

**PROPOSED LEISURE PARK  
(BAUCHI)**

**(WITH EMPHASIS ON PROVISION OF GUIDED HUMAN CIRCULATION)**

**BY**

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(M. TECH / SET / 99 / 2000 / 497)**

**SUBMITTED TO THE DEPARTMENT OF ARCHITECTURE  
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**NOVEMBER, 2000**

## DECLARATION

I MAZADU Elisha YAKUBU hereby declare that the thesis entitled "Leisure Park" (Emphasis on the provision of Guided human circulation), Bauchi is a product of my own research work under the supervision of Dr. (Mrs) S.N. ZUBAIRU

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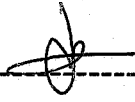
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## DEDICATION

This research project is dedicated to my parents SGT and Mrs. Elisha Mazadu.

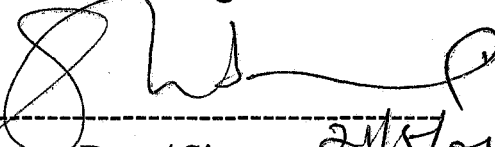
## CERTIFICATION

This is to certify that this research projects is an original work undertaken by Mazadu Elisha Yakubu (M. TECH / SET / 99/ 2000 / 497) under the supervision of Dr. (Mrs.) S. N. Zubairu and has been prepared in accordance with the regulations governing the preparation of projects in the Department of Architecture, School of Post-Graduate studies, Federal University of Technology Minna. The project has been read and approved by:

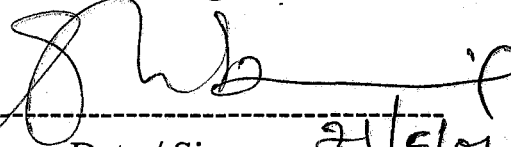
  
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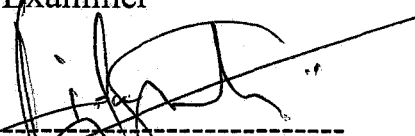
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I wish to acknowledge with thanks, the assistance of several persons who aided me in one way or the other in making this project work a reality.

First, I am indebted to Dr. (Mrs) Zubairu (My supervisor) for her special assistance and also the Dean, school of Environmental studies. I wish also to express my thanks to all the lectures in the Department of Architecture, people like Arch Annuobi, Aniya, Haruna, Adeshina and others.

Most importantly, I wish to express my deepest thanks to the members of my family. My parent's Sgt and Mrs Elisha Mazadu, my brothers and sisters like Mr Abubakar Elisha, Dr. Musa Elisha, Yusuf, Zakariya and Asenath Elisha. To my dearest sister and her husband (Mr. And Mrs. Nuhu Zarma) and to their new born baby (Dina). I say welcome to our world.

I am also indebted to my friends Moh'd Bashir, James Otioda, Halima, Peter, Fasasi, Nubi, Tunde Coker and the rest.

A special greetings and thanks to Miss Grace Mamodu. To my uncle MR MONDAY AKPATA, I give God all the glory.

Lastly to miss Awazi Luka, for her special love. I pray God guides our every action. To her family I wish happier days to come.

**Mazadu Elisha Yakubu**

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**Mazadu Elisha Yakubu**

## ABSTRACT

This project work highlight the result of a research carried out to examine the impact of guided human circulation in creating a better park services and environment.

A substantial aspect of the study involves the design of a better park environment with guided human circulation as it's main focus.

Bauchi has become a symbol of Tourism in Nigeria. Tourist are attracted to the state because they recongnise the presence of many tourist attraction and facilities. It's central location with good links with all the major transport routes, makes it a suitable place for the park.

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# CHAPTER ONE

## 1.1 INTRODUCTION

Leisure can be defined as “the time from work and duties or the time available to an individual, when the discipline of work and other basic need has been attained” (Webster).

Man's desire to reshape nature harmoniously to suit his needs and the means to preserve a conducive ecological environment for various leisure activities has been a vital point of concern. It has become common for people to travel over a long distance in search of leisure and recreation. This level of awareness in Nigeria compelled the Federal Government into promulgating Decree 54 of 1976, which established the Nigeria Tourism Board. Since then, a lot has been said not enough done to make tourism a viable economic concept. There have been numerous seminars, lectures, publications and articles emphasizing the importance of well-developed tourism market and policy. With the increasing level of awareness, the Federal Government again promulgated Decree 36 of 1991, which established six National Parks and a service board in the country in order to have a unified National Park system.

Tourism has been known to earn foreign exchange, create a better human relationship between the people of the world and also improve human physical/mental health. These points should form some of the goals of the tourism industry.

Following the failure of some existing park in the country (from surveys carried out) and in the light of present findings, both in the state and the entire country, the proposed leisure park, Bauchi will not only be a play space for the inhabitants of the state, but is expected to attract tourist from across the country and the outside world.

Bauchi by virtue of it's being endowed with abundant human and natural resources, has tourism as one of the mainstay of the economy. The Yankari National Park (the premier tourist resort in the West African sub-region) is located in the state, thus make's it a suitable location. Tourist coming into the state will see the leisure park as an improvement on the existing recreational facilities in the state.

It is the intention of this thesis to plan a suitable leisure park that will not only compliment the Yankari National Park,

<sup>also</sup>  
But provide additional recreational facilities. This will entail effective planning of circulation within the park area.

## 1.2 MOTIVATION

The government (both federal and state) have a number of tourist centers scattered all over the nation, but none, so far has attained the full height of recreation. This is due to lack of investors in the tourism sector. Other factors that contribute to the demise are:

1. absence of a recreational culture in the country's urban people, because most people spend their time working.
2. The poor economy facing the nation due to miss-management, corruption make's it hard for Government to invest huge sum of money into the sector.
3. The poor maintenance habit of the citizen who let these centers becomes dilapidated. This repels interested investors.

Collected data on existing parks has revealed that most of these parks lack decent or basic accommodation, Amusement, Sporting and touring facilities. This infact has created a problem to Architecture, that is the provision of recreational facilities to meet acceptable standards. Also it is a known fact that many project of this nature, which would have been a great success have been

unable to take off not to talk about succeeding, simply because they lack interested investors.

In order to exploit the benefits that will be achieved in the tourism sector, government created the ministry of Tourism changed with the implementation of its policies.

It is from this that inspiration for proposing a leisure park in Bauchi is derived. It will serve as additional recreational facilities in the state and also complimenting other existing tourism site.

This thesis will be a contribution in appropriate part as it:

- i) Studies and analyses problems that are associated with recreation for example traffic flow, human circulation, refuse disposal, security and planning within the site.
- ii) Provides needed information for other research bodies and investors who will be interested in investing in the sector.

### 1.3 AIMS

This research does not intend to offer a panacea but rather to highlight some areas that probably have been neglected on the wake and rush of development. These areas could provide a path leading to a successful tourist industry.

In detail the thesis aims at:

- i) Educating the public and the proposed patrons of the facilities on the diverse cultural and ethnic heritage of Nigeria.
- ii) To create an "ideal" leisure complex that will compliment other existing facilities in the state and the country in general.
- iii) Providing entertainment to visitors and children during their holidays.
- iv) Improving the revenue base of the state and nation. This could be seen in terms of foreign exchange.
- v) Achieving a balance state of mind, also reducing stress.

### 1.4 RESEARCH METHODOLOGY

The research technique will be based on descriptive survey. It could be defined as the method that involves physical observation, making measurement on the field with or without the participation of the object.



The technique will take the form of fieldwork or the identification of the users needs and other existing facilities. This study covers the entire nation, but detailed studies were carried out on some major recreational parks. The techniques adopted includes

- a) Field work; this involves visiting existing parks, in order to find out the adequacies and in adequacies. Environment data in the site are collected for detail analysis of the proposed site. This serves as a primary source of data.
- b) Oral Interview; it involves also talking to the tourist, patrons and users in order to get their various opinions on how to improve the existing facilities.
- c) Literature Review; These is the deskwork that involves research into existing Journals publication and textbooks. These so as to understand the organizational patterns of park and other recreationalcentres do a more in-depth study.

## 1.5 SCOPE AND LIMITATION OF STUDY

The leisure park will be a relevant project as it would help to improve <sup>the</sup> economy (which is already deregulated) of the state. This thesis bears in mind the various government policies on tourism and their recommendations.

The following exhaustive list of facilities to be provided in the park measure of the size and variety of audience it can attract. These facilities include;

a) ADMINISTRATIVE BLOCK;

This will house the managerial and administrative body of the proposed park. It will serve also for directory, inquiry, waiting and other facilities. The block will comprise offices, gallery, boardroom, account department, conveniences, waiting room, and library.

b) MEDICAL CENTRE/FIRST AID UNIT.

c) PUBLIC HALL AND CONFERENCE CENTRE

d) SPORT ZONE (indoor and out door games)

e) RESTURANT/SNACK'S AND ICE CREAM SPOT.

f) KIIDDIES KINGDOM; This will take care of children in assorted forms.

The game to be provided are,

- i) Merry-go-round (outdoor)
- ii) Panoramic wheel (outdoor)
- iii) Locomotive train (outdoor)
- iv) Swing\slide (outdoor)
- v) Scooter pavilion (indoor)
- vi) Phantom ride (speed cars), indoor.
- g) Accommodation (chalets)

- h) GARDEN/ MONUMENT
- i) SHOPS/BUSINESS CENTRES
- j) MAINTENANCE/SERVICE UNIT
- k) SECURITY ZONE (security light, gate house, fence, pedestrian walkway and security men).

## 1.6 PROBLEM DEFINITION

In the context of the Nigeria environment, most recreational parks have a major shortcoming in terms of circulation within the park area. Most park do not have facilities created for pedestrian, as they usually make use of tarred road network. Also there is no functional pattern of movement, thus creating confusion and discomfort.

Again, most parks lack the adequate physical infrastructure to meet visitors' need. These facilities include medical unit, indoor game and others. From parks visited, it could be seen clearly that few facilities were in place (mostly administrative unit toilet and Restaurant).

Security is also an area of adequate concern. Some of these parks are not fence and most do not have security light within the park ground. Again there is no provision made for security men (for patrols round the park).

Lastly, the landscaping of park is not given much attention. Park managers seem to be okay with just providing some facilities and few games. This makes the parks unattractive. This may turn back visitors.

The problems mentioned are tackled in the design and planning stage, where human traffic (circulation) as further discussed in chapter three.

## 1.7 IMPORTANCE OF STUDY

It is hoped that Architecture can be used to solve the problems of;

- i) Circulation (human and traffic)
- ii) Landscaping within the park.
- iii) Inadequate infrastructure.
- iv) Inadequate security network.

To remedy the lack of adequate recreational culture, architecture can provide an edifice that will try to meet individual standards (which may vary) and sense of curiosity. This edifice will try to blend with the national landscape and topography.

## 1.8 DEFINITION OF TERMS

- i) Panacea: a remedy for all difficulties, ills, or mistakes.

- ii) Edifice: a large massive structure (usually a building)
- iii) Curiosity: desire to know, an inquisitive interest in other's concerns
- iv) Heritage: to inherit, something transmitted- by or acquired from a predecessor.
- v) Deregulate: act or process of removing restrictions and regulation on something or a law.
- vi) Dilapidated: decayed, deteriorated or fallen into partial ruins.

## CHAPTER TWO

### 2.0 LITERATURE REVIEW

#### 2.1 THE TOURISM INDUSTRY AND IT'S ROLE IN NIGERIA'S ECONOMY.

A tourist, different from a visitor, is someone who is staying at least 24 hours or overnight in the country visited, whose journey is for the purpose of:

- A. Leisure, or
- B. Business.

This definition is approved by the United Nations statistical commission. For the subdivision definition are:-

1. Business Tourist – those travelling for business reasons, which includes exhibition, seminars and conferences. ..
2. Specific tourist – these category includes pilgrims, student and others whose travel motivation is specific.
3. Leisure Tourist – those visiting places of interest for pleasure.

“Tourist often seeks paradoxically: seclusion, tranquillity, anonymity, contact with nature and privacy” (Lawson and Baud – bovy (1992)). For these reasons they proposed that to create an attractive “tourist image” one must be as original as possible, thus the resort has a personality that is easily remembered and recollected. They went even further by proffering some means by which it can be achieved. This includes:-

- A Making the best use of the particular resource and peculiarities of the site.
- B Adopting the development plan and the structure to reflect the character of the environment and climate, using local materials and technique where possible.
- C Providing opportunities for interaction between tourists and locals, their crafts and customs.
- D. Introducing specific elements to create "atmosphere and identity".

## **2.2 BOUNDARIES BETWEEN TOURISM AND RECREATION**

These boundaries are blurred or non-existent, because they often share facilities and compete for space and funding. The outdoor use of leisure time may be considered as:

1. Daily recreation mainly using urban facilities for short periods during the day or one's spare time.
2. One day recreation includes excursion to boundaries of urban area or into an area without easy reach.
3. Weekend and short holidays may be spent in or around the town or a planned trip to a tourist resort patronised by foreign and domestic tourist..
4. Long holidays either in the country or abroad motivated by sight seeing.

For the in-depth understanding of tourism, a look at the definitions and the opinions on recreation would help.

Recreation can be defined as "the act of recreating or state of being recreated; refreshment of the strength and spirits after toil, diversion or even play" (Wedster). Also recreation was defined as "the pleasurable and constructive use of spare time", (Brockman and Marriam (1975)). They also went further to say that an all inclusive, concise definition of this apparently simple term is not as easy as it might appear, for a philosophical considered.

Traditionally some recreation concepts are interchangeable with leisure concepts since both have been defined as <sup>an</sup> in obligated activity. Some educator and practitioners in the recreation industry limit their definitions of recreation to activities that are normally and morally sound or non-debilitating.

Of recent, however some people no longer consider recreation to be in opposition to work or limited to activity which is morally sound. This sensation of well being is a phenomenon in which physical, biological, psychological and social components are integrated to form a functional unit.

### **2.3 GLOBAL PHILOSOPHY OF PARK**

The relationship between humans, cities leisure, more especially outdoor recreation area, open spaces, like parks and eventually Urban forms are the essence of which recreation planning and design is based.



It is also a known fact that the mental and physical health of some segment of human population (if not all) are certainly scenic habitat of some sort, also not overcrowded by human activities.

Man's concept of relaxation right from the onset is to mould nature to meet his requirements, where he could go to for refreshment of the mind and body. This desire is why many people seek recreational opportunities in parks, game resorts and wild life parks.

## 2.4 PARK EVOLUTION

Long ago gardens and parks were for private rather than public use. Elaborate gardens were cultivated in ancient Assyria, Persia, Rome and Egypt. Private ownership of gardens were even seen in the British and French kingdoms. The Luxembourg garden in Paris and the Boboli gardens in Florence (Italy) are the outstanding European gardens known around the World. The growth of park facilities were however disrupted with the European industrialisation of the 19<sup>th</sup> century. The period saw many parks, gardens and open spaces acquired for development due to over population (experience in urban cities).

In the 20<sup>th</sup> century, a new concept of park planning became popular, in contrast to the earlier parks, in which decorative beauty was almost exclusively emphasised.

Central park in New York City was the first major united state Landscape to be specially designed for public use as a refreshing contrast to the city polluted atmosphere.

The 20<sup>th</sup> century also saw the development types of park in the United State ranging from man-made city park to state and national parks that are preserves for the National vegetation, Geological formations and wild life. Examples include the Grant park in Chicago (which include a museum of national history).

With the high level of awareness toward leisure and recreation, parks have taken over everywhere, even in African Countries, as a tool of conservation (nature)

## **2.5 PARK POTENTIAL IN NIGERIA (General view)**

Coming down to Nigeria, for the past two decade, after the birth of the tourist board in Nigeria, we have continually paid lip service to the industry causing its still birth. Perhaps taking lesson from our past mistakes mixed with the present reality situation and where we want to be tomorrow can help make this industry a reality.

From the past, we can take the various opinions of scholars and interest group in the field. When tourism board was established it had the major objective of promoting tourist facilities all over the country. So far, a number

of project have been developed like the International Youth tourist centre at Kurra, the Mambilla tourist project in Adamawa State, Ikogosi warm spring in Ondo State and many others.

Recreational facilities in Nigeria could be seen under two broad heading.

#### **A Traditional Recreational Facilities**

Here the village was the centre of activities providing simple mode of entertainment, village inhabitant would sit in the courtyard at night to watch the young boys and girls perform under the moonlight, singing, clapping. Others will be narrating legendary tales or even folk tales.

Big village organise seasonal wrestling contest, horse races, This help to remove boredom. For the past decades now, the country's economy changed gradually as a result of the external trade links and the contact with people outside World. This changes made people drop their old ways of life for the city. Since then, simple mode of relaxation and entertainment had persisted while modern ones have been introduced.

#### **B Modern Recreational facilities**

The "Empire Day" was one of the first occasion that introduced some form of sport, swimming and jumping during celebrations. Soon came football association, which is wide spread and acquiring popularity among the cross section of the populace.

Athletic sports and the football association dominated the country's entertainment scene with occasional interruptions with events like cricket, golf and lawn tennis. This sport increased with time.

However, it may be pertinent at this stage to examine the recreational facilities around us, such as yankari game reserve and the various zoos/museums. On a closer look, one may conclude that the patronage in most cases is not encouraging but a little reflection will show that they are all "simple project" and can only fulfil the urge of some certain people. Parks around us can only properly fulfil the needs of the youngsters e.g the Apapa amusement park. This youngsters go to the park in search of fun while for the museums they are generally for the serious minded people in search of knowledge. The class of serious mind visiting the museums will depends on what the museum accommodates.

## **2.6 THE TOURISM INDUSTRY.**

The industry involves in the provision of physical facilities either specific (hotel, public beach, park) or of a general nature (telephone lines roads etc). physical facilities are usually "created attractions" as distinct for the "inherent attraction" which are provided by nature. The type and range of these facilities in any particular locations are subject to a number of factors. They are

market and resources influences," middle men" or intermediaries and the developer(s) interest.

Another concept is tourism images and products. An image is the expression of all objective knowledge, impressions, prejudices and emotional thoughts with which a person or groups judges a particular object or place. The tourist images of a destination of utmost importance because a choice of a destination is not objective but according to the image projected. The tourist product stems from the image and it is the manifestation of tourist image.

Three categories make up this tourist product:

- i. Resources at destinations i.e the inherent attraction or natural endowment.
- ii Facilities at destination like accommodation, catering.
- iii Transport to destination, including transfers.

The product is a package "package".

The facilities of the tourism and recreation industry are provided under two main categories.

- 1 Those which are basic and common to all types of resorts providing for general tourist needs. They are accommodation, catering, entertainment, leisure and relaxation and the basic technical infrastructural support.
- 2 Those which are peculiar to the locality, utilising the resources of the site and surrounding for more specific goals. These include traditional resorts,

mountain resorts, seaside facilities, health resorts and specific facilities for rural area.

A third group, which leans more, to the recreation than tourism is the one of facilities in recreational parks and complex. Three categories may be found here:

(A) Sub urban nature park:- These may be natural or State parks. They may be land based or water based outside activities.

(B) Sub urban sport and leisure complex: Generally

A. Includes landscaped grounds and playing fields, which may be located among building up areas.

C Themed parks: These are novel in concept. They are aimed at excursionists and the family unit. Three main categories may be distinguished: entertainment, historical, and safari park but all are founded on concept of escapism, nostalgia, respite from boredom – an opportunity to relieve a foreign place or culture or to enter a world of fantasy.

## **2.7 PARK MANAGEMENT**

The need for effective management in any field of human endeavour cannot be over emphasise. It is inconceivable to think that any project or activity that can not go on properly without efficient management.

Evidence of bad management occurs in the form of staff under utilisation, purposeless goals, and failure to achieve set objectives, complaints by client and general feeling of things not functioning properly.

The promulgation of decree No 36 of 1991 saw the birth of the National park board with the sole charge of ensuring a unified park system. The board manages and run the affairs of all parks in the country.

The park management Board includes: the chief executive managers of functional divisions (Games, staff, restaurant and finance), also heads of major and minor support facilities. One duty of the park management is the appointment of a manager to the top management of the parks. This include a managing director, who shall be the administrative head of the park and two General manager namely

General manager (park services)

General manager (Administration service)

#### **(A) Major Functional Divisions**

The services of the national park shall be divided into six major functional division as follows:- public hall, sport centre/ night club, botanical garden, restaurant, tourist village and cultural theatre.

Each of these functional divisions may be headed by an assistant general manager. Also each functional division will be divided into the following sub divisions to be named and headed as follows:-

Major functional division – Assistant General manager

Unit - Supervisor

Department - Manager

Section - foreman

**(B) MAJOR SUPPORT SERVICES**

These facilities are set up to provide auxiliary services to the operative departments. These support services should be divided into seven as follows:

Work / maintenance, transportation, security, Accounting, sanitation, public relation and marketing.

**(C) MINOR SUPPORT SERVICES**

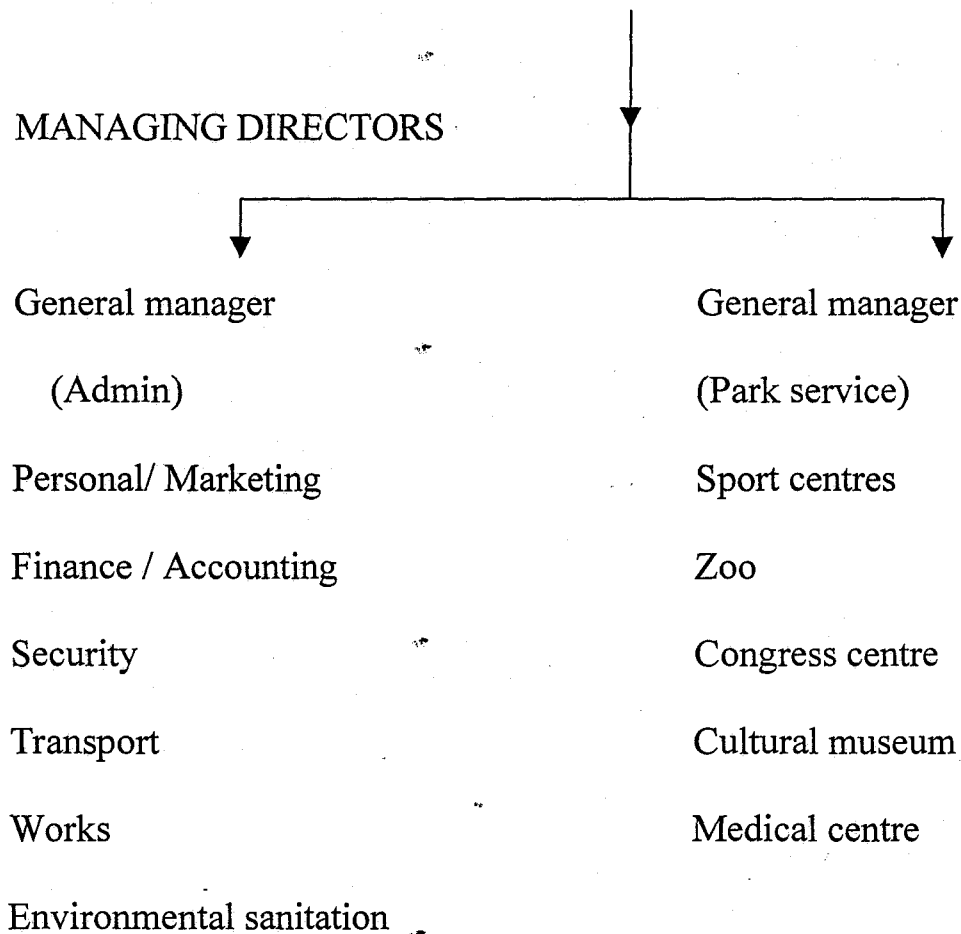
These are (i) the medical centres to be managed by a qualified medical doctor and a proper complement of nurses attendants; and (ii) Library service to be headed by library officer. Also a museum for local crafts.



## ORGANISATION CHART

BOARD OF DIRECTORS

MANAGING DIRECTORS



### 2.8 EXISTING HOTEL AND TOURISM CENTRE IN BAUCHI.

Bauchi State is one of the States in Nigeria which has endowed with numerous potentials for the development of virile tourist industry. These attractions includes:-

- West African Game Reserve, Yankari.
- Lame Burria Game Reserve
- Rock, painting at Geji and Shira

- Traditional Architecture at Babban Gwami
- State museum
- Tomb of Nigeria's first Prime Minister

The hotels existing are:

- Zaranda hotel
- Awalah hotel
- And Obuna hotel

Various categories also exist. Tourists do make use of three facilities before visiting the game reserve (Yankari).

## **2.9 ROLE OF PARK IN NIGERIAN ECONOMY**

Parks play a great role in the Nigeria economy and the growing concern about its impact on cultural knowledge. The environment and economy has been improving as nations of the World seem to be aware of the industry and its foreign exchange earning capacity. These benefits derived from the park can be broken into:

### **A. Physical benefit**

It aids solving the problem of transforming the natural environment with a view of creating a specific recreational and cultural landscape (good ecosystem).

## **B. Economy benefit:**

- Income of foreign exchange earning from International tourist.
- Increase job opportunity because it is labour intensive.
- Formation of economic and cultural ties and relationship.

### **2.9.1 THE NEED OF PARK DEVELOPMENT IN NIGERIA**

Nigeria is blessed with as much as forty – four (44) game reserve, forty – five (45) Lake and riverine resort, twenty – two hills and mountain area in addition to several springs as varied culture.

These resources are in great number compare to most of East Africa where they depend sole on tourism for their income and foreign exchange.

When we look at the waste in foreign exchange expended in holidaying abroad, one will feel the need of developing our national resources to meet foreign standard. In 1980 about two million, five hundred thousand Nigerians spent their holiday abroad with about one billion two hundred thousand naira (₦ 1.2 billion) was spent on foreign exchange, for which one hundred thirty nine million (₦ 139 million) was expended on Basic travel allowance (B.T.A) in seven month. In 1981, two hundred and twenty five million (₦ 225 million) was spent on the same.

From January to September 1981, about three hundred and five million (₦ 305 million) was spent on B.T.A and that does not include one

million, three hundred thousand naira (₦ 1.3 million) spent on the hundred thousand and three pilgrims that travel that year.

Maximising the large sum of foreign exchange is necessary due to the money expanded abroad, and one such ways of maximising this spending abroad is to develop our tourism potentials to meet International standard, so that people going abroad can recreate in Nigeria and still get the maximum comfort they needed.

It also enhance broad economic growth, this is recognised from the data that over fifty percent (50%) of travel abroad by Nigerians are solely on business pursuit. It is also stimulate investment.

### **2.9.2 PARK VALUES CHANGES AND PROBLEMS IN DEVELOPING COUNTRIES (NIGERIA).**

When considering the subject of park values changes and problems in developing countries (of which Nigeria belong), one will discover that the accepted responsibility of any suggestion stood a good chance of being rejected by developing countries due to their non representation.

The unanimous view from developing countries suggest that there cannot be a different standard for maintenance or preservation standard of the park in their countries other than that existing in the developed countries.

The national park concept began to develop more than a century ago, when it was observed in certain countries that due to human need and pressure, certain species of animal were beginning to disappear, and that features of geological and archaeological eminence were being disrupted by many forces. The park concept therefore provided for large tracts of land set aside for wilderness or natural areas. It was however deemed that such lands, with their varieties of birds, animals and different vegetation belts, left to themselves and devoid of all human influence, would eventually strike a balance of nature.

It is not until ecological problems are detected that definite knowledge became a prerequisite to achieve needed solutions. We have seen what development has done to natural environment. The developing countries should by sound policies based on scientific findings avoid mistakes made elsewhere. National Park environmental conservation education programmes have been successfully instituted to share the values of national parks.

The other problem, is the interest advantage and other enjoyment of the people. This must be seen to constitute a conflict with the animal populations and also the vegetation of these areas. National parks should be established in areas where man can enjoy as a privileged visitor, the plant and animal that are indigenous to the environment under the conditions that will preserve the natural habitat.

## 2.9.3 DEFINITION OF TERMS

1. Privacy :- freedom from unauthorised intrusion or being apart from company or observation.
2. Leisure :- Freedom provided by the cessation of activities.
3. Renaissance :- Rebirth, to be born again. A period or movement of vigorous activities and intellectual activity.
4. Villas :- A country estate, a detached or semidetached urban residence with yard and garden space.
5. Nostalgia :- State of being homesick; a wistful or excessively sentimental, sometimes abnormal yearning for return to or some past period.

## CHAPTER THREE

### EMPHASIS ON PROVISION OF GUIDED HUMAN CIRCULATION

#### 3.0 CIRCULATION (GENERAL VIEW)

Most constructions have meaning only to humans and only as we experience them. They are revealed by lines around them, on foot, by plane, train, automobiles or any other means of locomotion or conveyance. We thus realise, that circulation pattern is the major function of any planned development because it establishes the rate, sequence and nature of its sensed realise or visual unfolding.

Every object as a perceptible entity exists in time as in space, this means that an object cannot be comprehended in its entirety at any one instant or from any one point of observation. It is perceived, rather through flow of impressions. When one is in motion, he sees a series of image blending into an expanding visual realise of an object, space or scene.

Perception is not a matter of sight alone. The rate, order, type and degree of perception are a mater of effective design control. Much of these is effected by planned pattern of circulation this could be adopted in park design to achieve an effective guided human circulation.


### 3.0.1 MOTION

Experience as we all know is rarely static. A structure is seen from a fixed site or point of view or by direct elevation, but usually by people on the move.

The planned pattern of site is also usually realised from an infinite number of viewing points by people moving through it. The more fluid the circulation, the more point of view and therefore the more interest and enjoyment in viewing.

### 3.0.2 THE KINEMATIC OF MOTION

Without reference to the cause of movement, it is interesting to dwell for a few moments on the various characteristics of pure motion. By design, the line or trajectory of induced movement may be meandering, discursive, descending, hyperbolic or centripetal; it may be arc or a direct straight shot. The nature of induced motion may be soothing, startling, shocking, baffling, confusing, exploratory, logical, sequential, linear, wavelike, hieratic, diverging, converging, forceful, timorous and contracting. These are just to mention a few.

The abstract qualities of the path or line by which an object or space is approached must also be controlled,  Fig 1.



Motion that is induced must be accommodated and satisfactorily resolved. This fact is also obvious, but like so many obvious things, it is too often overlooked in our planning stages

A. Impelling Factors :- We tend to move:-

- In logical sequences of progression.
- In lines of least resistance
- Along easiest grades.
- In line suggested by directional forms, sign or symbols.
- Towards that which pleases.
- Toward changes from cold to warm, from sun to shade.
- Toward that which excites curiosity
- Toward points of richest texture or colour.
- In harmony with circulation patterns
- In harmony with abstract design forms.
- Toward the beautiful, the picturesque
- Toward order, if positive of confusion
- Toward confusion, if bored with order
- Toward objects, areas and spaces that suit our mood or needs.

B. Repelling Factor :- We are repelled by

- Obstacles

- Steep grades
- The unpleasant
- The uninteresting
- The dull
- The undesirable
- The uninspiring
- The forbidding
- Danger
- Disorder
- The unsuitable
- The ugly
- The obvious
- The monotonous

C. **Motion Directors:** We are directed or guided by

- Arrangement of natural or structural forms.
- Implied patterns of circulation
- Baffles, screens, and space divider
- Sign, symbols and spatial shapes
- Dynamic plan lines
- Mechanical controls such as gates and curbs

D. **Repose Inducers.** We are induced to repose by:

- Conditions of comfort, enjoyment, or rest.
- Pleasant arrangement of forms and space.
- Opportunity for privacy
- Opportunity for fuller appreciation of view, object, or detail.
- Imposed indecision
- Inability to proceed
- Attainment of optimum position.

E. **Horizontal Motion:** We are affected by horizontal motion in the following ways

- Movement is easier, free and more efficient in horizontal plan
- Change of direction is easier
- Most functions are better suited to horizontal surfaces.
- Vision of moving object is easier to control
- Visual interest is in the vertical planes.

F. **Downward Motion.** We are affected by downward motion in the following ways

- Effort is minimised, but elevation must be regained.
- Safety depends on checks and on texture to the primitive
- It gives a sense of regression, return to the primitive.

- It gives a coasting, swooping sense of being in harmony with the forces of gravity.

- It gives a sense of increased confinement, protection and privacy.

- Downward movement and depth are accentuated by deep earth colours, solidity and

simplicity of form, natural materials, and falling or quiet water.

G. **Upward Motion, rise, or Climb.** We are affected by upward motion in the

Following ways:

- Upward motion require force of lift to overcome gravity

- It gives a sense of accomplishment of conquest of gravity

- It give a sense of going up in life.

- It epitomizes increased view and concern for texture of the base plane to provide

necessary traction and grip.

H. **Induced Response** we respond by :

- Relaxing in the familiar, becoming aroused or excited by the unfamiliar.

- Finding pleasure in unity, variety, and that which is fitting.

- Finding amusement and divertissement in the strange, in the lively, and in the change.

### 3.1 DISTANCE AS FRICTION

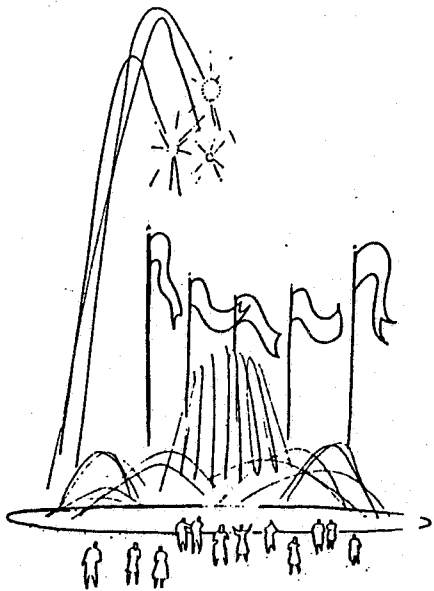
In the various fields of transportation, particular, distance is considered an obstacle to be overcome, area that must be traversed and space that must be bridged, with energy expended.

Distance is a space both are usually at a premium. Increasing pressure we often yearn for more room and seek to extend our constructing boundaries. When boundaries are fixed, as is usually the case in an high density area, we attempt to expand them by some plan device (increasing the perceived distance).

### 3.2 SPACE MODULATION

It is an established planning fact that we seek in an area that quality of harmony, oneness, or work science or art. We are attracted to such place and rebel at the intrusion of the incongruous element. Fig 2. Also, we seek a harmonious sequence of transition from one space to another.

We are attracted to:



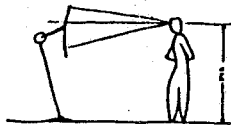
That which is impressive



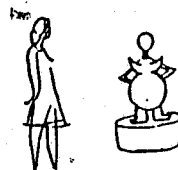
The unusual



The admirable



Things at "pix"



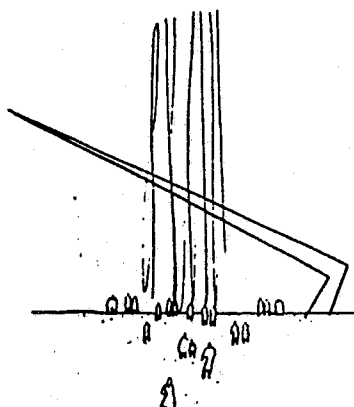
The exotic



The spectacular



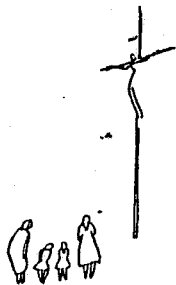
Pattern



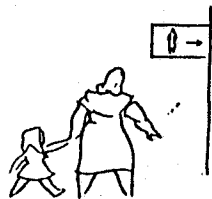
That which is bold



The familiar



That which inspires



That which is necessary



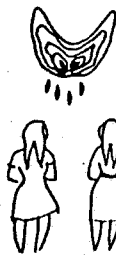
Movement



The superlative



The restful when weary



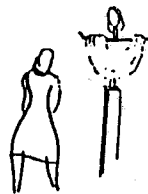
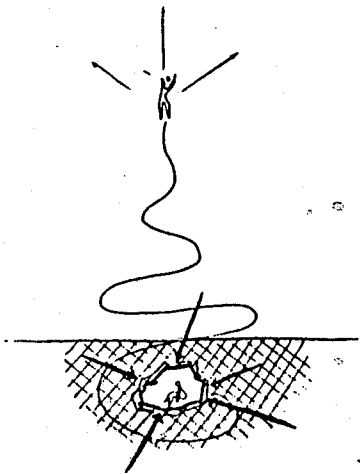
The weird



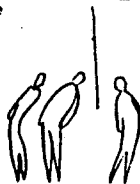
The appealing

*Height* connotes attainment, potential, expansion, exhilaration, inspiration, the sublime, and release.

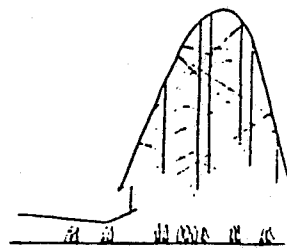
*Depth* connotes regression, concentration, confinement, shelter, the profane, and the weight of pressure.



The elegant



The subtle



That which is dramatic

In all the cases what we seek is a unified sequential experience of space modulation. People take pleasure (much) in an arranged area, in shape, line colour, and texture to accommodate and express the use for which it was planned. We also know that our pleasure is increased when the area is further developed into a volume or series of volumes that by degree and type of enclosure further articulate the planned use. Also we enjoy moving from one space to another, the experience of that sequential space to space is a transition.

Sometimes the transition is subtle. One may be led through a sequence of varying space that provides a complete change in use and mood in such a way that the transition is so compressed into a low, tight, dark space that release into a lofty, dazzling free space that is starting and dramatic. But in any event the skilled planner, by spatial manipulation, can play upon human emotions reflexes and responses as surely as does the skilled musician with the flute and drum

### **3.3 CONDITION PRECEPTION**

Experience has taught us that what a thing is, is often less important than how we relate to it. The tree unseen or unremembered, for us does not exist. The tree on the distanced hilltop may be for a moment only an object that marks

our path. As we approach, we see it to be a pear tree with many pleasant connotations. On coming closer, we may be tempted to pick its fruit. In every case the tree is the same, but our impression of it changes with our sensed relationship.

This being so, it would seem that should we place a tree or an object in a space, we must consider not only the relationship of the object to the space but also the relationship of the object to all who will use the space. This is important in park design and planning.

Our impression of such an object or a space, are conditioned by those we have already experienced or those anticipated.

We plan, then not a single experience alone, but rather a series of conditioned experiences that will heighten the interacting pleasurable impact of each. Experience, we may see, is compounded of that which we have perceived, that which we are perceiving, and that which we expect to perceive.

### 3.4 SEQUENCE

In nature, sequences are casual and free. Sometime, but not always, they are progressive. Sequences have no meaning except as we experience them. Conversely, all experience is sequential. Such a progression may be one of ascent, as in the experience of climbing from a lowland to a mountain peak, or



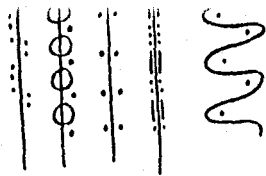
one of direction, or one moving inward, from the sunlit edges of a forest to its deep, shadowy interior.

Sometimes the sequences of nature are revealed with no more order than the haphazard impressions of an adult or a child wandering through the landscape, along a lonely stretch of seashore, or among the shallow pools of a tidal flat. Fig 3

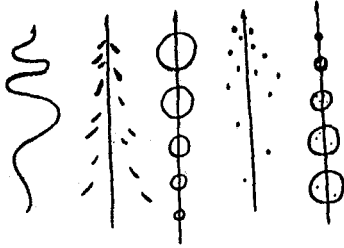
The planned sequence may be casual or disciplined. It may be rambling and intentionally devil-may-care, or it may to achieve a purpose, be contrived with a high degree of order. The planned sequence is an extremely effective design device mostly in site planning layout. It may induce motion, give direction, create cadence, in still a mood, reveal or "explain" an object or a series of objects in space or even develop a philosophical concept.

A planned sequence is a conscious organisation of elements in space. It has a beginning and an end that is usually, but not always, the climax. Indeed, there may be several or many climaxes, each of which must satisfy its supporting sequence.

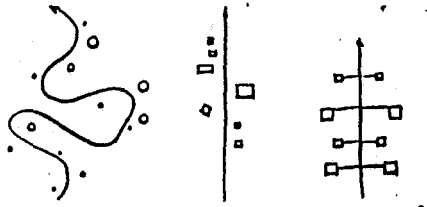
It should be able to reveal, interpret, and feature the elements to be perceived and the spaces used to traverse. Each sequence, like a distinctive refrain, has its own character and evokes an emotional response that can be fairly well predetermined. Sequence can in still a feeling of excitement,



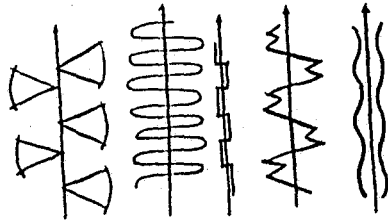
Development of cadence



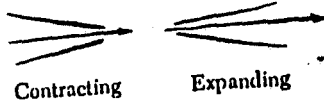
Sequence of Intensification



Casual Asymmetrical Symmetrical



Sequence of alternation



Contracting Expanding

**Sequence**  
 Abstract representation of various types  
 of plan sequence. Arrows indicate line of  
 progression.

warning, fear frenzy, anger, challenge and temptation. It also induces in the observed a mood or expectation not in keeping with the function of the plan.

### 3.5 PARK DESIGN CRITERIA

The layout of a park will vary according to size of available area, its topography, and the specific activities desired. It should fit the site with maximum preservation of existing terrain and such natural site features as large shade trees, interesting ground forms, rock out crops and streams or lakes. These features should be integrated into the layout to the maximum extent feasible for appropriate activity space, as natural divisions of various use areas, and for landscape interest. Grading should be kept to a minimum consistent with activity needs, adequate drainage and erosion control.

The general principles of layout are described or mentioned as follows:-

- (a) The park site should be fully developed with landscape planting for activity control and for attractiveness.
- (b) The park games and facilities should be designed and selected for functions that will stimulate the visitors imagination, with pleasing proportions and with colours in harmonious contrast to each other and the surroundings. The play equipment may have a central theme to reflect historical significance.

- (c) The area for games should be located on fairly level, well-drained land with a soil having good percolation for proper drainage.
- (d) Areas for quiet activities should be some what removed from active play space and should be close to tree/plant area and other natural features on site.
- (e) The park's circulation system should take into consideration the traffic pattern of the site (that is the origin and destination of traffic). It is necessary to measure the actual traffic volumes already utilising the route.

### **3.6 APPROACH TO GUIDED HUMAN CIRCULATION IN PARKS**

The best source of design criteria and approach is field observation, in which materials and their treatment can be appraised first hand and in which are capacities, rates of flow, or dimension can be counted and measured under comparable condition.

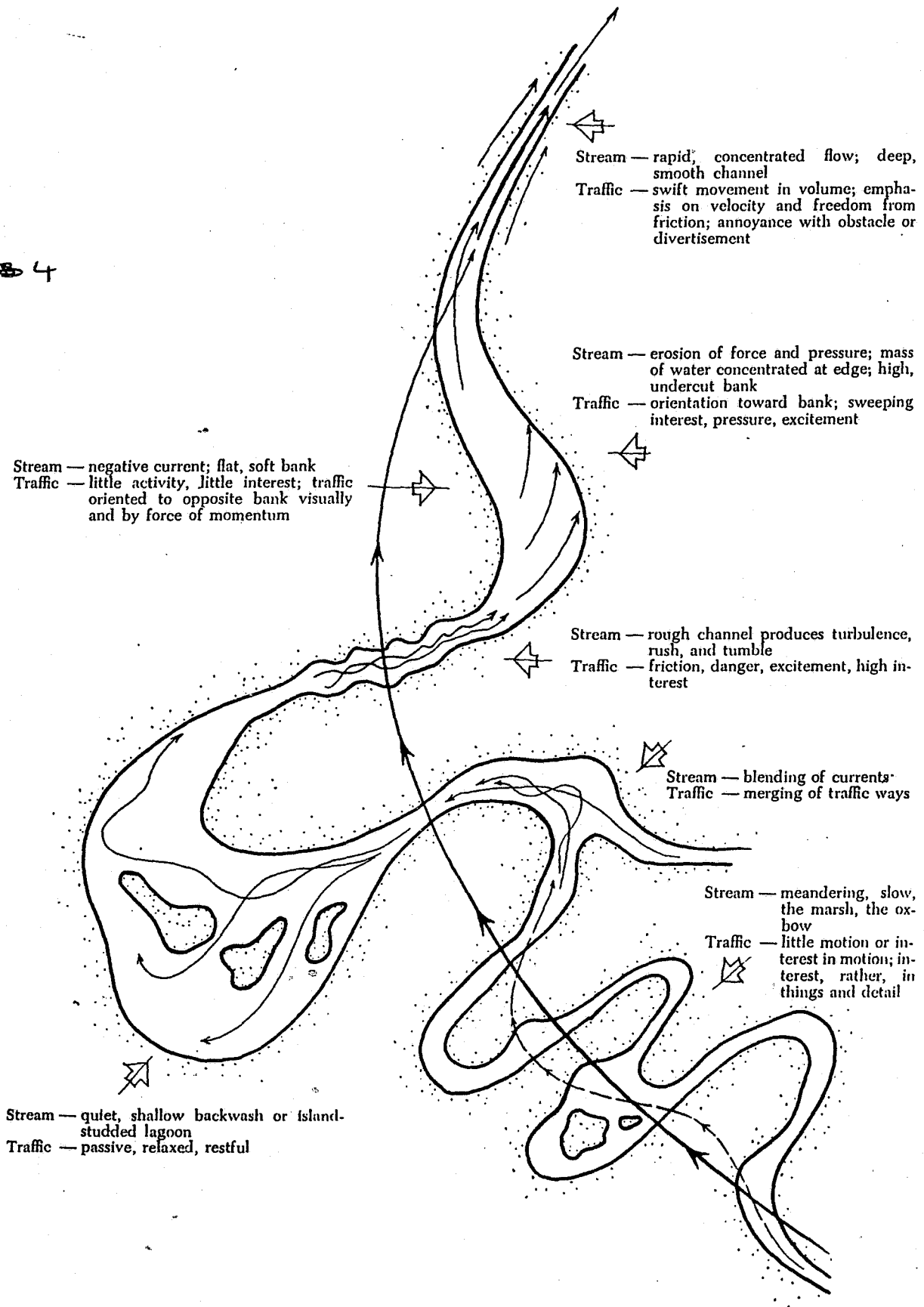
The primary objective of improved guided human circulation are safety, security, convenience, continuity, coherence, comfort and aesthetics. Fulfilling one of these objectives generally, increases the opportunities for meeting or improving on others.

Planners of recreation areas or parks should attempt to foresee peoples behaviour and predict where they will hurry, stop, look or drift on. His aim is to control the flow and arrest the movement of visitors or tourist in the park, but controlling the flow does not mean that people are to be moved along predestine object. Most ideally the planner should try to direct people's movement in such a way that they see what there is to see and what they want to do with ease, also in their own time.

In parks, pedestrian network should be perfectly articulated in the planning. The characteristics of pedestrian traffic can best be understood by comparing them with those of a stream or river. Human like flowing water, follows a course of lease resistance fig. 4. Just as a canal establishes the route, rate and maximum volume of it's traffic, so constructed walks can fix the path and control the movement of pedestrian traffic.

Intersections should be introduced in pedestrian routes. They are necessary in park, as they are point of maximum turbulence. Such turbulence is often a positive quality, as in those places where excitement or activity of high interest is desirable or where pre force, the flow of traffic is to be decelerated, or where plan intent, people are made to mill and churn and jostle about an object of amusement.

Fig 84



The degree and nature of such ebullient may be planned to suit the park. When two or more intersecting stream of traffic are to be merged into fast, free flowing stream, the area of juncture must be widened and shaped to provide smooth swelling transition and in interrupted flow.

An intersection must also accommodate and express the functions induced by the fact of intersections. As in most instances many intersecting forces are engendered by the fact of convergence the best test of design is performance.

### **3.7 GUIDED HUMAN CIRCULATION**

The planning of a leisure park demand a precise and logical approach. Since park reflect the unique needs of individuals or community, the specific design will vary, but the preliminary considerations and planning objective will be the same.

Guided human circulation will not only provide an effective circulation pattern, it will also improve pedestrian circulation, in terms of safety, security, convenience and comfort (as earlier mentioned). The ease of pedestrian circulation with safety from vehicular conflicts is one of the primary purpose and benefits of developing an effective guided (human) circulation pattern in the park. The planned sequence should be able to give direction, induce

motions, in still a mood. It must also be able to evoke that spirit of excitement, challenge and a mood of expectation.

The sequence adopted must be able to control the circulation path, with due consideration to the impelling factors like movement in lines suggested by directional forms, sign and symbols. These impelling factors are the major tools used by the planner to give visitor guide through his design layout.

Deducing from the case studies undertaken and other field observation, most recreational park lack effective movement pattern for pedestrians. The parks visited have only road network and open parking area. Visitors coming to use the facilities move in an haphazard manner, each trying to locate his or her game/facilities of interest. Some even go through the landscape areas in order to access a game.

For the Disneyland park in California, U.S.A., children get lost easily trying to locate a theme or facilities. This is so because the park circulation pattern is not guided enough to see visitors through the park facilities. This problem was taken care off by them, with the provision of a special area that deals with missing children. Notwithstanding this demerit, the park could be said to be much better or advance compare to what is seen in our country. The planners were able to divide the park area into six themes, thus making it even easier to locate and access a facility.



In the case of the Røjenny tourist village Oba, Anambra State. The pedestrian walkway is not well defined for easy movement of people. This was even made better too, with the use of the central axial route pattern. But for illiterate coming to use the facilities, they will not be able to locate their game or even access the entire park area.

The use of detailed site plan layout map was adopted by the planners of the Ibadan Trans amusement park, to guide visitors around the park ground. This site map is located at the entrance. For the visitor who is an illiterate, he might not be able to understand the map or what he is seeing.

From the undertaken, it could be seen that guided human circulation will be effectively done with the use of the following:-

(a) **SIGNS**

This is an impelling factor and a tool used for efficient guided human movement. The sign should be positioned along the major pedestrian walkways and at points where minor walkways meet major walkway. This sign could be

- (i) Written words for the literate
- (ii) Pictorial representation.

This could be some sort of drawing describing a game or like in the case of a zoo, the picture of an animal located in a given area.

With pictorial representation, the illiterate will be able to locate his game or point of interest without being guided by a tour guide. Fig. 5

The signs will be located at points to indicate a game area or facility or site. This help the visitor to identify the location and position of such facilities.

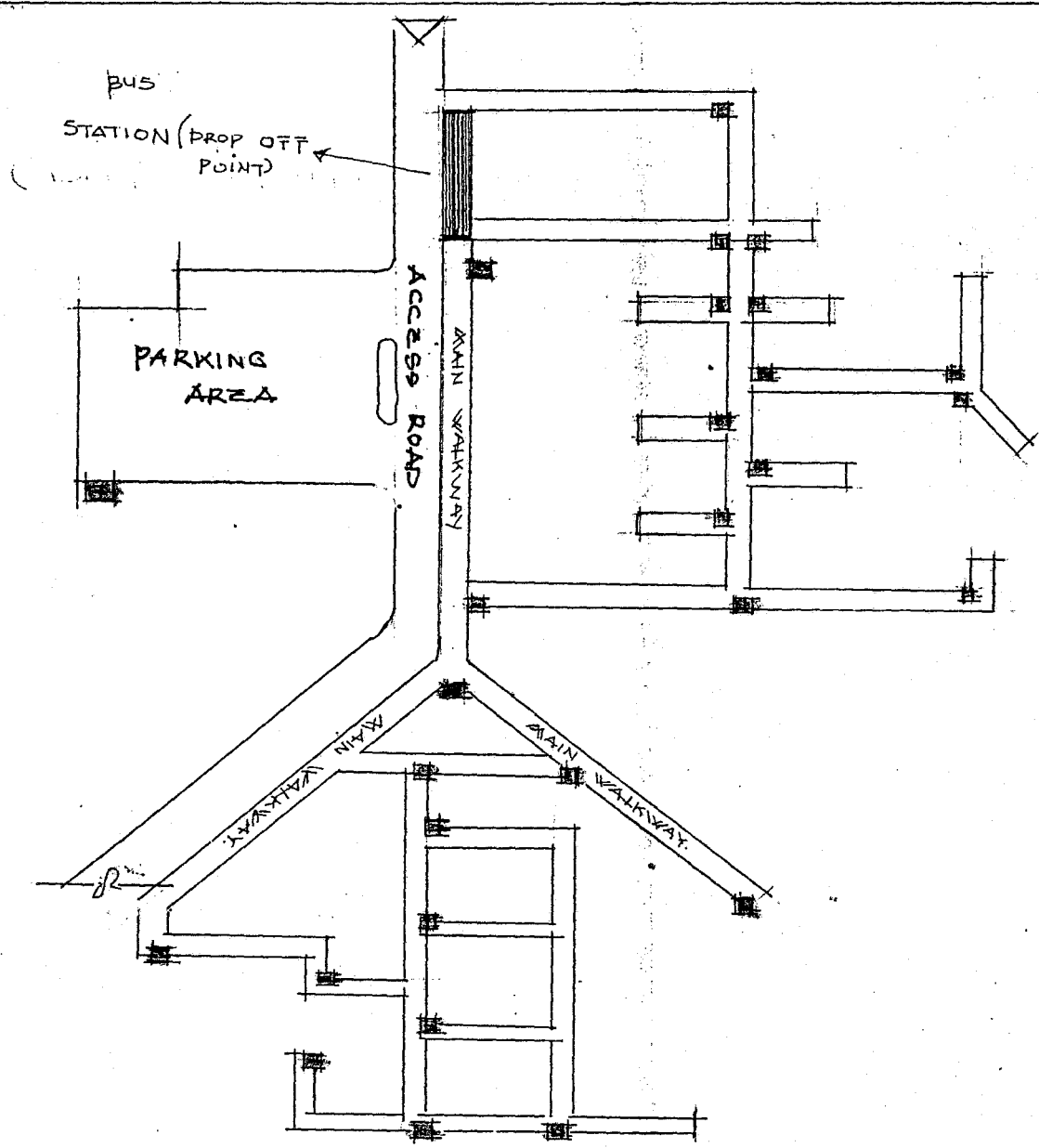
(b) **SYMBOLS**


They are also impelling factors like signs. This are another form of sign or pictorial representation. Mostly, it is used to help guide those that cannot read or understand sign. It could be an abstract form that will easily send a clear message to the illiterate visitor.

(c) **DYNAMIC PLAN LINES**

The dynamic plan lines are movement lines suggested by directional forms. A good example is the use of a comprehensive site plan map located at the main entrance of the Trans-Amusement park in Ibadan. The tourist or visitor can easily study the entire park area and he can move towards facilities with ease. Here the illiterate might not be able to understand the Dynamic plan lines.

Therefore, for effective guided human circulation to be achieved, the three impelling factors have to be integrated both the pedestrian walkway and the traffic route (vehicular). Both the illiterate and literate will find it easy to locate the position of facilities without using a park guide or a tour officer.



 POSITIONS OF SIGNS AND SYMBOLS


 PARK SITE PLAN MAP (LOCATIONS ON SITE)

Fig 5

PROPOSED LOCATION OF GUIDED HUMAN CIRCULATION ELEMENT (SIGNS, SYMBOLS AND COMPREHENSIVE SITE PLAN MAP).

### 3.8 ADVANTAGES OF GUIDED HUMAN CIRCULATION IN PARKS

- (a) One most important advantage is the ease of locating a facility without much stress, pain (instead of wandering about).
- (b) The guided human circulation system crease a beautiful and orderly pattern of movement that is not too restricted (but directional) and pleasing.
- (c) It also increases visitors' fun as he can easily locate his game or leisure.

### 3.9 PEOPLE MOVERS

The need for increasing number of people to get from here to there, usually in a hurry, has given rise to a whole new array of vehicles and devices that have been grouped together in the category of transportation and circulation system.

Without them many of our governmental, business office, and commercial centres and even leisure parks could no longer function. In type and size they vary according to the distance and height to be travelled, the number of passengers to be carried, and the rate or speed required. Examples are:-

1. Moving walkways, chair way and escalators

2. Automated cars.
3. Small bus trains
4. Minibuses
5. Long-range buses
6. Cable cars
7. Bicycles, tricycles and mopads.

#### 4.0 DEFINITION OF TERMS

**Cadence:-** A rhythmic sequence of motion or activity

**Curbs:-** An enclosing frame, border, or edging

**Discursive:-** Moving from topic to topic without order or proceeding coherently for place to place (topic to topic).

**Hieratic:-** Constituting or belonging to a cursive form, or highly stylised or formal.

**Hyperbolic:-** a space in which more than one line parallel to a given line passes through a point (geometry)

**Incongruous:-** Not harmonious, not conforming

**Perception:-** Consciousness, a mental image

**Sequence:-** A continuous or connected series, a succession of repetitions.

**Startling:-** Causing momentary fright, surprise, or astonishment.

Subtle:- Difficult to understand or distinguish.

Turbulence:- Wild commotion. An irregular motion associated with atmosphere.

## CHAPTER FOUR

### CASE STUDIES

#### 4.0 INTRODUCTION

A study of real life case related to a proposed design helps in acquainting on with the pros and cons in that area. Comparing different solutions preferred by different designers by presenting their merits and demerits. In this light a few cases were studied from both international and national levels. Each case is concluded with an objective appraisal drawings with pictures.

#### CASE STUDY ONE

##### 4.1 DISNEYLAND PARK, ANAHEIM, CALIFORNIA, U.S.A.

The park is located between the 91<sup>st</sup> and 22<sup>nd</sup> Tree ways (see fig. Below) It is accessible from two international airports, two local airports and also from the pacific coast patrons pack outside, pay, then walk in.

The park consists of six theme areas surrounding the main street. They are:-

- (1) Critter country:- made up of four country theme adventures, two shops for souvenirs and two restaurants.
- (2) New Orleans square:- Four attractions like private adventure, haunts, ten shops, eight restaurants.

- (3) Adventure land:- Three tropical based attractions, four shops two restaurants
- (4) Frontier land:- Eight western based attractions five shops and nine restaurants.
- (5) Fantasyland:- Eighteen fairly tale themes Eleven souvenir shops three restaurants.
- (6) Tomorrow land:- Thirteen high tech based attractions four shops three restaurants.

All these theme area are placed round the main street which has seven attractions like rides on horse carriages, and antique automobiles; twenty four shops, eight restaurants, information services to handle things like wheel chair rentals; first aid, banking services.

Disneyland Hotel located to the west of the park is an added convenience for tourists. A monorail with a shuttle bus facilitates patrons move to and from the hotel.

## **APPRAISAL**

The park is one of the most acclaimed tourist attractions in the world. Planning of activities reflect the American culture and history. Location makes for easy accessibility. Landscaping is well done and well maintained Revenue yields are high all year round due to the conducive weather for

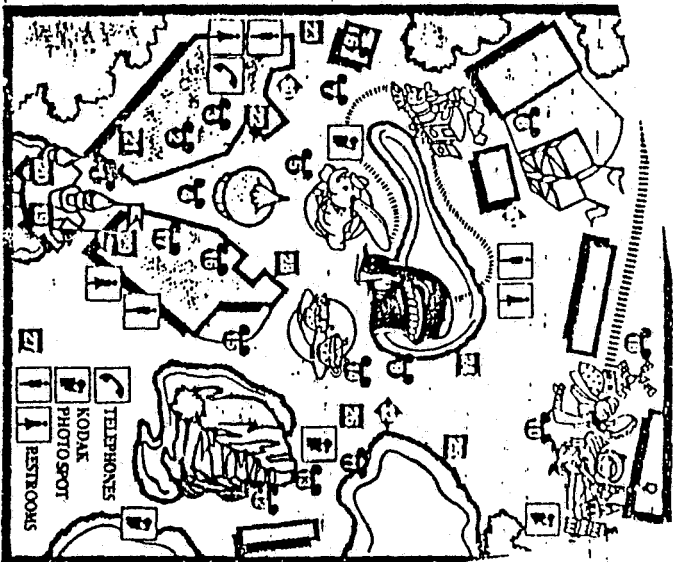
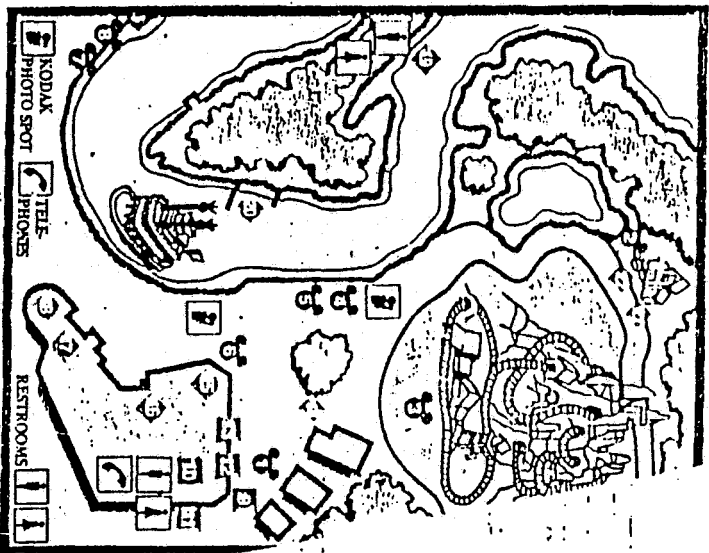
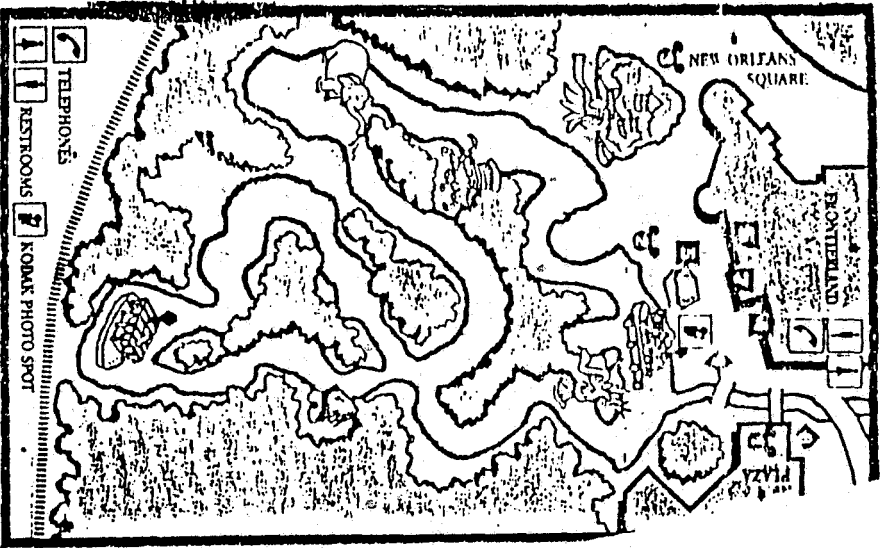




3) Adventureland - Three tropical based attractions

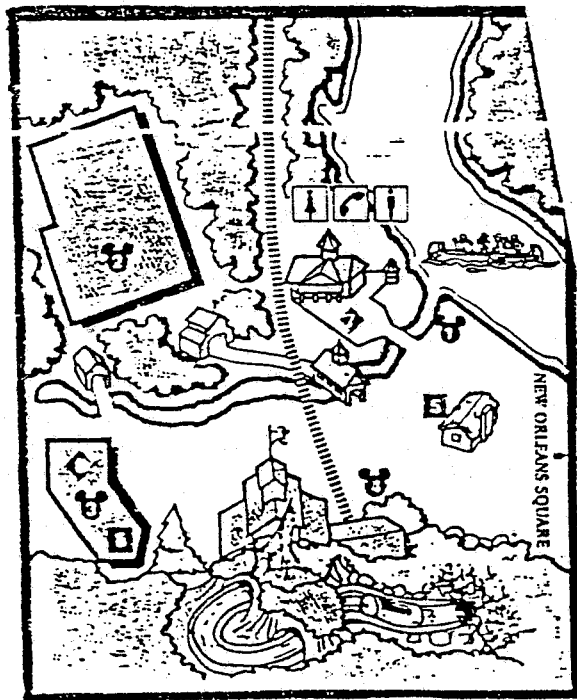
Four shops

Two restaurants

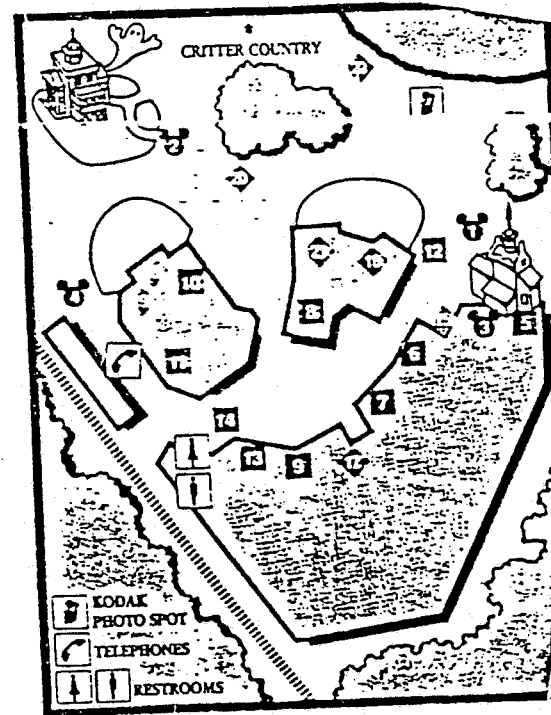


The park consists of six theme areas surrounding the main street. They are:

- 1) Critter Country - Made up of four country themed adventures, two shops for souvenirs and two restaurants:



Critter County



New Orleans Square

- 2) New Orleans Square - Four attractions like pirate adventure, haunts, etc.  
 Ten Shops  
 Eight Restaurants

vacationing found in California. Thoughtful arrangement of supporting facilities round the park and special consideration given to the disabled and elderly. Cost of producing atmospheres manipulated to suit specific themes exorbitant. Spread of activities makes for children getting lost in the maze although a special area was made to handle lost children.

## 4.2 CASE STUDY TWO

### APAPA AMUSEMENT PARK, LAGOS

This is now called Lagos city park, because it has been taken over by the Lagos city council. The patronage is essentially by the young people. There are however some facilities in the park which the adult can also enjoy.

It opens throughout the week, Saturdays remains days of intense activity when about 500 to 600 visitors may be registered. Weekend patronage can double and the weed days may also register many visitor during public holidays and the school holidays period.

The park was carved out of a residential area.

### FACILITIES

The facilities present in the park area includes:-

- Restaurant (out door and in door)
- Games

- Car park (out side the park area.)
- Gate house
- Security post
- Snack bar
- Games Hall
- Public toilet
- Administrative unit
- Dancing stage
- Shop

### **MERITS**

It is close to the people (good proximity to the end user).

### **DEMERITS**

- Location of the park is within a residential built up area (squeezed into a small area)
- Poor landscaping of the park area.
- No room for future expansion (Narrow piece of land)
- Shop built outside at owner's risk
- Car parking is also at owner's risk outside the fence park area.

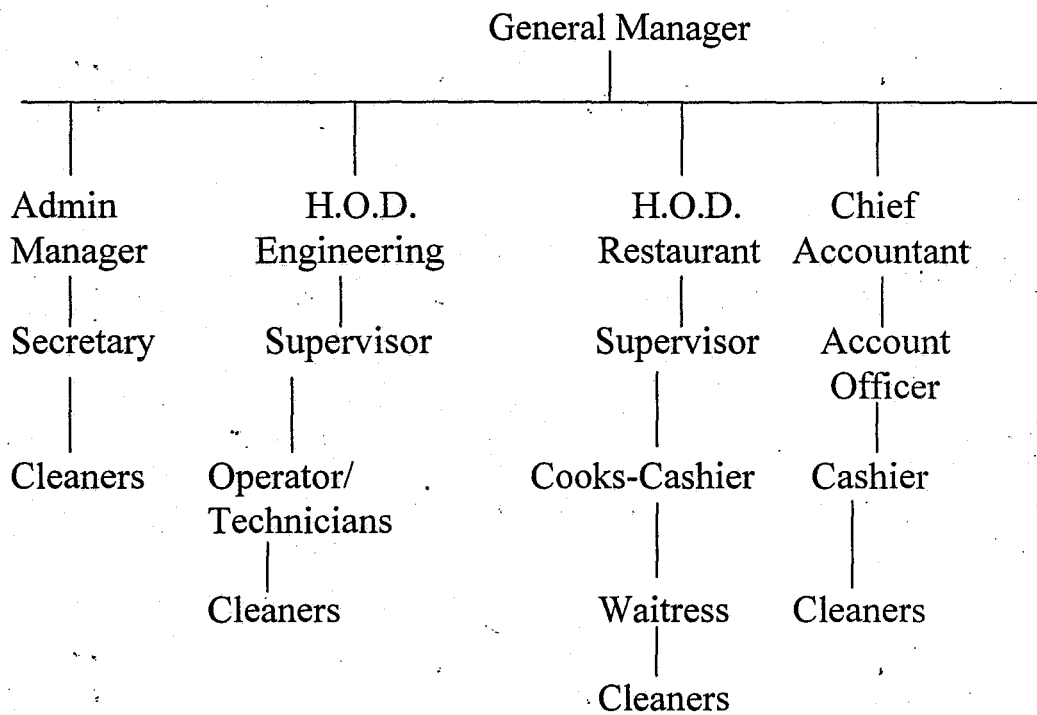
### 4.3 CASE STUDY THREE

#### ABUJA AMUSEMENT PARK, ABUJA

The park was built by a Chinese company called CHINA – STATE CONSTRUCTION. They also installed the games which are few. It was completed in October 1997 and commissioned for use.

The park is located in Wuse zone one, at No. 1 Bubona street.

The management set up is as follows:-



#### FACILITIES:-

The facilities provided include a communication company called MG-communication (an FM radio station)

- Games (5 available)

- Restaurant
- Shops
- Public toilet
- Gate house
- Administrative unit
- Technical unit/workshop
- Security unit

### **MERITS**

- Easily accessible to the public
- Good security network
- There is room for expansion and more Games.

### **DEMERIT**

- No defined parking area
- Location is within built up area (effect of noise pollution)
- Few game available
- Poor landscaping
- Poor maintenane of game facilities.
- Effective circulation of visitors not taken into consideration in planning stage.

#### 4.4 CASE STUDY FOUR

##### **ROJENNY TOURIST VILLAGE, OBA, ANAMBRA STATE**

The tourist village is located on kilometer 11 Onitsha-owerri Express way in Anambra state of Nigeria. It consists on a series of activities placed along a major axis starting from the gate (entrance) and terminates at the gate to the 200.

Entrance is through a gate with a security check after which vehicles are parked on the left under the dwarf coconut trees. At the second gate, visitors pay fee. Behind the ticket collector/security man is a long pedestrian route of about 5m width. To the west of the axis are caravan huts which are for picnics, a village hall for communal function. A swimming pool is behind a health clinic/sauna bathhouse. On the east are shops for souvenirs and provisions.

#### **FACILITIES**

They include the following:-

- swimming pool
- Health clinic/sauna bath house
- Gate house/security post
- Shops
- Caravan huts



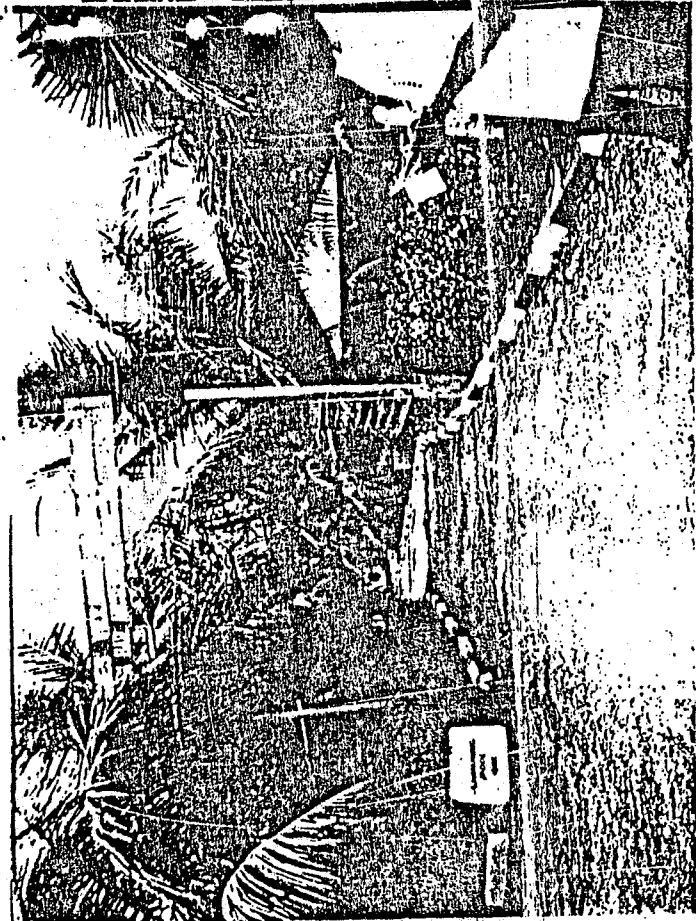


VIEW TOWARDS THE ENTRANCE



FOUNTAIN GARDEN

~~XXXXXXXXXX~~



View down the main pedestrian axis.

THE MAIN PEDESTRIAN AXIS

- Bamboo sheds for relaxation
- Shrine with about six deities
- Administration unit.
- Restaurant
- Village hall and festival hall
- Fountain garden on the west axis
- Dormitory on the east axis
- A concert hall and Africana Bar for African dishes.
- An amusement park with controlled entrance
- A lake bar which is accessible from the 200 (collection of birds and animals)
- Tennis court and a stadium.

## **MERITS**

- Concept used was based on Igbo tradition (not well executed)
- Planting of dwarf coconut trees creates a tropical feeling which is soothing
- All facilities are accessible to the handicapped and elderly by including the pavilion arrangement pattern in the design stage.
- Circulation within the village is easy due to the use of the central axial route.

## **DEMERITS**

- Location of the village does not encourage patronage due to its distance from Urban centres.
- Planned structure do not reflect indigenuity, except for the shrine and Ozo village.
- High cost of maintenance, due to low patronage.
- No clearly defined walkways
- Nature and man-made structure not properly integrated.

### **4.5 CASE STUDY FIVE**

#### **TRANS AMUSEMENT PARK IBADAN**

Although this is not purely a tourist attraction, it was observed that some elements here could be beneficial to the proposal being designed hence its appraisal.

This is a facility that caters for physical recreation. It is located in Ibadan city. It was commissioned by Mariam Babangida as one of her Better life Project. It is accessible by road. Mechanical elements are available for physical recreation after admittance for a fee at the impressive entrance.

The area houses a restaurant and others.

## **FACILITIES**

The facilities available in the park includes:-

- Restaurant
- Administrative unit
- Car park
- Public toilet
- Kiddies hall
- Police post
- Mini orient express (train) and scooter pavilion
- Niagara falls (sliding) and Panoramic wheel
- Roller coaster (Dragon ride)
- Car wash
- Retail shops
- Gardens with sit-out
- Merry-go-round and telle combat

## **MERITS**

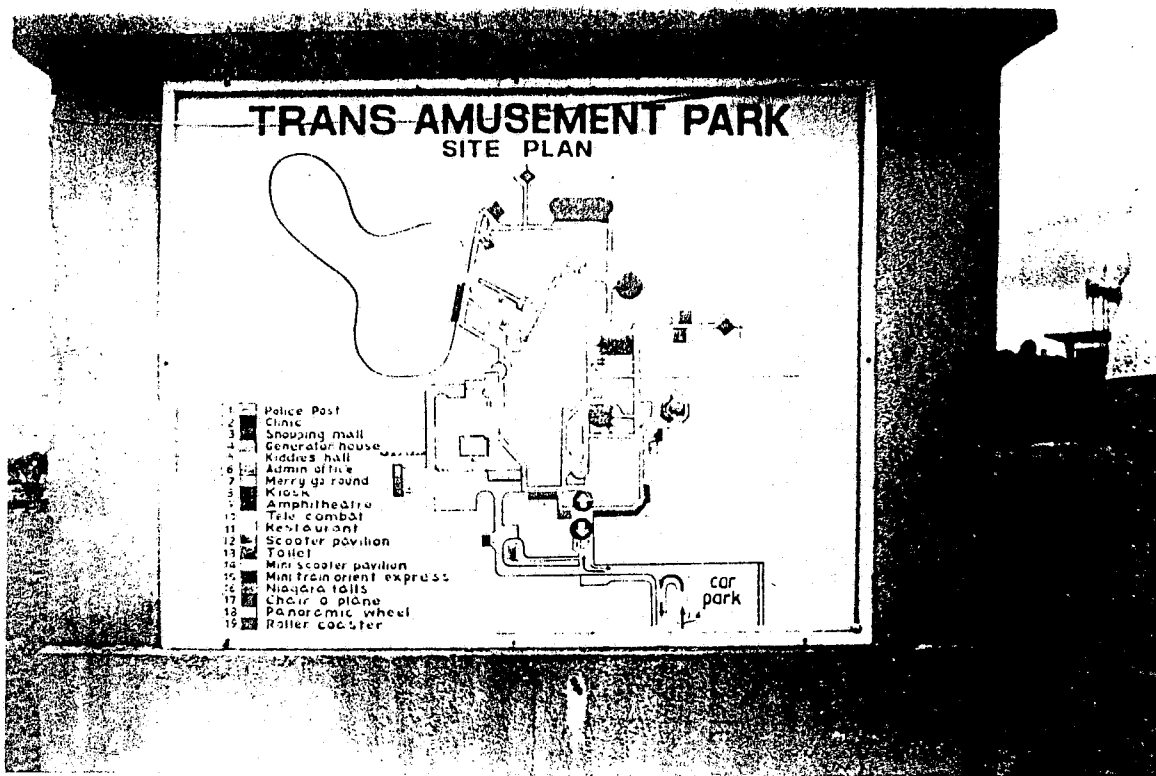
- Well landscaped
- Adequate car parking space
- Good construction and finish
- Location is accessible



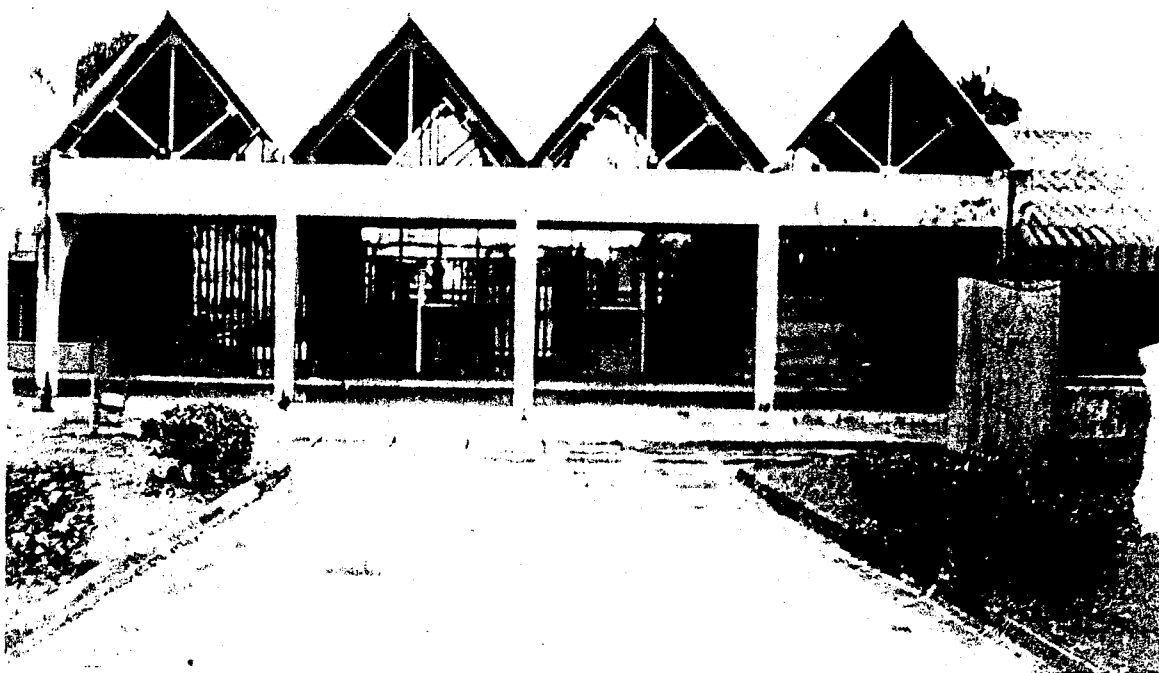
GAME HALL



HORSE RIDE.



SITE PLAN (USE AS A GUIDE FOR VISITORS)



ENTRANCE GATE

- Flat, expansive site, conducive for functional planning
- Well annotated functions make for easy identification.
- Adequate space available for future expansion.

#### **DEMERITS**

- Poor maintenance of facilities in the park evident
- Walkways not built for people movement
- Poor location of shops
- Facilities not in use always (except during festive period).

#### **4.6 DEDUCTION**

From the case studies conducted (by physical visitation to existing facilities), it could be said that each park/tourist facilities has it's own peculiar problem some are as a result of poor planning and understanding of the people's need in term of the socio-cultural ways of the people.

Some of these parks/tourist centres tried to reflect our traditional architecture up to some point. Others lack effective human circulation thus, one get tired of wandering around with out being properly guided to the game of interest.

The thesis will try to improve on the inadequacy noticed with a view of improving on it. Guided human circulation within the proposed park will be given adequate concentration.



#### 4.7 DEFINITION OF TERMS

- (A) Acquainting:- To cause to know personally or to make familiar
- (B) Pros:- face to face with or in addition too
- (C) Souvenirs:- Something that serve as a reminder.
- (D) Antique:- A relic or object of ancient times or of an earlier period. Existing since or belonging to earlier times
- (E) Exorbitant:- Not coming within the scope of the law or exceeding in intensity; quality, amount or size the customary or appropriate limits.
- (F) Caravan:- A company of travellers on a journey through desert.  
A covered wagon or motor vehicle.
- (G) Maze:- A confusing intricate network of passage.  
Something intricately or confusingly elaborate or complicated.
- (H) Monorail:- A single rail serving as a track for wheeled vehicle.
- (I) Soothing:- To prove the truth. To please by or as if by attention or concern.
- (J) Cons:- On the negative side, in opposition.
- (K) Theme park:- An amusement park in which the structures and setting are based on the central theme.

## CHAPTER FIVE

### PHYSICAL AND SOCIO-CULTURAL BACKGROUND

#### 5.1 HISTORICAL DEVELOPMENT






Bauchi State is one of the thirty six political administrative state in Nigeria as demarcated in 1999.

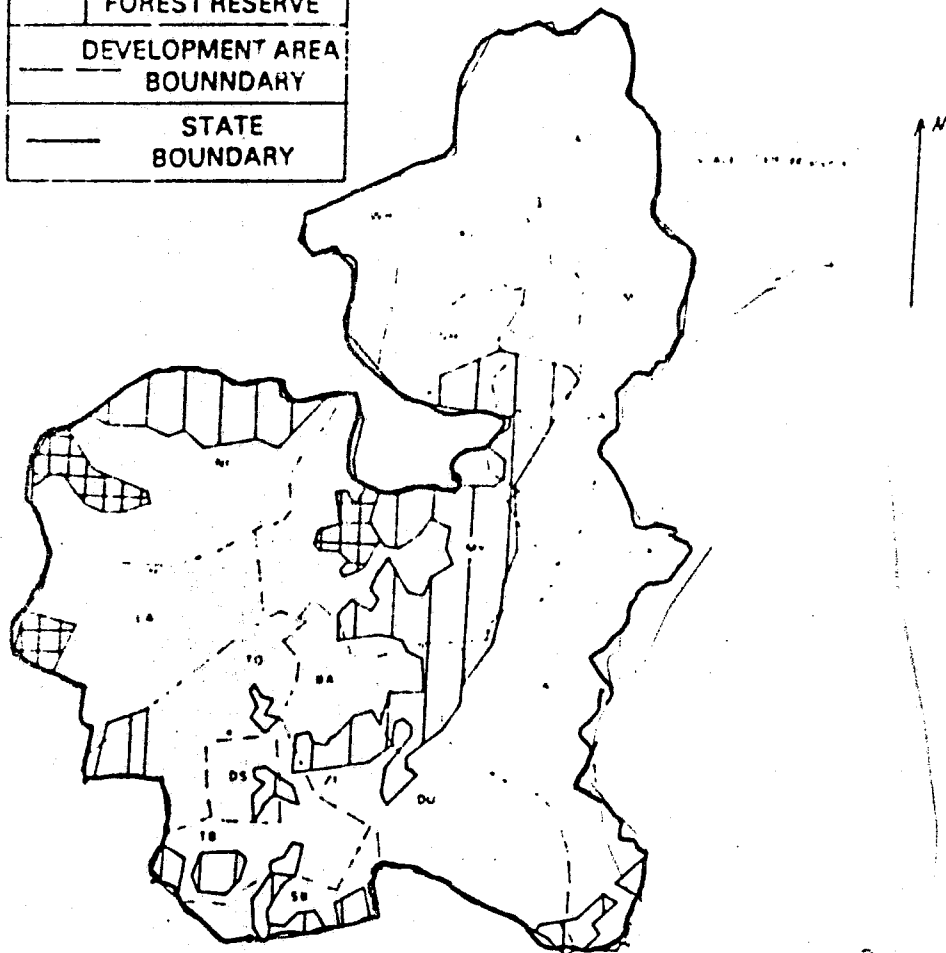
It is one of the states loosely referred to as the northern states and one of the eight often referred to as far northern, dominantly Hausa/Fulani.

It was created as a state in 1976 when the hitherto north-east state was split into three different states Viz Bauchi, Borno and Gongola. Bauchi state has remained intact in its 1976 boundaries ever since, having survived the two subsequent state creation exercises in Nigeria in 1987 and 1991, when the total number of states increased to twenty one and thirty respectively, plus the Federal capital territory (F.C.T.) Abuja. Thus, Bauchi state has had over sixteen years existence and experience as a composite administrative unit, as well as state governance. Indeed, the state boundaries today correspond almost exactly to Bauchi province of the colonial period. The last state creation exercise in 1999 saw the birth of Gombe State out of the stable Bauchi State.

# Bauchi State LAND CAPABILITY

Fig 1

| LEGEND  |                                  |
|---|----------------------------------|
|  | CLASS 1 LAND                     |
|  | CLASS 2 LAND                     |
|  | CLASS 3, 4, 5 AND FOREST RESERVE |
|  | DEVELOPMENT AREA BOUNDARY        |
|  | STATE BOUNDARY                   |



SQUARE  
ATLAS OF BAUCHI  
STATE, BSADP, 1983  
AND CAPABILITY MAP

including Rivers Fanvo, Magariya and, Dan warra, flows into the Jama' are system and, the hence, to constitute part of the River Yobe System.

In the extreme northern part of the state is a considerable stretch of the River Katagum system. Thus, the state has considerable surface drainage systems that could be harnessed for development purposes. This is more so in view of the fact that much of the state lies within very poor ground water provinces. For instance, within the basement complex crystalline rock areas, groundwater is very unpredictable. Only secondary aquifers occur in rock fractures, joints or weathering profiles. Water table is restricted to sub basins in localised, isolated patch. Bore hole yields are often very variable.

In the sandstone areas, groundwater occurs mainly within depths of 0-183m, while bore holes have moderate yields of about 5000 litres per hour (lph). Groundwater from this formation is said to be generally suitable for domestic and most industrial uses.

In the Gongola River basin sedimentaries, because of the cretaceous sandstone's and shales, groundwater is generally erratic and meagre. On the whole, the state would move profitably rely on impounded surface river reservoirs (dams) than on bore -holes for ground water.

## 5.4 CLIMATIC CONDITIONS

The climate condition in Bauchi state are subjected to the climatic conditions of the savannah grassland prevailing in the northern part of Nigeria. There is a larger dry season of about seven months and wet season of about five months. The Harmattan dry and cold winds blows from November, to February or early March.

The wet season starts may and ends in October, or early November.

### 5.4.1 TEMPERATURE

Bauchi like other parts of the country records it's highest temperatures during the dry season months, which are generally cloudiness. During the dry season, the temperature could be as high as 37<sup>0</sup>c. Mean daily maximum temperatures ranges from 29<sup>0</sup>c in July and August to 37.6<sup>0</sup>c in March and April. The mean daily minimum ranges from about 11.7<sup>0</sup>c in December and January to about 24.7<sup>0</sup>c in April and May. During the raining season, temperatures drops considerably due to dense cloud cover.

#### 5.4.2 HUMIDITY

In the case of humidity, Bauchi state humidity ranges from about 12 percent in February to about 68 percent in August .

The raining season months are may to September, when humidity ranges from about 37 percent to 68 percent. The low relative humidity, coupled with the high afternoon temperatures accounts for the desiccating effects of the dry season which is marked by the harmattan haze.

In terms of physiological comfort, the high relative humidity gives the area a heat trap effect, which makes people uncomfortably hot.

#### 5.4.3 WIND

Bauchi state is influenced by two major air movement namely the tropical maritime coming from the Atlantic ocean moving inwards, spreading over the country in a south west north east direction. It is usually warm and moist and its associated with the south-west monsoon winds bringing the rains.

The other air movement is the tropical continental coming in from the Savannah desert spreading in a northern east Southwest trade wind direction. These two air movement are responsible for the weather

conditions generally over the country (Nigeria). Their duration and intensity varies accordingly over different places depending on the interference of both air movements.

#### **5.4.4 SOLAR DATA**

There is a general increase in the total hours of sunshine in Nigeria, when you go further north from the Atlantic ocean (coast). The sunshine hours range from about 5.1 hours in July to about 8.9 hours in November. Indeed, October to February usually record the longest sunshine hours in the state.

#### **5.4.5 RAINFALL**

The raining season months are May to September or October. Monthly rainfall ranges from 0.0mm in December and January, though only traces of less than 0.1mm in February and November, to about 343mm in July. On set of the rain is often in march while they end virtually in October.

#### **5.5 SOCIO-CULTURAL BACKGROUND**

The ranges of business and services that supply goods and services to the state are mainly:

Fig II

# Bauchi State RAINFALL DISTRIBUTION

700 Annual Isohyets, mm

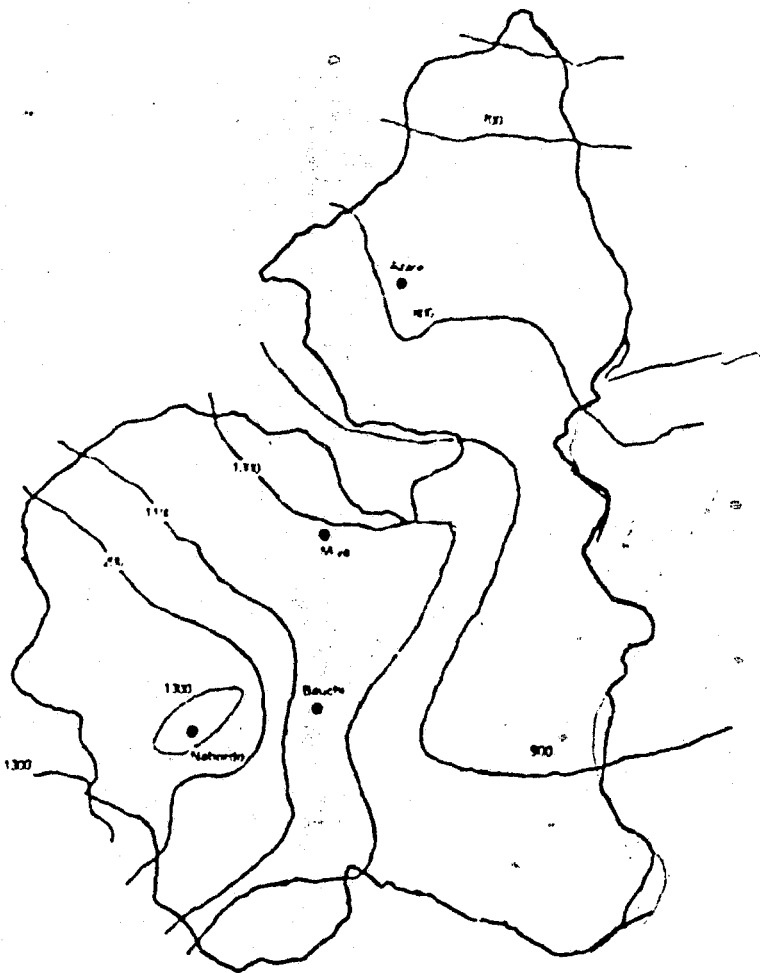


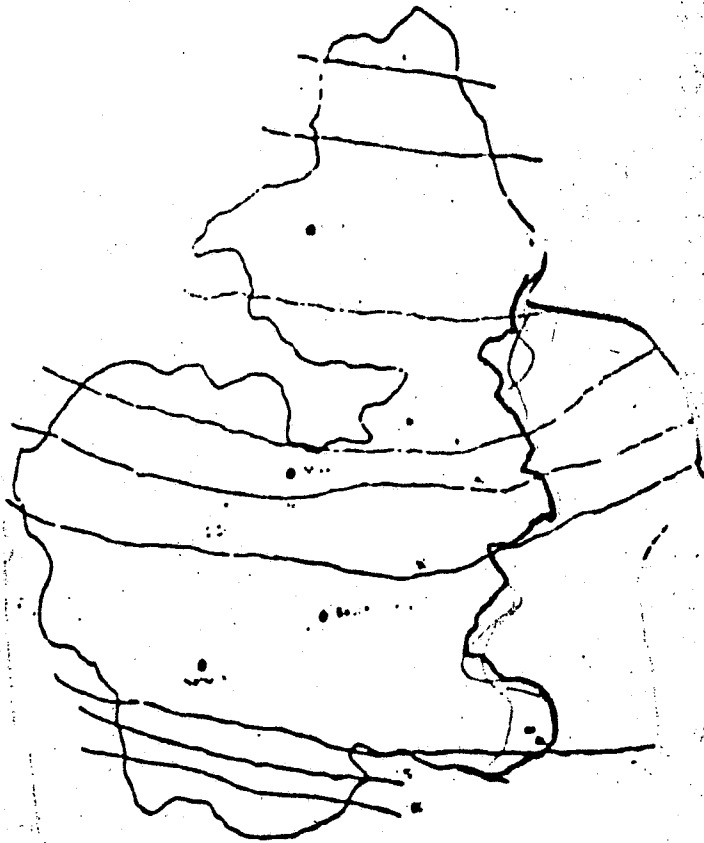




Fig IV

Bauchi State  
END AND LENGTH OF THE RAINY SEASON

.....



- a. Large scale modern retail shops and outlets
- b. Private commercial office
- c. Specialised business services, for example, banking, insurance, real estate and communication
- d. Retail establishments are of both modern and traditional form.

With these services in place, the proposed leisure park stand a good chance of achieving it's set objectives.

## 5.6 ECONOMY AND COMMERCES

Bauchi is a predominantly agricultural state endured with abundant human and material resources. The economy is buoyant with cotton, maize, groundnuts, millets and guinea corn grown in commercial quantity.

The potentials for economic development are so vast that any entrepreneur who invests in the state is assured of continuous optimum turnover for at least twenty years.

The state is known to be rich in mineral deposits. In addition to major mineral elements like lime and uranium which have been identified in various areas of the state. respectively, deposits of other such as Tin, columbite, Tantalite and ore tungsten, have been discovered in sufficient quantities in various accessible parts of the states. Also available in

commercial quantities are clay and silica sand used in ceramic manufacturing industries.

Investors in large scale agricultural production are encouraged by the liberal land policy of the state Government which provides arable land to them. The establishment of Agro-Allied industries is also being encouraged so that outputs of these agricultural endeavours could be processed and preserved.

Potentials for mineral exploitation exist. Some oil companies are currently prospecting for oil in the states. Although their findings are not yet made public, it is believed that crude oil exists in commercial quantity in some parts of the state.

Like other places, commerce in Bauchi covers business, house hold and personal services.

This is required for the supply of goods and service to the population. Bauchi is a commercial environment which consist of retail establishment and traditional forms complying with the government policies on provision of space infrastructure licensing. Traditional markets of two type exist in Bauchi: The first is the central market which serve the capital and other smaller ones that takes care of the needs, of the other parts of the state.

## 5.7 DEMOGRAPHIC DATA

Extrapolating from available statistics, determines the demographic characteristic of Bauchi state and its subsequent influence on the project at hand. These characteristics are Age/Sex distribution, the numbers of households and the anticipated income distribution by the year 2000 population.

The age structure suggests, at least that the social problem (stress) of young male/female are important elements which would be taken care of by recreation; active and inactive sporting activities both in Bauchi town and its environs.

The 1963 census returned a population of 2,432,292 people for Bauchi state, constituting 4.37 percent of Nigeria's total population by that data. This was a crude density of 37.65 person per sq km for the whole state. The sex ratio at the time was 123 males to 120 females (or 100males to 797.56 female).

According to the 1991 census provisional figures, Bauchi state record a total of 4,294,413 people (or 4.85 percent of Nigeria's total) made up of 2,202,960, males and 2,091,451 females. This is a sex ration of 105 males

to 100 females; and a crude density of 66.47 persons per sq.km in the state. Thus over the twenty eight years between the two censuses, the state's population increased by 76.6 percent, while the crude density also increased by 49.99 percent. The table below shows the population of the state by local government areas statistics.

**Table 5.0**

**BAUCHI STATE 1991 POPULATION CENSUS, BY LGAS  
(PROVISIONAL FIGURES)**

| LGA (NAME) | MALE    | FEMALE  | TOTAL   | %   |
|------------|---------|---------|---------|-----|
| Alkaleri   | 129,912 | 124,565 | 254,477 | 6.0 |
| Bauchi     | 180,225 | 161,533 | 341,758 | 8.0 |
| Darazo     | 83,650  | 80,199  | 163,849 | 3.8 |
| Dass       | 26,064  | 27,149  | 53,213  | 1.2 |
| Gamawa     | 95,514  | 85,490  | 181,004 | 4.2 |
| Itas/Gadua | 64,028  | 63,624  | 127,652 | 3.0 |
| Jama'are   | 31,681  | 28,662  | 60,343  | 1.4 |
| Katagum    | 97,644  | 90,483  | 188,127 | 4.4 |
| Misau      | 112,099 | 107,086 | 219,185 | 5.1 |
| Nafada     | 96,601  | 89,530  | 186,131 | 4.3 |
| Ningi      | 150,606 | 139,512 | 290,188 | 6.8 |

|               |         |         |         |     |
|---------------|---------|---------|---------|-----|
| Shira         | 124,303 | 118,989 | 243,292 | 5.7 |
| Tafawa-Balewa | 89,979  | 98,506  | 188,485 | 4.4 |
| Toro          | 73,151  | 107,630 | 215,455 | 5.0 |
| Ganjuwa       | 73,151  | 69,988  | 143,139 | 3.3 |
| Zaki          | 81,845  | 74,502  | 156,347 | 3.6 |

### 5.8 TRANSPORT AND COMMUNICATIONS

Bauchi state is very well served with road and with other parts of the country. In particular, it is connected with and traversed by three main natural trunk roads. The first is the A3, which stretches for about 230km within the state leading from Jos in plateau state through Toro, Bauchi, Darazo and Kari towns in the state, and out to Potiskum and Maiduguri towns in Yobe and Borno states respectively.

The others are the A237 trunk road which passes from Kari, through Misau and on to Birnin-kudu in Jigawa state and Kano as well as the A345 trunk road which traverses Bauchi town, through Gombe state, and to Numan and Yola towns in Adamawa state.

The major road foci in Bauchi town is linked by the trunk road A345, from which several roads, indeed no less than five of different grades, radiate to the major settlements in the state and beyond. Some of the minor

roads in the state include Azare, Misau, Kari and Ningi, from which several truck B and lower grade roads criss-cross the state.

The Kuru to Maiduguri eastern rail line extension in Nigeria passes through Bauchi state connecting several settlements, including Iare Bauchi, Gombe and Bajoga (in Gombe state). The line covers a distance of about 388km within the south and south-eastern parts of the state.

The state capital is served by an air strip for light aircraft. The state capital and other major towns and several of other settlements in the state are served by both postal and telecommunication facilities, while the state radio and television network provide the needs of the people of the state, in addition to hooking on to the national network at the specified times.

## 5.9 EXISTING LAND USE AND FUTURE TRENDS

The master planning process which shaped the state capital centred around the objectives and issues of the old city planning process of the Hausa Fulani Kingdom. Here planning was done around the Emir palace (at the centre), extending outward from all sides. Areas were planned for Stangey (Tudun wada) also for government officials (GRA) industrial layout; we also have areas meant for the military (Barracks), Banks area



and other social and public buildings. Most of these are outside the old city wall of Bauchi.

Creation of green area in the capital city plan will help improve the environment parks should be introduced with proper landscape in place. One most important thing to note is human traffic. This should be taken into consideration, in order to improve on the poor circulation pattern within sport stadium and open air arena.

## CHAPTER SIX

### SITE ANALYSIS

#### 6.0 SITE AND ENVIRONMENT.

Bauchi State covers an area of about 64,605 km<sup>2</sup>

Square kilometers (sq. km) and is bordered by Yobe state, Jigawa, Kaduna, plateau, Taraba and Gombe state. This lies generally at an altitude of about 600 metres above sea level being part of the central Nigeria highlands and Jos plateau complex.

#### COMMUNICATIONS

The state is very well served with road links, both within the various parts of the state and with other parts of the country.

In particular, it is connected with and traversed by three main national trunk road. The first is the A3, which stretches for about 280km within the state leading from Jos in plateau state through Toro, Bauchi, Darazo and Kari towns in the state, and out to Potiskun and Maiduguri, towns in Yobe and Borno states.

We also have the A237 trunk road, which passes from Kari, through Maisau and on to Birnin Kudu in Jigawa State and Kano as well as the A345 truck road which traverses Bauchi town and links up to Gombe state.

The states also have rail services. At present, the Kuru to Maiduguri eastern rail line extension in Nigeria passes through Bauchi State, connecting several settlements.

Bauchi is also served by an airstrip for light aircraft. Also existing are postal and telecommunication facilities.

## **6.1 SITE SETTLEMENT CRITERIA**

In selecting the site for a project like this, certain factors were considered before the final adoption. The factors include the economic factor and the physical factor.

Physical factors covers the vegetation, relief / topography and also Drainage (natural) while the economic factor covers the viability, accessibility and proximity of the site to the city centre.

## **6.2 SITE LOCATION**

The site is a vast expanse of land of about 240M BY 400m located opposite the Bauchi, Radio corporation (B.R.C) transmitting station and along the (Kari road) A237 trunk road which passes from Kari through Miasu to maiduguri in Borno state. The site is highly accessible as stated above from within and around the city owing to its proximity to the city centre.

### **6.3 SITE GEOTECHNICAL DATA**

The site posses a Northeast slope, rising from and elevation of 700m in the South East to 820m in the Northeast. On the Southern and Southern-Western and of the site is the Guni hill and other smaller rock outcrops that will be in-corporated into the landscape design. It is also characterized by undulating terrain in which can be found several depressions.

### **6.4 GEOLOGY AND VEGETATION**

The soil is characterised by plains of sandstone's and shale, metamorphic / sedimentary rocks and isolated hills, that punctual the plains in several places.

The vegetation is basically part Savannah surrounded by high trees. It also comprises of depressed trees and high grasses.

### **6.5 CLIMATE (HUMIDITY TEMPERATURE AND RAINFALL)**

High temperature occurs in the dry season when there is little cloud cover. The means daily maximum temperature range from 29.2°C in July and August to 37.6°C in March and April. The daily minimum ranges from about 11.7°C in December and January to about 24.7°C in April and May. The

sunshine hours range from about 5.1 hours in July to about 8.9 hours in November, October to February usually record the longest sunshine hours in the state.

For humidity, it ranges from about 12 percent to about 69 percent in the month of August. The monthly rainfall ranges from 0.0mm in December to about 343mm in July. Radiation is fairly even throughout the year, ranging from about 11.3mm in July to about 18.7mm in April.

## **IMPLICATION**

In the design, adequate cross ventilation of habitable area or structures is highly desirable for all year round comfort. Landscaping elements will contain tree types that will not lose it's leaves during the dry season (Deciduous). This will provide shade and reduce the wind speed that will be blowing. Other shading devices will be applied to tackle the problem of sunlight (glare)

For rainfall, drainage systems capable of holding large volumes of water are required. Strong wind and intense rainfall could cause serious damage to roofs and skylight. This will also be taken into consideration.

## CHAPTER SEVEN

### DESIGN CONCEPT AND CONSTRUCTION

#### 7.0 DESIGN BRIEF

This thesis work puts forward a design proposal for a leisure park with the site located along the Kari road.

This proposal among other things is to make provision for adequate facilities on site to meet international standard and also satisfy the needs of people, putting in mind their socio-cultural background and its environmental impact. The essence of this is to bring in vast number of recreational facilities, within a relaxed environment.

As already identified in some existing parks. The biggest problem emanates from existence of functions without any sense of planning, Bad or poor landscape, deteriorating conditions of buildings and other functions, the existence of large number of people in site, thus causing indiscriminate parking and lastly the poor circulation pattern (human and vehicular). These problems listed therefore give a better understanding of the salient points considered for the proposal.

The following facilities have been proposed for the centre so as to meet the standard of a recreational park. They includes:-

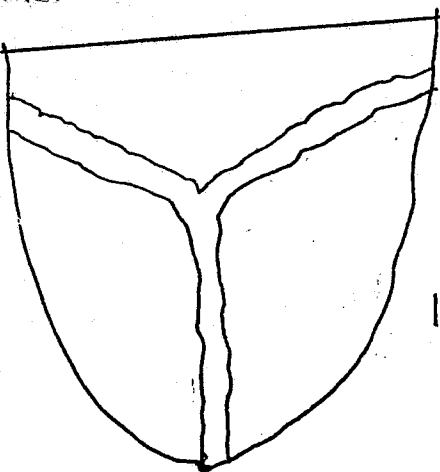
- (a) Administrative unit.

- (b) Public hall / shops.
- (c) Indoor sport hall / restaurant.
- (d) Museum / shops
- (e) Nite club.
- (f) Artificial lake.
- (g) Accommodation.
- (h) Maintenance unit
- (i) Amusement park (games)
- (j) Picnic area.
- (k) Outdoor sport facilities.
- (l) Pedestrian walkways.
- (m) Garden

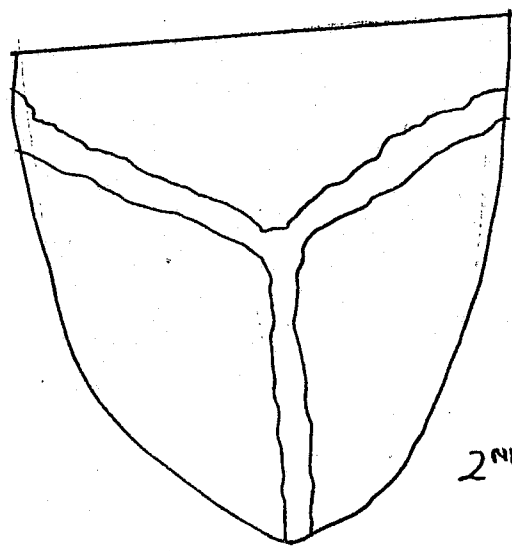
## **7.1 DESIGN CONCEPT.**

Concepts are ideas existing in human imagination that integrate elements into the whole thing or unit. Any visual imagination in human memory cannot be called concept except it is portrayed in whatever form. Then can it be called a concept. It is also a means of expressing one's in-depth feelings of an abstract existence.

CONCEPT



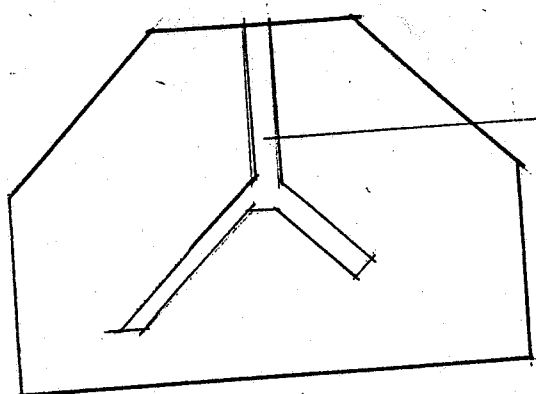
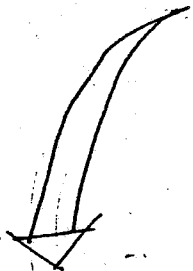
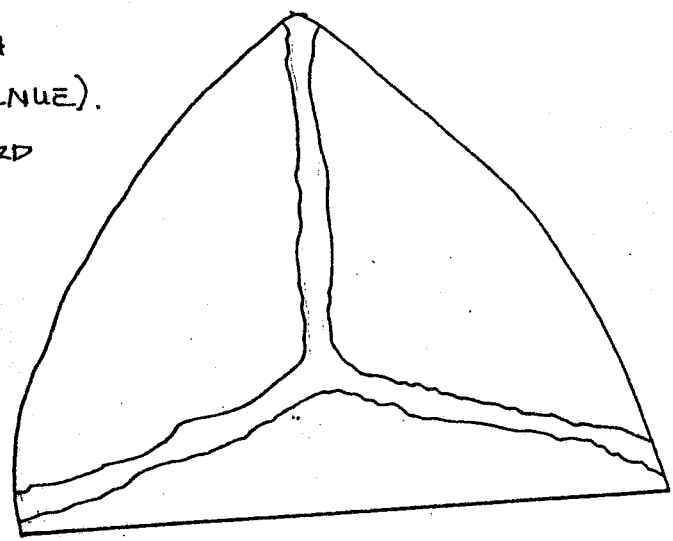
1st



2nd

FIELD FROM THE  
TOP OF ARM (WITH  
RIVERS NIGER AND BENUE).

3rd



CIRCULATION NETWORK

FINAL  
SHAPE OF SITE PLAN.



In the context of this thesis, however, concept could be ideas, notions, thoughts and observations that is portrayed in drawings. In this case, the understanding of the significant relationship between people's leisure and recreation, open space and the nature of the landscape of that area is eminent, in determining what character to be used in the design and layout.

The design concept evolves from integration (fusion) of traditional architecture and modern architecture in order to achieve a whole pattern. The use of linear form depicts modern architecture, while the circular form depicts the traditional architecture. The circular form is also a symbol of flexibility in design, because it allows for expansion in design strategy.

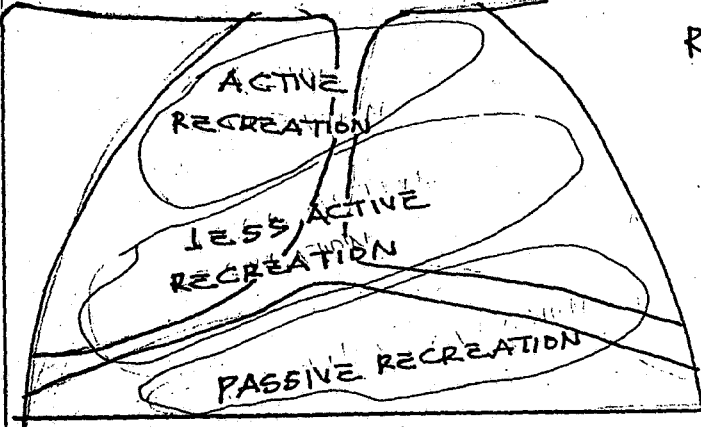
The simple straight and horizontal lines emphasizes the use of standards in planning. The linear tends to become more rigid, but the two form are fused, there is a creation of a better form under a free atmosphere. Recreation entails relaxation in a free atmosphere with complete refreshment of one's state of mind and body.

## **7.2 SITE ZONING / SITE DESIGN CONCEPT**

The motive here is how facilities are distributed or located on site, and the integration of these functions with the existing situation on site. The connection. Movement and integration of these facilities shall be resolved

# SITE ZONING OPTIONS

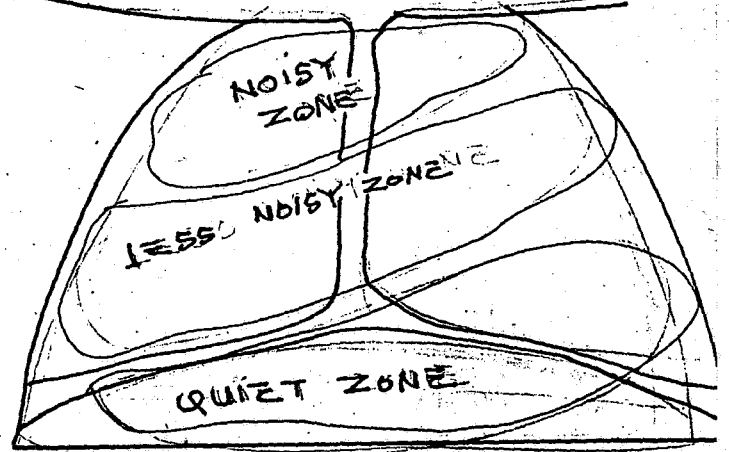
ACCESS ROAD



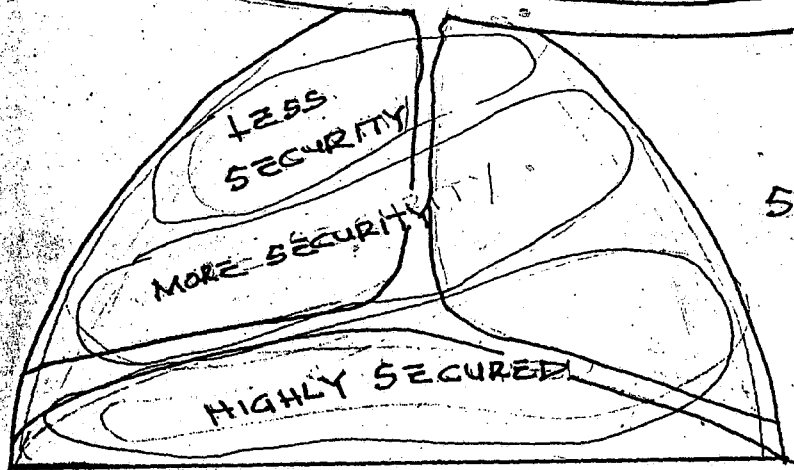
RECREATION

NOISE

ACCESS ROAD



ACCESS ROAD



SECURITY

with the underlisted criteria; thus serving as guide in the creation of an appropriate environment.

## **SITE**

The design concept is based on the site plan and the arrangement of facilities. The concept used is the BLACK SHIELD (with the Y – shape of rivers Niger and Benue). The two rivers divide's the shield into three parts, forming the North, West and eastern part of Nigeria. These divided parts thus represent the Northern theme, Western theme and Eastern theme. With this a better planning will be achieved. The Y-shape rivers form the basic circulation network (both human and vehicular). This makes it easy to access the various themes without much difficulty. Also, the division will aid a better zoning pattern. The result of the site analysis, concerning slope, configuration, access point and the rest was given due attention in the concept stage.

## **CIRCULATION**

This (the main research area) the given much attention in order to achieve result. The ease of movement from zone to zone gives visitors psychological and physical comfort. Effective guided human circulation will be adopted, as it will improve the circulation pattern that is existing in the

various parts around. This will be achieved taking into considering the zoning adopted.

### **FLEXIBILITY**

The possibility of future expansion and development are considered. This is to resolve the problems observed at the initial planning stage of the parts.

### **SERVICES AREA**

Special attention is given to services traffic, drainage and delivery. This will be taking care of by providing as separate services entrance without much disturbance.

### **PARKING SPACE**

Since this is always a problem in the design of a park, maximum concentration is given to this area in terms of the location and requirement.

## **7.3 SITE ZONING CONCEPT**

Zoning of functions on site means the grouping of similar functions or serving the same purpose in a place. Zoning could also be grouped as a result of segregating noise from non-noisy area, or arranging functions on a horizontal axis as to define the use of space, public, semi-public or private,

also zoning based on commercial, residential and recreational areas. This depends on the activities in questions.

In the context of this, however, three-zone alternative shall be considered. This shall be based on :-

- (a) Recreational
- (b) Noise
- (c) Security.

The site concept is as of result planning base on services. The unit of the site are three, divided by the circulation networks.

The whole idea behind this concept is to have a proper site organisation in terms of the three alternatives mentioned and utilities to be provided.

#### **7.4 SITE LAYOUT / PLAN**

The three units mentioned in the site concept are placed on their rightful position in terms of noise level and security / Active and passive recreation. The order of preference in terms off recreation is Active recreation, less active recreation and passive recreation. The site layout plan will minimized vehicular circulation which acts as a nuisance.

The site is also divided into several unit which are related to one another with effective guided human circulation network. This links increase circulation rate in site (see sketch).

### **7.5.0 SPACE ANALYSIS / DESIGN REPORT**

The design brief contains the description of the functions that are provided on the site. They include:-

- (i) Administrative unit.
- (ii) Public hall
- (iii) Nite club
- (iv) Shop
- (v) Swimming pool
- (vi) Accommodation
- (vii) Amusement
- (viii) Picnic area
- (ix) Outdoor sport area and
- (x) Garden. Also artificial lake.

As a visitor get to the park he first meet the gateman and from there he would be directed to the Administrative unit for proper information. There he / she inquires and book for any game or accommodation. Form

there, visitor can easily link any other unit and Amusement park. This depends on his mission. Each unit shall be briefly looked into.

### **Administrative Unit**

Being the first point of call, it takes care of the day to day running of the park (management). The capacity of this unit is such that it takes up to twenty staff including the manager for Administration, and the manager for park / public services. Other spaces include receptionist, security general office, secretary, Account Tour guide, store, phone, convenience, Boardroom and waiting room. The Administrative building is integrated into the site conforming with the terrain of the site. It has a simple floor plan pattern (linear form)

### **Public Hall**

This hall is located on a flat ground level and takes advantage of its location close to the public parking area. It caters for shows, musical concert, and other ceremonies.

As the guest come through the terrace, he ascend some steps to the main Lobby which takes him to the landing and toilet on either side. He descends down the hall through the doors to the stage and hall. At the top is a mezzanine floor (raked) and it conforms with the structure of the main hall.

Windows are screen with vertical thin concrete slits. It also has a changing room, rehearsal hall, shops, projection room, store and a office for the porter.

### **Accommodation Unit**

Design of small chalets portrays an interesting impression of traditional architecture and perfectly finished with locally preserved thatch roof. This makes the chalets area a tourist village. The concept adopted is in harmony with other existing facilities on site with a circular form. The chalets consist of a single room chalets to a double room chalets.

### **Shops**

The shops are integrated into the various units on site. Among those proposed includes, Beauty Hair saloon, Barbers shop, Gift shop, craft shop with other shops to let.

### **Museum**

This unit is integrated with the shops. It also houses the supermarket space. Provisions are made for both traditional and modern architecture and crafts. The museum has a compound like structure with a courtyard



## **Indoor Sports Hall / Restaurant**

The indoor hall accommodates sport like squash, table tennis, snooker's fitness room, card, room, first aid, swimming pool, shop, changing room and spectators area.

The swimming pool is not Olympic size but a leisure pool for fun seekers. It has both the deep and shallow ends.

For the restaurant, this is part of the indoor hall (integrated), and could be accessed from it. The restaurant has a capacity of 100 people at a seating with outdoors eating area. This area is close to the swimming pool. Provisions were made for food preparation and storage.

## **Nite Club**

This is accessible from the indoor hall / Restaurant. Also from the public hall and museum, one can easily reach the clubhouse. At the entrance is a ticket room and reception. The club consists of a common room drinking Bar, Dance hall and also executive drinking area.

### **7.5.1 SCHEDULE OF ACCOMMODATION**

| <b>ADMIN</b>    | <b>AREA (M<sup>2</sup>)</b> |
|-----------------|-----------------------------|
| Director        | 18                          |
| Manager (Admin) | 6                           |

|                           |     |
|---------------------------|-----|
| Manager (park services)   | 16  |
| Tour office               | 16  |
| Marketing department      | 12  |
| Library                   | 28  |
| Board room                | 32  |
| Accounts                  | 16  |
| Reception                 | 12  |
| Secreting                 | 12  |
| Waiting                   | 12  |
| Director Secretary        | 9   |
| Convenience               | 24  |
| Telephone area            | 12  |
| <br>                      |     |
| <b>Public Hall</b>        |     |
| Entrance hall             | 20  |
| Shop                      | 18  |
| Store                     | 18  |
| Phone room                | 8   |
| Main auditorium           | 420 |
| Rehearsal / changing room | 24  |

|                      |     |
|----------------------|-----|
| Porters office       | 12  |
| Convenience (male)   | 14  |
| Convenience (female) | 14  |
| Stage                | 14  |
| Mezzanine floor      | 200 |
| Projection room      | 16  |

**Museum / Shop**

|                      |    |
|----------------------|----|
| Museum of modern art | 32 |
| Museum of local art  | 32 |
| Shops                | 24 |
| Phone boots          | 12 |
| Gift shop            | 12 |
| Bookstore / shop     | 24 |
| Bar                  | 48 |
| Supermarket          | 32 |
| Barbing saloon       | 9  |
| Hair saloon          | 9  |
| Relaxation porch     | 60 |

## **Indoor Game**

|                               |       |
|-------------------------------|-------|
| Tickets room                  | 6     |
| Video                         | 9     |
| Chess room                    | 60    |
| Square hall                   | 140   |
| Square (changing room)        | 24.9  |
| Tennis hall (table)           | 138   |
| Snooker hall                  | 66.75 |
| Card room                     | 24.4  |
| Fitness room                  | 42    |
| First aid                     | 26.4  |
| Swimming pool                 | 170   |
| Changing room (male / female) | 120   |
| Electricity pump room         | 12    |
| Shops                         | 32    |
| Attendant office              | 6     |
| Rest room                     | 10    |

## **Nite Club**

|         |   |
|---------|---|
| Tickets | 8 |
|---------|---|

|                       |    |
|-----------------------|----|
| Common room           | 24 |
| D. J. Room            | 16 |
| Setting area          | 98 |
| Central stage         | 32 |
| Drinking Bar (indoor) | 64 |
| Outdoor drinking bar  | 24 |
| Store                 | 8  |
| Convenience           | 32 |
| Executive Bar         | 98 |
| Severing              | 14 |

### **Restaurant**

|                    |     |
|--------------------|-----|
| Dining area        | 240 |
| Severy             | 26  |
| Store (periodical) | 16  |
| Kitchen            | 24  |
| Store (dry)        | 12  |
| Store (cold)       | 12  |
| Snacks / Bars      | 140 |
| Supervisors office | 10  |
| Convenience        | 20  |

## **Chalets**

|                     |    |
|---------------------|----|
| One bedroom chalets | 42 |
| Two bedroom chalets | 63 |

## **7.6 MATERIALS**

Materials choice for the park is dependent on the existing local architecture, thus creating a sense of place. Building material property varies in strength, stiffness, elasticity, density, resistance and thermal conductivity. This depends on the manufactures. Material comes in standard size and quality. Also they play a vital role in building life span and construction, as such the designer should be careful in choosing his material.

### **7.6.1 CONCRETE**

It is strong in compression, but weak in tension. Concrete can be formed into any shape with different surface finishes, texture and pattern. It also provides fire proof constructions. A combination of cement, water and aggregate in a standard ratio, its strength is determined by its weather resistance, durability and water – tightness after setting. Concrete could be finished in a number of ways. Travelling produces a smooth surface. Surface

They may be treated or altered with additives in its manufacture to develop special properties of strength, hardness, ductility, expansion work ability. The type of steel used in the construction industry includes stainless steel, nickel steel, chromium steel and copper bearing steel. Construction of pergola, Gazebo and roofing members (some building structure) are of steel members. This could be seen in the public hall, Restaurant and Museum roofing systems.

#### **7.6.4 MANSORY**

These are man-made unit, formed and hardened into modular building units. Due to it's weak nature, they are laid in such a way as to enable the entire mansory mass to act as an entity. It is structurally effective in compression and graded according to strength.

The appearance may vary in colour, texture, and pattern. Concrete block can vary in tones.

#### **7.6.5 NON – FERRORS METAL**

Aluminium being a non-ferrors metal, is naturally light in colour and may be dyed in a number of warm and bright colour, using anodizing process. They are used as secondary building material, such as window, doors, roofing

texture can be achieved by brooming, raking and sand blasting (expulsing the aggregate concrete) and may also be painted or have a finish applied.

It constitutes 75% of construction, and also can be seen in the walkways and other landscape elements.

### **7.6.2 STONE**

A combination of minerals, each of which is composed of inorganic chemical substances. It is cut into uniform size, laid up and used in compression. The types of stone work commonly used include rubble work, ashlar, and trim. It is also similar in principle like concrete block wall.

Stone works are applied in some part of the buildings in the park and other landscape elements. Stonework provides good finish under very rigid and durable conditions.

### **7.6.3 STEEL**

Steel is used for heavy and light structure framing as well as a wide range of products, like windows, doors hardware / fasteners. Combining high strength with stiffness and elasticity, steel could be used as structural members (as a roofing members too).



flashing, reflective / insulating, material. Trim and hardware care is usually taken to insulate Aluminium from other metal to prevent galvanic actions, for example;

- Protecting aluminium from alkaline material, like net concrete, mortar and plaster.

Copper is also a non-ferrous metal used in construction its properties includes, high resistance, ductile property and high electrical and thermal conductivity. Specification for some of the roofing sheet used is long span Aluminium roofing sheet.

#### **7.6.6 THATCH ROOF MATERIAL**

This is used in roofing the accommodation chalets. This creates a traditional feeling in the park, thatch roof are made of Grasses arranged in define pattern.

#### **7.6.7 GLASS**

Glasses are transparent, hard and brittle material. They could be used as frame or cellular glass, also for thermal insulation. Glass fibres as textile material for reinforcement. As glass wool is for acoustical.

transmission. Glass is primarily used to glaze building windows and sky light opening.

We have the following types of glass. These include:-

- Heat absorbing glass, tinted sheet that absorbs radiation.
- Tempered glass, heat strengthened for increased resistance to impact.
- Wired glass, used to glaze opening susceptible to fire hazards.
- Insulating glass provide thermal / insulation.

#### **7.6.8 PLYWOOD LAMINATED**

A laminated panel of wood veneers laid with the grain direction of right angle to another, bonded together at high pressure, either with water resistance or water proof adhesive.

Engineered grades of plywood are used for wall and prepared one's are used for large structural members.

#### **7.6.9 WOOD**

The grain direction is the determining factor of wood structural material. Compressive and tensile force in wood are of best advantage in a direction parallel to it's grain. Wood withstands about 1/3 more force in compression than in tension. However, tensile force perpendicular to the

grain cause wood to split. When moisture content of wood is below 20%, it's decay resistance drops, thus it is better to maintain it within this range.

Preservation treatment are often used to protect it decay or insect attack. Some wood are used during construction and for roofing members too. The quality of wood include durability. Light weight, easy workability, natural beauty and warmth to sight and touch.

#### **7.7.0 PAINTS**

This is refer to as opaque or clear film form material that act as a shield or barrier between the building material and those element or condition that may adversely affect on or direct it.

The psychological effects of colour and texture are of prime consideration in it's application. Certain colours are stimulating while others are relaxing. Selection and use are influenced by surface preparation, type of paints, film thickness and drying.

#### **7.8 CONSTRUCTION**

Construction entails the last stage of building contract. Materials here are specifically employed in construction. Materials selections were

considered fit for construction purpose. Such consideration includes economic criteria, mechanical properties and aesthetic qualities.

Economic consideration in use of materials are done on the basis of cost maintenance, fire resistance and durability. Mechanical properties or behaviour of materials are of basic economic rational and aesthetic quality. Thus this become one main factor of park.

Durability, structural properties of steel, which are tensile, compression creep, plasticity, elasticity hardness, resistance to corrosion and acoustical qualities are of prime consideration. The floor has to be durable, dust resistance and has to meet up with the economy of construction and maintenance.

When possible, locally produce materials shall be employed in the construction to give an impression of culture and tradition architecture. The structural materials for all major structures shall be predominantly reinforced concrete and steel.

The pedestrian walkways are to be surfaced with reinforced concrete slab. The paving shall be of a base and a sub-grade underneath thoroughly compacted together. A wearing course of large rigid units (paving slabs) is recommended. All joints between paving slabs shall be filled with 1:3 cement mortar. The mortar is to be brushed dry into the joints on them watered, this

will reduce the risk of mortar staining the paving edges (kerbs). All kerbs are of reinforced concrete. Diverse textures and patterns of paving were evolved too enhance the visual impact.

Reinforced concrete floor slabs beams and columns are adopted as frame structure for some of the buildings in the park. The infilling panels will be of block wall. The internal surface of the concrete and block walls shall be rendered smooth by the application of 3 coat of cement plaster of mix  $\frac{1}{4} : 1 : 3$  of lime cement and smooth sand respectively.

The restaurant / indoor game unit shall be finished with unglazed ceramic tiles. Other rooms shall be finished in accordance to specification. Skirting shall be of tiles or polished hardwood or glass panels in bronze anodized aluminium frames, smoothed hardwood or glass panels in bronze anodized aluminium frames.

Roofing members are either of hardwood, steel and a combination of concrete as reflected in the drawings. The entire roofing sheets are to be deep red long span aluminium sheet.

### **Foundations**

A combination of strip and pad foundation is recommended for both the medical unit, Administrative unit, maintenance unit, chalets and other structure in site. This is because the soil bearing capacity is good enough.

Frame construction shall be adopted for the public hall. Load bearing walls shall also be used for the medical unit, gatehouse, police unit fire, and station and maintenance unit.

### **Plumbing**

The layout of the plumbing systems shall be straightforward and direct as possible. This will take into consideration the slope of the site consideration will also be given to subsequent cleaning of the pipe when they are clog.

Vent will be introduce mortar to permit offensive gases to escape, admit fresh air and also help retard the decay of organic matter.

Traps will also be introduce, they will act as seal and prevent sewer gases from entering interior building. Textures should have sufficient floor to periodically clean out their traps and prevent sediment from collecting. This fixtures should be of a dense, smooth, non-absorbent materials and free of concealed surface. They should all be located in ventilated spaces.

## CHAPTER EIGHT

### DESIGN SERVICES

#### 8.0 ELECTRICITY AND LIGHTING

The Leisure Park shall be served with electricity, from the National Electric Power Authority (NEPA). However, provision has been made for a plant house within the centre. It is to supplement NEPA'S power supply. The National Electric Power Authority should be well, informed of the total estimated electricity load required during the planning stage, to confirm services availability and co-ordinate the location of the services required. A transformer may be used (the plant house) to switch from the supply of voltage to services in order to reduce cost, maintenance, and noise. Transformers are usually located outside.

Services connected may be;

- (1) Overhead – less expensive, accessible, carry high voltage over long areas.
- (2) Underground – more expensive, protection during extreme weather conditions. Used in high-density area.

Electricity provide power for light, heat and operations of appliances and game services. The electric system has a central control in the park that distribute power to the various part. Basic component of the electric

system are:- Switch boards (main), panel board, services outlet, switches and control wiring conduct.

## **8.1 HEATING, COOLING AND VENTILATION .**

Heating, air condition system and ventilation of the interior space of building is for the environmental comfort of the occupants.

Good environmental comfort stem from the relationship between

- air temperature and mean radiant temperature
- air temperature and relative humidity
- air temperature and air motion

The following factors are considered in the selection, design and installation of air conditioning system

- Performance and efficiency
- Fuel and power services required
- Types, size and location of heating or cooling equipment
- Noise, and vibration control
- Outlets

The location of these services depends on size and proportion of the space, the area to heat (heat lost and gain), it's wall ceiling and floor construction and finish.



## **8.2 WATER SUPPLY**

This is most visitors do not get free portable water to drink, those may resolve to buying bottled water or soft drinks. The park therefore, will be connected to the water distribution pipe line of the state water board , which should readily provide water to the park (through pumps located in and around the proposed structural and park's landscaped area. Water storage is encourage with the provision of overhead tank.

## **8.3 DRAINAGE AND SEWAGE DISPOSAL**

The health implication of an improperly drained site or park is high. Therefore effective prevention will be to use a combination of drains and sewers. Drains are pipelines laid and maintained by the local authority under state owned roads. Sewers are a more elaborate system of drainage. The economic importance or advantage of a combine system is that the drains runs from each building and cuts the expanses of individual connections.

Bauchi lack a central sewage system, thus public toilet facilities will be provided fully integrated within the park and in buildings.

Proper stream lining of the toilet facilities will be taken into consideration, so that visitors can easily locate them. Building corners are used in order to minimize pollution (air).

#### **8.4 REFUSE DISPOSAL**

The disposal of refuse is not dependent on any fixed system and can therefore be done in any ways. Basket bins, movable bins or wheel bins can be placed in the appropriate position on site and it's constant collection is necessary for neatness of the environment.

To simplify collections. Large communal containers can be employed in the park, with special collecting vehicles coming to empty the containers. In essence galvanized mull steel, plastic refuse bin can be used.

#### **8.5 ACOUSTICS**

Acoustics ceiling provide integral acoustical treatment along with a finish ceiling system, usually in form of files on floor construction. This treatment is ensured at the construction of the public hall for effective public address system in the hall. Double walling treatment and double glazing of the glass curtain walls is done to reduce noise to a minimum. Treatment is also given to the doors.

#### **8.6 FIRE SAFETY**

This pose danger to the materials in the building as well as occupants. The observed in most public building includes.

- Smoking habit and approximately to combustible materials to heat appliance
  - External source – from lighting, earthquake or fire spreading into a building from elsewhere. Listed below are measures to be taken against fire spread in any public or private building.
- (1) Materials and Construction Method:- Materials of little resistance to fire spread shall not be specified in this design. Wooden materials are far more valuable than metallic ones. Some paint can encourage fire spreading and some reduce the fire spreading action.
  - (2) Discipline smoking Habit, members of staff and visitor to park should take note.
  - (3) Detection if fire development:- from advance technology, sources, devices have been invented. This gives early warning of fire development.
  - (4) Inspection :- Regular inspection by member of staff, security guard to check fire danger.
  - (5) Suppression of fire development by alerting the fire brigade. Announcing fire alarm to the building and the used of possible fire extinguishers. Such should be located at strategic point of easy reach.

## **8.7 SECURITY**

The gatehouse, equally serves as the security post to the park. They have been located to serve both the pedestrian and vehicles. It is recommended that enough security official be employed to oversee the park. They should be provided with adequate telecommunication facilities to enable them co-ordinate and monitor activities within and outside the building. A security room is provided also within the administrative building. A police post is also provided to take care of criminal acts may occurs.

## **8.8. MAINTENANCE**

To ensure a high level of maintenance, a maintenance unit / service workshop, has been provide close to the amusement ground and is headed by a maintenance officer (engineer). They take care of any part or repair works and renovation work within their scope. For the landscape, the adopted pattern is a mixture of both natural and artificial, but design to minimize the cost of maintenance.

## **8.9 TELEPHONE / COMMUNICATION SERVICES**

Telephone boots have been provided within the main entrances of the building. It will service the generality of public interest. In addition, out door

wall unit will be provided around the open amusement and garden area, walkways and other locations for easy reach.

There is a great need to have a good telecommunication network within the centre.

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## CHAPTER NINE

### AESTHETICS AND GENERAL APPRAISAL

#### 9.0 LANDSCAPING

The natural landscaping of an area generally described the land scenery of the environment as viewed by man's visual perception. Natural landscape begins with the design of nature, not human, so the first principles is to work with nature and not against nature. With the aid of technology and machines, new breeds and cross breeds has emulated his impact on the surrounding on which he lives. Thus landscape design acknowledges the organic unity of life in it's environment and seeks to express human relationship to the whole life, plays a significant role in the process of developing human environment.

Massive landscape is needed to compensate some bar and undefined land of the propose site. Planting of trees and hedges are specifies to be planted in between them is planted with ground cover (turts). By this the landscape situation of the site would be arrested.

Both soft and hard landscape were employed in the beautification of the site. This was properly integrated to achieved harmony and a unique character.

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## 9.1 GENERAL APPRAISAL

The ultimate aim of this design is to create a functional recreational park that will meet international standard (taking into consideration guide human circulation). The major problems highlighted were, planning, circulation (human) landscaping and provision of decent accommodation. This was carefully approached and finally achieved on the design at the end of the day. Buildings should be aesthetically pleasing, structurally balanced with functional spaces provide to satisfy the growing need of the masses in the park.

## 9.2 PLANNING

Site was planned in such a way to allow for easy human circulation. Pedestrian network, perfectly artificial into the design. The site was zoned into three based on zone parameters. They are recreational security and noise. Form these he entire site was zone into more accessible area less accessible area – restricted area.

The units adequate spread on the site, the slope of the site was utilized in the design, consideration was given to traffic flow and other services needs. Visual Impact:- From the onset, the concept behind this design is the integration of modern and traditional architecture. The structures are quite beautiful and entertaining in character. By all standards in aesthetics, the design no doubt posses all with emphasis on visual continuity.

## **CONCLUSION**

This thesis has attempted solving the problem of circulation and other minor problem identifies, like landscaping planning and accommodation. Guided pedestrian walkways were introduced to avail tourist the perceivable landscape element that were introduced.

Right from the inception, prime emphasis has been laid through research work on guided human circulation, pedestrian attitude, motivation and values as it's affects used preference and satisfaction of recreation activities to provide recreational experience.

At this point however, it will also be agreed that there is also an indisputable evidence that considerable foreign exchange earning can accrue to government through an effective development and promotion of leisure parks.

## **RECOMMENDATION**

Private investors be allowed to participate in the exercise by allowing some or all of these units to be maintained by them.

Government should take prompt action to arrest the poor situation in the management of parks.



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ABOUT HAZARATIAN  
OCTOBER - MARCH

NORTH-EAST  
WIND

TOPOGRAPHY

THE FIRE TOOK PLACE A SOUTH EAST  
SLOPE WITH SAVANNA VEGETATION.  
TWO TOWER SHEDS AN ACCESS ROAD

SUNRISE

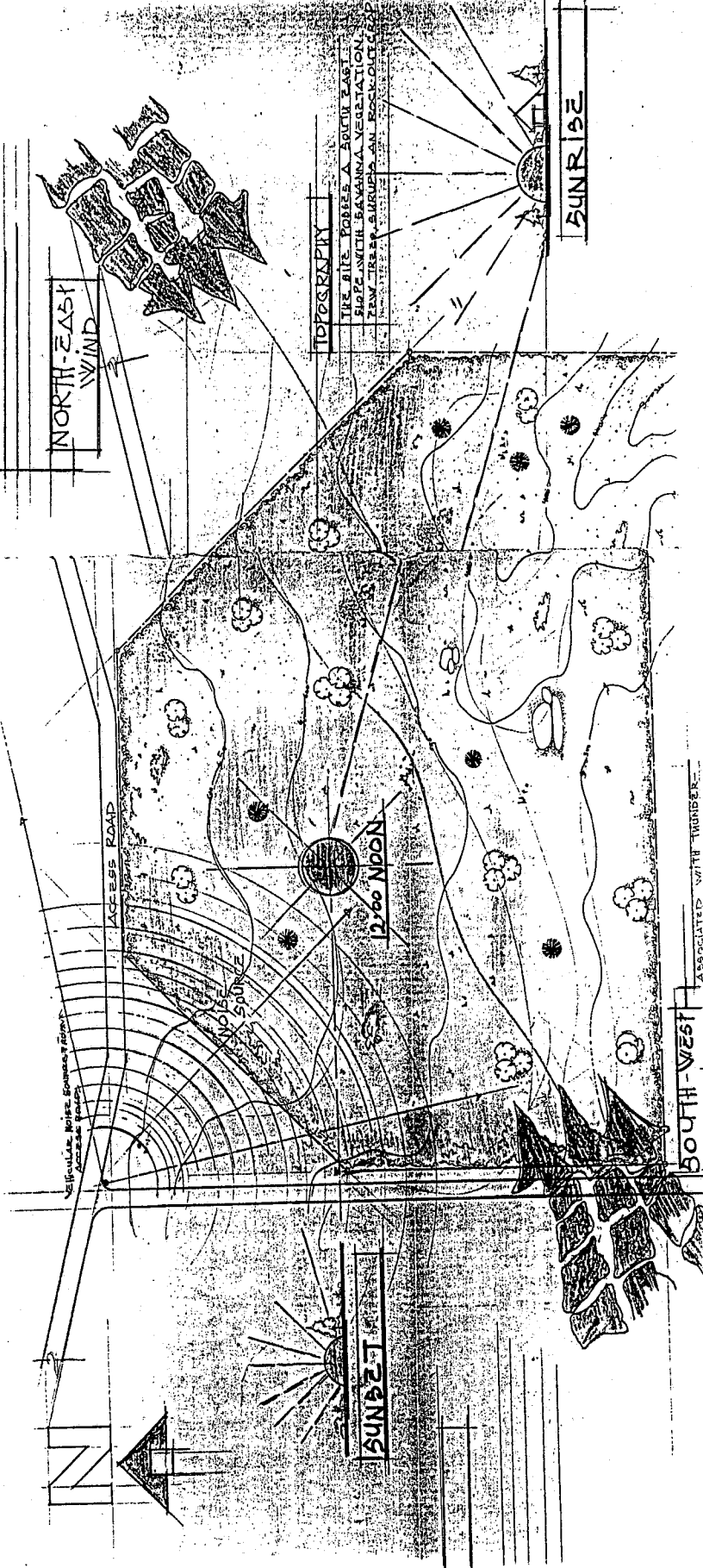
ACCESS ROAD

12:00 NOON

SOUTH-WEST

ASSOCIATED WITH THUNDER

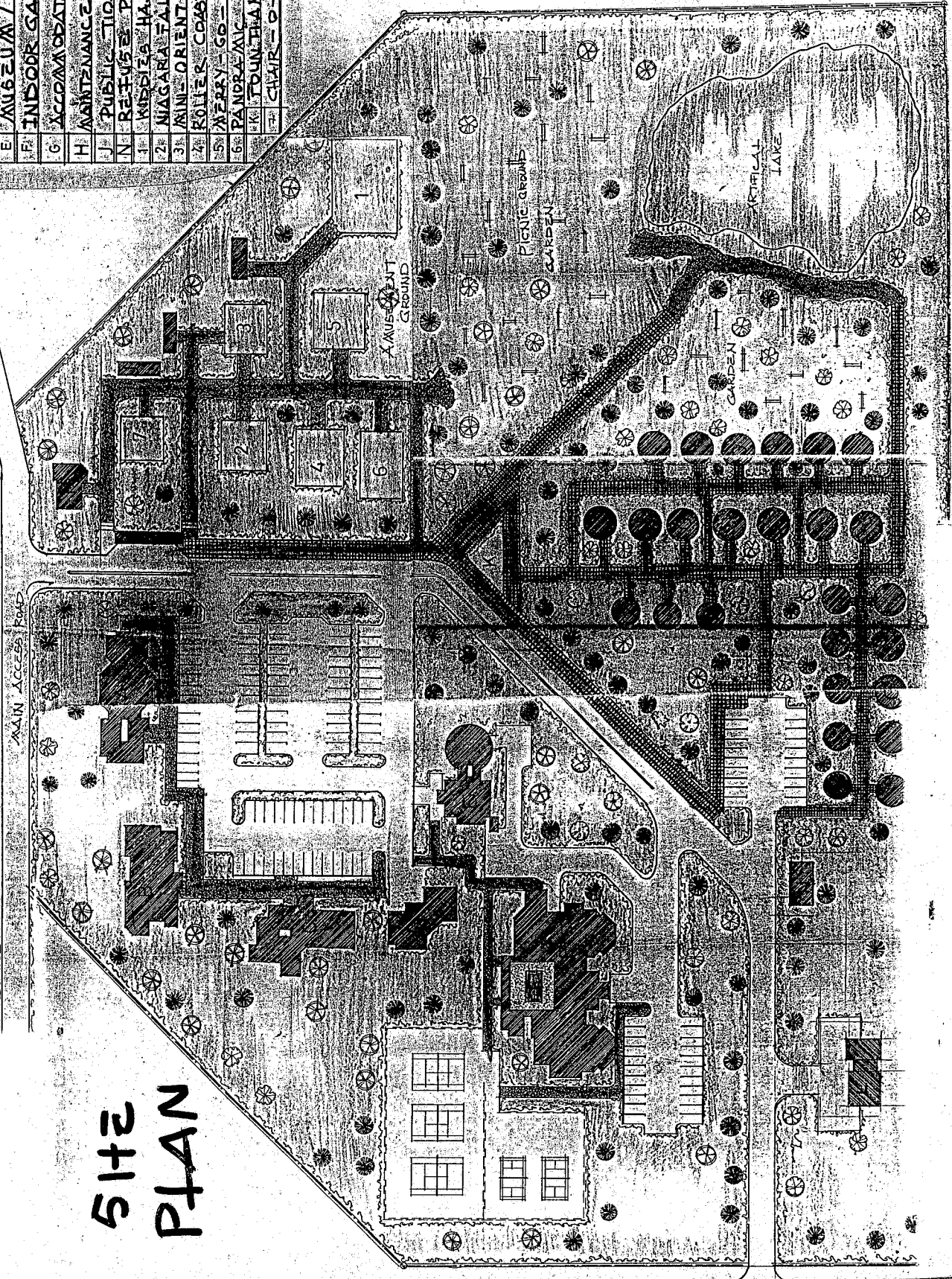
SUNSET

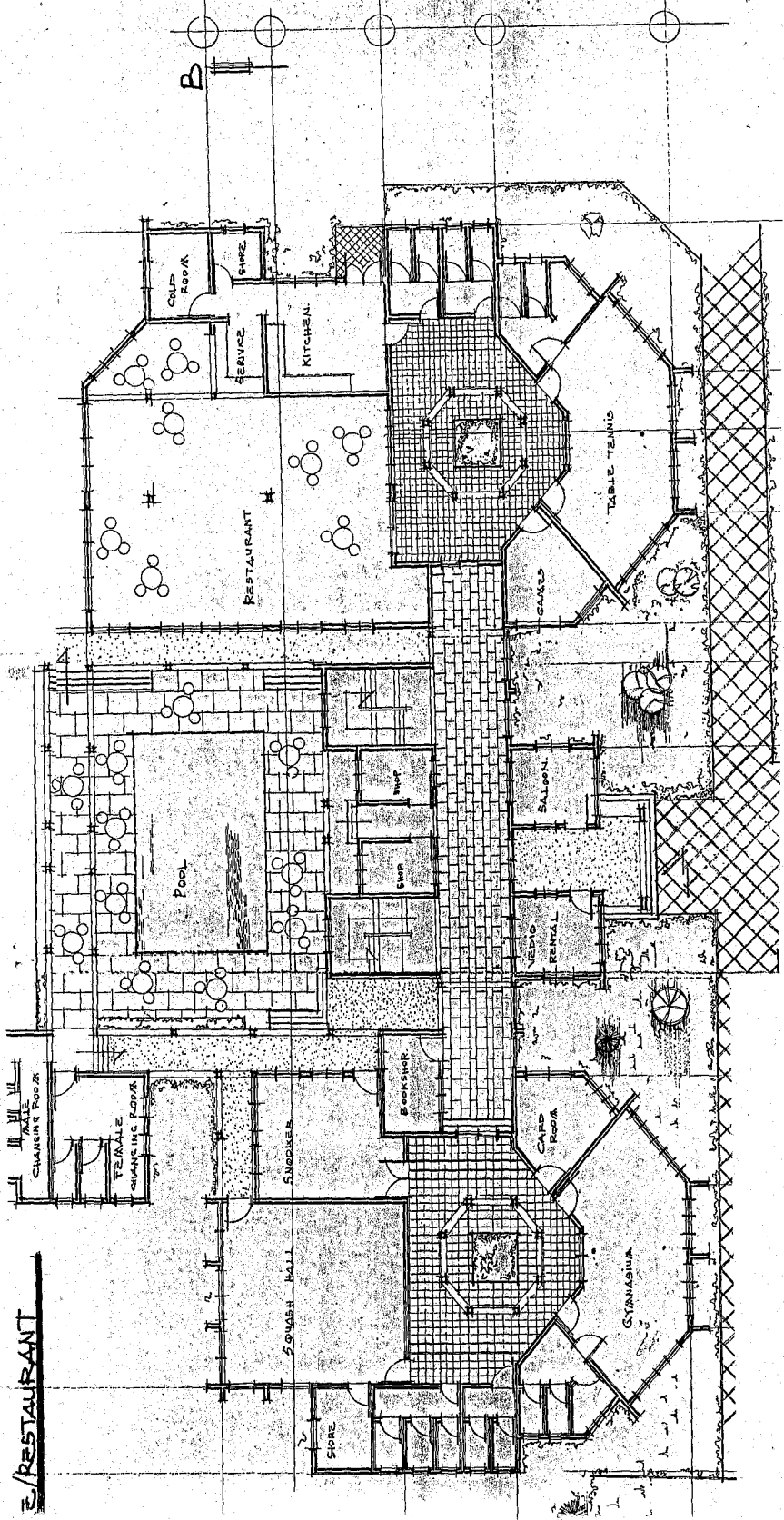


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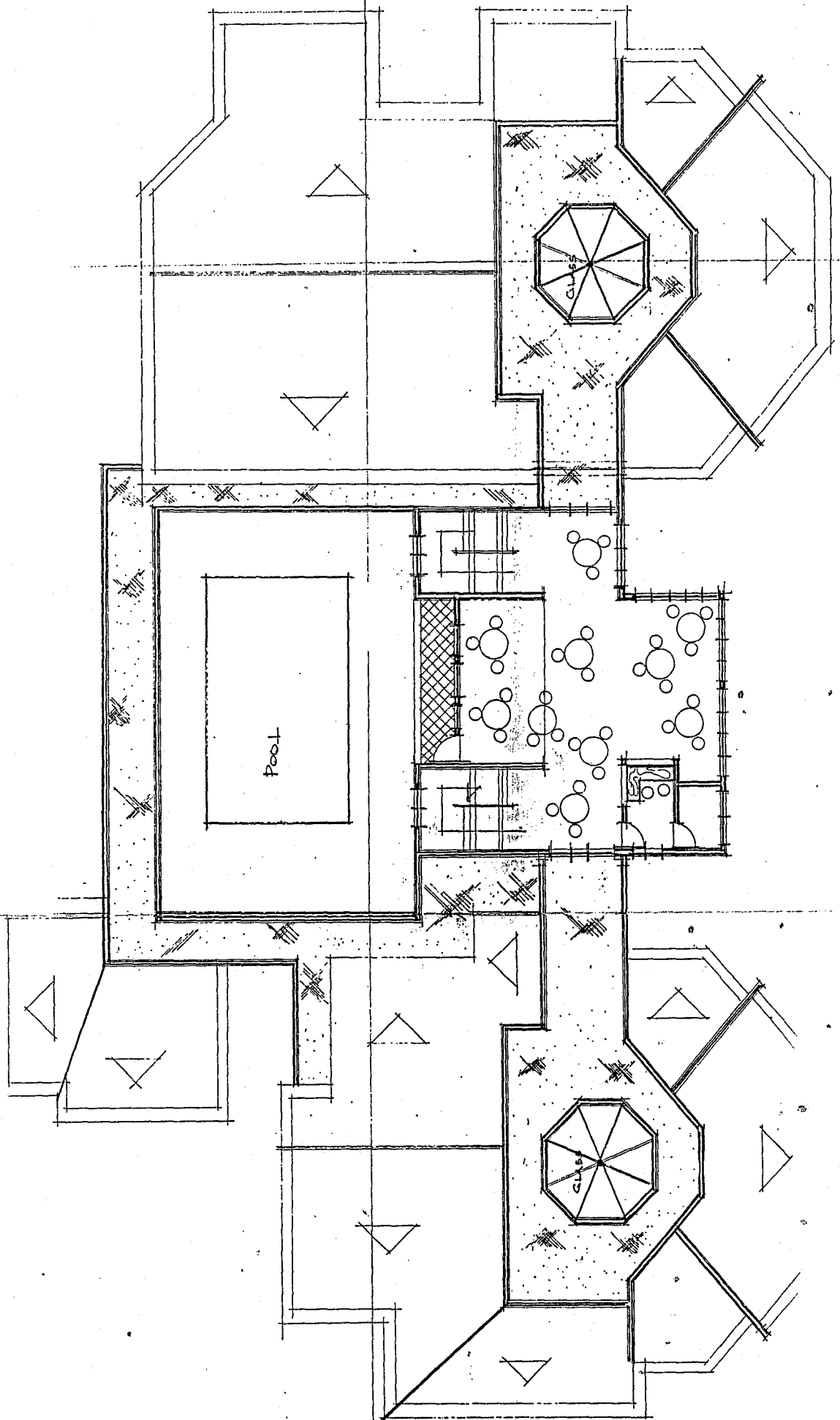
|   |                          |
|---|--------------------------|
| A | PUBLIC HALL              |
| B | NITE CLUB                |
| C | APARTMENT UNIT           |
| D | MEDICAL UNIT             |
| E | MUSEUM / BAR             |
| F | INDOOR GAME / RESTAURANT |
| G | ACCOMMODATION / CHALETS  |
| H | MAINTENANCE UNIT         |
| I | PUBLIC TOILET            |
| N | RECEPTION POINT          |
| 1 | MISSISSIPPI HALL         |
| 2 | NIAGARA FALL             |
| 3 | MINI-ORIENT EXPRESS      |
| 4 | ROLLER COASTER           |
| 5 | MERRY-GO-ROUND           |
| 6 | PANDRA-MIC WHEEL         |
| 7 | CHAIR-O-PLANE            |

**SITE PLAN**

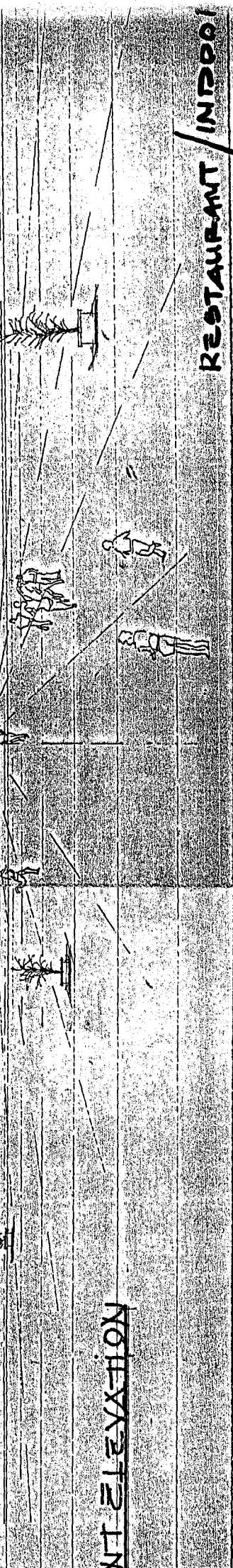
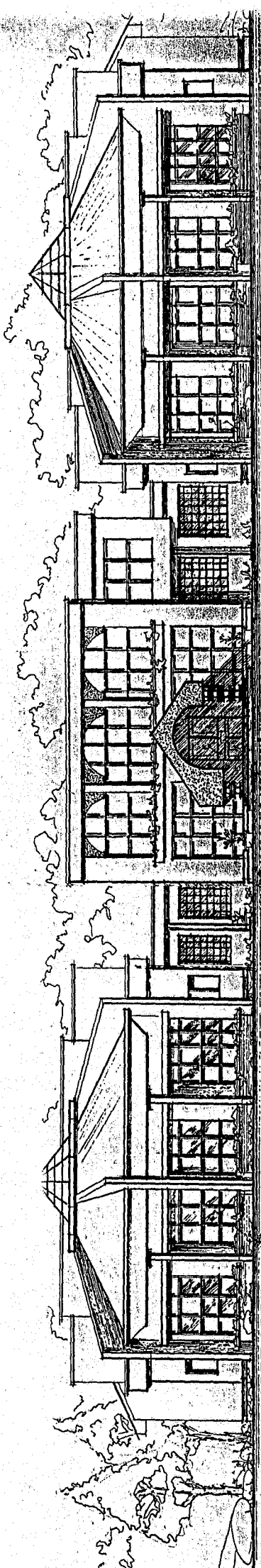




E/RESTAURANT

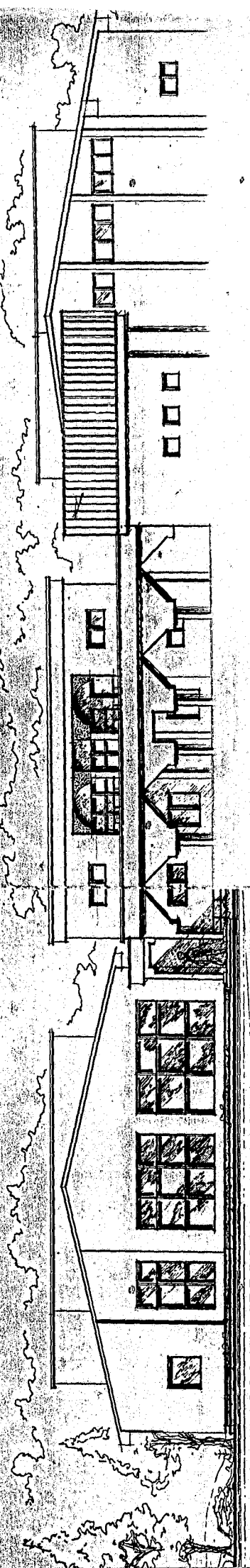




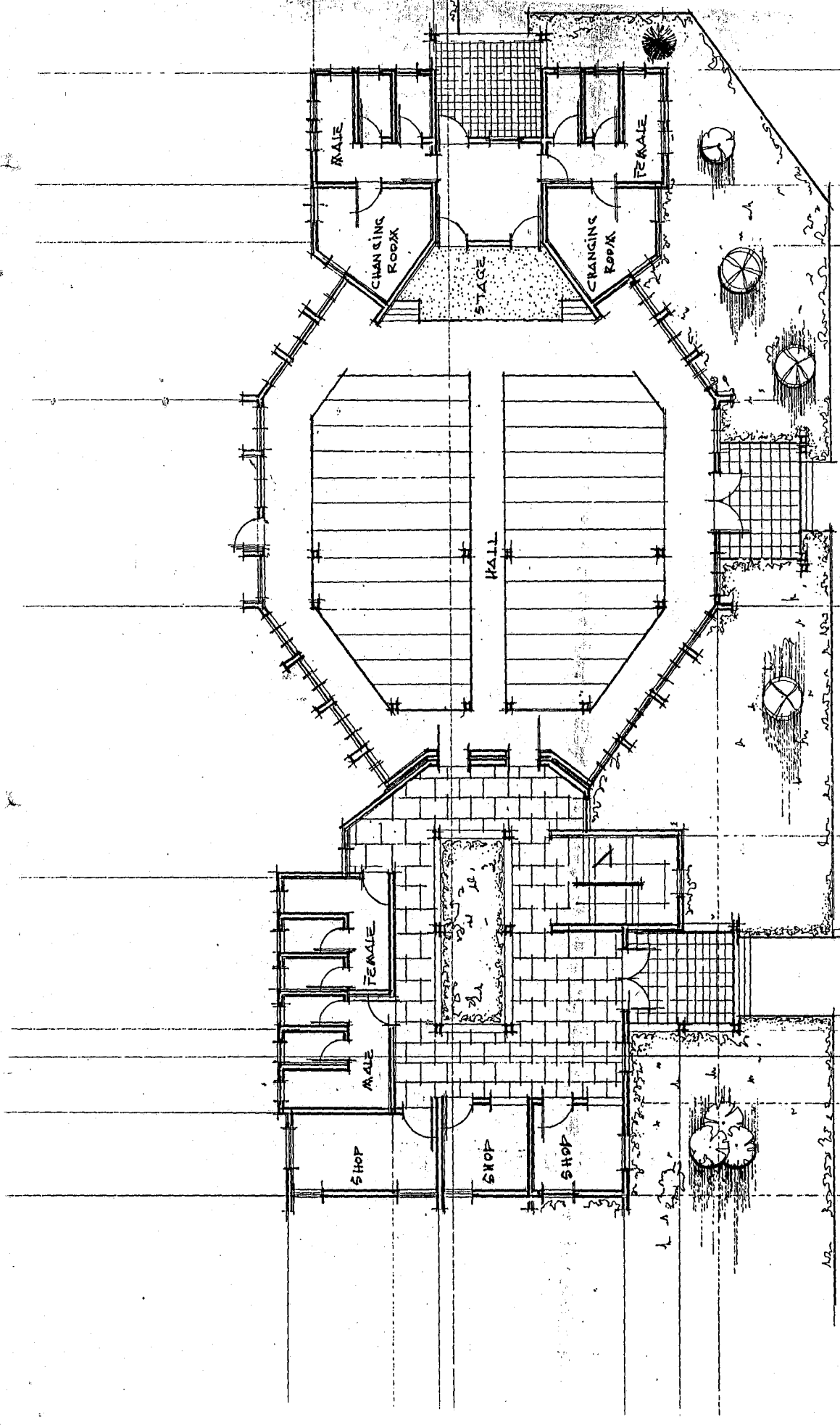


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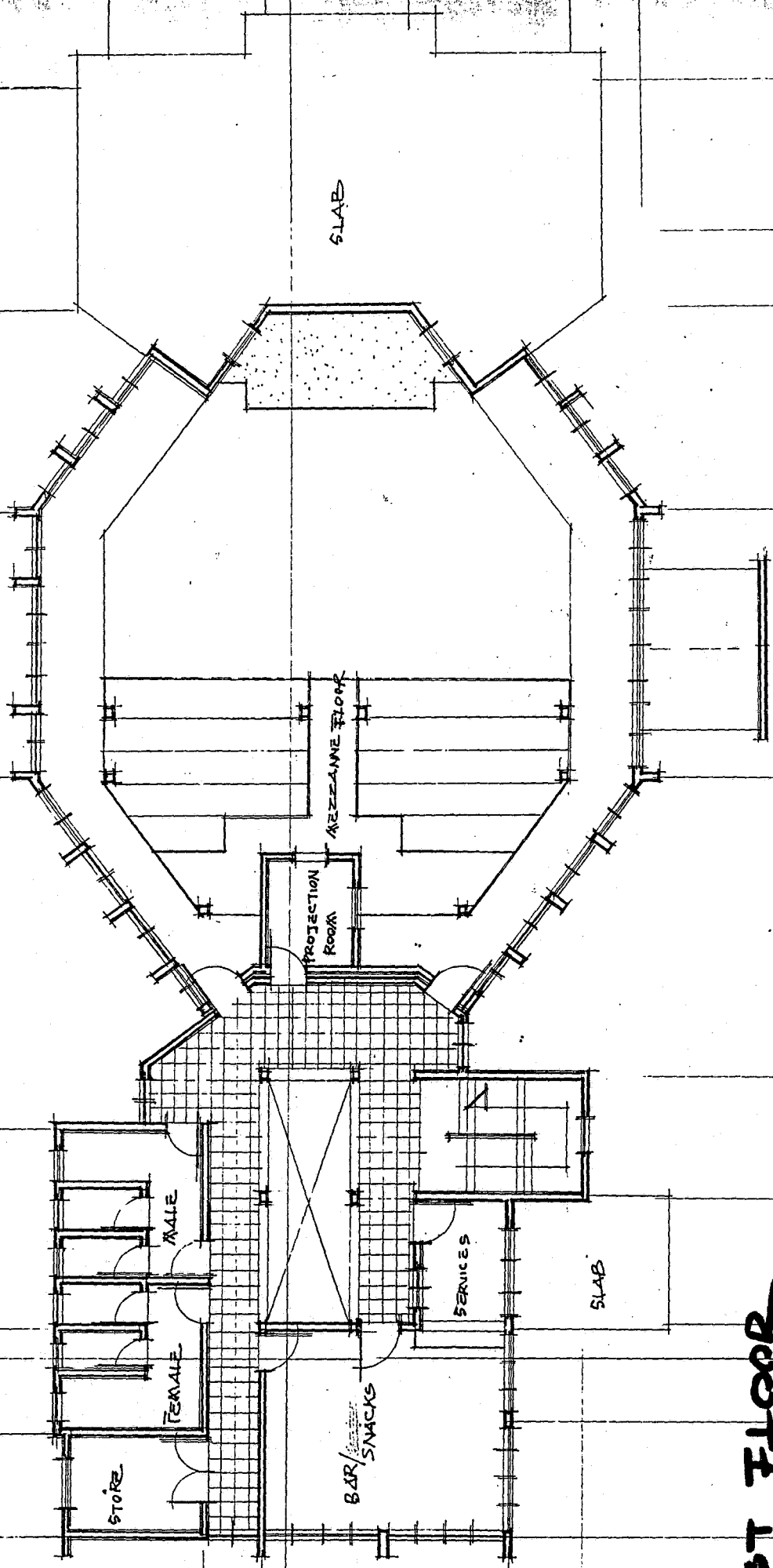
RESTAURANT / INDOOR  
HALL



MULTI-PURPOSE HALL

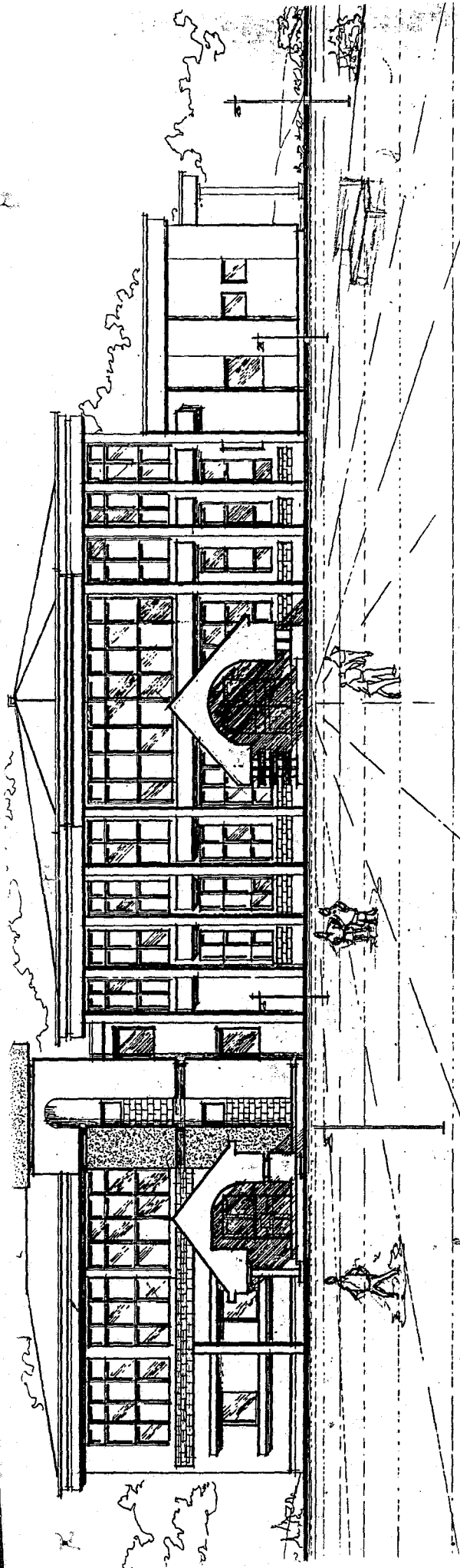


FLOOR

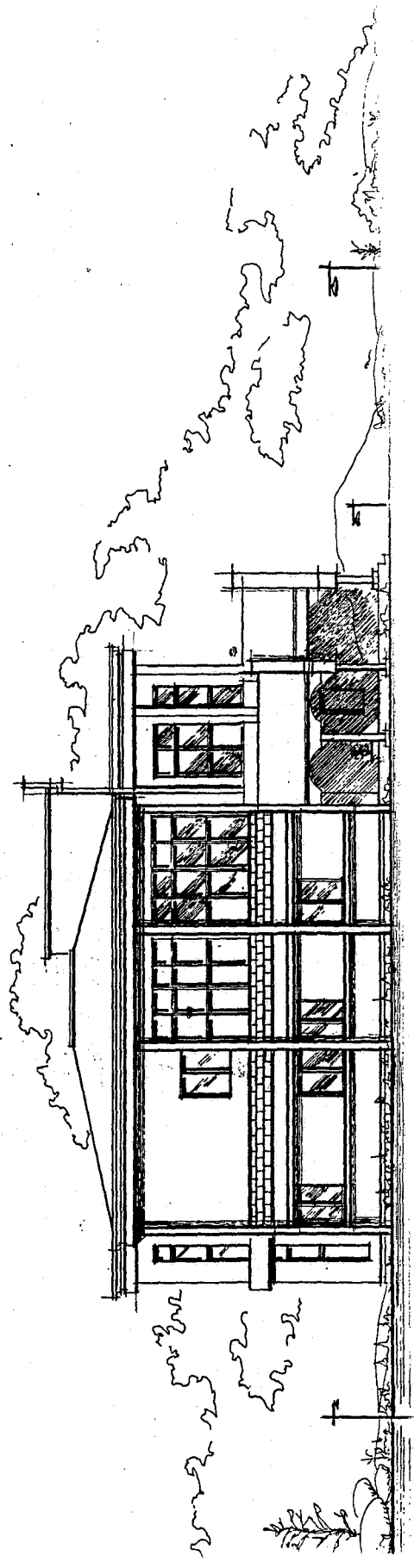


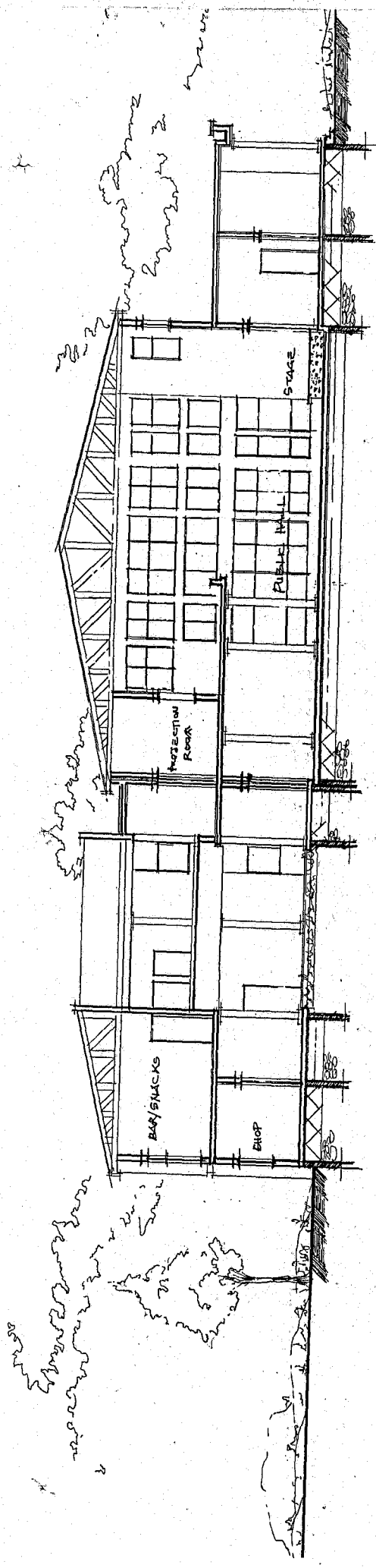
**FIRST FLOOR**



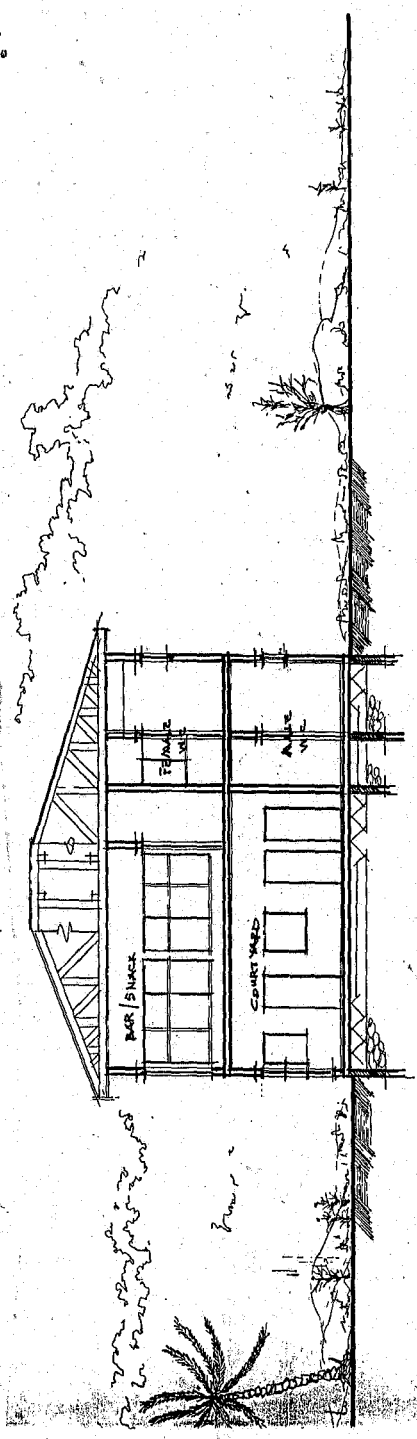


MULTI-PURPOSE HALL



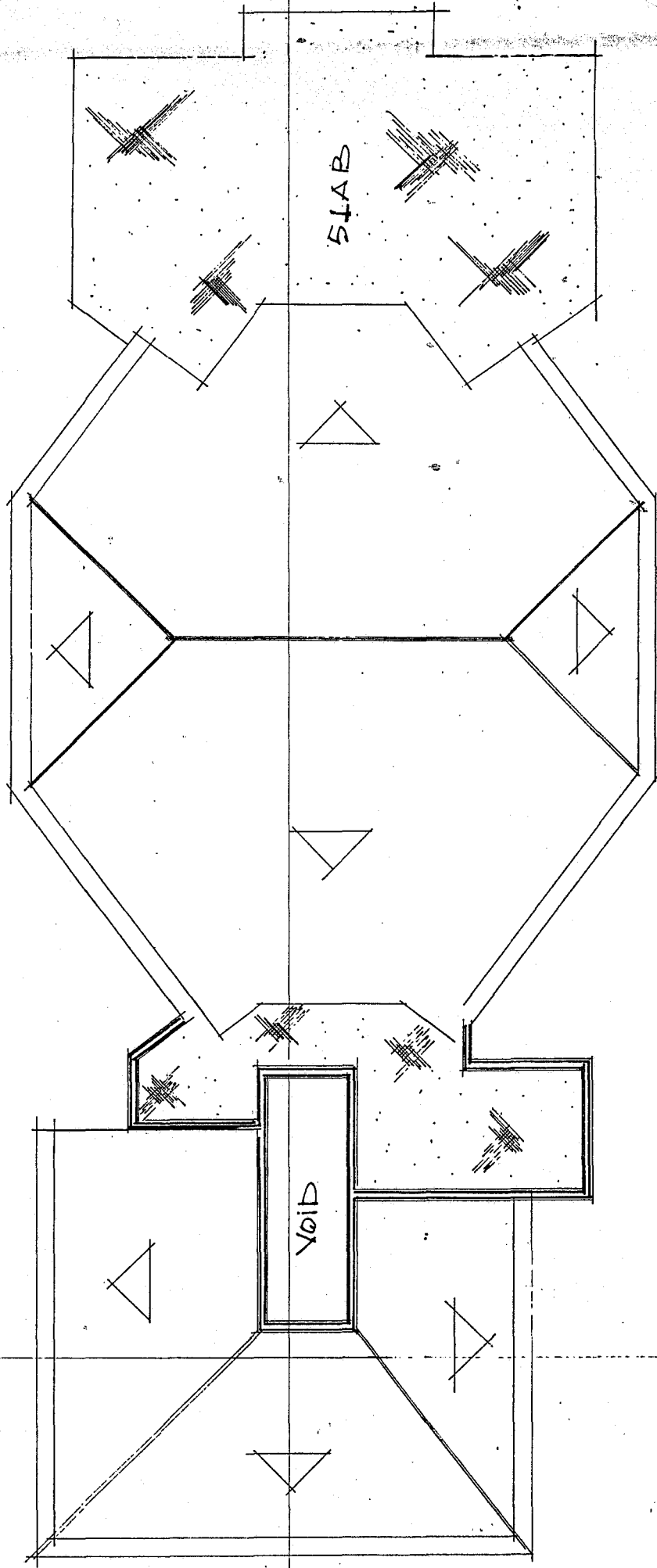


SECTION A--A



SCALE  
DATE

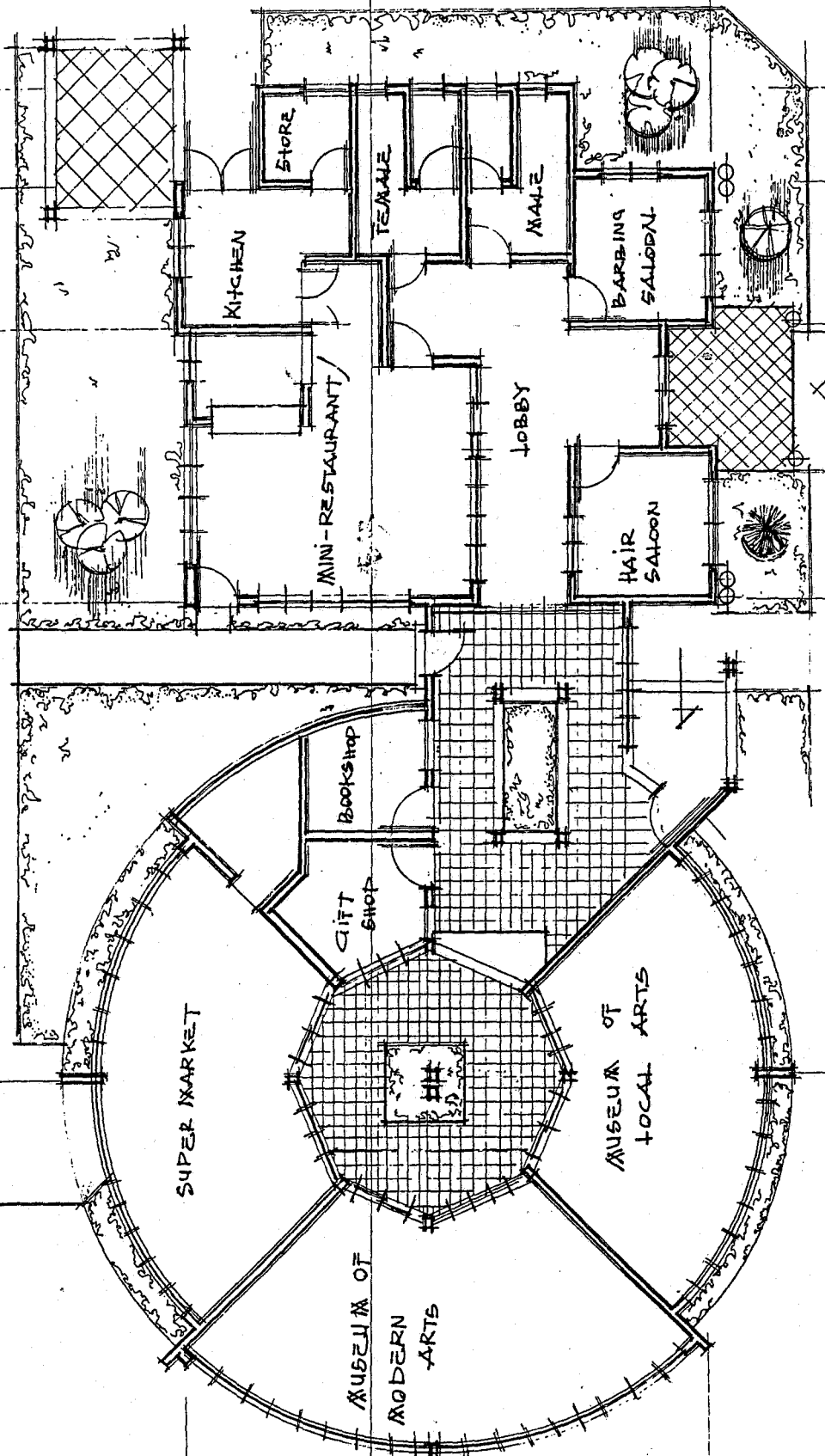
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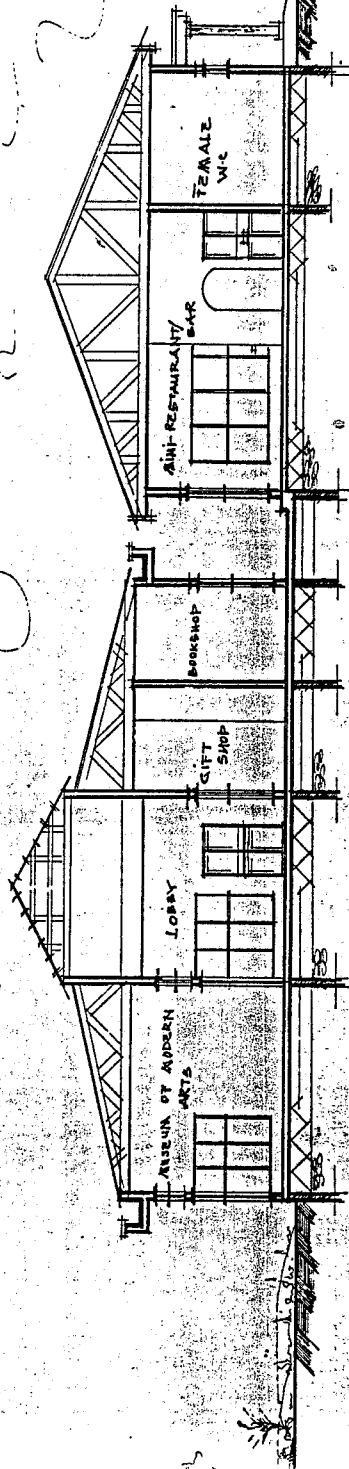


ROOF PLAN.

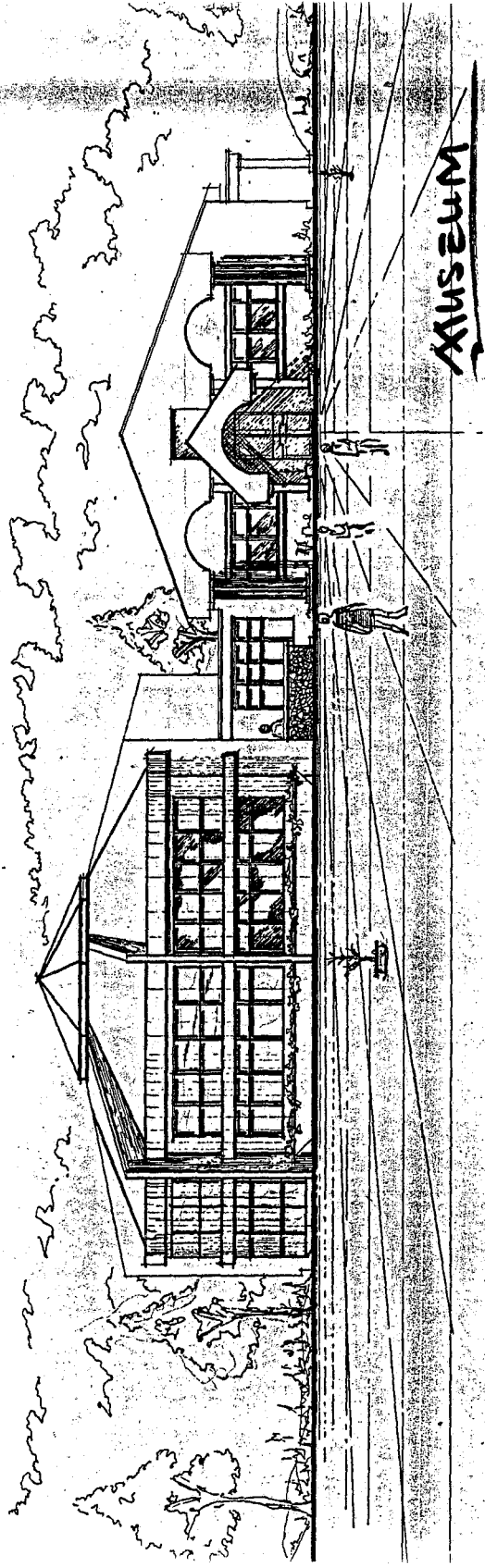
PS/RESTAURANT(MINI)

ART MUSEUM

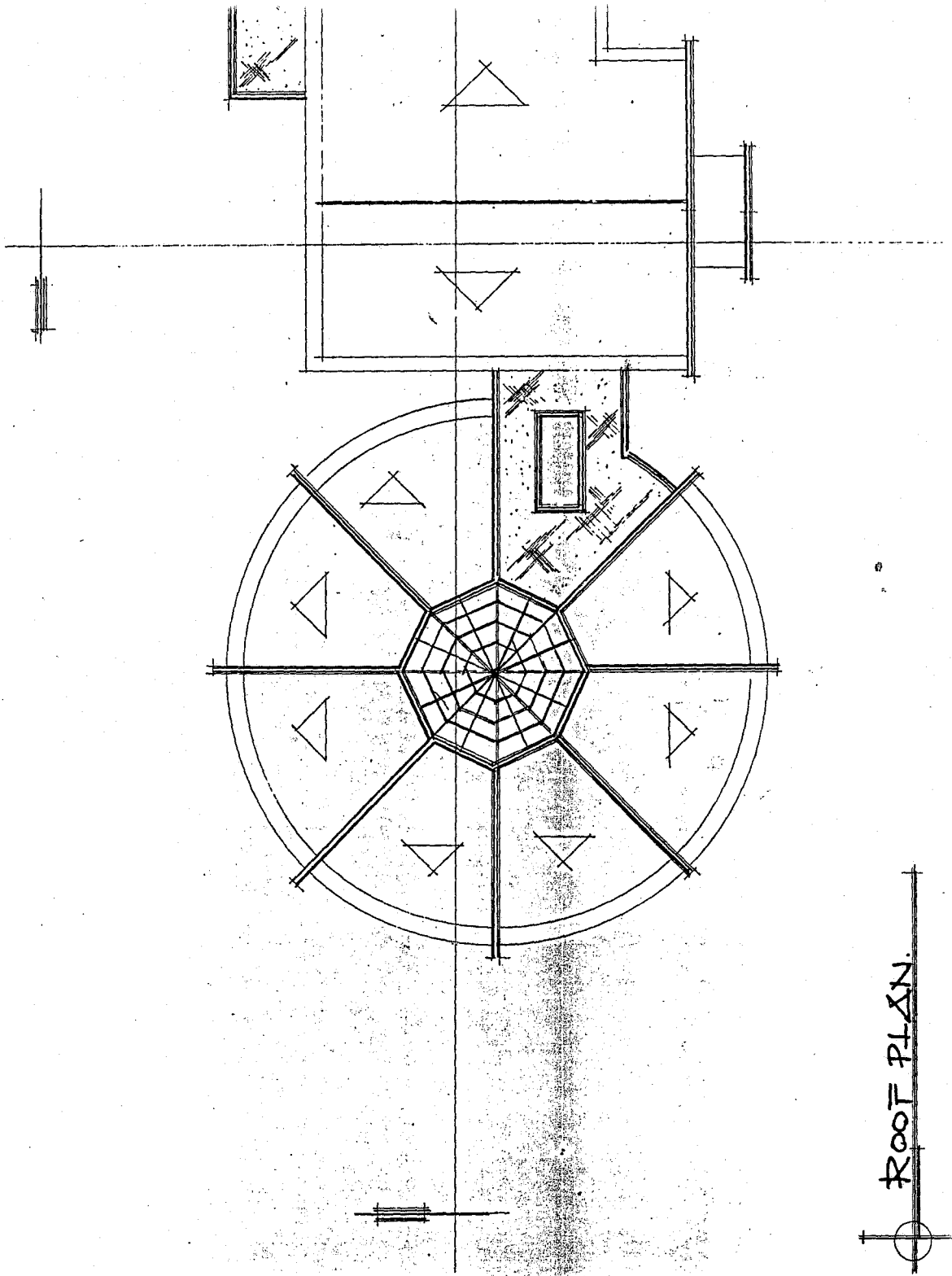




N C-C



FRONT ELEVATION



ROOF PLAN.



