, however, lived in caves within the rock mass. This scene leaves a visual print in the

Fig. 5.8

In the beginning.....



Tent-like shelter made out of available materials for immediate cover for refugees.



THE CONCEPT OF RECREATION

– Re-creating this scene; refreshing the minds of many.



Egba Warriors in their 'home' and on the alert for invaders.

mind, of how it was about a century and a half ago. This brings to the mind the CONCEPT OF RECREATION; refreshing the minds of many. The idea is to recreate this scene so it was so that the approach would bear semblance to the past - that of approaching a village cluster where it all begin after the re-grouping of the Egbas. This would create an attractive tourist image giving an identity to the place and a uniqueness.

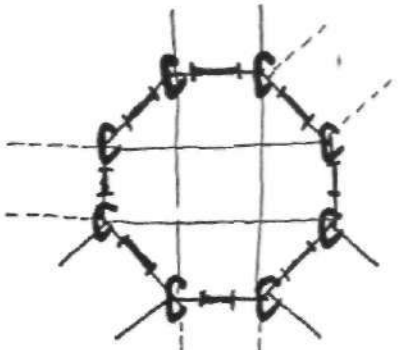
5.6 Form (Fig. 5.9)

The form which emerged was the octagon after a critical study of all the other shapes. It came up in the search of an organic form, where each part carries out a vital operation giving rise to a unified form. This is seen in the benzene and octane rings where there is no function unless all six and eight carbon atoms respectively are present. The octagon was dicussed under the following:-

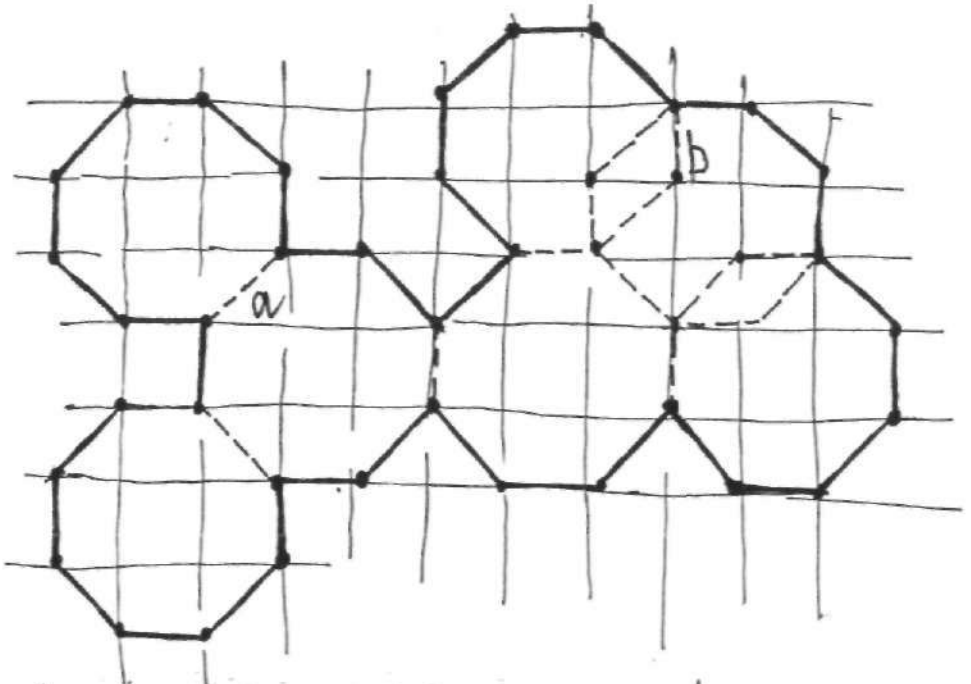
Flexibility:- The shape is so flexible and that is what rates it high amongst other shapes, - circle, square, rectangle, etc. Any-way it is placed,it remains the same. It is linked up easily from any of its sides thereby making future expansion an uncomplicated process.

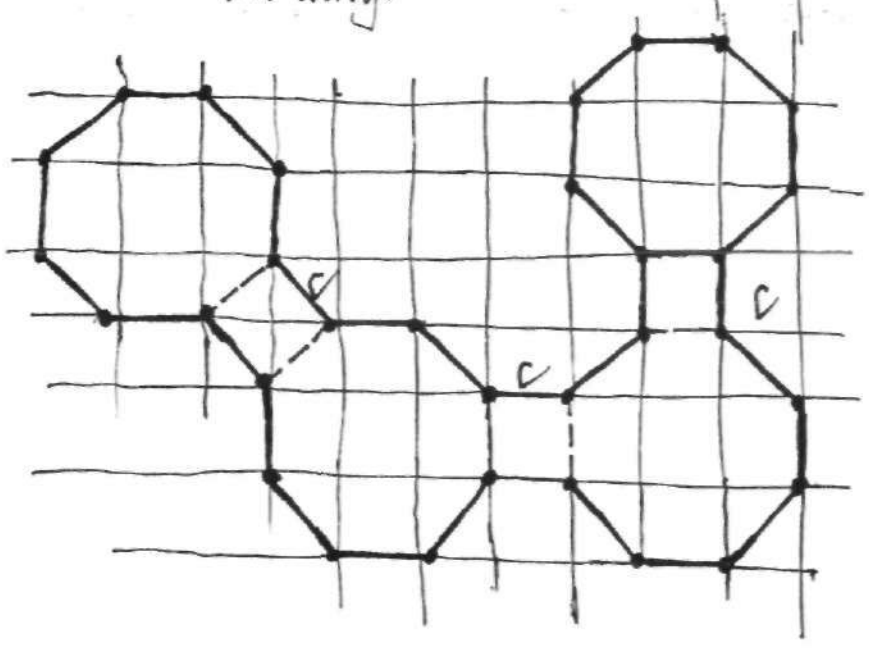
Ventilation:- Its numerous sides make it possible to ventilate this shape uniformly with cross ventilation in four possible directions.

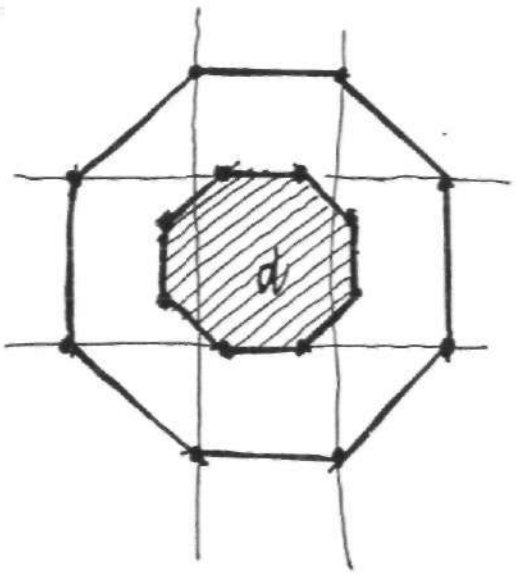
Fig. 5·9. — COMBINING OCTAGONS - IN SEARCH OF AN ORGANIC FORM.



Octane Structure
Each carbon atom is a vital part of the ring.







With this, there is no dependance on a mechanical means of ventilation.

Area:- Surface area is less than in the case of squares and rectangles but not the circle which has the most economical surface area.

Lighting:- This is similar to the case of ventilation - the shape is naturally lighted up from a maximum of eight possible sides in a uniform manner. Even when linked up it is still possible to light it up from at least four sides.

Acoustics:- The shape under this consideration fairs well; moreso as compared to the circle which has a smaller surface area and is rated poor acoustically.

Roofing:- Due to its high flexibility, the octagon has a wide range of roofing possibilities - flat, conical, folded plate; pitched, shell, etc.

Structural Consideration:- This involves the shape in combination with octagons or other shapes. For easier roofing and structural solutions the octagon could be combined with squares or rectangles. The combination of two octagons would necessitate careful roofing considerations. Positioning of columns is quite straight foward - a column at each vertex, connected by a ring beam or horizontal tie.

Cost:- This shape is more costly to construct when compared to the square and rectangle. It vies with the circle in cost. However, where cost is not the most vital pre-requiste (as in

CHAPTER SIX

DESIGN

It becomes necessary at this point to introduce the client, sponsor and users of this project.

CLIENT — Ogun State Ministry of
SPONSOR — Trade and Co-operatives
USERS — Domestic and International Tourists, the Egba locality.

6.1 Brief Development

The brief was developed from the chosen case studies, surveys conducted on site (during peak periods of tourist visitation) and market demands in Abeokuta. The facilities to be provided are as follows:-

Car Park	Bar
Tourists' Reception	Drink Spots
History Museum	Children's Playlot
Souvenir Shops	Park and Gardens
Restaurant	Outdoor Games
Vertical Transportation	
Administration	

These facilities have been considered under passive and active headings and have been categorised as such. However, three zones emerged.

Zone 1 - Access Zone

This is basically the zone which admits visitors to the site. It is both a receptive and informative zone. Depending on familarity of the site, visitors are able to disperse from here.

It consists basically of the:

Car Park	History Museum
Tourist Reception	Administration
Souvenir Shops	Park and Gardens
Bar	Resturant

Zone 2 - Active Recreation Zone

Grouped under this zone are activities that require full participation. This area of the site will generate more noise than the others. It will include:

Children's Playlot	Rock Climbing
Outdoor Games.	

Zone 3 - Passive Recreation Zone

This area of the site includes facilities that do not require any exercise. It will provide for quiet spots where tourists/visitors can hibernate. It will include:

Car Parking:- There will be a public car park for visitors separate from parking for the administrative staff which will be for 10-15 cars only. Service bays will be provide where necessary for supply vechiles. A taxi park (vechicular drop - off point) run by the Olumo management is proposed, where tourists visiting the site without their own transport can be brought in from the Itoku - Igbo-Ora Road for a fee of 10k or 15k. This will serve as an earning towards the management of the centre.

Tourists Reception:- This will be visible from entry point and will consist of a plaza and lounge.

Visitors to the site will be welcomed here by guides and will be able to obtain necessary information. The plaza will be divided into three, functionally and not visually, namely the head, access and tail. The plaza head is a visual element of the whole, where sculpture water fountains and pools will be broken with plantings and coconut palms. The access as the name implies, will include entry points from the taxi park and public car park. It will also serve as an exterior lobby and meeting point between the visitors and the management. The plaza tail will be a mix of seats and plantings. Visitors may relax here and enjoy the scenic beauty. It might also serve as a waiting point for visitors, especially those who come in groups.

History Museum:- This will be primarily for information and cultural awareness. It will consist of an exhibition area, a reference library and an audio - visual room with supporting facilities. Artifacts belonging to the ancient Egba warriors and to do with Egba history in general, potraits, crowns and wears of past Alakes of Egbaland will be well presented as exhibits for tourists. The reference library will have to do mainly with the storage of volumes (related to the Egbas and the Yoruba as a whole), although visitors to the centre will be able to borrow books to read outside it. The audio-visual room will help in

the pre-education of tourists visiting the site. Slides (some of Olumo and its interiors) will be shown here with pre-recorded talks as commentaries. This will serve as a motivation and an enticement to get to the live model.

Administration:- An essential part in the running of this centre. It houses the management of the centre - the general over-seer of affairs within the site. It will contain offices for staff concerned with the over-caretaking of various parts of the centre.

Childrens' Playlot:- Children brought to the centre will range from toddler age to adolescence, some of who will not be able to participate in rock climbing as some parts of Olumo are very hazardous. To this end provision has been made for them in form of a childrens' playlot at the base of the rock (the start of the climbing steps), where they can be deposited and picked up immediately after the climb. There will be supervision close by. The playlot will be made up of three areas namely toddlers, infants and older childrens' areas. This will enable better playing groups. Play material will be generally made up of timber pieces put together in different forms. The idea is to make the components unlike what obtains in most of the childrens' gardens, so that they will busy themselves with new and interesting play pieces without noticing their parents abscence. Some pieces are shown in fig. 6.1.

CHILDRENS PLAYLOT



CHILDRENS PLAYLOT

Sand Pit
Play Cheshire
Island Features
Tyke Swings
Play Logs
Chair Bridges
Log Pile
Tyke Tunnels
Play Complex

OLUMO ROCK TOURIST DEVELOPMENT SCHEME

Abeokuta.

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First Aid will be taken care of.

Rock Climbing:- This facility is already a natural event, (the main attraction to the site). The climb is hazardous in some parts. The intention is to provide an alternate method in order to facilitate easy ascent to the summit. The hazardous route, however, will remain as the danger is what actually gives joy or sense of achievement to climbers after reaching the ultimate. A vertical motor - car system is proposed. It will be a two-way working system - mechanical and electrical. It will serve as a way - out for the less adventurous climbers. Drink spots will be put up on the rock surface, at strategic points including the summit and base. They will be sub - structures attached to the rock the super - structure). The materiel will be timber. Drinks could be bought at these spots by tired climbers who are in need of refreshment. (See Fig. 6.2). First Aid will be provided for in case of any accident that may occur during the climb.

Outdoor Games:- To diversify activities within the active recreation zone, outdoor sports have been provided. To this end, swimming pools, tennis and badminton courts (with their supporting facilities) have been proposed. Provision has however been made for table tennis, (indoors) which is quite popular in these parts. An indoor room for cards and 'ayo' game which is well known with the Yorubas has also been provided. This is all within the

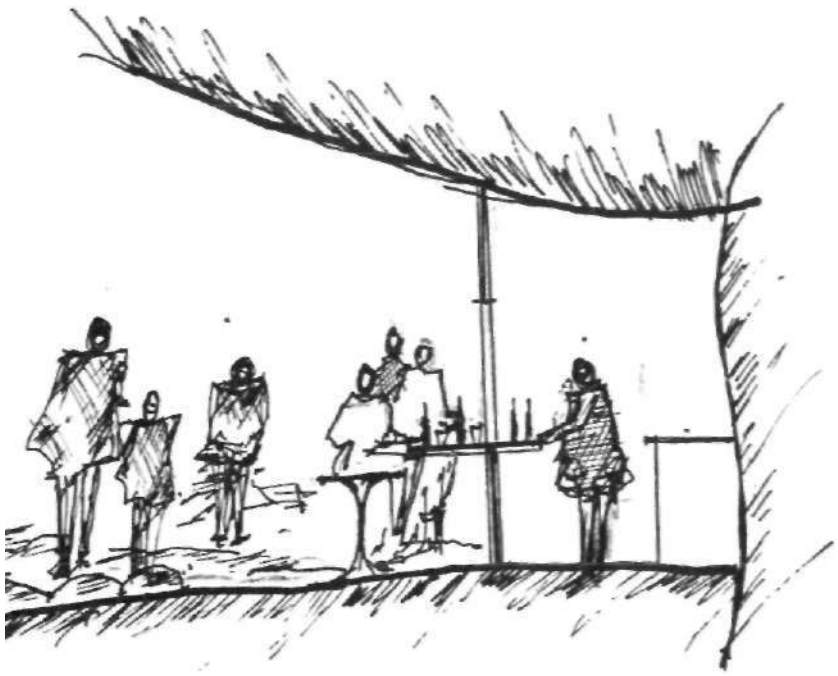
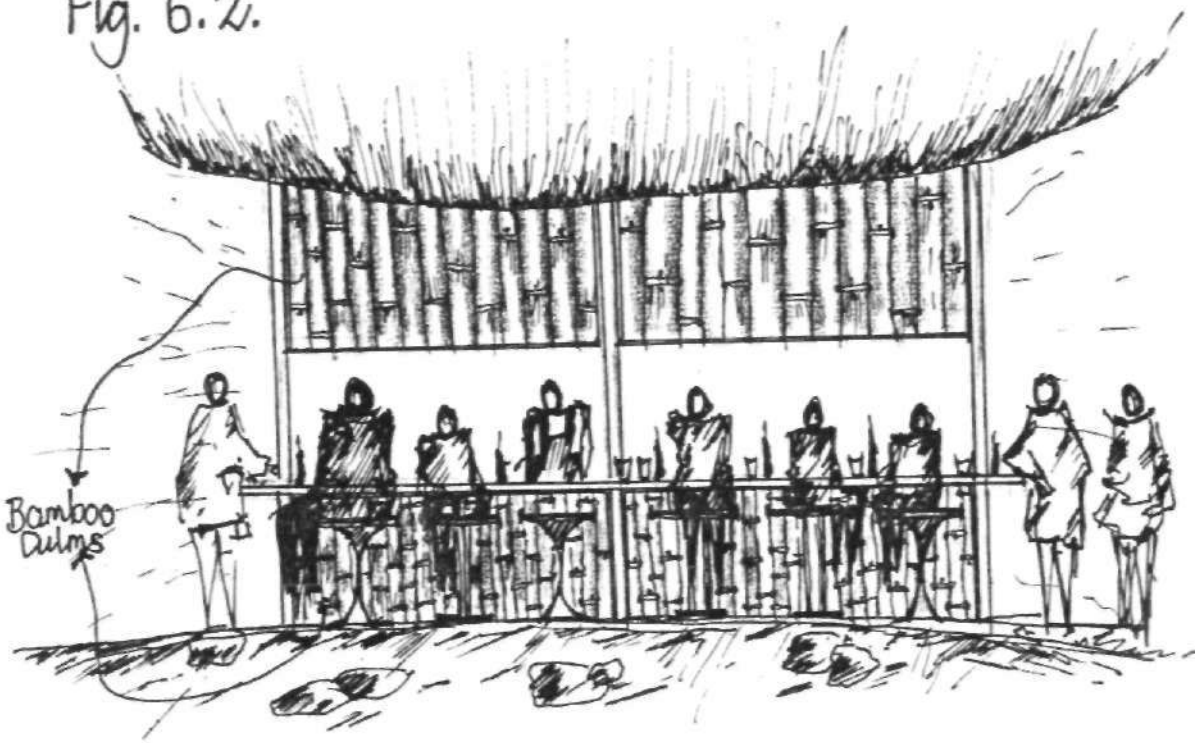
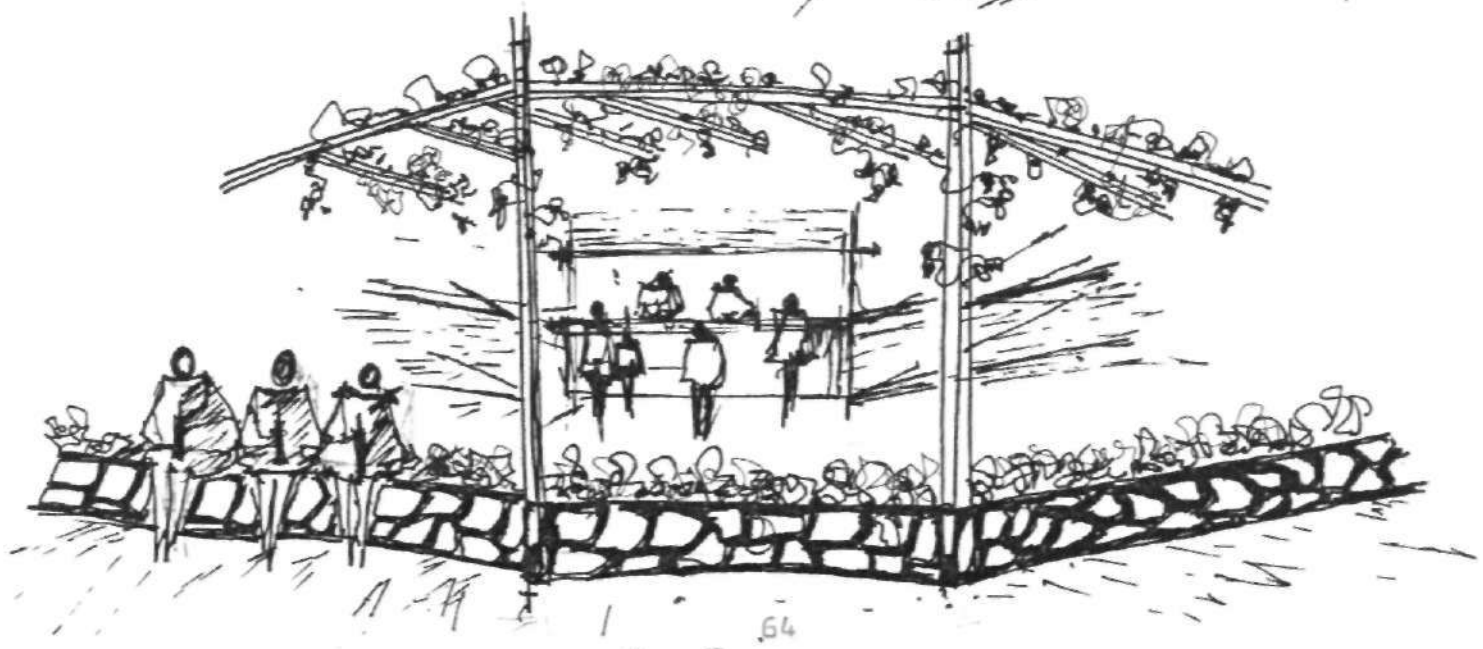


Fig. 6.2.





outdoor games area. A drinks kiosk with a sitting area will be provided, for the sale of drinks and snacks to users of the games facilities. There will be three pools:

- a standard pool for swimmers
- a learner pool for beginners and semi - swimmers
- a wading pool for the very young children.

Attached to these areas will be facility for picnicking - a nature park. This outdoor games area will not serve as a distraction to the rock - climbing (the main attraction) but as an addition to site activity and an extra earning for the centre. The majority of its users will be from the Egba locality. The only other place in Abeokuta which cater publicly for such (swimming pools, etc.), is the Ogun State Hotel and being a state capital there is no fear that these facilities within the rock site will be under-utilized.

Souvenir Shops:- These are lettable shops which will be leased out to local craftsmen for the sale of their arts and crafts. Such arts and crafts like 'Adire' tie and dye; ' Aso-Oke ' - woven cloth; Dyed cloths, Carvings and Pottery peculiar to Abeokuta and its environs will be sold to tourists and visitors to the site. This will serve as an open invitation to visit the actual crafts - making centres within Abeokuta township thus enhancing tourism to Abeokuta as a whole with Olumo as the focus.

Odds shop will also be included where miscellaneous goods, gifts and minatures (possibly of Olumo) will be sold. These souvenirs will give tourists something to hold on to, a take-away, in remembrance of their visit to this great historic site.

Restaurant:- This will be provided as a final stopping place for tourists who have been through the site and want to refill themselves in a relaxive atmosphere, particularly after a tiring climb. This is not to say that the restaurant will not be directly accessible to visitors who have come to the site primarily to eat. There will be provision for indoor and outdoor dinning so that optimum use of good views will be utilized. Visitors will still be in touch with nature whilst having meals. Supporting facilities will be provided. The restaurant is expected to serve delicacies peculiar to the Egbas, amongst other everyday dishes.

- all towards the pronunciation of the Egba as a people.

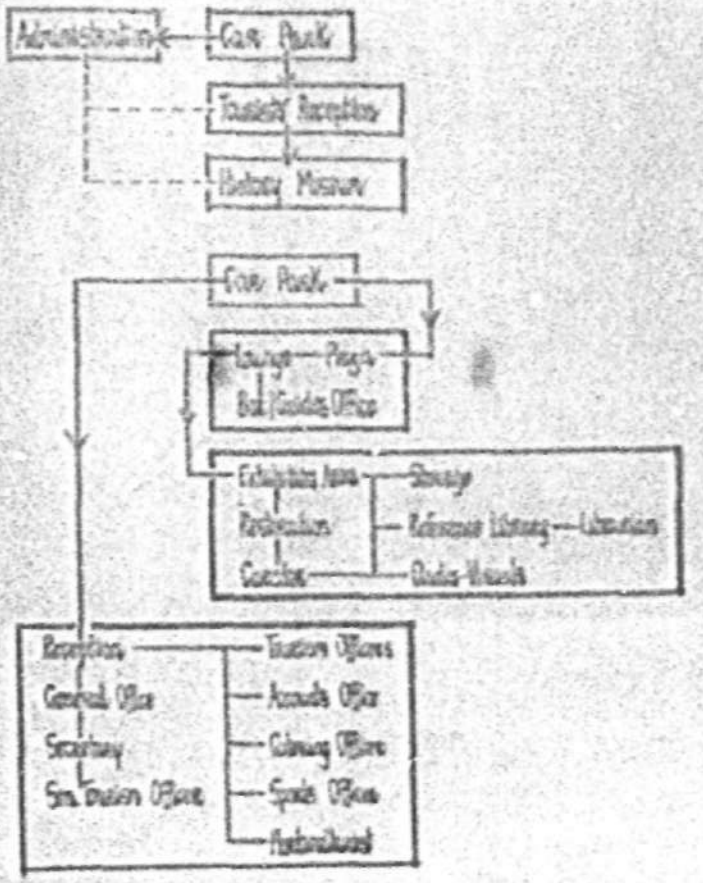
Bar:- This is a supporting facility to the restaurant. It will be an indoor one and will cater for half the restaurant capacity. Only snacks and drinks (of course) will be served as an alternative for visitors who do not want a full meal but a bit to chew on and drinks to refresh themselves.

Park and Gardens:- These will be employed to break monotony as well as create an area where

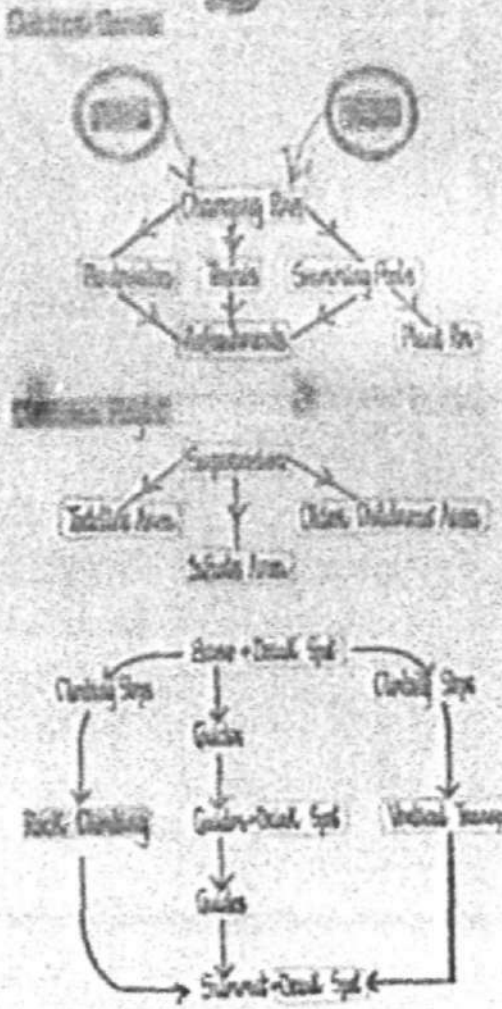
people could relax and watch the slow movements of nature go by. They will be integrated with activities on site so that they do not end up being isolated or forming pockets on site that are obscure and will generally not be in use. The parks and gardens will be made up of natural and man - made components. Park benches will be provided as well as sitting areas amongst plantings and scultptures. A rock garden will be developed to the northern part of the rock mass where there are wild weeds growing amongst boulders. A 'natural' pool with a waterfall is also proposed. This will be at the height of 105m above sea level utilizing a re-circulation process. Excavations will have to be made to provide troughs or cavities through which the water will gush into a pool at the bottom of the fall. Water supply for the fall will be from the mains directly into the pool which will have a permanent water level below which the water must not fall. Water from this pool is what is pumped up to the top of the fall. The pumping system will be designed such that the force will equal that of a rapid and the outlet will be made of small openings constituting a large one allowing large volumes of water to pass through. It will also contain filters to sieve out dust and dirt dissolved in the re-circulated water so that it remains clean and refreshing. Good views towards the waterfall will be utilized to the optimum.

FLOW CHARTS

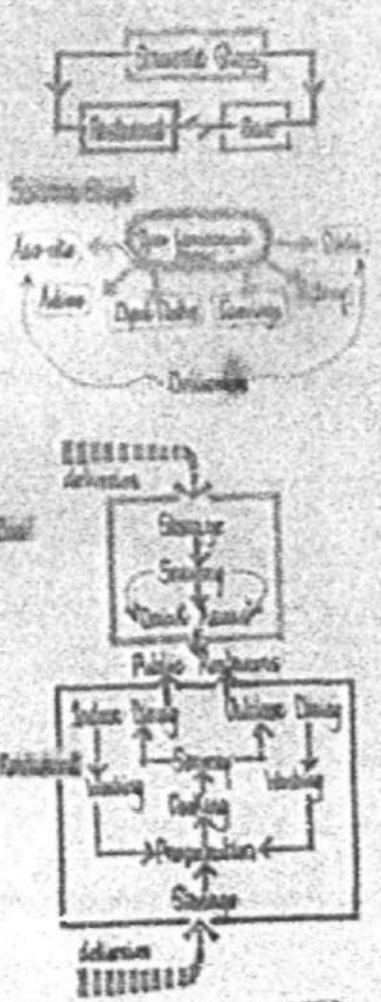
1



2



3



LUMO ROCK TOURIST DEVELOPMENT SCHEME Sheet 12

Flow charts are seen in Fig. 6.3

6.2 Schedule of Accommodation

CAR PARK (for 100 cars - 20m^2/car) .. 2200m^2

TOURISTS RECEPTION

Plaza ... . 300m^2

Lounge ... . 125m^2

Box Office/Office ... ... 15m^2 each

(W.C.'s for male & female visitors)

HISTORY MUSEUM

Exhibition Gallery ... ... 150m^2

Reference library/Storage

(50% of Exhibition) ... ... 80m^2

Restoration Room ... ...

(25% of storage) ... ... 25m^2

Audio Visual Room (50 people - 1.2m^2/person) ... . 60m^2

Store ... . 10m^2

Curator ... . 20m^2

Office ... . 12m^2

(W.C. for male and female staff)

ADMINISTRATION

Reception ... . 20m^2

General Office ... . 20m^2

Senior Tourism Officer ... .. 15m^2

Secretary ... . 12m^2

Tourism Officers ... . 15m^2 each

Accounts Office ... . 15m^2

Horticulturist ... . 12m^2

Catering Officer ... . 12m^2

Sports Officer ... . 12m^2

Stores (2)	... ...	$10m^2$ each
(W.C. for male and female staff)		
OUTDOOR GAMES		
2 Lawn Tennis Courts (23.77m x 10.97each	..	$594m^2$
Badmintion Court (6.1m x 13.44m)	...	$139.4m^2$
Table Tennis	... ...	$120m^2$
Games Room	... ...	$30m^2$
Swimming Pools: Main Pool (12m x 25m)	..	$240m^2$
Learner Pool (8m x 12m)	..	$96m^2$
Wading Pool (6.5m x 7m)	..	$46m^2$
Bar Annexe: Sitting for 25 people $1.6m^2$/person		$40m^2$
(Drinks Kiosk) Servery (40% of sitting)	..	$16m^2$
Storage (50% of servery)	..	$8m^2$
Changing Cubicles/Showers/W.C's		
Plant room	..	$30m^2$

CHILDRENS PLAYLOT	... ...	0.1 ha.
Supervision Hut	... ...	$20m^2$
First Aid	... ...	$20m^2$

(W.C.'s for male & female children)

Toddlers Section - Sand pit, Tyre Tunnel, Play Logs, Stumps, etc.

Infants Section - Log pile, Tyre Swings Dogder, Island Fortress see-saw,.etc.

Older Childrens' Section - Play Complex, Cluster, Hopscotch, Arch Climber, etc.

There will be a drinking fountain for all sections.

ROCK CLIMBING

Drinks Spots	... ...	$20m^2$ each
First Aid	... ...	$20m^2$

RESTAURANT

Indoor Dinning (50 people - 1.7m^2/person) 85m^2

Outdoor Dinning (50 people -1.7m^2/person) 85m^2

Kitchen (65% of sitting area including catering facilities) ... ... 104m^2

Preparation, Cooking, Washing, Serving 40m^2

Dry storage ... ... 10m^2

Cold storage ... ... 9m^2

Warden ... ... 15m^2

Changing/showers/W.C.'s for male and female staff ... ... 30m^2

(W.C.'s for male & female visitors)

BAR.

Sitting Area (50 people -1.6m^2/person) .. 80m^2

Servery (40% of sitting area) ... 32m^2

Storage (50% of servery) ... .. 16m^2

SOUVENIR SHOPS

Adire shop (plus store) .. 25m^2

Aso-oke' shop " " .. 25m^2

Carvings shop " " .. 30m^2

Pottery shop " " .. 30m^2

Dyed Cloths Shop " .. 25m^2

Odds shop .. " .. 30m^2

PARK AND GARDENS ... .. 0.5ha.

6.3 Site Planning

The site is basically zoned into three as previously discussed. The concepts envolved were the loop and triangular concepts whereby tourists move round the three zones, returning to the first zone from where they are able to

leave the site. Tourists may also move round the site without necessarily going through all three zones, but to the one they want to. The loop concept has to do with the complete tourist tour of the site whilst the triangular concept has to do with the three activity zones. This can be seen in fig. 6.4. The loop concept of movement and the triangular concept of activities are thus superimposed on each other.

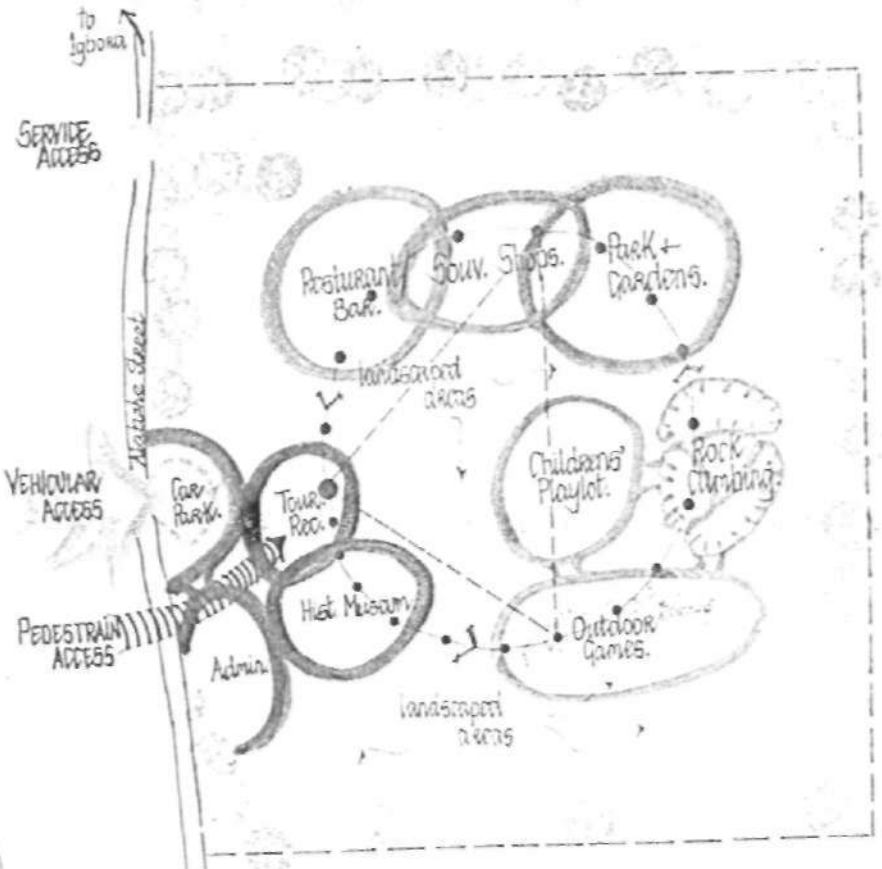
Loop Concept of Movement

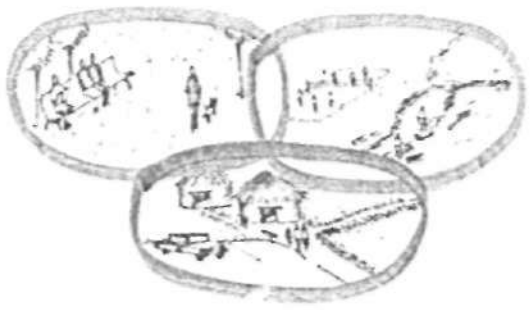
Arrival of tourists in the car park is followed by a reception in the plaza. The flow then continues through the lounge into the History Museum. This is the end of the first zone (Administration is not directly accessible from the plaza are public car-park) at the end of which the second zone starts. In this zone, is the main attraction - climbing the Olumo. The out-door games is an optional area of the zone and can be by - passed (unless the intention is to play games). The childrens' playlot is at the bottom of the rock and children can be dropped here during the climb. The end of the rock climbing, at the foot of rock, is literally the end of the second zone and leads on to the souvenir shops and restaurant/bar areas in zone three. These all face the waterfall and gardens providing good views whilst tourists move along the frontage of the shops or are eating and drinking. The tourists are allowed to pass by the souvenir

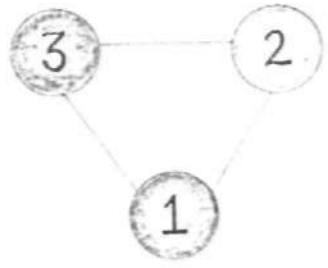
- ZONE 1 — Car Park, Tourists' Reception, History Museum, Administration.
- ZONE 2 — Active Recreation.
- ZONE 3 — Passive Recreation.

Active Recreation
- outdoor games.
- children's playlot.
- rock climbing/drink spots.

Passive Recreation
- park + gardens.
- souvenir shops.
- resturant/bar.







SCHEMATIC DIAGRAM of ZONES

SITE CONCEPT is based on loop and triangular concepts.



shops a second time before they leave the site, to coax them into buying more articles or changing their minds about buying articles from the shops. By the time tourists leave the shops they end up in the car park which is in zone one. They are able to leave the site from here after going through the three zones without realizing it.

Triangular Concept of Activities

Arrival of visitors to the site in the car park connects them to any of the other two zones without having to necessarily go through the other. Each zone is a vertex of the triangle and connections of the zones are through the shortest possible routes.

CONCLUSION

This is probably not the first attempt towards the development of tourism in this country. It is however a positive scheme which outlines an implementable plot from the first to the final stages. It is also a call to all those directly involved in the tourism industry - the air travel trade, hoteliers, tourism bodies, boards and managements, inhabitants of the tourist locality and the tourists themselves to put forces together to make this industry not only a resourceful one, but also one of world reknown.

The problem of developing tourist centres in this country is three - tier; first in identifying the spots, publicizing these spots and finally gearing people towards the spots. In the move to solve these problems, all hands must be on deck because it is known that Nigerians themselves are not tourists. One must also bear in mind the adage, 'Charity begins at home'. If Nigerians themselves do not patronize their own industry, one then questions the subject of international acclamation.

The Olumo Rock Tourist Development Scheme if adopted will pronounce the Egba as a people to all, far and near, by the preservation, at the same time enhancement of their original home in and around the monumental relic. It has also blended architectural design forms with natural land form., a further contribution to the marriage between man and nature.

BIBLOGRAPHY

Nigerian Tourist Board, (1980), Nigerian Tourists Companion

Denito Planning Associates, (1976), Olumo Rock Tourist and Recreational Centre. unpublished proposal.

Eastwick-Field, J. and Stillman, J. (1966), The Design and Practice of Joinery

Griese, H. and Hoffmann, K. (1969), Building with Wood.

Biskanga, F.B. (1976), Yankari Safari, Unpublished M.Sc. Dissertation, Ahmadu Bello University, 1976.

Garber, T. (1982), A Re-development of the Wikki Camp, Unpublished M.Sc dissertation, Ahmadu Bello University, 1982.

Neufert, (1982), Architects' Data

Macmillan, Tropical Planting and Gardening

Kawka, S., Natural Resources: Building Material, Department of Architecture, Ahmadu Bello University,

Simmonds, J.O., Landscape Architecture

Lynch, K., Site Planning

Hackett, B., Landscape Planning

Rubinstein, H.M., A Guide to Site and Enviromental Planning.

Tyler, R.G.) "The Structural Properties of West African Timber". A Publication of West African Building Research Institute, August, 1962.

Eckbo, Garrett, "The Landscape of Tourism", Landscape, 1969, Volume 18, No. 2

"The Use of Bamboo and Reads in Building", A Publication by the Department of Economic and Social Affairs of the United Nations Organization, New York, 1972.

"Hardwoods of Nigeria", A Publication issued by the Office of the Comissioner for Nigeria in the United Kingdom.

"Climbing Mt. Fuji", Japan Pictorial, Vol. 4, No. 1, 1981

"Mountains of Legend", Japan Pictorial, Vol. 6. No. 3, 1983.

"A Visitors' Centre for an Historic House", Architectural Record, October, 1977

"Bamboo as a Building Material", Overseas Building Notes, No. 46, August, 1957.

"The Prevention of Termite Damage to Buildings", Overseas Building Notes, No. 26, January, 1955.

"Olumo Rock - The Home of Caves and Wonders", Sunday Sketch, 13th May, 1984.

"Tourism", The Nigerian Herald, 27th September, 1983.

Site Location



Site Section

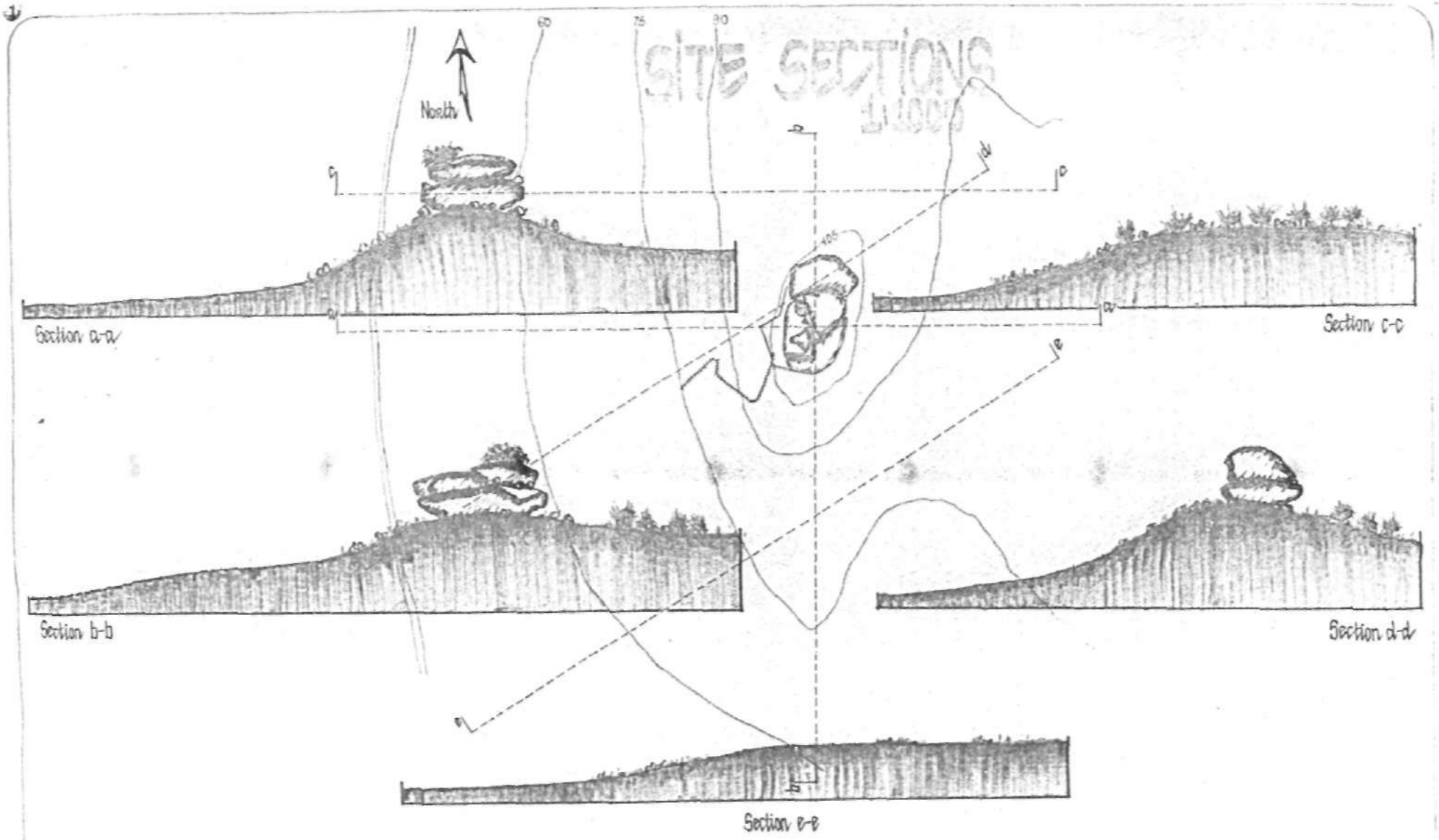


OLUMO ROCK TOURIST DEVELOPMENT SCHEME
Abeokuta.

3

SITE SECTIONS

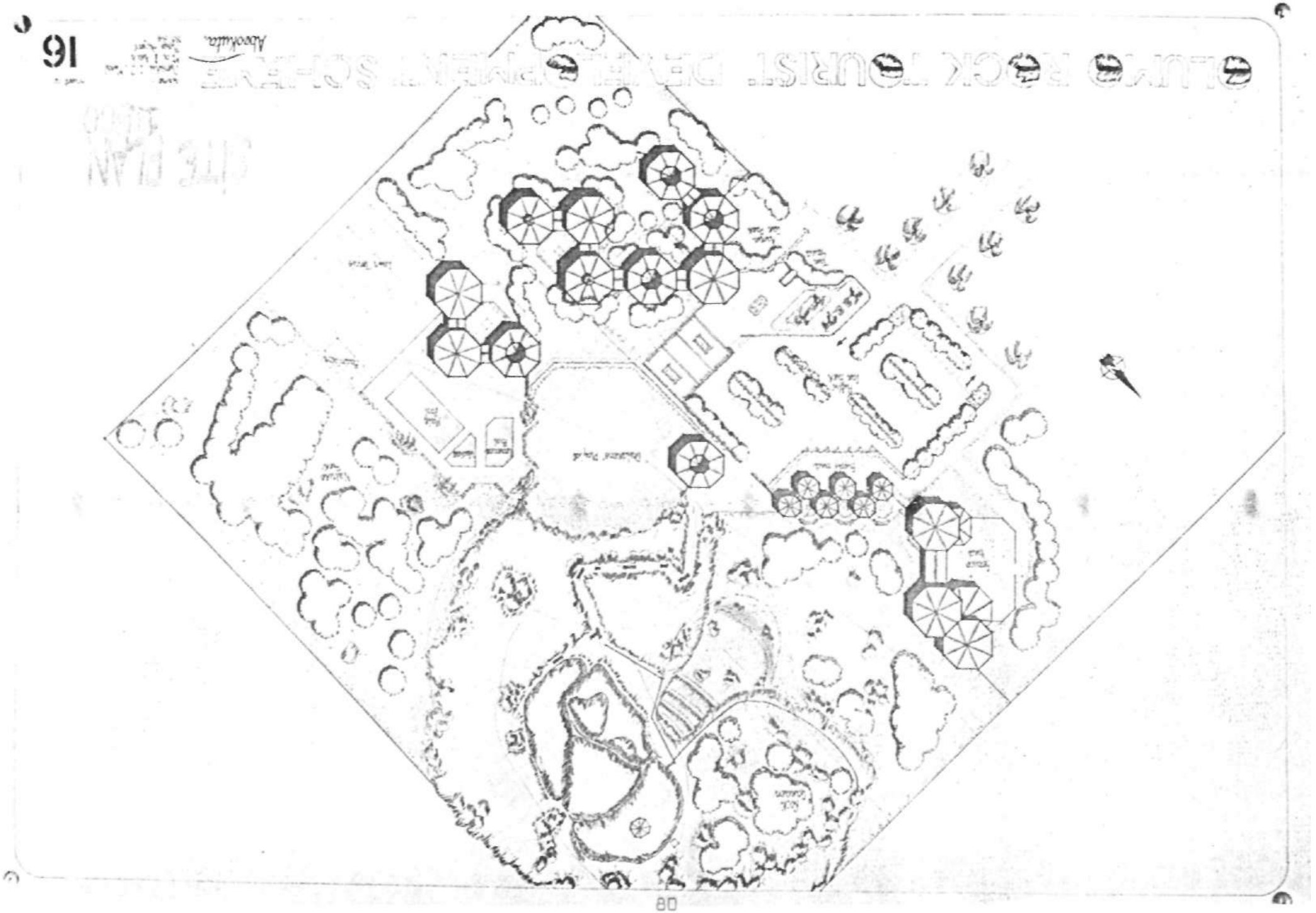
North

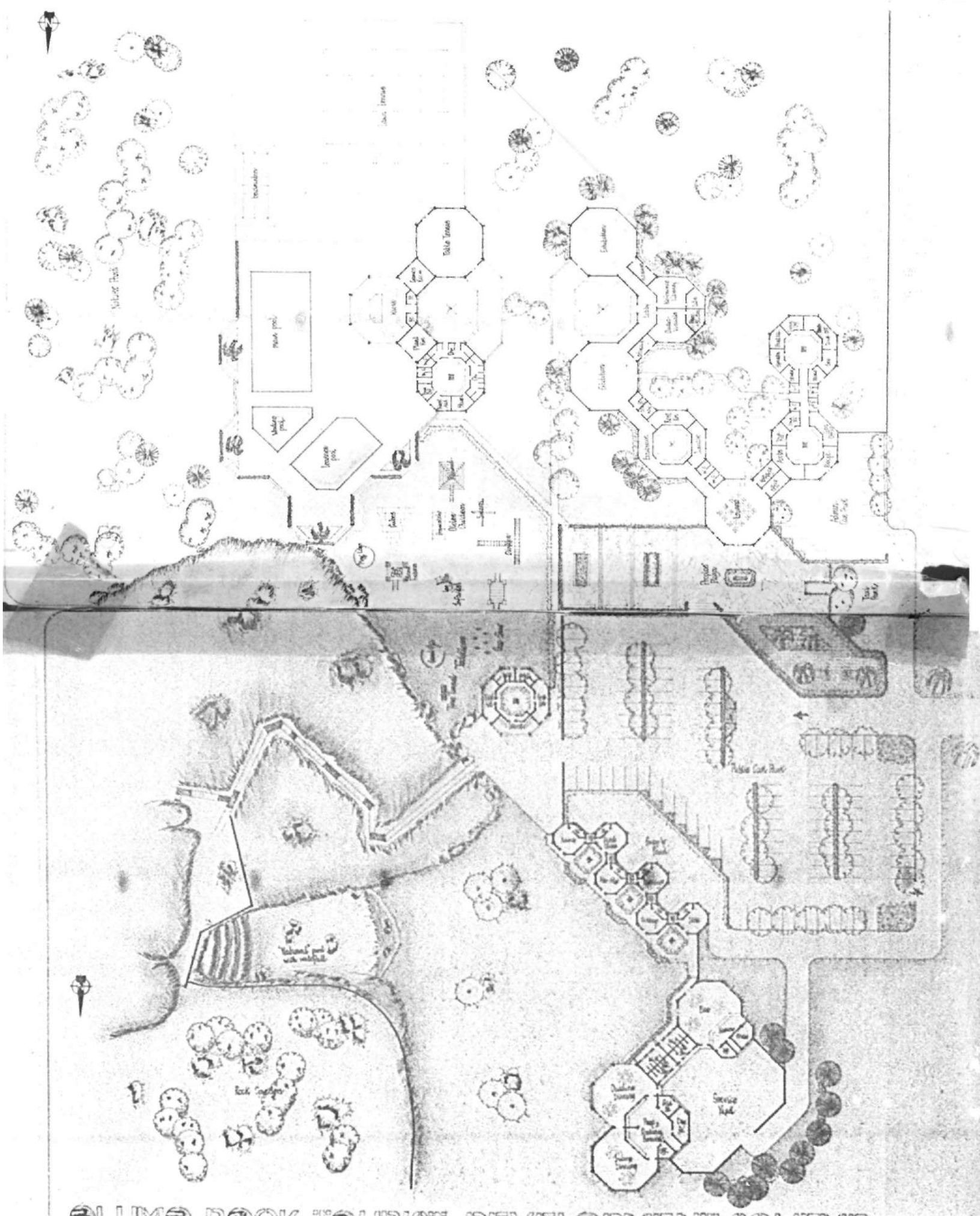


OLUMO ROCK TOURIST DEVELOPMENT SCHEME

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BLUME ROCK TOURIST DEVELOPMENT SCHEME

Aberdeen

13



Approach Elevation.
1:250

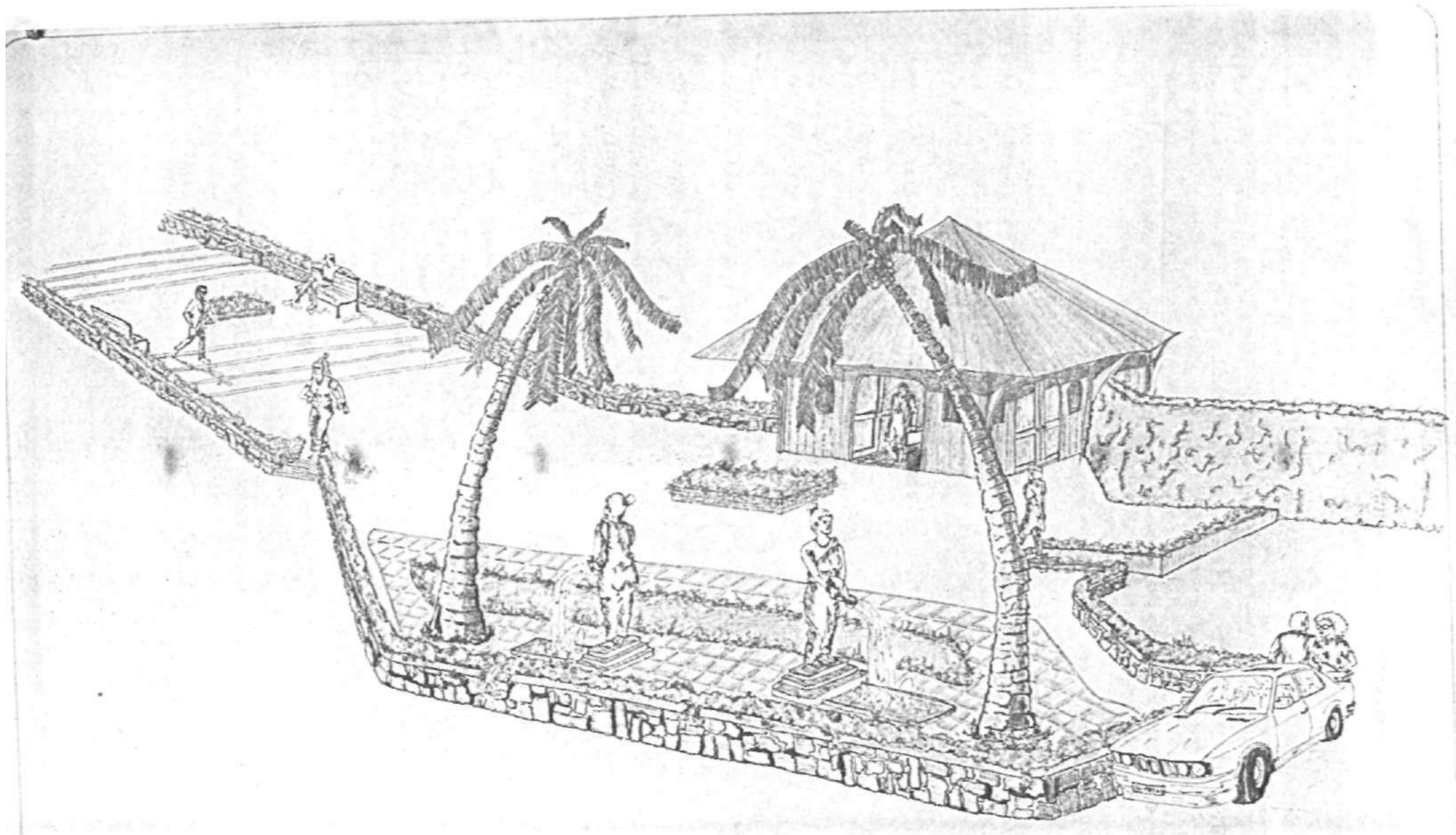


Sectional Elevation A-A.
1:250

OLUMO ROCK TOURIST DEVELOPMENT SCHEME

Abeokuta.

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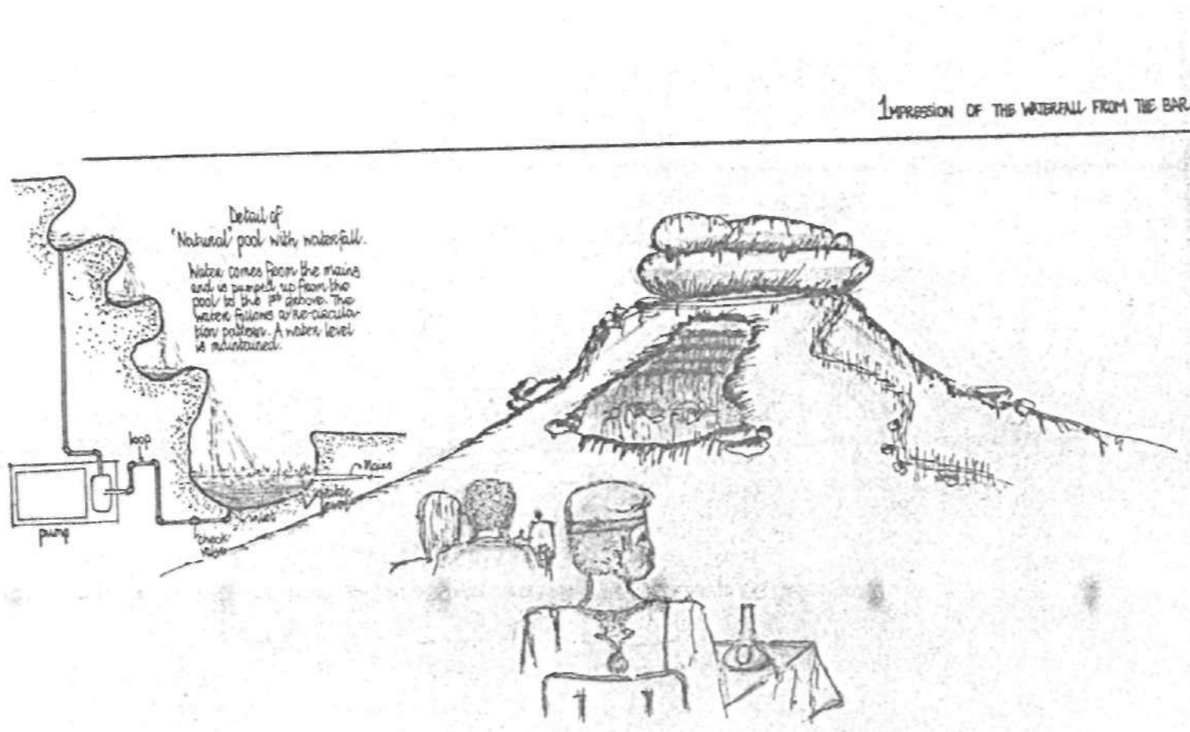
VIEW OF THE PLAZA.

OLUMO ROCK TOURIST DEVELOPMENT SCHEME

Abeokuta.

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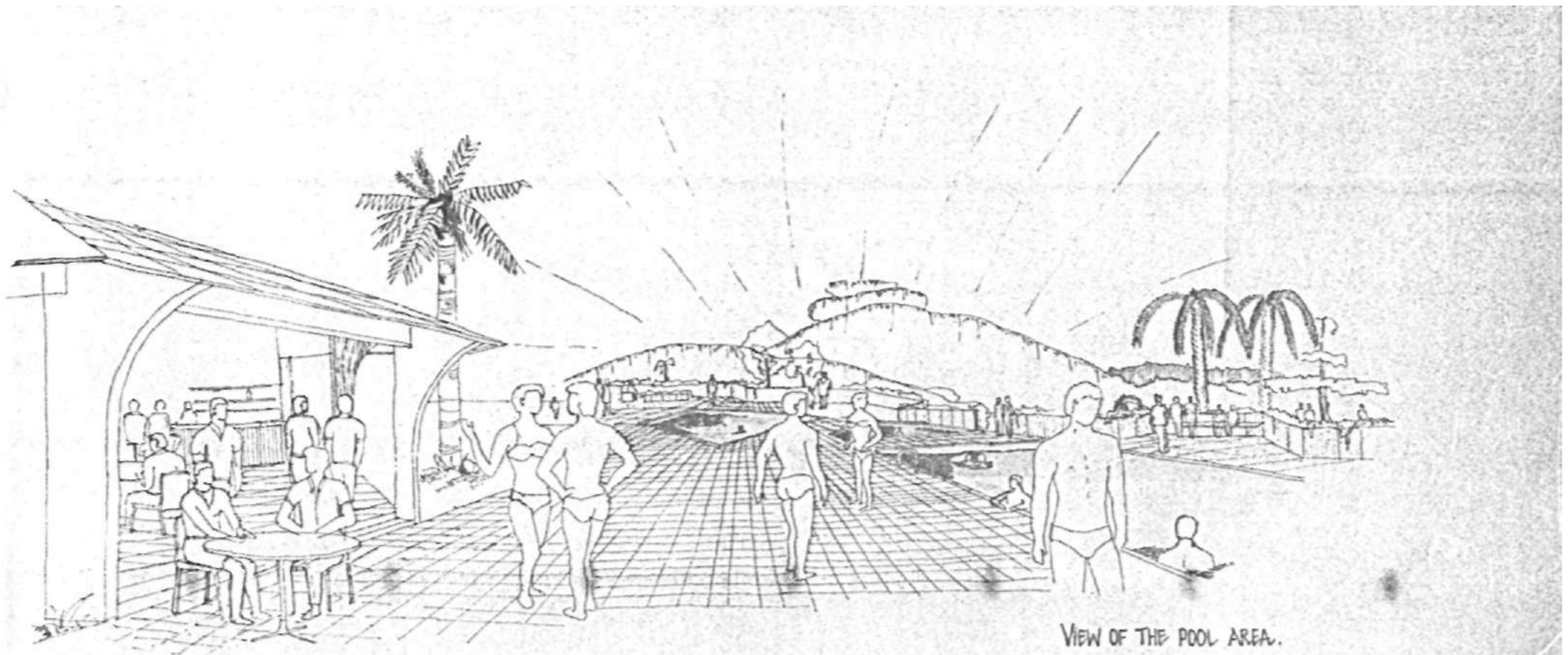
1 IMPRESSION OF THE WATERFALL FROM THE BAR.



OLUMO ROCK TOURIST DEVELOPMENT SCHEME

Abeokuta.

Drawing No. 21



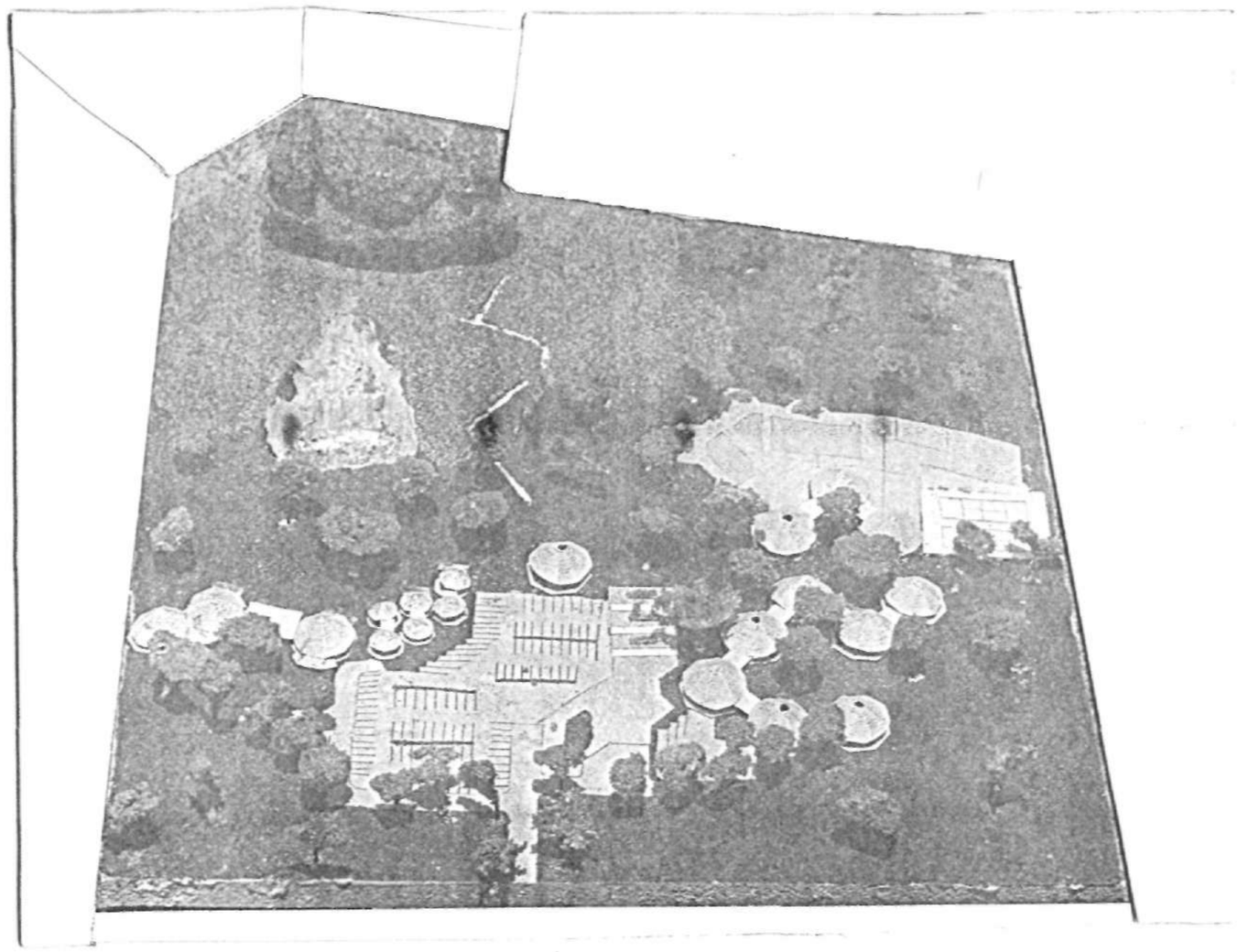
VIEW OF THE POOL AREA.

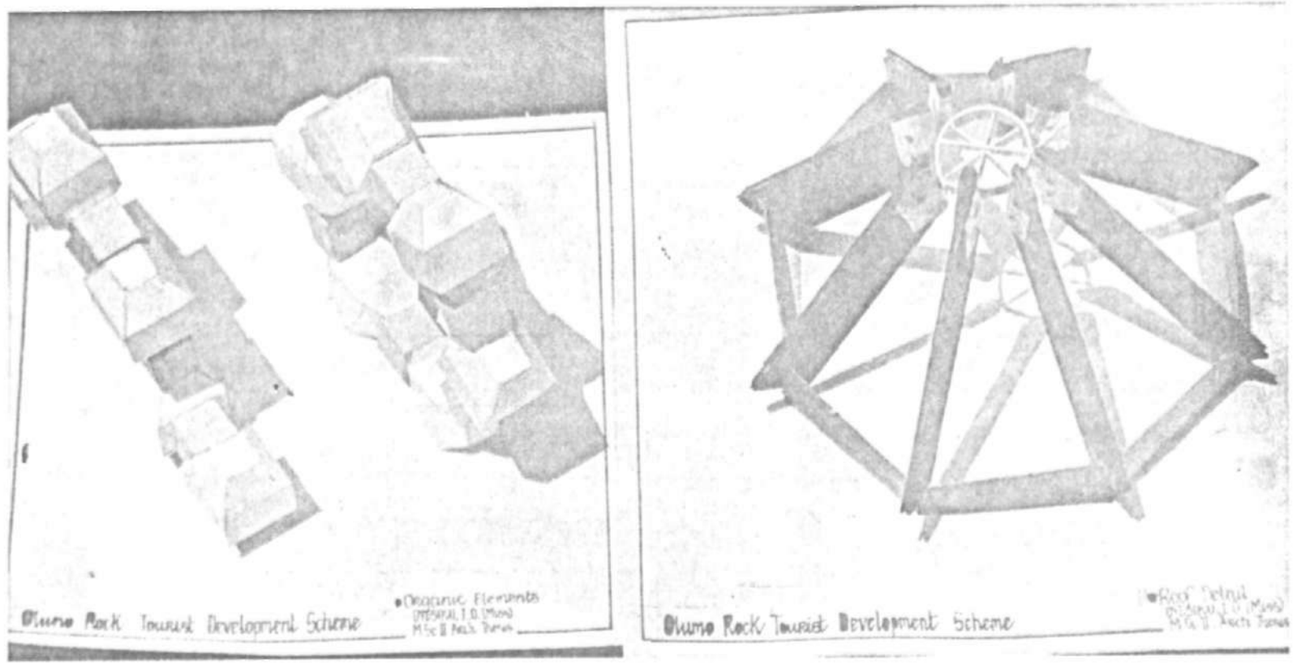
OLUMO ROCK TOURIST DEVELOPMENT SCHEME

Abeokuta.

Name: Ogunlu, I.O. (Mrs) M.Sc I Arch. Thesis Project 83/84

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