NATIONAL MUSEUM., MAKURDI:

The effect of ancillary facilities on the patronage level of galleries

by

OLOJA, GODWIN IDOKO (B.SC (HONS))

A thesis submitted to the Postgraduate school, Ahnadu Bello University, in partial fulfillment of the requirement for the award of the Degree of Waster of Science in Architecture-

Department of Architecture,

Faculty of Environmental Design,

AhmaduBelloUniversity,

Zaria.

DECLARATION

I, OLOJA, GODWIN IDOKO, do hereby declare that this thesis has been composed by myself and that it is a record of my research work, and that it has not been wholly presented for the award of a higher degree elsewhere. All quotations and sources of data have been duely acknowledeged.

OLOJA, GODWIN IDOKO

August, 1991.

CERTIFICATION

This thesis report entitled 'NATIONAL MUSEUM MAKURDI: The effect of Ancillary facilities on the patronage level of galleries, by OLOJA, GODWIN IDOKO, meets the regulations governing the award of MASTER OF SCIENCE IN ARCHITECTURE of Ahmadu Bello University, and is approved for its contribution to knowledge and literary presentation.

Name.....
Sign..... Date .....

(Chairman, Supervisory Committee)

Name B.N. Ahmad
Sign .....

(Secretary, Supervisory committee) Date 9/9/91

Name S.S. Tsilpoute
Sign .....

(Supervisor) Date 09091991

Name .....
Sign ..... Date 11/9/91

(Head of Department)

Name .....
Sign ..... Date .....

(Dean, Post graduate School)

DEDICATION

This thesis is dedicated to my dearly beloved parents Mr. T.O. OLOJA (K.S.M) and Mrs. V.E. OLOJA and my dear sisters and brothers for their strong belief in my great love and zeal for academic pursuits.

ACKNOWLEDGEMENTS

For their strong contribution towards the inception and subsequent completion of this thesis report, I wish to acknowledge the assistance provided me by the following:

- Foremostly, my supervisor, Arc. S.S Tolpule,
- All persons who facilitated the data gathering and compilation processes especially the members of staff of the National Commission for Museums and Monuments, National Museum, Lagos.
- My close friends here in School and all lovers of our cultural institutions.

Thank you all.

Special appreciation to Evelyn Enesi, a very close friend for being there always. I will forever cherish your support.

My greatest thanks to the Almighty God for guarding and guiding me throughout these years of formal academic thirst.

ABSTRACT

This thesis report is primarily to explain bow some ancillary facilities can uplift the solemn atmosphere which exists around the galleries today in our museums and which makes them unpopular generally, but before actually accomplishing this task, the researcher had to shed as much light as possible on virtually every aspect of the word museum.

The first four chapters Mere dedicated exhaustively to firstly introductory write ups like defining the problem, stating the aim and objectives and explaining the museum concept - its evolvement and development using examples from all over the -world and specific details about museum administration such as salient points to consider in arranging exhibitions, control of the admittance of climatic elements into tie galleries and their effects, contemporary roles expected of museums today like the duty to educate and entertain the public in their own way.

Chapter five summarises the major cultural groups under which artefacts are displayed in Nigerian museums and also explains about the people of Benue - their origin, cultural characteristics, and demographic data. Chapter six deals with the primary aim of this study and chapter seven analyses four case studies, two local and two forego taking note of their appraisals.

The last four chapters are wholly concerned with the design work, so they individually., discuss the site for the proposed design, the design process, the design report which explains the design already done and finally general conclusions arrived at.

The researcher hopes this thesis report has contributed architecturally by proposing a possible architectural solution to a major problem experienced by most museums not only in this country, but globally - that of attracting a greater public patronage of their galleries.

TABLE OF CONTENTS

	PAGE
Title	i
Declaration	ii
Certification	iii
Acknowledgements	iv
Abstract	v
Table of Contents	vi
List of Tables	viii
List of Figures	xiv
List of Plates	xv
List of Apendices	xvi
CHAPTER 1: INTRODUCTION	
1.1 Problem Definition	1
1.2 Motivation	2
1.3 Aim	4
1.4 Objectives	4
1.5 Users	5
1.6 Client/Financier	6
1.7 What is a Museum	6
1.8 Derivation of the name "Museum"	7
1.9 The Kinds of Museums	9
1.10 Exhibitions Techniques	13
1.11 Kinds of Display	14
1.12 Labels	15

1.13 Functions of Museums 16

CHAPTER 2: EMERGENCE OF PUBLIC MUSEUMS

2.1 The rest of the World 19

2.1.1 Continental Europe 19

2.1.2 Great Britain 25

2.1.3 The United States 26

2.2 Museum concept in Developing Nations 27

2.2.1 Latin America and the Carribbeans 27

2.2.2 Asia 29

2.2.3 Africa 30

2.3 Museum developmen in Nigeria 31

CHAPTER 3: MUSEUM ARCHITECTURE

3.1 The Museum Environment 34

3.2 Exhibitions 40

3.3 Art and Museums 41

CHAPTER 4: CONTEMPORARY ROLES OF MUSEUMS

4.1 Recreation and Museums 43

4.2 Social Outlook 44

4.3 Impact on Society 46

4.4 Educational role of the Museum 46

CHAPTER 5: MAJOR NIGERIAN MUSEUM CULTURAL GROUPINGS

5.1 Nok Culture 51

5.2 Benin Culture 54

5.3 Ife Culture 54

5.4 Igbo-Ukwu civilizations 57

5.5 The People of Benue State 57

5.5.1 Major ethnic groups 58

5.5.2 Minor ethnic groups 64

CHAPTER 6: THE EFFECT OF ANCILLARY FACILITIES ON PATRONAGE LEVEL OF GALLERIES

6.1 Definition 65

6.2 Historical Development 66

6.3 Facilities to Encourage Visitors 67

6.3.1 Examples 68

6.4 Present Trend in Nigerian Museums 69

6.5 Proposed Future Trend 70

CHAPTER 7: CASE STUDIES

7.1 New National Museum for Ghana, Accra 72

7.2 The Solomon Guggenheim Museum, New York 81

7.2.1 Historical Background 81

7.2.2 Scope 82

7.2.3 Architectural character 82

7.2.4 Merits 83

7.2.5 Demerits 85

7.3 National Museums, Lagos 85

7.3.1 Demerits 90

7.4 National Museum, Jos 90

7.4.1 Demerits 93

CHAPTER 8: THE SITE

8.1 Site Location 95

8.2 Site selection criteria 95

8.3 Site Analysis 97

8.3.1 Site Dimensions 97

8.3.2 Site Gradient 97

8.3.3 Site Drainage 97

8.3.4 Soil Type 97

8.3.5 Services 97

8.3.6 Vegetation 98

8.3.7 Existing Natural or Artificial structures on site 98

8.4 Makurdi: Climatic Characteristics 101

CHAPTER 9: THE DESIGN PROCESS

9.1 The Problems 105

9.1.1 Environmental Problems 105

9.1.2 Functional Problems 106

9.1.3 Building Forms 106

9.1.4 Economy and Time 106

9.2 The Design Criteria 107

9.3 Schedule of Accommodation 109

9.3.1 Analysis of Spaces 109

9.4 Zoning 116

9.4.1 Privacy 117

9.4.2 Noise 118

9.4.3 Synthesis of privacy and Noise Criteria 118

CHAPTER 10: THE DESIGN REPORT

10.1 Conceptual development 120

10.2 The Design Proper 121

CHAPTER 11: CONCLUSION 125

APPENDICES

BIBLIOGRAPHY 128

LIST OF TABLES

Table		Title	Page
I	-	Summary of visitors' attendance to the museum galleries	126
II	-	Summary of visitors' attendance to the museum Kitchen Complex	127

LIST OF FIGURES

Figure		Title	Page
7.1	-	Basement Floor Plan	77
7.2	-	ground floor plan	78
7.3	-	second floor plan	79
7.4	-	Fourth floor plan	80
7.5	-	The Solomon Guggenheim museum, New York	84
7.6	-	Site plan - National Museum, Lagos	88
7.7	-	Ground floor	89
7.8	-	The National Museum, Jos	94
8.1	-	Mean Annual Relative Humidity for Makurdi	102
8.2	-	Mean Annual Temperatures for Makurdi	103
8.3	-	Mean Annual Rainfall for Makurdi	104

LIST OF PLATES

Plate	Title	Page
5.1	Nok terracotta head 900 B.C-200A.D	52
5.2	Benin Bronze plaque 17th century	53
5.3	Ife terracotta head 12th-15th century A.D	55
5.4	Igbo-Ukwu Bronze Pot 9th Century B.C	56
5.5	Idoma wooden mask Before 1880 AD	59
5.6	Igala wooden Helmet called Oyegwu 20th century	60
5.7	Tiv Wooden Cap Mask 19th century	62
7.1	Site model of the New National Museum For Ghana, Accra	76
8.1	View towards the motor park	99
8.2	View towards interesting landscape	99
8.3	View towards Otukpo road	100
8.4	View towards the state square complex	100

LIST OF APPENDICIES

i.	Research permission letter from the National Commision for Museums and monuments, Headquarters, Lagos	130
ii.	Map of Nigeria showing the location of museums nationwide	131
iii.	Different ways of dividing up exhibition space	132

CHAPTER 1

1. INTRODUCTION

1.1 PROBLEM DEFINITION

A museum is established primarily for the service of society and its development, consequently its components should be so designed and organised as to be inviting to members of the public in general: to be able to appreciate and experience first hand knowledge of the objects on display therein.

One of the problems facing museums today is that their solemn appearance and the quietness inherrent in them tends to repel people from them, thus reducing their popularity. And as museums are meant to serve the public, attendance and popularity are the only yardsticks that determine their success or failure. So, in order to minimise or avoid to a great degree these problems, the Architect employed to take up the project has to introduce certain secondary functions in order to attract the clientele... (Nabegu. A., 1983). These secondary functions or ancillary facilities should be organised to attract people to the galleries, and as such should not be designed as separate entities as they exist today in our major museums nation wide.

Basically, our museums offer two kinds of services to the public - those of the galleries where antiquities are displayed and those of the ancillary facilities - like restaurants, salons,

cinemas, craft shops, Goldsmith shops, Dyers of clothes, etc. Though, the galleries serve the main purposes for which museums are established, they also constitute the core area of museums, it is a pathetic fact that there is a greater patronage for the ancillary facilities than the galleries. This problem could be adduced to the generally low level of appreciation of antiquities in the country, but the researcher believes it can be curtailed by providing museums whose components would work as a single unit, with each component complimenting the other with the result that a museum is evolved which would be receptive and attractive to the general public.

1.2 MOTIVATION

An examination of the distribution of museums in Nigeria shows that prior to the passing of the Antiquities Commission in 1954, the location of museums tended to be dictated by the source of the collections. For example, the presence of antiquities at Ife, Benin, Jos, Esie and Orom led to the establishment of museums in those areas. Today however, the siting of museums does not rigidly follow this pattern. 'It is now a political decision, thus, whether a state capital is noted for antiquities or not, it will have a National Museum because it is now the policy of the Antiquities Commission (National Commission for Museums and Monuments) to establish a National Museum in each state capital' (Okita, S.J.O., 1985).

The word "National" here as used with the Museum should not be confused to refer to the main establishment which should naturally be located in the country's capital, but rather it refers to the variety of exhibits to be displayed. Though the museum proposed will exhibit primarily, objects of cultural value from Benue State, it will also have representative collections from different parts of the country to reflect the national character of the proposal which in the long run would foster and promote national unity and aid easier understanding of the cultural lifes of the other peoples of Nigeria as exhibited by their art works.

Also, Benue state is a very rich state culturally and so it is very necessary that a place be provided where these evidence of cultural wealth can be properly exhibited. Of late, the state has come into limelight due to the superlative performance of its cultural groups, e.g in 1966, the "Kwagh-hir" cultural group, led by late Dr. Herbert Ogunde won awards at International Competitions in London and Paris. Earlier, in 1966, at the Negro festival of arts held in Dakar, Senegal, the "Ingyough" dance group led by Ijua Gbe known for its acrobatic shows won acclaim at national and international levels (Oko, M.O., 1989).

Talking about antiquities, the state is noted for Nok culture and Igbo-Ukwu artefacts. Nok terracottas can be unearthed in certain sites in Katsina-Ala, local government of the state near Nigeria's border with Cameroun. Igbo-Ukwu artefacts are found in

the Orakam/Otukpa areas of the state, towards the border with Anambra State. Igala carvings and moments, have very close similarities to Yoruba ones. These go to show the prominent artefacts present in appreciable quantity in the state aside from other minor ones.

As a result of the aforementioned points, the researcher got the strong motivation to propose a National Museum for the Benue State Capital, Makurdi, which would attempt to improve the problem stated in the previous sub heading - (1.1 Problem definition).

1.3 AIM

It is the primary aim of the researcher to improve the solemn nature of the galleries by placing certain ancillary facilities in their vicinity in a manner that the museum visitor would have a stronger appeal to visit them (the galleries).

1.4 OBJECTIVES

- To propose a design complex within which the ancillary facilities and the galleries would exist in a complimentary environment.
- Provision of facilities to make the museum environment more attractive and receptive to the visitor.
- Provision of a security conscious design to supplement high technology electronic security gadgets by limiting accesses and defining as much as possible the flow of movement.

- To bring about the necessary stimulus to awaken in people, interest in stored artefacts and antiquities and so help in eradicating the general feelinhg of repulsion associated with museum objects.
- Provision of different kinds of galleries to exhibit specific kinds of objects to facilitate easier assimilation of the information they respectively provide.
- The building itself should have an outward elevational composition and cosmetic finish to suggest a cultural institution.

1.5 USERS

The people that usually go to museums like any other other space designed for the public have a wide range of variation in age, education, and purpose for which they intend to use the facilities provided for by the museum. The museum public are classified into three basic categories according to the purpose for which they intend to use the museum facilities: These are:-

(i) Scholars:- Use the museum as a centre for education and research.

(ii) Children:- Museum facilities can be used to teach children to learn to appreciate their cultural heritage.

(iii) Adults:- Can be made aware of their culture by gathering and exhibiting in one place works of art that relate to the

culture of the area. This also stimulates curiosity which arouses the hunger for knowledge.

1.6 CLIENT/FINANCIER

The proposed project shall be financed by the Benue State government and the Federal government of Nigeria who are the clients through the National Commission for museums and monuments which is the parent body responsible for the establishment and management of museums nationwide.

1.7 WHAT IS A MUSEUM

The word 'Museum' to the average person usually carries connotations of dullness or death and a multiplicity of meanings rooted in history (Dillon, R. 1970), however, they serve three basic functions of being:-

(i) Depositories:- Devoted to the preservation and conservation of objects of particular value treasured for their association with events and personalities of history, for their significance in representing human excellence in terms of artistic achievement or of scientific ingeniousness, and for providing samples of the natural environment or objects related to human ways of living at different times and in different societies (Within, S.A. 1970).

(ii) Centres of research and education

(iii) Recreation centres.

As every other environment of research, learning, or recreation, museums have their congenial strengths and limitations. Their prime assets are the direct appeal to the eye and to the sense of touch, and the potential capacity to present a number of facts simultaneously and in a palpable context. They are unique in offering to people immediate encounters with authenticity .... (Wittlin, S.A. 1970).

In 1974, after three previous definition in 1951, 1961 and 1971, the international council of museums (ICOM), a 48 member organisation of which Nigeria is a member, at its 10th General Conference in Copenhagen finally defined a museum as 'a non profit making permanent institution in the service of society and its development and open to the public which acquires, conserves, researches, communicates, and exhibits for purposes of study, education and enjoyment, material evidence of man and his environment'.

1.8 DERIVATION OF THE NAME "MUSEUM"

The word "museum" is of Greek derivation, it comes from the Greek word "mouseion". In its original Greek sense, it was applied to a sanctuary dedicated to the muses of Greek mythology. Bazin supporting the above view records that "it applies to sanctuaries dedicated to the muses, to phylosophical academics, to institutions of advanced learning or scientific research over which the muses quite naturally presided (Okita, S.I.O, 1985).

The muses, believed to be the virginal daughters of Zeus and Mnemosyne (memory) are nine in number and include Calliope (responsible for epicpoetry), Clio (history), Erato (lyric and erotipoetry(, Euterpe (music), Melpomene (tragic poetry), polyhymnia (mimicry), Terpsichore (choral poetry and dance), Thalia (comic and idyllic poetry), and Urania (astronomy). The slopes of Olympus, Helicon, and Parnassus were the seats of worship of these goddesses. From these seats of worship, their cult spread throughout Greece and then throughout the Graeco-Roman world. Thus Taylor records that "since the muses were usually associated with springs and rivers it became the custom to establish shrines in their honours in shady groves, often high on mountain tops where the spirits of the nine learned maidens of mythology might inspire the artist to their highest endeavours. Special cults and alters adorned with images were dedicated to them, these became the gathering places for the devotees of art.... These shrines .... the most famous ones being dedicated to Athena or Hera and their friezes which adorned to temples have today become the pride of museums in Paris, London and Munich (Okita, S.I.O. 1985).

From Wittlin's account, it seems that the muses realm was not a place with concrete features but rather a place where man's mind could attain a mood of aloofness from everyday affairs, coupled with a sense of inspiration.

1.9 THE KINDS OF MUSEUMS

While there are many different kinds of museums ranging from modest places for the display of curios to imposing shrines for the housing of great arrays of treasues, the majority fall under two categories:-

1. Science museums
2. Art museums.

As a result of specialisation in diverse types of exhibits and services, further definitions within these categories emerged as:

(i) Ethnographic museums

(ii) Civic museums

(iii) Ethnological museums

(iv) Historical museums

(v) Natural History museums

(vi) Anthropological museums

(vii) Planateriums

(viii) War museums

(ix) Health museums

(x) Others such as museums of modern/contemporary Art, museum of Archaeology, museums of decorative Arts, museums of Architecture, Marine museum, museum of Ethnic Art, etc also exist.

(xi) General museums.

1. Science museums: These serve as store houses for a vast variety of exhibits from the fields of natural history, minera-

logy, ethnology, technology and discovery, they usually specialise in collecting and exhibiting the results and progress of scientific research also in keeping scientific and technological data up to date, besides the display of relevant tools, diagrams, models, etc. The objects displayed are highly diverse in nature, appearance, size, rarity, and monetural character (Parr, A.E., 1959).

2. Art Museums: are for housing of art treasures like paintings, sculptures, mosaics, ceramics pieces, textiles, etc. They are characterised by imposing prototypes and demand for expression of wealth. The essential nature of art museums as creators of new standards rather than mere transmitters of habitual culture was well expressed by Benjamin Lves Gilman when he wrote "The true conception of an art museum is not that of an educational institution having art for its teaching material, but that of an artistic institution with educational uses and demands" (Adam, T.R., 1939).

These two above represent the major kinds, those below are the specialist museums.

(i) Ethnographic museums: which store objects depicting civilisations and the material aspect of their cultures. The ultimate objective is to make it easier for the public to gain an insight into the contributions which their recent and immediate fore-bears made to civilisation. Materials exhibited among

others include textiles, pottery, objects made from wood, stone, metal, bone, etc.

(ii) Civic museums: came into being as elitist museums, because they were built to house the collections of wealthy donors and to serve as memorials to them. They are usually of high taste architectural finishings.

(iii) Ethnological museums: These describe and explain the growth and development of civilisation. They facilitate a comparative and an analytical study of civilisations particularly from the pre-machine era to the present period of automation. They lay bare the wonderful inventive ingenuity of man and give an inkling of future break throughs.

(iv) Historical museums: They store collections relating to the general history of a country or a specific part of it, thus relives students from drudgery of textbooks and irksome lectures, and due to the direct contacts of the exhibits with the past as seen through the eyes it becomes easier to understand the past.

(v) Natural history museums: were formerly thought of as research institutions but today as people are beginning to take cognisance of the fact that all living things, both plants and animals are inter-related. Their attention is gradually being directed to

where they can learn more about their immediate environs and the world at large. They also help in comparing and contrasting their local flora, fauna and geology with those of other parts of the world. e.g. Natural history museum at University of Ife, Ile-Ife, American museum of natural history, New York.

(vi) Anthropological museums: They are taken here to mean/include archaeology, ethnology, ethnohistory, and physical anthropology.

(vii) Planaterium: An arrangement made by Carl Zeiss of Jena for producing an artificial sky by optical methods, images of the sun, moon, planets and stars are projected on a large hemispherical dome, by mechanical and electrical means, the apparatus can be revolved so as to show the principal motions - rotation and revolution (Encyclopaedia Britannica, Vol. III).

(viii) War museums: They specialise in collecting, preserving, studying and exhibiting objects such as uniforms, flags, weapons, armoured vehicles, etc which illustrate remarkable historical events and epochs of wars, e.g the war museum in Umuahia, and the military museum in Zaria - They generally exhibit relics of war.

(ix) Health museums: For their part, emanate from preventive medicine and health education, they specialise in the science of

human biology and personal/public health, with emphasis on normal growth, development and maintenance of health, rather than on information about diseases or social hygiene, they are mainly intended to have a far reaching impact on the ordinary citizen rather than on professional medical groups. They feature man's heredity and his development from the cradle to the grave. Examples include the Mexico National Museum of Hygiene, and Health Museums in Cleveland, Bogota, Columbia and Dallas all in the United State of America (Washburn, 1967).

(x) General Museums: As the name implies, the collections on display in such museums are diversified in nature covering several fields unlike the afore mentioned ones.

1.10 EXHIBITION TECHNIQUES

The best exhibition techniques must be used so as to make museums more attractive and educative and this must be preceded by a wise selection of which objects are to be exhibited and which are better suited for a group study collection. Objects for study include engravings, drawings, etc kept in portfolios and stored in cupboards with drawers (Neufert, E., 1980).

The educational duties of the Art museum especiallly are difficult because art objects when separated from their context, e.g the church, a shrine, a historic site, etc, lose some of their effects and may become difficult to understand.

Eccentric showmanship should not be used for routine installation of permanent collections. A museum object should be

effective for its own merit, not only for its manner of display, i.e to say, the manner of display used should not overwhelm the displayed object because the aim is to focus attention on the object and not its manner of display, - which in any case is meant to enhance visibility of the object.

Proper preparation is necessary, damaged pieces must not look shabby, amount of restoration to be executed involves technical considerations. With paintings, the question of frames must be decided, e.g. uniform frames (used at Kroeller Mueller museum, Otterlor, Netherlands), while period frames could be used more frequently.

Display is the most important consideration for the museum curator. He may have excellent material but if he does not make good use of the materials in good displays, much of his works will be ignored by the public. He must so arrange his specimens that each individual one can be enjoyed on its own without the intrusion of another. An exhibit must first catch the eye of the passer-by, arrest his attention and encourage closer sustained examination. This calls for some knowledge of human nature and psychology on the part of the designer and for consirable skill in setting out the various specimen (Nabegu A., 1983).

1.11 KINDS OF DISPLAY

For the display of single, small objects, a variety of methods have been used, glass trays, standard blocks or brackets attached to the wall of the cases, etc.

Initially, the museum cases were very popular but then they became monotonous and made the museum boring to the visitor. They were dropped and museums tended to use cases according to individual needs. This consists of a thin metal skeleton with shelves, the cases themselves are incumspicuous, and that permits a convenient view of objects and allows frequent changes in exhibition material.

Cases are often built into walls or walls are constructed with large openings in which objects are placed. Open shelves are sometimes used to great advantage, but they are limited by hazards or security and susceptibility to dirt. The customary three shelves of the standard case has given way to blocks or shelves of varying sizes so that objects can be shown at different levels. Whatever the method used, the more it is standardised and follows set out rules, the sooner it will seem out dated and lessen the appeal of the display objects.

1.12 LABELS

The purpose of labels in museum objects is to impart information in a compact but comprehensive form. One possible solution is to give two kinds of information on the same label; a bold heading easily read at a distance to identify the object, carrying essential vital statistics, followed in a smaller type by as extended a discussion as the museum educational staff deem satisfactory. The labels should be visible but not intrusive.

The contents of a label is an educational matter, but its visual presentation is an organic part of the whole exhibition, it should conform in colour, scale, and location with the overall scheme, throughout the label. The typographical style of the labels should be consistent. Consistent styling of announcements, invitations and posters is also desirable. The labels should preferably be processed in same way, if not printed or if not photographed from typed or hand lettered texts.

1.13 FUNCTIONS OF MUSEUMS

The developing countries of the world frequently stress the importance of museums as a means of spreading and reinforcing the national consciousness or as they often express it, the national culture. To be independent is to assert the vigour and autonomy of one's own culture and it is unthinkable, that museums, schools, newspapers or any other means of public enlightenment would think or act differently. 'Culture' in such a context, is both the accumulated traditions of the National territories and the basis of all government policy and planning (Ulli, B., 1960).

There are many roles for museums in our society and all of them have some effect - if only indirectly on the architecture that contains them and symbolises them. The museum exists to protect a heritage of acknowledged art and welcome those who enjoy it. It makes a display of culture with its reference to

architecture, art and monument. It allows the consumption of show to take place quickly and easily.

Since the primary function of a museum is storage and preservation for view, then one is tempted to ask why do we preserve artefacts, that in most cases require a high level of tehnology[2]. Artefacts are presented in order to:

(i) Enlighten the people of its cultural and historical values of the past

(ii) So that people can admire and appreciate works of art

(iii) For posterity, since human values form a very important part of artefacts.

(iv) To serve for entertainment.

Preservation means protection against natural processes of destruction by physical or chemical decay or attack by organisms such as mildew or insect pests. The task of preservation and preparation call for a high degree of skill and experience to solve the many and intricate problems that arise from day to day problems that may well involve priceless and unique materials.

The other main function of museums is to exhibit for view. To exhibit has been defined as "to show", a definition so benign as to almost deceive the viewer about content and meagre that it seems hardly befitting the elevated status accorded objects in most museum collections. In order to exhibit, the museum curator has to present his specimens to the public in a condition as closely approximating to their original appearance as is possible. This involves varying degrees of restoration on the

one hand, and the introduction of such conditions as will prevent deterioration, on the other.

Museums have however moved from collection, preservation and exhibition. They have accepted public responsibilities to educate the knowledge of the extent to which people who lived say 2000 years ago think and their environment (arts), being able to evaluate the social set-up in those years from the available artefacts. The sum total of these, teach us to build a better tomorrow with the aid of ranges of specimens suitably grouped and noted, it is possible to teach museum visitors the rudiments of many of the sciences and the Arts. In man-made implements, there is an opportunity to study man's ingenuity in meeting his needs with tools, weapons, clothing and containers, and the fascinating history of his continuing struggle to improve them both in quality and quantity. Most museums also have a fully documented library dealing with all the artefacts on display. This privides a resource centre for the researcher.

Currently, museums have tended to include as part of the museum facilites, recreational facilities in order to liven the museum and attract clients. This differs from the 19th century museums that try to create a proper spirit of anticipation by being solemn. But the provision of such facilities like threatres, cinemas, restaurants, etc, allow people to spend one whole day in a museum and also enable the visitor a place where to have a rest during intensive visiting (Mabegu, A., 1983).

CHAPTER TWO

EMERGENCE OF PUBLIC MUSEUMS

2.1 THE REST OF THE WORLD

2.1.1 Continental Europe

(i) France

(ii) Germany

(iii) Italy

(iv) Russia

(i) France

The French Revolution not only led to the first public museums in France but accelerated events in other continental countries (Wittlin, A.S. 1970).

The genesis of museums in France can be traced to the nucleus of the louvre museum in Paris which was Francis I's collections and assembled in his palace at Fontainbleau. Work on the louvre palace had been gradually carried on since Francis I began to replace a gloomy medieval structure. One of his ministers, Colbert, influenced the king to enlarge and transfer the royal collection to the Louvre under Louis XIV. Minister Colbert wished to contribute to the training of contemporary artists by providing them with an apportunity of studying good pictures, and

thus to further the interests of the country.

Under Colbert's guidance, the royal French collection grew considerably. The sale of the royal English collection after Charles I's decapitation in 1649 provided a unique opportunity for purchases which were carried out on a large scale. The France Crown then acquired a number of works from London, and alot of other collections were obtained as gifts, e.g those of cardinal mazarin.

The characteristically interesting development at this time was that the collections began to form the background of intellectual and artistic activities, e.g in 1692, L'Academie de Peinture de sculpture was installed in the king's palace, and it was decided that the salon de reance be used for annual exhibitions of paintings and sculpture.

Towards the end of Louis XIV's reign, the royal collections were moved to the kings private quarters at versailles. There was a general resentment by the populace to this action because they considered if a deprivement to them and a danger to the pictures, so in 1750, Louis XV, returned about 110 pictures to Paris, at Palais Luxembourg, which was then opened to the public two days each week, the other days being reserved for artists.

Thirty five years later the paintings were once more moved to the kings quarters at the Louvre, and count d'Angiviller, director general of the buildings, planned to collect the finnest pictures and statuary and exhibit them in the Grande Gallerie.

Following the revolution of 1798; the Republican government decided to revise d'Angivillers plans for the museum in the Louvre, which was opened in 1793. The public was admitted on certain days of each "decade" the days being the republican unit replacing the week.

A commission known as conservatoire du Museum National was put in charge of the arrangement of the Louvre as a public museum, this commission also catered for the construction of museums nationwide, and in 1848, the museum in the Louvre was converted to a public museum, thereby finally opening up the gates for the establishment of public museums in France.

(ii) Germany

Here, unlike in the majority of early European museums which developed out of the adventure of a private collection or of the haphazard combination of several ones, the public museums of Berlin were from the beginning based upon plan (Wittlin, A.S., 1970).

After the Napoleonic wars, there was this great enthusiasm that all Germans should combine the best qualities of all Europeans and grow into "ideal world citizens" and the museums were seen as the most appropriate kind of institution to achieve this desire, thus the idea of national museums was conceived. Private museums such as that of Dresden, formerly owned by the princes of Saxony were then expanded to exhibit foreign art

works, but only the museum of Berlin was well balanced in terms of selection of art representative of all periods and schools in Europe.

Students from the academy of art were the first to be admitted to a Prussian gallery, that was towards the end of the 17th century. In 1797, Frederick Wilhelm II, gave order that the best pictures in all royal residents should be assembled for the benefit of artists in the Castle at Berlin. This was promptly followed in 1810 by an edict ordering the foundation of a public museum. Thus, experts were sent to London and Paris to study collections and museums abroad, and diplomats and students received orders to purchase works of art from Italy. These developments gave rise to the emergence of many public museums such as the Altes museum for which plans were drawn by a professor of ancient art, A. Hirt and submitted to Frederick Wilhelm II in 1797, 'Kunstkammer' in the royal palace in Berlin, reconstructed by Schlueter, etc.

But this early German museums had one general drawback, their walls were so conspicuously ornate, that they drew the attention of viewers away from the actual specimens.

(iii) Italy

"..... but the history of the Papal collections in Rome would seem to be the most significant example of the evolution of public museums in Italy" (Wittlin, A.S. 1970).

In the grounds of the vatican, Julius II (1503-1513), chose a pavilion as the proper setting for some of his fine ancient statuary, and it was called the Belvedere, because it afforded a scenic view over Rome. Later, it was enlarged - connected to the main palace by a gallery, the contyard was adorned with eight niches which were to hold statues. Most of the Popes used to rest here because the atmosphere was severe and remote.

But Popes Pius V and Siytus V, were hostile to ancient relics, thus they gave out aint of status, and the Antiquario in the Beldevere was closed for almost two hundred years. Then under Clement XIV, the Antiquario came back to life, the curtile ceased to ensbrine the fine statuary, which was bound to suffer from permanent exposure to the weather elements, statues of outstanding quality were assembled in a newly erected gallery, it was renamed museode Clementino and opened to the public in 1773, and thus enlarged by succeeding Popes.

(iv) Russia

The nuclei of two main museums were formed by two rulers surnamed "the Great", by Peter and Catherine. Peters collection grew out of his interest in science. The breath of his personality and his vigours in westernizing Russia led to the accumulation of fine works of art, a symbol of a ruler's might in his period. He had inherited from his fore bears, a guardoropa containing armour and arms, precious clothing, jewels, and plate.

These origins gave to the later Kremlin Museum, the name of a Museum of Arms, to the customary curios. Peter added jewelry of solid gold that had been sent to him as a present by a miner in Siberia. He was hardly aware of the Significance of the objects found in prehistoric tombs, which are now among the precious items of the Hermitage museum, Moscow, but he was captivated by their beauty and issued a ukase for the preservation of siberian monuments (Wittlin, A.S., 1970).

Peter received alot of art works from abroad, especially from his amberssador in Hague and his commercial agent in Amsterdam. He also acquired alot during his second trip abroad in 1718. Most of these art works were used to decorate his palace, and the rest were stored in Schatzkammer ("Treasure chamber"), and this was the first public museum in Russia.

Catheine, was a German princess who was married to a tyrannical but short lived Czar, and one of the most noted Russian rulers. She was a great collector of works of art of the eighteenth centuary. She also acquired lots of art works, most were housed in the Hermitage, a small building connected with the winter palace of st. Petersburg. She liberalised the rules of admission to the Hermitage, but in practice remained in most cases debarred, because interested visitors had to be dressed in outfits worn at court functions - and these were only affordable by the very rich elites.

2.1.2 Great Britain

In contrast to most other European countries and capital cities, the British Isles and London possessed no royal collectionsd which could simply be transformed into public museums... (Wittlin, A.S, 1970).

The Medici in Florence inspired Charles Lenox, heir of the Duke of Richmond, to admit artists to his gallery to develop their talents by studying works of great masters of the past, but this was a solitary effort. In 1766, the Royal Academy was organised and it held its first exhibitions a year later. Towards the end of the seventeenth century, John Milkes M.P., advocated in the house of commons for the establishment of a National Gallery of Art, but many considered this rather too expensive and the idea was shelved.

The foundation of the British Museum in London, the first of its kind in England has its origins in a poassage in the will of sir Hans Sloane, the famous physician, which ran as follows:

> 'Whereas from my youth I have been a great observer and admirer of the wonderful power, wisdom, and contrivance of the almighty God, appearing in the works of his creator, and have gathered together, books, natural and artificial curiosities, and the like. Now desiring very much that these things, tending many ways to the use and improvement of the arts and sciences, and benefit of mankind, may remain together and not be separated, and that chiefly

in and about the city of London, where they may, by the great confluence of people, be of most use.....'

Thus, paliament paid the sum of £20,000 for his collections, and by Act of parliament in 1753, the British museum was founded and opened to the public in 1759.

2.1.3 The United States

Significant events and trends in museum developments at the time of their origins appear as from the late years of the British colonies to the early decades of the republic. In comparison with the old world, especially with the European continent, several American charateristics stand out, the Fecund force was private initiative and not public authority; those who took initiative represented a wide spectrum of intellects of social and economic backgrounds; work by committees was important, as Tocqueville well recognised as a trait of life in the United State; confidence in the future remained undaunted by failure, as one short-lived museum led to another. The new one absorbing the preceding one, which in this manner continued its existence, interest in natural history and science in general, dominated the attention paid to art (Wittlin, A.S., 1970).

The first public museum in America was opened in 1773, three years before the declaration of independence, in Charleston, South Carolina, and its still existing today; the emphasis was on the practical application of the natural sciences to the mundane affairs of the community and the purpose of the museum was clearly stated.

2.2 DEVELOPING NATIONS

A look at the emergence and development of museums in third world countries reveals a totally different situation from their long established Western and Eastern counter parts. One factor responsible for this is the difference of emphasis placed on their philosophy. Most museums in the developing nations were being founded in the wake of colonialism, hence much emphasis is laid on the redemption of their historical past, by identification and assertion of tradition, culture and customs before foreign impositions. The aim is to achieve a sense of identity and oneness out of their past experience (Ashaye, I.P. 1984).

The third world areas examined in this study include

2.2.1 Latin America and the Carribean

2.2.2 Asia

2.2.3 Africa

2.2.1 Latin America and the Carribean

Museums here were established in the early parts of the twentieth century, and they owed much of their existence to the colonial powers who were operating in these countries. Their collections, generally transferred or donated by ruling or goverment families, or assembled as a result of scientific and artistic missions from Europe, were reflections of the need for

the promotion of cultural identity among the different ethnic groups in the nations.

In Mexico, the Director of the Museo National de Historia (National Museum of History) warned that Museums cannot stand apart from the major national needs and problems.... we certainly cannot afford the luxury of an unstructered type of museology, one that is mere dilentatism, it must be based on a global view in order to integrate man into his total context.

One clear example of the affirmation of national values is the museo del Hombre Panameno in Panama, where its collections consist of an extraordinary collection of objects testifying to a national culture synthesised through centuries of co-habitation among different ethnic groups.

In the last two decades, there has emerged a new progressive phenomenon which has contributed to the redefinition of the concept of museums in Latin America, the round table meeting entitled "The Role of Museums in Today's Latin America" organised by UNESCO at Santiago de Chile in 1972 marked a turning point for museology in the area. Apart from shifting emphasis from collections to an integrated museum idea, there emerged a social mission for the museums in that region, to help awaken the consciousness of the societies they serve.

2.2.2 Asia

Asia is a homeland of extremely different political, economic, social and cultural backgrounds. It is infact a conglomeration of developed, semi-developed, and under developed countries. This social existence has been more or less reflected in her museums.

The origin of museums here can be traced as far back as the 18th century, while there have been royal collections, they were however not accessible to the public.

One of the largest countries in Asia, India, is made up of six major religious communities, fourteen major languages and three clear-cut environmental zones with their own very distinct floral and faunal wealth. Hence the development of museums is geared thus the propagation of these cultures. The Asiatic Society of Bengal founded by Sir William Jones in 1784, initiated the museum movement in India. The Indian Museum in Calcutta was founded in 1814 by the East Indian company. Currently, there are over 400 museums in India under different authorities - central and state governments, municipal corporations, private institutions and trusts.

The remergence of museums in South East Asia can be traced to the coming of the European colonialists; the National Museum in Cambodia was established in 1905 with collections representing the Khemer art. In China, the Nating centre of Natural History was the first museum to be established, followed by others in Peking (Beijing), Nanking, etc.

2.2.3 Africa

Apart from the Hellenistic museum of Alexandria, the first on the continent and one of the oldest known museums in ancient times, museums generally in Africa are of recent development brought about by the advent of the Europeans.

However, before the emergence of museums as we know them today in Africa, there were traditional ways of conserving objects of value, for example, chief Bathoen of Kanye, in Botswana, the Oba of Benin, in Nigeria, whose collections formed the basis for the establisments of the present National Museums of Garboune and Benin, respectivaly, were noted collectors and conservators of their respective cultural objects.

The period which witnessed the emergence of museums in Africa with the exception of that in Cape town founded in 1825, Cairo 1858, Bulawayo 1901, Salisbury 1902, and Nairobi 1901, can be traced back to the turn of this century, especially when these nations gained their independence from the colonial rulers. This period marked the height of capitalist development on the continent, and it is often argued that museums which emerged around this time were mostly to satisfy the economic urge of the colonialists (Ashaye, I.P. 1984).

Since the break with colonialism, there has been series of changes in museums in Africa, especially with regards to concepts, objectives, techniques and mode of operation initially established by the colonialists,, now, there are moves towards

making the average African aware of his cultural heritage, and a stronger move towards evoling and educating the people towards a national, cultural identity, ultimately to assist in the drive for fostering unity among the many different ethnic groups.

2.3 Museum development in Nigeria

Long before the advert of the Europeans, there were collections of cultural objects in almost every home in the territorial entity that came to be called Nigeria. These cultural objects had religious or historical importance to the homes that possessed them. On a larger scale, the traditional rulers had their own royal collections which consisted of hereditary and ceremonial objects which were all preserved and conserved using now very primitive and obsolete means like hanging them on ceilings to be protected from insects by smoke. So it can be seen that since ancient times, the basic functions of museums today (preservation and conservation) had always been carried out by our fore fathers in this part of the world, but the idea of a museum as they exist at present, came into being with the coming of the British colonialists.

Talking about the emergence of museums in Nigeria, the names of certain British nationals must be mentioned, these are K.C. Murray, E.H. Duckworth, and B.E.B Fagg. Their collective contribution was very fundamental. British personnal helped by donating their private collections or by publishing papers in

32

journals in Nigeria and abroad to arouse interest in official quarters as to the need for public museums in Nigeria.

K.C. Murray was named the Director of the Antiquities service due to his outstanding and pioneering efforts. He was ably assisted by E.H. Duckworth, whose untiring campaign in same wise, culminated in the inauguration on July 28, 1943 of the Nigerian Antiquities service (Okita, S.I.O., 1985). B.E.B. Fagg who was well noted or promoting the NOK culture succeeded Murray in the service. Murray played a very prominent role in the establishment of the Lagos museum and Fagg, the Jos museum.

Major events highlighting the evolution of museums in Nigeria actually begun with one in 1953 when the Antiquities ordinance was passed, and in 1959, the Antiquities commission was inaugurated and started meeting that same year. Also since then the central government (Federal government) assumed full responsibility through the Antiquities commission for drawing up policy for the preservation of Nigerian Antiquities, and through the Federal Department of Antiquities, has borne the responsibility for establishing national museums and assisting other types of museums in the country (Okita, S.I.O., 1985).

At present, there are over twenty museums in the country, and a number of ancient sites and monuments. That number includes nine national museums of which five are fully established and open to the public, these are:-

(i) Jos museum; first and oldest public museum in Nigeria; established in 1952.

(ii) Lagos museum, 1957.

(iii) Oron, first opened in 1950, suffered damage during the Nigerian civil war, reconstructed and re-opened again in 1977.

(iv) Benin museum: Opened first in 1960, shortly after independence, it was moved to its present modern edifice in 1973.

(v) Kaduna opened in 1975 to the public.

Four others were projected for the National Development Plan Period of 1975-1980, these were for Enugu, Ibadan, Sokoto and Maiduguri and are in various stages of development.

Aside from the National museums mentined above, local authority museums exist in Sokoto, Argungu, Katsina and Bauchi - all run by the respective local government in which they are located. University museums exist in the universities at Nsukka, Lagos, Ibadan, Ife and Zaria, run by the various institutes of Africa Studies or centres for cultural studies established in these universities. Government departmental museums include the one in Vom run by the Veterinary Department and the Geological museum in Kaduna, run by the Federal Department of Geological Survey, Army museum at the Army Depot in Zaria, etc.

The Antiquities service, now named National Commission for Museums and Monuments, is the mother body responsible for co-ordinating the activities of all museums in the country. It also supervises the establishment of new museums financially by funds provided by the Federal government of Nigeria under the Federal ministry of Arts and Culture.

CHAPTER 3

MUSEUM ARCHITECTURE

3.1 THE MUSEUM ENVIRONMENT

'Museum Environment' as used in this research refers to that micro-climate that exists in a museum - especially in the display areas and store rooms, as a direct consequence of the manipulation towards arriving at a satisfactory balance, between the natural and artificial determinants of indoor museum conditions, viz. Temperature, Relative humidity, Air movements, etc and Airconditioning, artificial lighting, etc, respectively.

The museum curator should ensure that the prevailing conditions in the museum offer a better alternative of taking care of the museum objects than nature would. The objects most susceptible to deterioration under adverse condition include those composed partly or wholly of wood, paper, textiles, ivory, etc because they are organic in nature. Agencies of deterioration include pollutants, unstable relative humidity, and biological agencies of destruction such as insects, mould growth, etc.

Also, the museum curator should strive to evolve control methods that aim at squashing existing problems instead of employing piecemeal solutions. According to Nabegu, A. 1983 "Efficient methods for control of air pollution in museums are

available and desirable, but it is also self-evident that expenditure on practical conservation is a waste of resources if an object that has deteriorated as a result of its environment is replaced in the same environment after treatment, since it s certain to deteriorate again. On the other hand, an exhibit that has received proper conservative treatment is housed in an atmosphere in which the level of atmospheric pollution, relative humidity and lighting are maintained within the standard recommendations it will not need further treatment for many years.

In museum Architecture, a very important aspect is the control of the environment which is well recognised but only handicapped by a very low maintenance culture amongst our people and very frustrating infrastructural services such as unstable electricity supply, water supply shortages, etc, which makes survival of museum objects in the tropics especially more difficult. Should it be impossible to install air conditioners in any specific areas of the museums, the desired control of relative humidity can be acieved in those areas displaying moisture-sensitive objects by installing humidifiers and/or dehumidifiers, when designing. Architects should be concerned about reducing fluctuations in relative humidity naturally as much as possible through a so-conscious design.

Two modern and well run African museums - The National Museum in Dar-es-salam and the National Museum in Accra, Ghana have very little air conditioning and pin their fate to fans, louvres, blinds and to a well-thought-out architectural design which

encourages the free movement of air throughout the building. The resulting temperature is perfectly tolerable and pleasant and makes leaving the museum building and re-entering the outside world much less of a shock (Nabegu, A. 1983).

A peculiar problem of the tropics is the characteristically high humidity, and once this is joined by inadequate air movements, the ideal environmental conditions would have been created for biological agents of destruction to act. This can be checked by periodic fumigation of the collections or by the use of suitable insecticidal preparations - this must however be done with great caution so as not to adversely affect the collections.

3.1.1 Effect of Climate on Museum Objects

A combination of high temperature and abundant moisture favour both chemical disintegration and biological attack. Chemical disintegration since most reactions are based on the presence of moisture and are normally accelerated by a rise in temperature and biological attack; since optimal conditions for cryptoganic growth (Fungi, algae, mosses, and lichens) at the tropical temperatures of 25°C - 30°C are at a relative humidity of 70% or higher. These conditions are also ideal for the development of bacteria and insects including white ants (termites). (Nabegu, A. 1983).

Air movements, though very necessary must be facilitated in the museum in a very controlled manner. Strong winds could blow

and eventually lead to loss of objects on display, e.g paintings on walls or a sculptural piece on a display pedestal falling on the floor, thus they could shatter due to impact. Moisture or dust can also be blown into the interior as driving rain and sand storms respectively by the action of strong winds (Oko, M.O., 1989). It could also constitute a source of great discomfort and distraction to museum staff and visitors. On the other hand, air movements are desirable for ventilation and circulation.

Excessive heat could have a very deteriorating impact on museum objects, such as wood, which could suddenly warp, leather materials could harden and shrink, and textile materials, paintings, etc could get damaged when exposed to ultra-violet radiations of the sun which cause petrochemical degradation.

Moisture on its own is also quite destructive when it comes into contact with museum objects made of wood, fungal growth and quicker decay is enhanced, metallic objects such as traditional hoe blades, cutlasses, swords, react with moisture and oxygen to rust. Those objects made of clay could swell and gradually disintegrate, while leather products would start giving out offensive odour when in contact with moisture.

3.1.2 Lighting control in museum display areas

Lighting is a very fundamental component when it comes to museum display areas especially and so its manipulation should be of utmost concern with a view towards enhancing effective vision,

without which museum objects display cannot be properly appreciated. Lighting in this sense could be natural or artificial. Natural lighting is preferred especially in the tropics because its readily available only if it can be controlled - which is one limitation that grossly affects its utilisation on a big scale. However, whichever mode is used, natural or artificial, the aim should be providing the best quality of light for veiwng.

Artificial lighting which could be controlled was mostly preferred because exposure to uncontrolled illumination caused the fading of certain pigments and dyestuffs, most commonly noticed in water colours and manuscripts, also papers could be embrittled and discoloured. The extent of damage to materials is usually determined by three factors:-

1. The actual level of illumination
2. The total time of exposure
3. The spectral composition of the light source, i.e the quality.

When using natural lighting, the ultra-violet component can be prevented from reaching the museum object by interposing an ultra-violet absorbing filter between the light source and the museum object, such filters now exist as varnishes, plastic sheets and films.

To facilitate adequate visirn of the museum object, a balance has to be arrived at, between that amount of illumination

necessary for adequate viewing and that which would place the object being displayed at jeopardy - considering the fact that intense illumination, no matter the source is destructive over a length of time. The standard recommended lighting given after due consideration of the two factors mentioned above are:-

(i) 300 lux for objects insensitive to light, e.g metal, glass and ceramics.

(ii) 150 lux for objects of medium sensitivity e.g undyed leather, wood, horn and ivory.

(iii) 50 lux for objects particularly sensitive to light e.g dyed leather, textiles, manuscripts and miniatures, and many natural history specimens.

The following precautions are also recommended:-

(i) Galleries and other exhibition areas should be kept unlit when not open for exhibition.

(ii) Entry of direct sunlight into display areas should be avoided.

(iii) Light sensitive materials should not be kept on permanent exhibitions unless conditions can be strictly controlled.

(iv) Ultra-violet absorbing filters should be used where appropriate. This can be ffected by using special slightly-tinted glasses in cases or by covering each fluoresenct tube with

a wrapping of uvecran or other suitable vinyl plastics. Inside the cases, it is helpful to make use of what are called "cold mirrors" which cut off most of the untraviolet from spot lights (Nabegn, A. 1983).

3.2 EXHIBITIONS

There are basically two kinds of exhibitions:-

(i) Temporary exhibitions and

(ii) Permanent exhibitim

(i) Temporary Exhibitions

This like posters need to make their thematic points quickly and this must be accomplished in the course of a single visit. The object being required to play a supporting role to the theme. In order to make its point quickly, the temporary exhibition must guide the visitor's attentim and movement. They can be used in museums to

(i) Experiment in modification of building space, control of circulation of visitors and arrangement of materials can be tried out on temporary stands.

(ii) Changes of shows over several seasons which will outline its ideal programme and define its aspirations for the benefit of its public.

(iii) Call attention to aspects of their collections by special showing.

(iv) Celebrate occassions by special showing

(ii) Permanant Exhibitions

These are those for which museums are primarily established for, as can be substantiated from the official definition of a museum by the International Council of Museums (ICOM). There are various kinds of this Exhibition but basically concerned with the display of objects in the various museum display areas; on a pemanent basis.

3.3 ART AND MUSEUMS

Since the National Museum, Makurdi, being proposed is essentially going to be an Art museum, it is the researcher's aim here to hereafter show the relationship between Art generally and museums.

The English disctionary defines Art as

"human skill as opposed to nature, skillful execution of an object in itself, skill applied to imitation and design as in painting, etc, thing in which skill may be exercised, certain branches of learning as intellectual instruments for more advanced studies as Bachelor, Masters and Arts, one who has obtained a stadard proficiency in these; black magic, practical application of any sciences, industrial pursuit, craft, guild, company of craftsmen, finesse. Those in which the mind and imagination are chiefly concerned; knack, cunning, stratagem".

From the detailed and somewhat complex definition of Art above it can be surmised that the word is a very subjective one, being viewed rather differently from one individual to the other, because it has to do with the mind.

Museum objects are works of art, because they represent manifestation of "human skill as opposed to nature....", consequently, they are called Artefacts (objects made of human hands). Museums provide the ideal forum where these manifestations of human skill can be displayed for public consumption.

There has to be a distinguishing write up here between Western Art and African Art. According to Oko, M.O., "In terms of reference then, African art is not really art in the western context, but an invocation of ancestral spirits through giving them concrete form or body before they can enter into the human world". This goes to show that African art goes much deeper than the definition given: It has to do with the socio-cultural and religious beliefs of the people and not necessarily portrayers of individual artists skills.

CHAPTER 4

CONTEMPORARY ROLES OF MUSEUMS

4.1 RECREATION AND MUSEUMS

"With regards to the museum's place among the so-called entertainment industries, I do not see anything objectionable about frankly acknowledging that we do not only teach but also simply entertain. It is hardly necessary to point out that in combining these two functions we are in the most excellent and highly respected company. Our type of entertainment is sound and, when well done, of considerable intrinsic value to the human imagination particularly to the developing minds of the yound. We should be perfectly entitled to take pride in this fact and to expect society to take some interest in our activities for their genuine entertainment value alone, if even no other services were offered" (Parr, A.E. 1959).

One of the important roles of museums which the generality of the popiulace especially in the developing countries are not aware of is their recreational value, where these have been well developed and executed, museums help in awakening the emotional response of the individual to his environment as well as in reducing the delibitating effects of some of the worries and depressions attendant on personal pursuits such as the struggle to earn a living. For example in a developing nation like

Nigeria, an upsurge in the standard of living could have a direct bearing on the social life of the inhabitants, and where such an upsurge gives rise to new social complications, museums afford the opportunity for the acquisition of leisurely engagements such as reading, visits/excursions, to parks, gardens, and galleries, etc.

Buttressing more the recreational aspect of museums, for example in Ghana, the National Cultural Centre (equivalent to our National Museum at Onikan Lagos) located in Kumasi has been designed "to provide for rest and recreation....", consequently the complex includes a folk museum, exhibition gallery, open air theatre and dance arena, gallery and shops for displaying and selling handicrafts, reconstructed village with a shrine, cocoa farm, poultry farm, zoo, children's adventure playground and a restaurant where only local dishes are served. Our National Museums in Nigeria also boast of a combination of some of these recreational services existing in the Ghana National Cultural Centre.

4.2 SOCIAL OUTLOOK

The theory that museums are an organic part of the social structure places these institutions in as close relation to the social pattern as political parties or moving picture theatres. Their origin is linked with the emergence of democracy as an ideal of social organisation, and their development with the same

forces that extended political, economic and educational opportunities to increasing numbers of the population (Adam T.R., 1939).

Where the public interest is concerned, little distinction need be drawn between the various categories of museums - public museums and private museums, large museums and small museums, museums of science, of history, National museum or local government museum, the obligation of social service is the main reason for their existence. An exception might be made in the case of university museums which are dependents of an artificial society, the academic microcosm within the political macrocosm, otherwise the social and economic ties that bind every kind of museum foundation to the body politic are too strong and too close to permit true independence.

The nature of a museum is essentially social and public, whatever may be its particular subject matter or the source of its endowment. The measure of its public usefulness is generally determined however by the social statemanship of its governing body primarily and secondarily by the educational strength of its technical staff in research activities and in the arts of exposition.

The essence of the matter concerning museums' social outlook is that their work is being carried out neither for private profit nor for the benefit of an imaginary class of scholars, but as a part of the functioning of a social society, which all go to

demonstrate conclusively that museums are vested with a public interest.

4.3 IMPACT ON SOCIETY

The impact on society of museums can be better envisaged in terms of how satisfactorily museums carry out their obligations to society in terms of acquisition, conservation, research, communication and exhibition for purposes of study, education and enjoyment, material evidence of man and his environment. Since museums are public institutions, maintained by public funds, they are thus committed to public service.

Here in the third world, the expected impact of museums on society is that of cultural redemption through cultural exhibits for the larger aim of finally striving to achieve a high level of cultural awareness amongst the people. Their impact is expected to be felt in areas such as education, public enlightenment, recreation, cultural redemption campaigns, etc.

4.4 EDUCATIONAL ROLE OF THE MUSEUM

The primary purpose and function of a museum and its exhibits is to educate (Witteburg, L.P. 1958).

> To achieve this and especially at a natural history museum, exhibits should be planned for which actual life is illustrated and in which native skills and cultures are displayed. Nothing should be shown

> merely because it is ancient or has curiosity value. Specimens, reconstructions and processes should be exhibited because they have the authentic power to open the visitor's eyes to the movement and meaning of the stream of life. The museum should take elements from nature and from life itself along with theories, concepts, and philosophies achieved through scientific research and combine them all into a meaningful presentation which tells a story. Within this basic philisophy it is the job of the museum designer and exhibit specialist to arrange the material into an aesthetically pleasing exhibit.

Education is a broad term designed to cover a multiple of activities and acceptance of educational responsibilities toward the general public does not commit an institution to any specific form of action. Museums suffer from the lack of definemess attached to their educational function, they stand before the public as educational institutions, but the clients they serve and the type of instruction given are not clearly defined even by the institutions themselves (Adam T.R., 1937). These problems were attendant upon early museums, but these days, education (formal) function of museums is facilitated by museum school services.

According to S.I.O., Okita "within the museum profession, there has been an influx of fresh minds and energy demanding higher standards and more effective approaches in the use of museum "educational" resources. This influx coupled with the exchange of ideas and information made possible through the activities of UNESCO and ICOM and the publication of professional journals by various bodies has led to a broadening of museum school services as ideas introduced in one place are also tried in another.

With regards to Education, museum are expected to foster two kinds, these are

(i) Formal Education and

(ii) General Education

(i) Formal Education

Prominent among the museum's duties is its obligation to make its exhibits serve the needs and supplement to shortcomings of formal education as given in the classrooms. In the classroom, the study of nature is usually divided artificially into a number of separate subjects such as geology, botany, zoology, etc. So the museums main function with regards to this departmentalised classroom instruction is that of mintaining a corresponding set of departmentalised exhibits for the use of the educators in each separate subject.

(ii) General Education

This is a spontaneous accomplishment of museums considering that their objects on display are in majority two or three dimensional and so they impart some general knowledge on even the casual visitor.

Ultimately there remains to be considered the museum's own educational programme, independent of the classroom. It should be remembered that all forms of education should in the final analysis be geared towards the attainment of a successfully functioning society. It is therefore not enough to design an educational programme simply on the basis of abstract philosophical structure of knowledge. The needs of the citizen for the various types of information contained in the sciences or arts vary according to the responsibilities placed upon him by the form of society of which he is a member (Parr, A.E., 1959).

Conclusively it should be noted that "the final category of museum work, the dissemination of knowledge to the widest public, lies more strictly within the field of what is described as adult education. In this groups in the community ..... Educational planning in terms of the social environment is not merely the effort to obtain the maximum support that a given community can render, but also an attempt to seek this support for true educational ends. The relationship to each other of the three activities - collecting, research, and exposition of knowledge,

may sometimes determine whether an institution has the right to call itself by the honorable name of museum Adam, T.R., 1939).

The modern museum has reacheed a stage of development where it seeks to spread its educational message beyond its own walls. Exhibitions, intra-mural lectures and seminars, and museum activities can affect only that proportion of the community possessing the necessary leisure and inclination to pay frequent visits to mesum buildings.

CHAPTER 5

MAJOR NIGERIAN MUSEUMS CULTURAL GROUPINGS

Nigerian cultural heritage as exhibited by museum artefacts are divided into four major groups and a couple of minor ones, this is based on geographical location where the artifacts were unearthed or found, characteristic features, and artistic styles. These include the major ones such as:

(i) Nok culture

(ii) Benin culture

(iii) Ife culture

(iv) Igbo-Ukwu culture

Others include Igala, Jada, Owo, Yoruba, Nupe, Ibibio, Orun, etc.

5.1 NOK CULTURE

As Frank Willet writes, it is difficult not to think that Nok culture as we know it represents the ancestral background from which most of the West African Sculptural tradition derives (Francois, Meyt, O.S.R, 1965).

The Nok civilisation flourished from the 5th century B.C to the 2nd century A.D and the 15th and 17th centuries. The people who practised this culture lived on the edge of the Jos Plateau and in other high regions which they seemed to have a preference

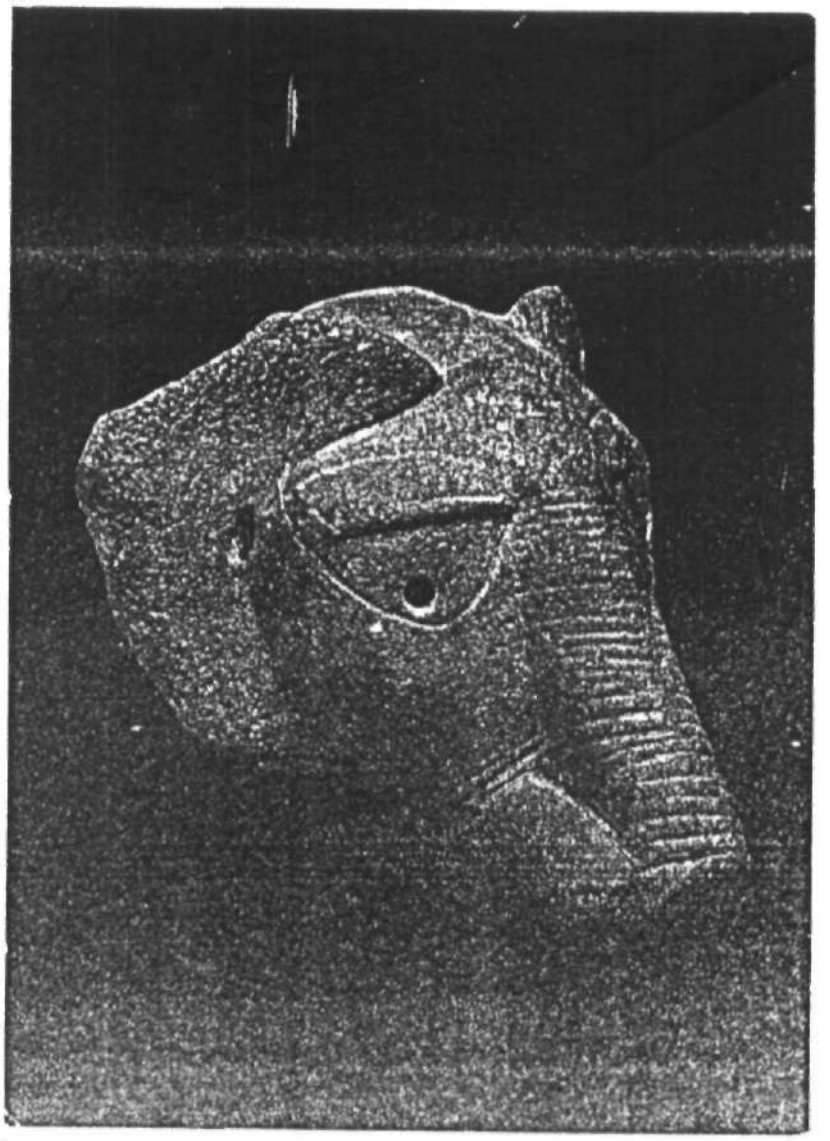


PLATE. 5.1. NOK TERRACOTTA
HEAD. 900 B.C - 200 A.D.

Source : National Museum, Lagos.

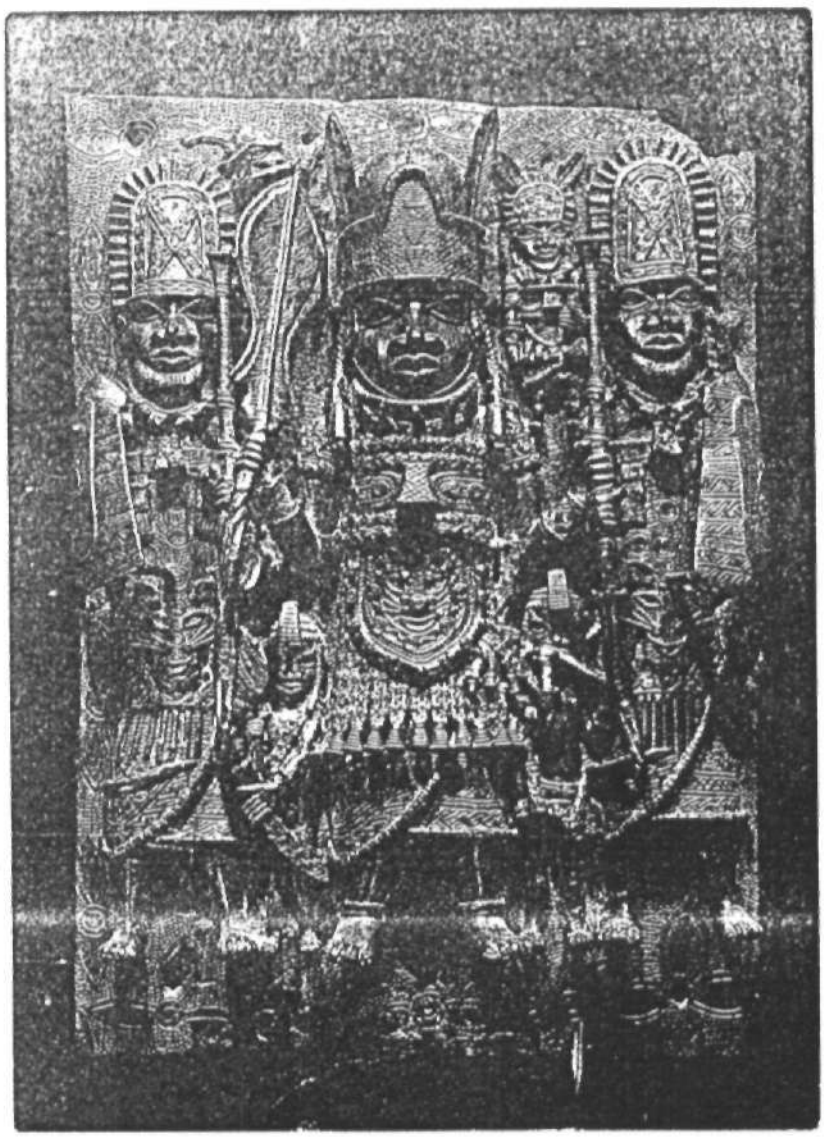


PLATE. 5.2 BENIN BRONZE
PLAQUE. 17TH C.

for like the Abuja site and at Katsina-Ala in Benue state not too far from the Cameroun mountains.

Nok culture was already decorated with pearls. The archaeological layers revealed a quantity of stone pearls, quartz cylinders, and also labrets for ears, nose and lips. The taruga terracota sculptures wear small aprons held in place by pearl girdles. Nok artists also represented several animals forms in which some scholars see the sign of a religious cult; hence the logical deduction leading to the existence of witchcraft then.

At present, its terracotta sculptures should be considered as the archetypes of artistic manifesations of Black Africa (Francois Neyt O.S.B, 1985).

5.2 BENIN CULTURE

The kingdom of Benin, capital city of the Edo speaking people, fostered the development of a diversified culture from the 16th to the 19th century. They were popular for bronze works.

5.3 IFE CULTURE

This flourished in Ife, the ancestral traditional home of the Yorubas between the 11th and 15th centuries and its generally characterised by marvellous bronzes and terracotta sculptures.

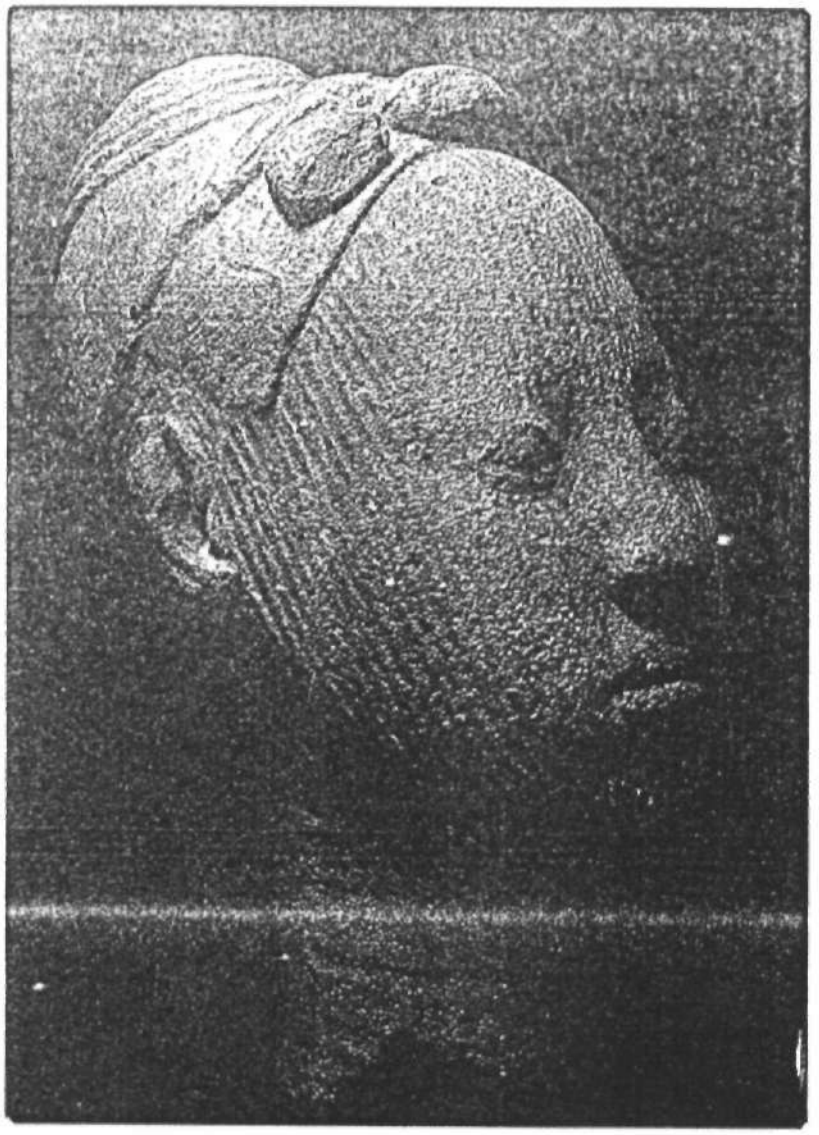


PLATE. 5.3 IFE TERRACOTTA
HEAD. 12TH–15TH C. AD.

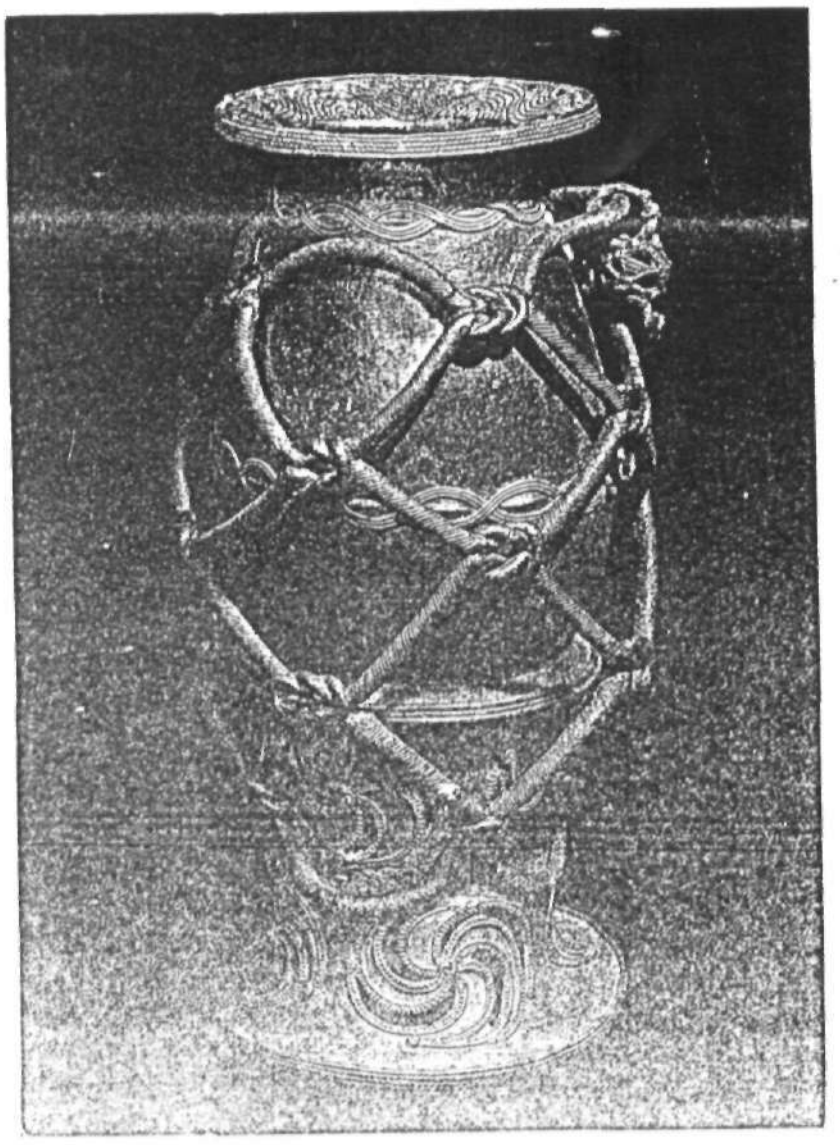


PLATE. 5.4. IGBO-UKWU BRONZE
POT. 9TH. C. AD.

5.4 IBGO-UKWU CIVILIZATIONS

Not far from the southern banks of the River Niger, come the famous Igbo-Ukwu excavations, near Awka in Anambra State. These excavations started in 1938 produced sumptuous bronze objects besides an impressive number of pearls dug up from tombs. These objects dating from 9th or 10th centuries provided much illumination into the prestigious past of the Igbo culture. The tomb is suggested to be that of an Igbo King priest Eze Nri (Francois, Neyt O.S.B., 1985).

5.5 THE PEOPLE OF BENUE STATE

Benue state as an autonomous entity is a creation of the 1976 government of General Murtala Ramat Mohammed. It is part of a homogenous geographic zone of great beauty situated within clearly defined natural boundaries (Francois Neyt O.S.B, 1985). Towards the North, there is the River Benue - although some area of the state lie on the other bank (North Bank) of the river, this runs from East to West. In the South, one encounters the continuation of the foothills of the Igbo country and the forest zone. To the East, the Cameroon mountains and the forest hills constitute the frontier and finally to the West, the majestic River Niger and the Cliffs of Idah comprise the demarcating elements.

Establishing Benue state boundaries using neighbouring states one encounters Plateau state to the North, Anambra and Cross River states to the south, Gongola state and Bendel States to the East and West respectively.

Benue state covers an area of 45,174km² with a population exceeding 2.5 millions people. It is geographically coherent, situated within the "Middle Belt", globally speaking, between the Sahel in the North and the forest in the south, infact it consists of a dry savannah, where a series of different typical woods can be found which can be used both for sculpture and for alot of medical and religious magical rites..... (Francis Meyt, O.S.B., 1985).

The state is indeed surrounded by very rich archaeological sites; Igbo-Ukwu, Ife, Owo, Benin, the lower Niger, Nok, Tada and Ikom. The cultural context of these Kanophile societies is prodigious.

Benue state is composed of a number of ethnic groups which can be divided into major ethnic groups and minor ethnic groups.

5.5.1 Major ethnic groups

There are three major ethnic groups namely:

(i) The Idomas

(ii) The Igalas

(iii) The Tivs



PLATE.5.5 IDOMA WOODEN MASK. B_4. 1880 AD.



PLATE. 5.6 IGALA WOODEN HELMET
CALLED OJUEGWU. 20TH C.

These three groups jointly constitute about 80% of the whole population of the state.

(i) The Idomas

Based on the only authentic and reliable source of demographic data for Nigeria, - the 1963 census. The Idomas number about 684,860, and occupy a land area of over 13,015 sq. kms, covering Otukpo, Okpokwu and Ador local government areas.

They are believed to have migrated from the old Kwararafa empire of the seven Hausa states to their present location, first settling at Apa.

Farming is their chief occupation. They are mainly traditionalists but at presently, christianity has found strong roots among them; believers of Islam are few. Traditional houses are usually round or square huts built of mud and thatched.

Cultural activities include traditional dances, display of acrobatics by masquerades, etc. Their sculptures are associated with men's societies, divination and entertainment. The main festival is the Alekwu festival dedicated to the ancestors.

(ii) The Igalas

They are the second largest ethnic group in the state numbering over half a million (1963 census), and occupy, Ankpa, Idah, Dekina and Olamaboro local government areas.

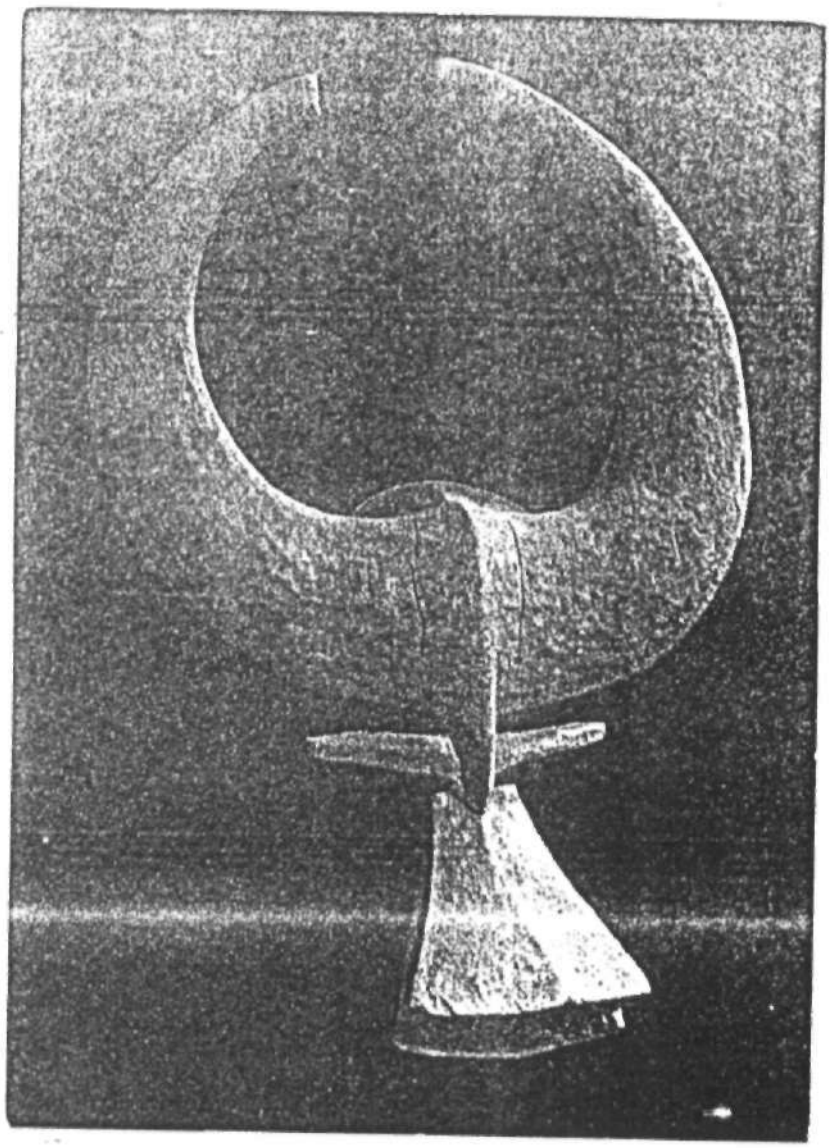


PLATE. 5.7 TIV WOODEN CAP MASK. 19TH. C.

The Igala language shares some similaries with the Yorubas and Idomas, because they all speak a "Kwa" language.

Important festival here include the "Inikpi" and "Ogaganyi" festivals. The former one commemorate the princess Inikpi who according to the history of the Igalas gave her life to save her people from complete destruction by their superior adversary then, the Jukuns. The latter is one which the Attah - the spiritual head of the Igalas, dresses in his best regalia, sits in council and recounts the successes and failures of the previous year with a view to making the subsequent years better. The highlights of the occassion includes the Ochalla dance performed by the noble beaded elders.

(iii) The Tivs

They are believed to have descented from a common ancestor - Tiv; on "Swem" the holy hill now located in Cameroun, from where they migrated to their present location. They speak the Tiv language which belongs to the 'Bantu' family of languages.

They are the most numerically superior ethnic group in the state occupying the following local government areas, Makurdi (the state capital), Gwer, Vandei-kya, Kwande, Katsina-Ala, Gboko, and Konshisha they are also found in Lafia area of Plateau state and Wukari area of Gongola state. Their population is put at 1,244.185 and occupy a land area of 25,638.6sq. kms. They are Nigeria's seventh largest ethnic group.

They are a very hard working people best known for farming of yam especially of which the rank among the highest in the country. Other crops include rice, maize, millet, soya-beans, guinea-corn, beniseed, etc all also farmed in varying quantities by the rest ethnic groups.

The excell in traditional dances, songs, puppet shows 'Kwagh-hir' and "akumbo" rites.

5.5.2 Minor ethnic groups

These include the Bassa-Nge, Bassa-komo, Igede.

The Nupe speaking Bassa-Nge arrived at their present location about 1860, at the confluence of the rivers Niger and Benue. They occupy the north-western part of the Igala division of the former Kabba province. The men specialise in carving (especially masks now collected in the Igbira area and used for rituals), and the women weave patterned raffia. They also have masquerades like all the other ethnic groups.

The Bassa-Komo occupy Bassa local government which they share with Bassa-Nge. They specialise in pottery.

The Igedes are closer culturally to the Idomas, their greatest festival is the "Igede Agba", which is essentially a new yam fsetival.

CHAPTER 6

THE EFFECT OF ANCILLARY FACILITIES ON THE PATRONAGE LEVEL OF GALLERIES

In line with the current drive by governmental, private organisations and interested individuals to resuscitate the low level of cultural awareness being experienced in the country, the researcher aims to examine one of the factors militating against achieving this aim in one of the most fundamental institutions of cultural preservation, conservation and propagation - the museums. So this chapter aims basically at the ancillary facilities the museum designer can employ to attract a wider public to the museum galleries.

6.1 DEFINITION

The word 'ancillary' involves providing a service to those carrying on the main business of an enterprise (Hornby, A.S. 1985). This dicytionary definition applied to the topic under study would involve those activities in a museum premise not directly concerned with the acquisition, display and conservation of museum objects and artefacts; the three of which are the core functions of any museum. Ancillary facilities exist only to supplement these core functions.

6.2 HISTORICAL DEVELOPMENT

The early comprehensive (general) or specialist public museums were literally what the public expected them to be - merely comprising galleries and storage rooms for the displayed objects, also with libraries. The passage of time saw the visitor population becoming bored with the museum environment because it was too solemn, and typified "connotations of dullness or death and a multiplicity of meanings rooted in history....." (Dillon, R. 1970).

This was noticed by the museum authorities only when the previously high patronage had dwindled significantly. Investigation carried out to explain this unfortunate turn of events identified the too solemn and quiet museum environment as the problem which as a result no longer generated sufficient appeal to members of the public.

The general conference of the United Nations Educational Scientific and Cultural organisation (UNESCO) during its ninth session (New Delhi, 1956) expressed a wish that attention should be given to ways and means of enabling museums to attract a wider public. It pointed out that "even in those countries that are mostly richly endowed with museums, where entrance to those institutions is often free, hardly one person visits them for every two hundred (200) who pay for admission to a cinema (Unesco Press, 1974). Consequently it was decided that the Architect employed to take up the project (design of museums) has to

introduce certain secondary functions in order to attract the clientele. Thus was borne the idea of what the researcher has chosen to designate as ancillary facilities.

6.3 FACILITIES TO ENCOURAGE VISITORS

Many museums have developed special facilities to make visitors feel welcome. Nevertheless, a survey conducted by the international council of museums (ICOM) for UNESCO revealed that "museums are still being neglected and the number of visitors is much lower than it should be". However it is encouraging to note from the report that museums are trying through various means to become much more accessible to the public. One of these is by offering such facilities as restaurants, pleasant courts, proper seating which in a purely practical way contribute a good deal to the creation of a pleasant atmosphere (Unesco Press, 1984).

Ancillary facilities possibly play a more vital role in a comprehensive than in any other sort of museums; by a comprehensive museum is meant a general museum covering several disciplines as opposed to specialist museums which cover certain defined aspects only. Under their roofs could be found anything from contemporary painting to artefacts and supreranuated machinery etc (Finlay, I. 1977) like in the National Museum, Jos.

6.3.1 EXAMPLES

Ancillary facilities as they exist today in Nigerian museums can be classified into the following sections for academic purposes.

(i) ARTS AND CRAFTS SECTION

(ii) CATERING SERVICES SECTION

(iii) TEXTILES SECTION

(iv) SMITHYS' SECTION

(v) HAIR CARE SECTION

(i) ARTS AND CRAFTS SECTION

This deals with the arts and crafts of the various Nigerian cultures. It encoutages the presevation of cultural skills and products like cane or bamboo pieces of furniture, calabash ornaments, palm decorations, simple wood carvings, etc. They are made and displayed in the craftshop. There is also the museum shop which markets photographs of museum objects, museum data related books and journals, etc.

(ii) CATERING SERVICES SECTION

It aims to promote indigenous menu by operating restaurants that serve only local dishes. The section prohibits the sale of foreign oriented snacks and fast foods like hot dogs, meat pies, burgers, etc within the museum premises.

(iii) TEXTILES SECTION

Consists of activities such as cloth dyeing, cloth weaving, and tailoring. The cloth weaving sub section manufactures the local fabrics which are then dyed according to specific local cultures by the dyeing personnel, which are finally cut into various African fashions by the tailoring sub-section. Then they are displayed for sale.

(iv) SMITHIES' SECTION

This basically revolves around the goldsmiths and blacksmiths who mainly deal with solid mineral accessories, trinkets etc.

(v) HAIR CARE SECTION

This includes hair plaiter for ladies, manicure and pedicure services done to reflect a true African image.

6.4 PRESENT TREND IN MUSEUMS

Even the casual visitor to any of our museums across the country would notice the manner of planning employed which alienates the ancillary facilities from the gallery areas as separate complexes individually. This makes the former compete favourably with the latter for visitors. This is where the role

of the Architect is crucial since the problem is basically a planning issue.

From statistics obtained from the National Museum, Lagos, which gives summaries of visitors' attendance to the galleries and the kitchen complex (this comprises all the other ancillary facilities). The researcher chose six (6) years (1982-1988) to show a contemporary happening as the study period and this showed that in these years, the galleries received a total of 268,405 visitors while the kitchen complex had 324.373 visitors which goes to show tha the latter is more popular.

As a result of this trend which is general to all other public museums in Nigeria with similar planning characteristics, the bulk of the visitors do not really get to experience the actual services of a museum, a pathetic situation which is not consistent with the ideals of the present campaigns for cultural revival very necessary in this supersonic cum computer age in which many indigenous cultures are apt to be eroded.

6.5 PROPOSED FUTURE TREND

To achieve the basic aim of this study, which is to make the galleries more appealing and popular the researcher intends to utilise the following ancillary facilities:

(i) The Arts and Crafts section

(ii) The catering services section

(iii) Lounges for journals, magazines, newspapers etc

(iv) Proper seating places

The researcher proposes that the aforementioned facilities be located in a reasonably, closely co-ordinated manner around the galleries. This planning should strive to make the galleries the focus around which the other functions revolve. If achieved properly, the researcher would have been able to popularise the galleries by harnessing the obvious advantage of the ancillary facilities - that of attracting more visitors.

Although these facilities can enrich the museum institution, caution should be taken against the possibility of their leading to a dimmining of the main focus of a museum, or placing in jeopardy the security of the much cherished and often priceless artefacts on display. This the researcher believes can be achieved by not exaggerating the scale of the services provided by these ancillary facilities.

CHAPTER 7

CASE STUDIES

7.1 NEW NATIONAL MUSEUM, FOR GHANA, ACCRA

The National Museum of Ghana is expanding fast. Numerous archaeological excavations have been started, reseach aimed at the discovery of ethnographical material has been intensified and the study of the art and handicrafts both of the region and of the African continent as a whole has been put on a more scientific basis. All these activities combined with the zeal and enthusiasm with which the country, since regaining its independence, has set out to raise its cultural level, make it likely that before many years have elapsed the existing National Museum in Accra will have developed into an instrument for the study and understanding of African civilisations.

The Ghanaian Government decided in consequence that to achieve that end, it would be expedient to build a new museum designed to serve as a cultural centre and equiped with everything necessary for carrying out its important functions. Such as a library, a conference and cinema hall, laboratories for scientific and restoration work, store rooms, temporary exhibition rooms (including the premises of the existing museum), offices for the managerial and administrative staff, etc.

The main considerations in designing the proposed museum may be summarised as follows:

(i) - Choice of a general layout allowing for maximum adaptability in the arrangement of exhibitions.

(ii) - Provision for maximum utilizations of the outside wall surface as a source of light and air.

(iii) - Provision for maximum utilization of natural lighting for the exhibition areas with elimination of unfavourable side-effects like dazzle, reflection, necessity for placing exhibits against the light.

(iv) - Organisations of simple visit circuits, but without recourse to any fixed partition walls.

(v) - Provision of completely adjustable partition units designed for use in a variety of ways according to changing requirements of the museum or the exhibitions.

As regards circuits for visiting the museum, while it is neither possible nor desirable to make these too rigid and binding, the aim has been to work out logical itineraries leading through the various sections, taking into account the scientific arrangement of the museum. To this end, the floor surface is broken by slight differences in level, which in addition to the mobile partitions, divide the space and provide an indication of the circuit by means of small, light mobile screens. Since the differences in floor level do not exceed 30 centimetres, two shallow steps suffice to bridge them. With this arrangement, it

is possible to organise, in addition to the main itineraries, short optical circuits taking in different sections so as to cater for visitors' varied interests.

On the plans there are two possible circuits marked for each floor of the museum, but they are subject to endless variations, except as regards the general direction to be followed, which may be summed up as follows:

> entry on the ground floor, of the ethnographic section, ending up at the starting point without revisiting the same rooms; on completion of the four of the ground floor, visitors may either leave the museum or proceed to the first floor, containing the archaeological section - here again the circuit leads back to the starting point, the entrance hall gives direct access to the world Art and History gallery; the first floor (archaeology) may be reached directly from the entrance hall without visiting the ground floor (ethnography); the conference Hall may likewise be reached directly from the entrance without passing through any part of the museum.

Thus the aim is to make the entrance hall act, as befits it, as a switching and control centre for the whole of the museum, although other additional entrances are also provided.

The library and the conference and projection hall are designed as independent units. As regards the general structure of the building and the details of contruction, including the aesthetic nature of the materials employed - the supporting structure of the whole building is to be of reinforced concrete, and the component elements are designed, both in shape and size, with a view to emphasizing their function in the architectural scheme of the building, both internal and external. The outside walls are likewise to be of reinforced concrete, both to meet the requirements of static load and safety and to give clear aesthetic expression to their function which is to protect the precious contents of the museum. The same principle applying various means has been adopted for all external surfaces which are foreseen for ventilation and therefore without solid walls. The apertures occupying the space in the structural system of pilasters and beams are enclosed by a sturdy grating with a frame-work of steel and a filling of wood (African rosewood).

Here again, the protective function is emphasized. The use of gratings, characteristic of vigorous architectural style is repeated in the zones connecting the conference hall and the library with the main body of the museum thus conveying a sense of spatial unity while continuing to express the planned requirements of the museum.

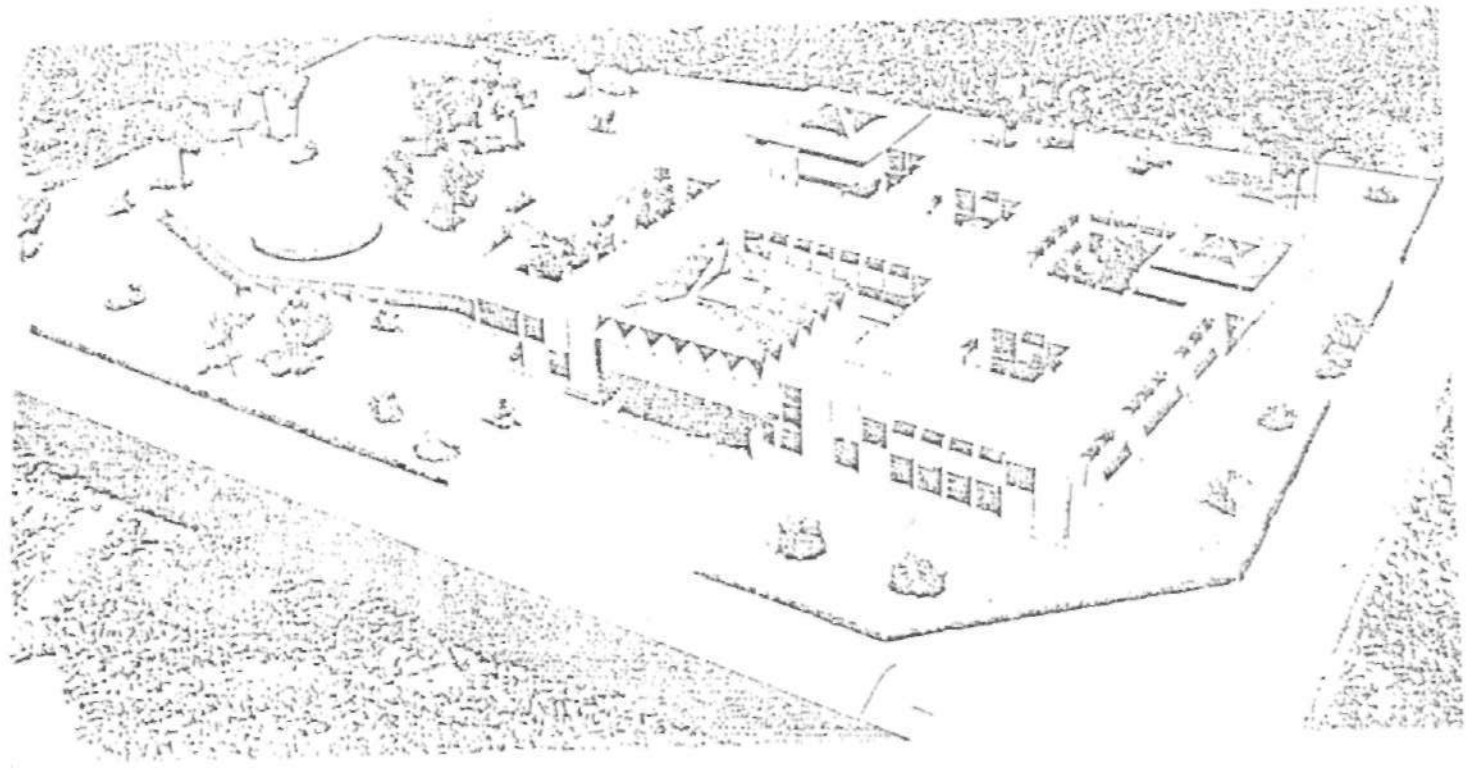


PLATE 7.1. SITE MODEL OF THE NEW NATIONAL MUSEUM FOR GHANA, ACCRA.

NEW NATIONAL MUSEUM FOR GHANA, ACCRA.

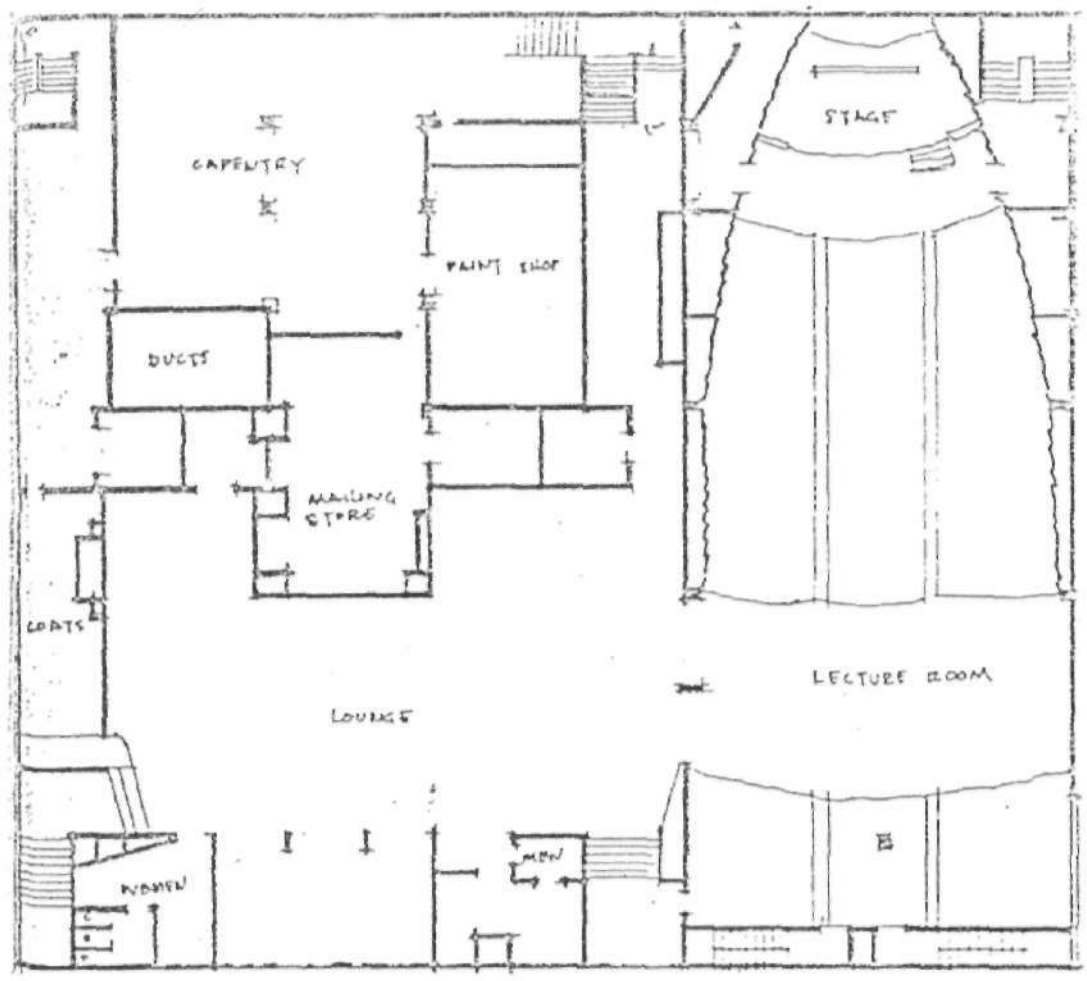


FIG 7.1. BASEMENT FLOOR PLAN.

NEW NATIONAL MUSEUM FOR GHANA, ACCRA.

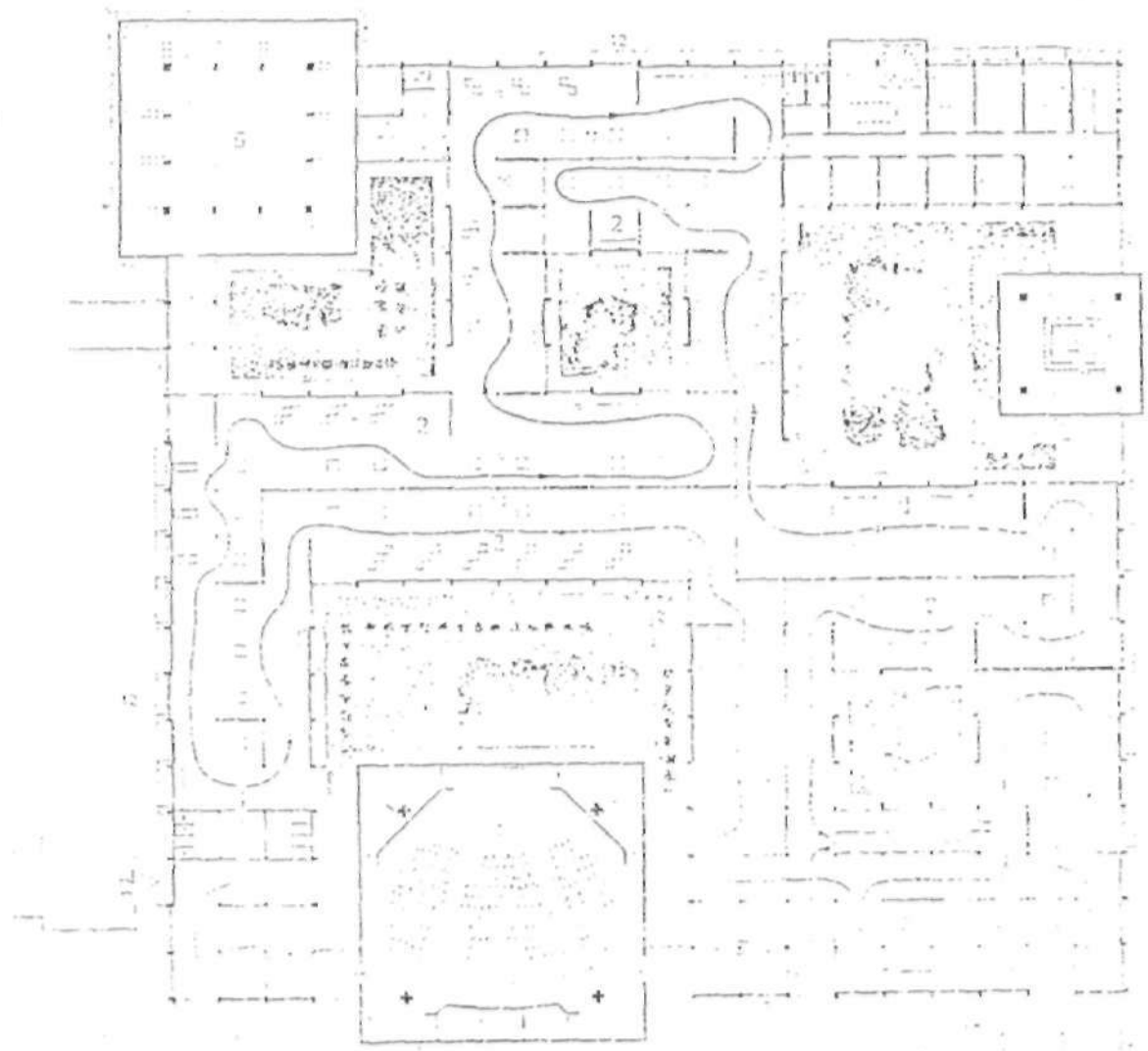


FIG. 7.2. GROUND FLOOR PLAN.

NEW NATIONAL MUSEUM FOR GHANA. ACCRA.

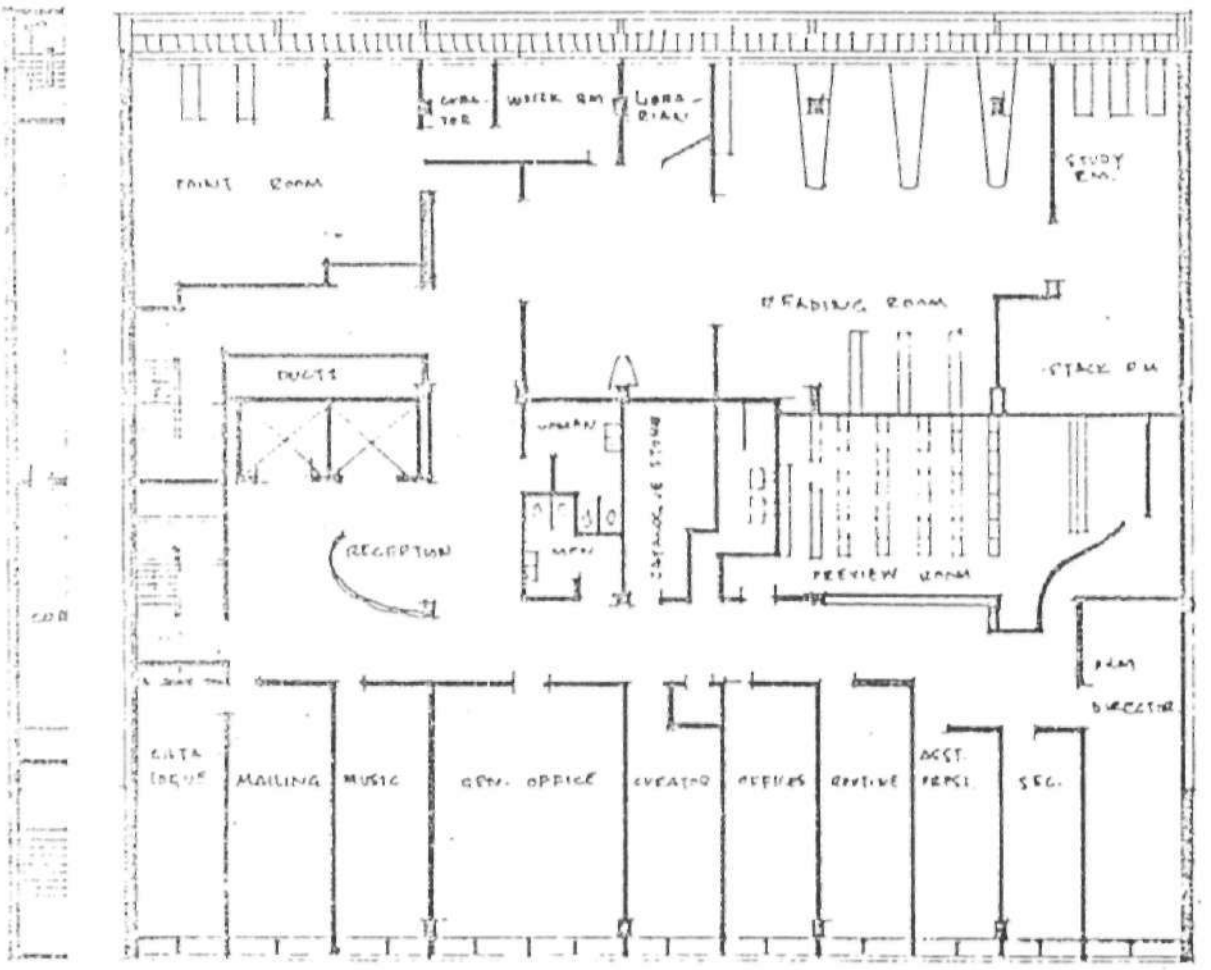


FIG. 7.3. SECOND FLOOR PLAN.

NEW NATIONAL MUSEUM FOR GHANA. ACCRA.

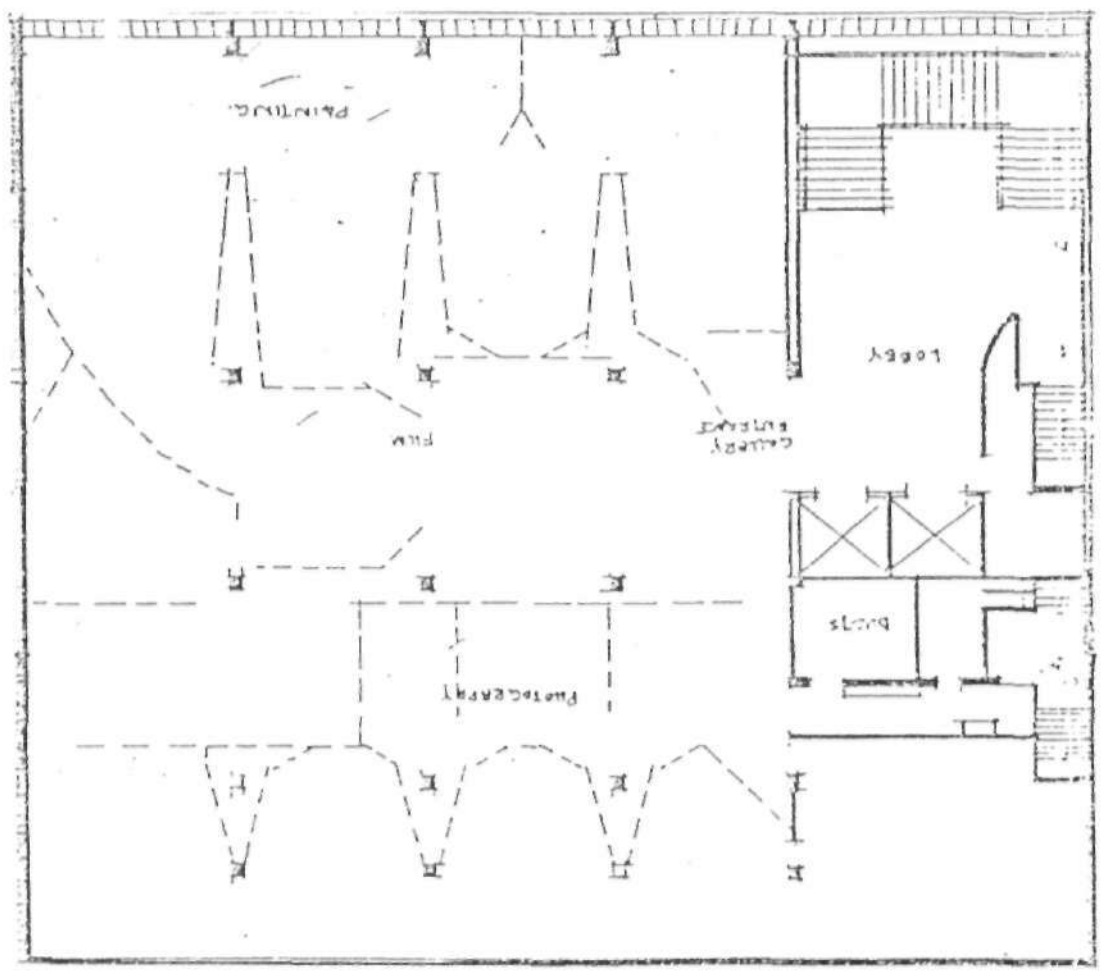


FIG. 7.4. FOURTH FLOOR PLAN.

7.2. THE SOLOMON GUGGENHEIM MUSEUM

ARCHITECT: Frank Lloyd Wright

CLIENT: Solomon R. Guggenhein

USERS: The American Public

SITE: New York

7.2.1 HISTORICAL BACKGROUND

When Wright was commissioned in 1943 to design the museum by Solomon R. Guggenhein, one of seven brothers who had amassed a great fortune in copper mining and himself a passionate collector of contemporary art, he was seventy-four years old. Originally, the museum was to be located in central park, but Robert Moses, the then parks commissioner disliked and vetoed the plan. And when a new site on upper fifth avenue was agreed upon, there were squabbles between Wright and petty city officials determined at any cost to enforce the building code requirements. The predictable result of all this was that the architect became increasingly resistant to any suggestion of compromise. It was unfortunate that both Wright and Guggenhein died before the museum was completed.

From the beginning, the Guggenheim was controversial. In the New York Times, a John Canaday, described the museum as a battlefield between architecture and painting in which both were badly maimed. But leading architects rallied to Wright's defense. Philip Johnson called the Conggenheim Mr. Wright's

greatest building, New York's greatest building, and grandly pronounced the interior 'one of the greatest rooms created in the twentieth century'.

7.2.2 SCOPE

The Solomon Guggenheim museum complex contains the essential components of a modern museum. These include the exhibition gallery, pool, storage, restaurant, shop, auditorium, print section, administration, library and workshop.

7.2.3 ARCHITECTURAL CHARACTER

The Guggenheim memorial is a building of clean beautiful surfaces, all beautifully proportioned to human scale. These surfaces are all lighted from above with any degree of daylight (or artificial light from the same source) that the curator or artist himself may happen to desire. It gives an atmosphere of great harmonious simplicity wherein human proportions are maintained in relation to the picture.

The paintings are in perfect air-conditioned chambers. Walls slant gently outwards forming a giant spiral for a well defined purpose; a new unity between beholder, painting and architecture is thus created. Pictures are not to be seen bolt-upright as though painted on the wall behind them.

They are instead gently inclined, faced slightly upward to the viewer and to the light in accord with the upward sweep of

the spiral, the paintings are themselves empahsised as features and are not hung 'square' but gracefully yield to movement as set up by these slightly curving massive walls. In a great upward sweep of movement the picture is seen framed as a feature of architecture.

The character of the building as architecture amounts to framing slightly tilted curving away of the walls against which the pictures are placed facilitates viewing.

Occasional sculpture may arise from oval or circular masonry pedestral of the same colour and material as the floor and walls of the museum. Comfortable low seats of the same character are placed conveniently at the base of the structural webs forming the sides of the alcoves. The gentle upward or downward sweep of the main spiral-ramp itself serves to make visitors more comfortable by their very descent along the spiral, viewing the various exhibits; the elevator is doing the lifting, the visitor, the drifting from alcove to alcove.

7.2.4 MERITS

The Solomon Guggenhein Museum has a distinguishing architectural character. It is a piece of unsual forms and shapes in the midst of regularly shaped office buildings.

In the gallery, viewing of the paintings is well facilitated by the slight tilt of the curving walls.

The Solomon R. Guggenheim Museum, New York (1956–59)

Architects: Frank Lloyd Wright

Frank Lloyd Wright has included the design of the building in a number of letters to its founder, Solomon R. Guggenheim, in which his statements were running into time of its design and construction. Both Wright and Guggenheim died before the museum was completed.

"To understand the double as it exists in the scheme for the Guggenheim Museum of all you have to do is imagine clean beautiful surfaces throughout the building, all perfectly proportioned to human scale. These surfaces are all lighted from above with any degree of daylight (or artificial light from the same source) that the curator or the artist himself may happen to desire. The atmosphere of great harmonious simplicity, wherein human proportions are maintained in relation to the picture is characteristic of your building. . . .

"This advanced painting has seldom been presented in other than the incongruous rooms of the old static architecture. Here in harmonious fluid quiet created by this building, interior the new painting will be seen for itself under favourable conditions. . . .

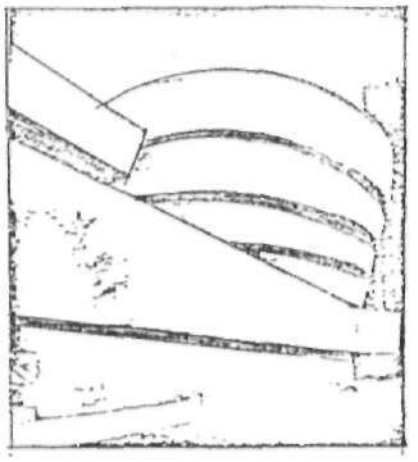
"The paintings themselves are in perfectly proportioned chambers, chambers something like those of 'the chambered nautilus'. . . .

"The Solomon R. Guggenheim Museum's walls and spaces, inside and outside, are one in substance and effect. Walls slant gently outward forming a giant spiral for a well defined purpose: a new unity between beholder, painting and architecture. As planned, in the easy downward drift of the visitor in the round spiral exhibits are not to be seen [illegible] as thought [illegible] as it lies behind them. Really observed, faced slightly upward to the viewer and to the light in accord with the upward sweep of the spiral, the paintings themselves are emphasized as features in themselves and are not hung 'square' but practically yield to movement as set up by these slightly curving massive walls. In a great upward sweep of movement the picture is seen framed as a feature of architecture. The character of the building itself as architecture amounts to 'framing'. The flat plane of the picture thus detached by the curve of the wall is presented to view much as a jewel set as a signet ring. Precious – as itself.

"Slightly tilted inward walls of the walls against which the pictures are thus placed not only presents no difficulty but facilitates viewing; the wide curvature of the main walls is, to the painting, a positive asset. Occasional [illegible] sculpture [illegible] the visitor [illegible] the same [illegible] all the Museum. Comfortable [illegible] of the same character are placed [illegible] at the base of the [illegible] forming the walls of the galleries. The gentle upward, or downward, sweep of the main spiral-ramp itself serves to make visitor more acutely aware by their very descent along the spiral, viewing the various exhibits: the elevator is during the time of the building from circle to circle."

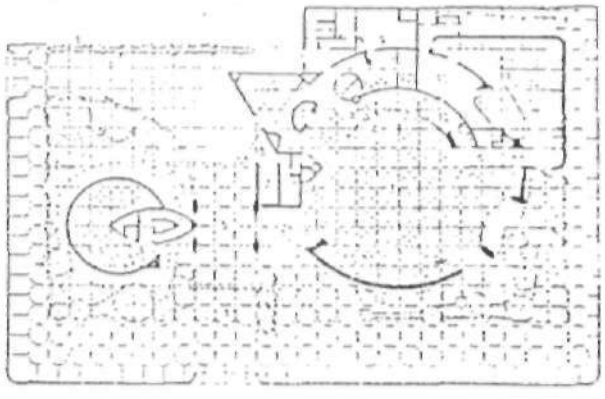
Key to plans / Legende zu den Plänen:
1 Entrance / Eingang
2 Vestibule / Vestibül
3 Main gallery / Hauptausstellungsraum
4 Reception / Rezeption
5 Loggia
6 Pool / Wasserbecken
7 Elevators / Aufzüge
8 Beginning of ramp / Beginn der Rampe
9 Coats / Garderobe
10 Kitchen / Küche
11 Café
12 Storage / Magazin
13 Sales desk / Verkaufsstand
14 Information booth / Informationsschalter
15 Loading platform / Laderampe
16 Ramp to auditorium / Rampe zum Auditorium
17 Auditorium
18 Machine room / Maschinenraum
19 Void / Luftraum
20 Grand gallery / Großer Ausstellungssaal
21 Print room / Graphikkabinett
22 Offices / Büros
23 Library / Bibliothek
24 Workroom / Werkstatt
25 Visitor's lounge / Aufenthaltsraum für Besucher
26 Guard room / Wärter
27 Caretaker's apartment / Pförtnerwohnung

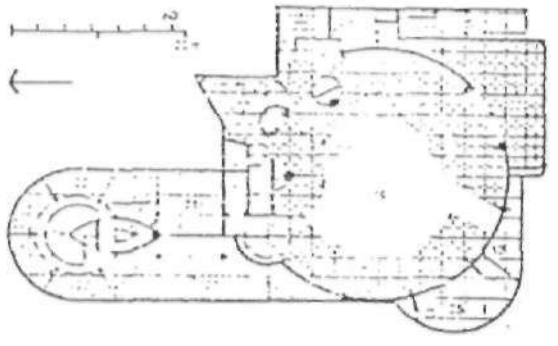
Section through the main exhibition space. The diameter of the spiral increases as it ascends so that the depth of the chambers is as a result greater at the upper levels. The partitions between the chambers act as bearing walls.



Schnitt durch den Hauptausstellungsraum. Der Durchmesser der Spirale nimmt mit zunehmender Höhe zu, der Durchmesser der einzelnen Räume ist daher in den Geschossen der oberen Niveaus am größten. Die Trennwände zwischen den Räumen sind zugleich tragende Wandscheiben.

Plan, ground floor / Grundriß Erdgeschoß





Plan, first floor / Grundriß 1. Obergeschoß

FIG. 7.5. THE SOLOMON GUGGENHEIM MUSEUM, NEWYORK.

Having the chambers air-conditioned protects the museum objects well protected against the impact of environmental factors.

The museum has a well defined viewing sequence. Viewers descend or ascend along the spiral viewing the various exhibits in an unbroken chain.

Special glasses are used to diffuse the daylight thereby eliminating any case of glare.

7.2.5 DEMERITS

The continuous ramp for the exhibition makes it monotonous, viewing objects and ascending steadily at a certain gradient.

A break in the ramp would have helped eliminate this monotony.

7.3 NATIONAL MUSEUM, LAGOS

This museum located in Onikan, Lagos Island is the biggest in Nigeria and the administrative headquarters of all the other museums in the country. It was established in 1957 by the then Federal department of Antiquities to the colonial government. It exhibits objects of antiquities and also contemporary art works such as paintings, sculptures, etc. It has a good collection of Nigerian artifacts.

The main entrance to the museu facing the king George V gardens is quite impressive. The visitor spontaneously encounters a well landscaped roundabout, at the centre of which exists some collection of Nigerian flowers and shrubs - altogether constituting a mini botanical garden on either sides of this roundabout, the internal circulation vehicular road meanders smoothly to the parking lot.

On entering the entrance lobby, one notices that basically the entire planning is done around a central courtyard. The main administrative offices are on the first floor while the galleries are generally located on the ground floor, on the east and west wings. The entrance lobby also opens into the museum shop which sells museum articles like pictures, journals, etc to members of the public.

The galleries are subdivided into major Nigerian cultural groups like the Nok culture, Ife and Benin cultures, the Igbo-Ukwu civilizations, etc, this is so successfully done that the visitor moves gradually from one culture to another each separated from the other by an entrance door. Lighting is almost fully artificial so that it can be controlled to avoid rapid degeneration of the artefacts susceptible to high illumination.

Around the central courtyard, there exists a covered wallway, the adjoining internal wall of which is used for outdoor exhibition. The central courtyard itself is used as a forum for seminars, lectures, extensive outdoor exhibitions, etc. It

serves to function as an auditorium. Behind these courtyard/galleries complex, one encounters the storage rooms, and more office buildings housing the public relations, education, technical, etc. units of the museum.

The construction of the buildings is of light and airy type building materials, enhancing proper ventilation quite necessary for the very humid Lagos climate. Glasses used are of the curved nature to prevent reflection of light.

On the Eastern side of the complex, towards the rear, is situated the museum kitchen complex comprising a restaurant which serves only Nigerian dishes, craftshop, plaiters, cloth dyers, goldsmiths, etc. Apart from the restaurant which occupies a minicomplex of about four typical Nigerian huts, the rest occupy a hut each. These are infact more patronised by members of the public than the galleries.

Infront of this complex, exists another separate minicomplex - The National history museum, where one is availed of pictorial evidences of Nigerian political history comprising specifically of pictures of notable past Nigerian leaders and statemen and other historical objects like the Mercedes Benz limousine in which General Murtala Mohammed was assassinated.

To maintain security, there are only two entances to the whole complex - the main one used by vehicles mainly and the rear one opening into military street which is only a padestrian entrance.

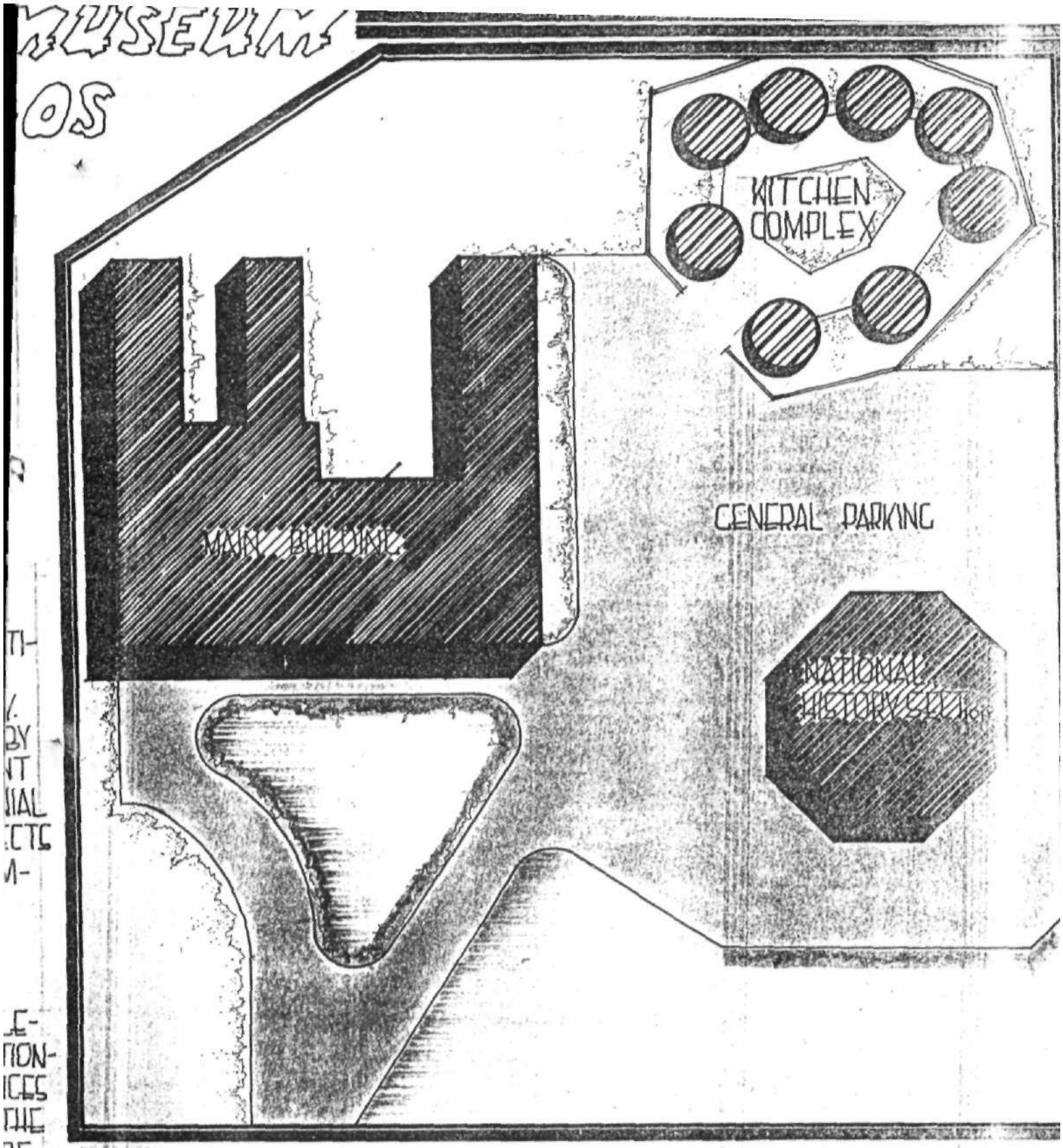


FIG. 7.6 SITE PLAN

HERE
STING OF AN ARTS AND CRAFTS SHOP, CLOTH
MITHS, A RESTAURANT, ETC. THERE IS ALSO
CLOSE TO THE GENERAL PARKING. BEFORE
OTANICAL GARDEN.

THE HEART OF LAGOS AND SO EASILY

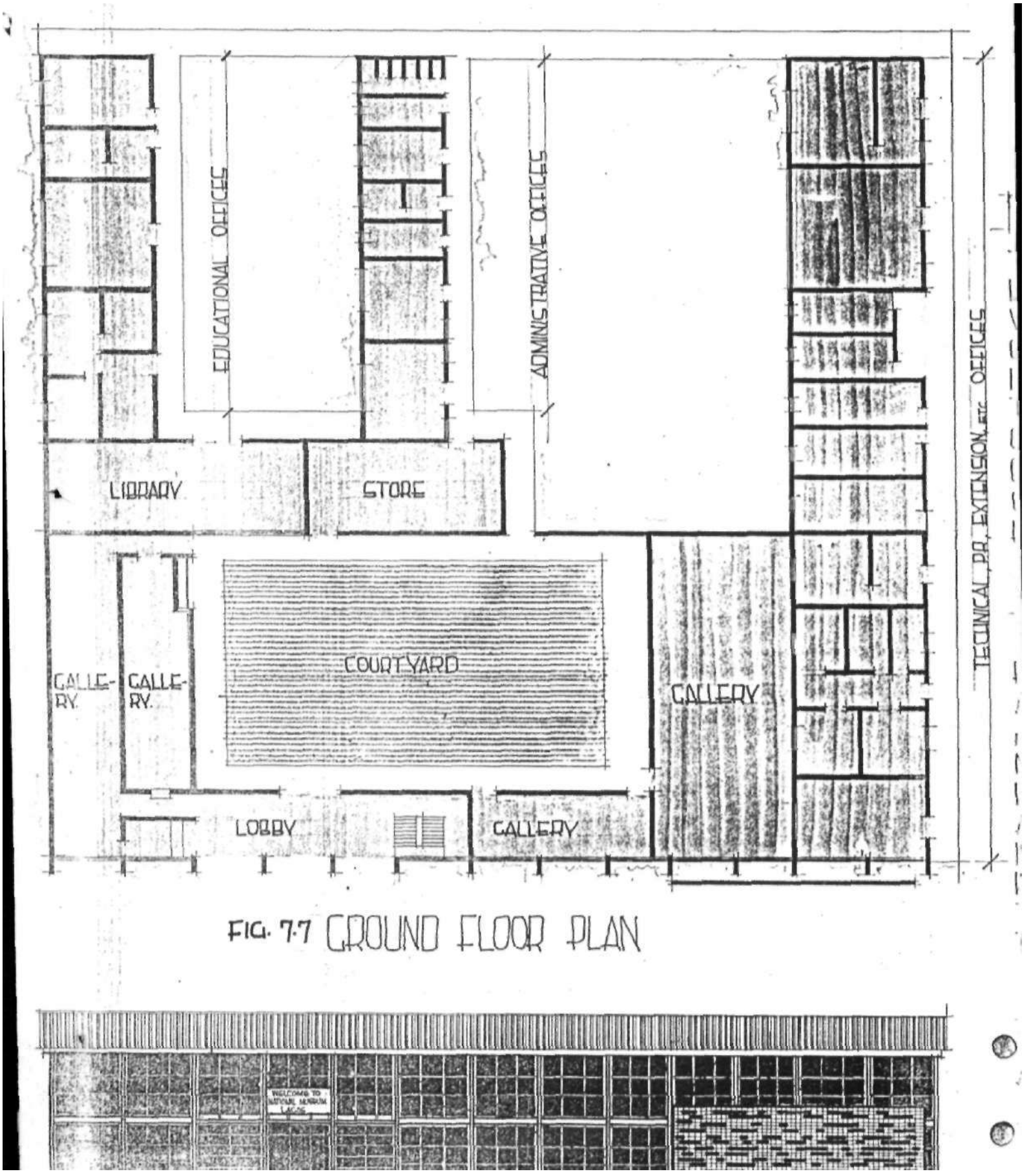


FIG. 7.7 GROUND FLOOR PLAN

7.3.1 DEMERITS

- The most salient demerit here is the fact that the facades do not potray any distinguishable character, as to identifying that its a cultural building, apart from a small section in the right side of the front elevation, which is finished with stones, the rest areas are covered by glass which makes it look no different from any other office building around.

- The galleries do not have sufficient space, as a result some of the artefacts displayed in the glass boxes cannot be viewed from all sides as its the ideal situation to enhance indepth appreciation of any single artefact.

- The storage spaces are inadequate also.

- Absence of a modern auditorium can be said to be inexcusable for a headquarters.

7.4 NATIONAL MUSEUM, JOS

This is the oldest public museum in the country and by far the wealthiest and most diverse in exhibits. Due to the large numbers and culturally rich items uncovered from the Tin mining fields of Jos since the 1920s, the immediate impetus was available for the establishment of a museum there in 1952 by the then Federal Department of Antiquities. The complex's proximity and its diverse and distinctive exhibits greatly account for its popularity and it is easily accessible to both the town dwellers and casual visitors.

It is built at the foot of the tree-covered granite Gowon Hill and adjoins a wooded stream. It has an accumulation of the relics of the terracotta sculptures of Nok culture as its most distinguished feature. On both sides of the stream is the zoological garden and the beginnings of a small folk museum consisting of some of the characteristic huts and granaries of the plateau and surrounding tribes.

Although primarily devoted to the archaeology and ethnography of the Plateau area, the museum is at the same time the research centre for the prehistory of the entire federation. Examples of sculptures, embroidery, wood carvings etc, from all over the country give visitors and tourists a glimpse of the richness of Nigerian traditional culture, and other exhibits including the stone age culture of the plateau displaying the skills of ancient craftsmen.

Also within the museum building is a section showing a rich collection of Nigerian traditional pottery in a typical African enclosure of trees and ponds. A reconstruction of one of the ancient gates of Bauchi town commands the entrance into this square enclosure. At the northern entrance of the museum is a rectangular Hausa building which houses a modern pottery, while a Nupe hut shelters the kiln. Several forms of souvenirs such as cups, mugs, utensils, plates, saucers, flowers pots for indoor plants and various chinawares are produced by the pottery section and sold to tourists and visitors. Their fine quality is

comparable to those of any ceramic industries in any part of the world.

Of special interest is the transport museum which expands as machines become obsolete. Examples of these are the engines and carriages of the Bauchi light railway closed in 1957 and the Albion lorries of the 1920s. Part of the transport museum is linked by small botanical gardens. More interesting to tourists and researchers is that this museum is not just a store house. It is actually a research centre and has a specialist library which contain many prized Arabic books and manuscripts several centuries old. Attached to the museum is a monument section which maintains declared historical sites, and many more valuable artifacts in the northern states. An open museum of traditional Nigerian Architecture has also been added to the beauty of this tourist attraction.

Another special project by the Museum of Traditional Nigerian Architecture (MOTNA) is an architectural museum; and possibly the only type in Africa, south of the sahara, whose aim is to preserve diverse traditional Nigerian architecture. It covers a land area of sixty (60) acres divided into zones according to the various architectural designs of some Nigerian ethnic groups. Full scale replica of Katsina palace, Kano Wall, Mbase House (Owerri), a Tiv compound (Benue state) and other have been erected. Eventually, it is hoped that a miniature architectural map of Nigeria will emerge.

The museum also has its restaurant and bar, the unique light of Benin Restaurant which is a replica of a Benin noble man's house. In the Bight of Benin restaurant, traditionalism and modernism are blended in such a manner that without one, the other, as a rule loses its glamour.

7.4.1 DEMERITS

- The galleries are not properly lit, because the task is left for natural lighting which is poor.
- The Bight of Benin restaurant is located two far from the core area (galleries) of the museum complex thus it looks rather isolated.
- There seems to be no connection between the old museums building housing the galleries, etc and the recent extension housing the administrative block.

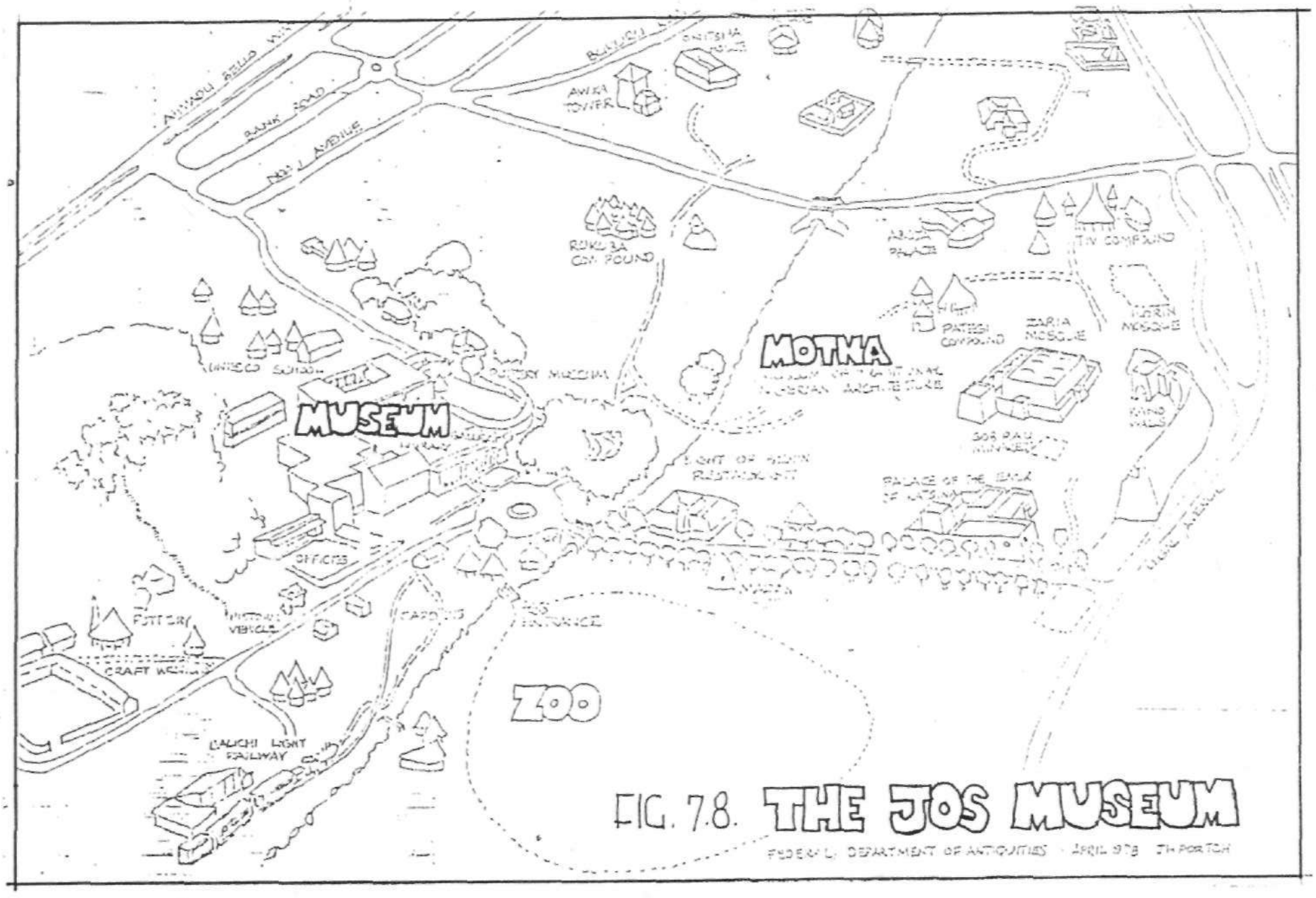


FIG. 7.8. THE JOS MUSEUM

FEDERAL DEPARTMENT OF ANTIQUITIES · APRIL 1978 · TH PORTCH

CHAPTER 8

THE SITE

8.1 SITE LOCATION

The site for the proposed museum is located in Makurdi, the Benue state capital city. Makurdi is located within the middle belt region of Nigeria. It is easily accessed by means of Air, River, Rail and Road. Consequently it is in close communication with other parts of Nigeria which share some or all of the transportation modes in Makurdi. The town which occupies both banks of the River Benue is geugraphically located between latitute 70°.44"N and longitude 8°.34"E and its the most populous town in the state.

The actual site for the museum is in the high level area of the town, within the area designated for offices and socio-cultural institutions in the makurdi master plan designed in 1978 by Tesco Kuzti consulting Engineers.

8.2 SITE SELECTION CRITERIA

Although the site falls within the general area recommended for such developments, it is quite a vast area and so certain criteria were set aside to guide the researcher in finally selecting the exact sitr area, these included

(i) Accessibility

(ii) Proximity

(iii) Suitability

(i) Accessibility

This is almost ideal. The site is generally bounded on all sides by roads. So it can be easily accessed. The problem of noise was considered, but it was not found to be a problem because the only major road is far from the site and there are alot of trees to act as buffer.

(ii) Proximity

The site being in the High level area of Makurdi places it almost in the city centre. As such it is almost equi distant from most parts of the town.

(iii) Suitability

To attract a greater public, it was necessary to make sure that the surrounding land uses do not differ too greatly from what the museum represents in its entirely, to make sure the museum was not isolated. So it was located close to another recreation centre - a state square complex found on its western border and the Art council buildings down southwards so that they can compliment one another's functions.

8.3 SITE ANALYSIS

8.3.1 Site Dimensions

The site has a length of two hundred and fifty metres by a width of two hundred and twenty metres roughly, giving it a total land area of 55000m² or 5.5 Hectares.

8.3.2 Site Gradient

Towards the middle of the site, it is almost a flat land with a slope of less than two percent, but the northern and southern boundaries have a rough slope of about ten percent.

8.3.3 Site Drainage

The site drains naturally to all sides, especially the northern and southern boundaries. The drained water goes straight into the existing drainage gutters.

8.3.4 Soil Type

Soil is of the ferrugenous tropical soil. The top soil is usually of the sandy type typical of Makurdi

8.3.5 Services

The site can easily be connected to the town's water and electricity grids. The water and electricity services utilised by the new state secretariat complex pass by the site and so they can be easily tapped.

8.3.6 Vegetation

The vegetation that exists on the site is typical of what is expected of the Guinea savannah belt in which the town, makurdi is located. The vegetation is also referred to as parkland or woodland savannah because it contains very tall grasses like the elephant and spear grasses and trees like the oil Bean, shear Butters, locust Bean trees etc. Other kinds of trees present in this vegetation belt include Encalyptus, Chelina, Delonix, Mango trees etc.

Actually on site, thick vegetation comprising tall trees and grasses can be found along the southern, south-East, and Eastern borders. The other areas are less vegetated. But this is not a permanent situation, it changes with the seasons. During the wet season, everywhere is lush and green while in the dry season most whither and the site becomes dry.

8.3.7 Existing Natural or Artificial Structure on Site

Only towards the Eastern border can some marked-for-demolition stalls be found, otherwise the rest of the site is empty. The site does not possess any natural structures such as rock outcrops, river bodies, etc.

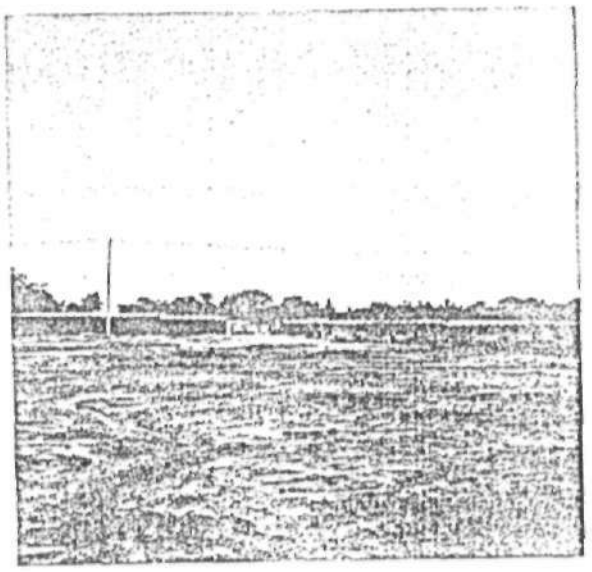


PLATE. 8.1 VIEW TOWARDS THE MOTOR PARK.



PLATE. 8.2 VIEW TOWARDS INTERESTING LANDSCAPE.



PLATE 8.3 VIEW TOWARDS
OTUKPO ROAD.

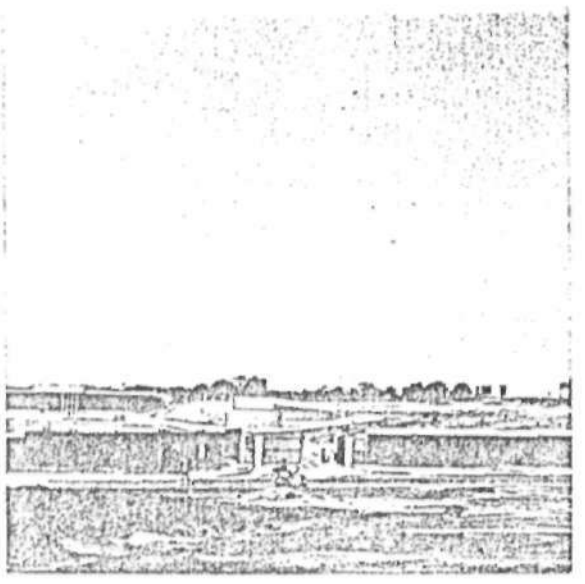


PLATE 8.4 VIEW TOWARDS THE
STATE SQUARE COMPLEX.

8.4 Makurdi Climatic characteristics

The climate in Makurdi is the tropical savannah type which distinguishes two distinct seasons - (i) The wet season lasting from April to October and

(ii) The Dry season lasting from November to March.

These seasons are influenced by the moisture laden, south-westerly monsoon winds and the dry, dust laden north-easterly trade winds respectively.

The town is very hot, with a mean maximum temperature of 35°C and a mean minimum temperature of 21°C.

Rainfall is largely convectional due to the intense sunshine. Makurdi falls within the 508-1061mm wet season and 0-20mm range of dry season.

Relative Humdity is very high, largely due to the presence of a large water body - the River Benue.

HASHIM IBRAHIM LIBRARY
RECEIVED
Ahmadu Bello University

456156

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
MAX °F	94	97	97	93	90	87	85	85	86	88	91	91
MIN °F	65	70	75	75	73	72	72	72	71	71	69	63
MEAN °F	79·5	83·5	86	84	81·5	79·5	78·5	79	78·5	79·5	80	77

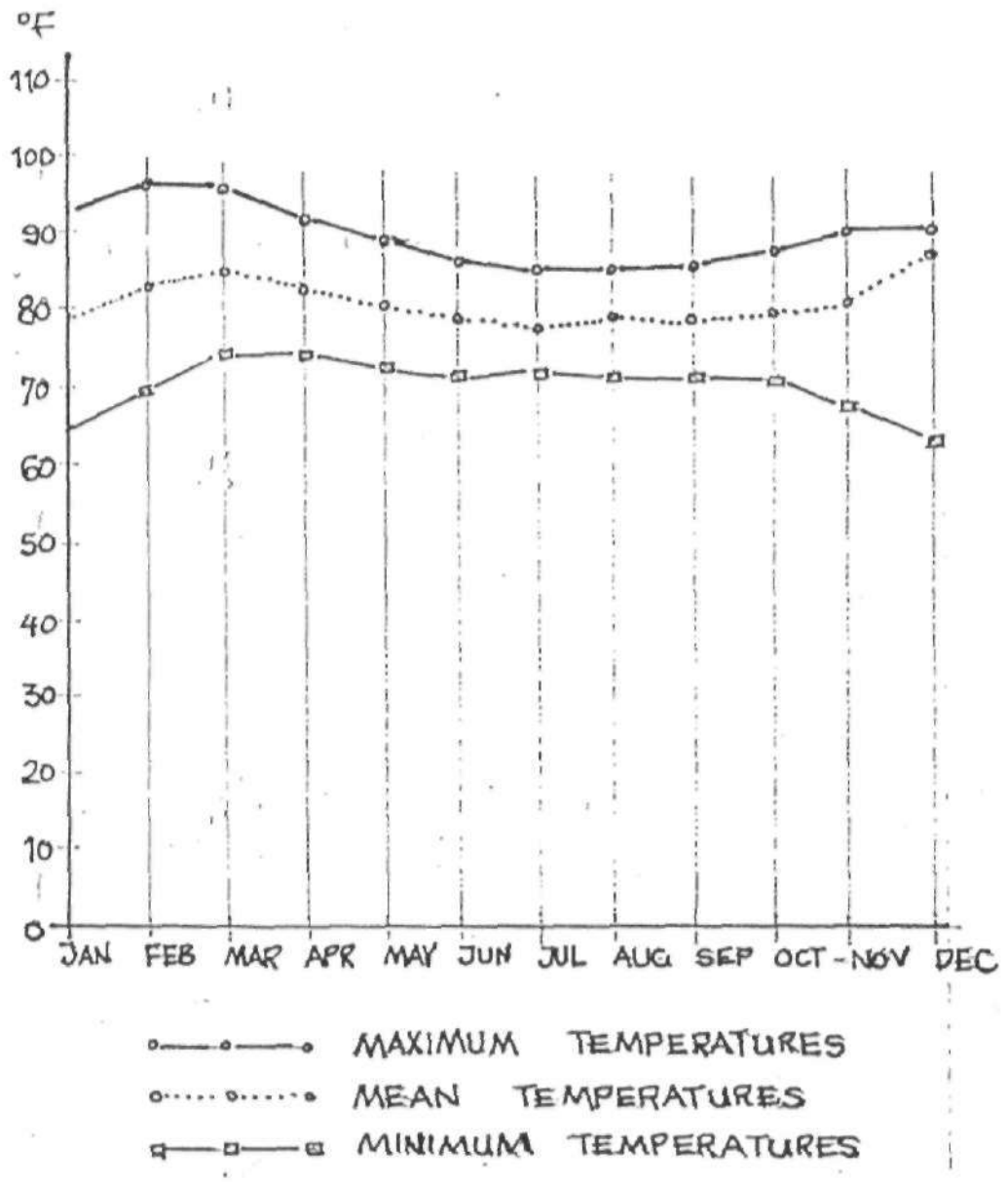


FIG. 8.2. MEAN ANNUAL TEMPERATURES FOR MAKURDI.

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
% MAX	80	74	82	88	92	94	94	94	95	95	94	90
% MIN	29	28	41	53	62	57	63	71	69	65	50	51

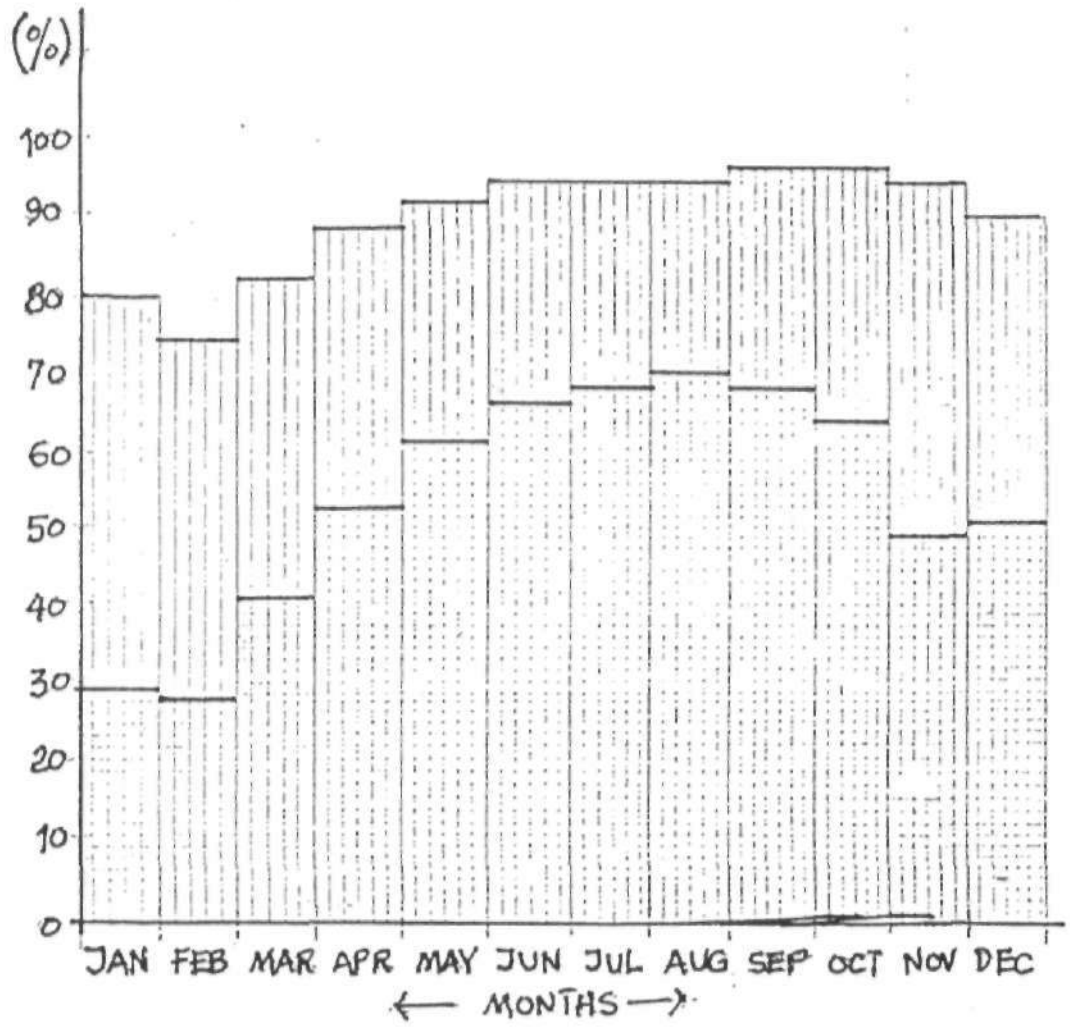


FIG. 8.1 MEAN ANNUAL RELATIVE HUMIDITY FOR MAKURDI.

MONTHS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
mm	0·2	4·9	38·2	107·6	171·5	161·8	211·8	198·5	218·6	133·8	0·2	0

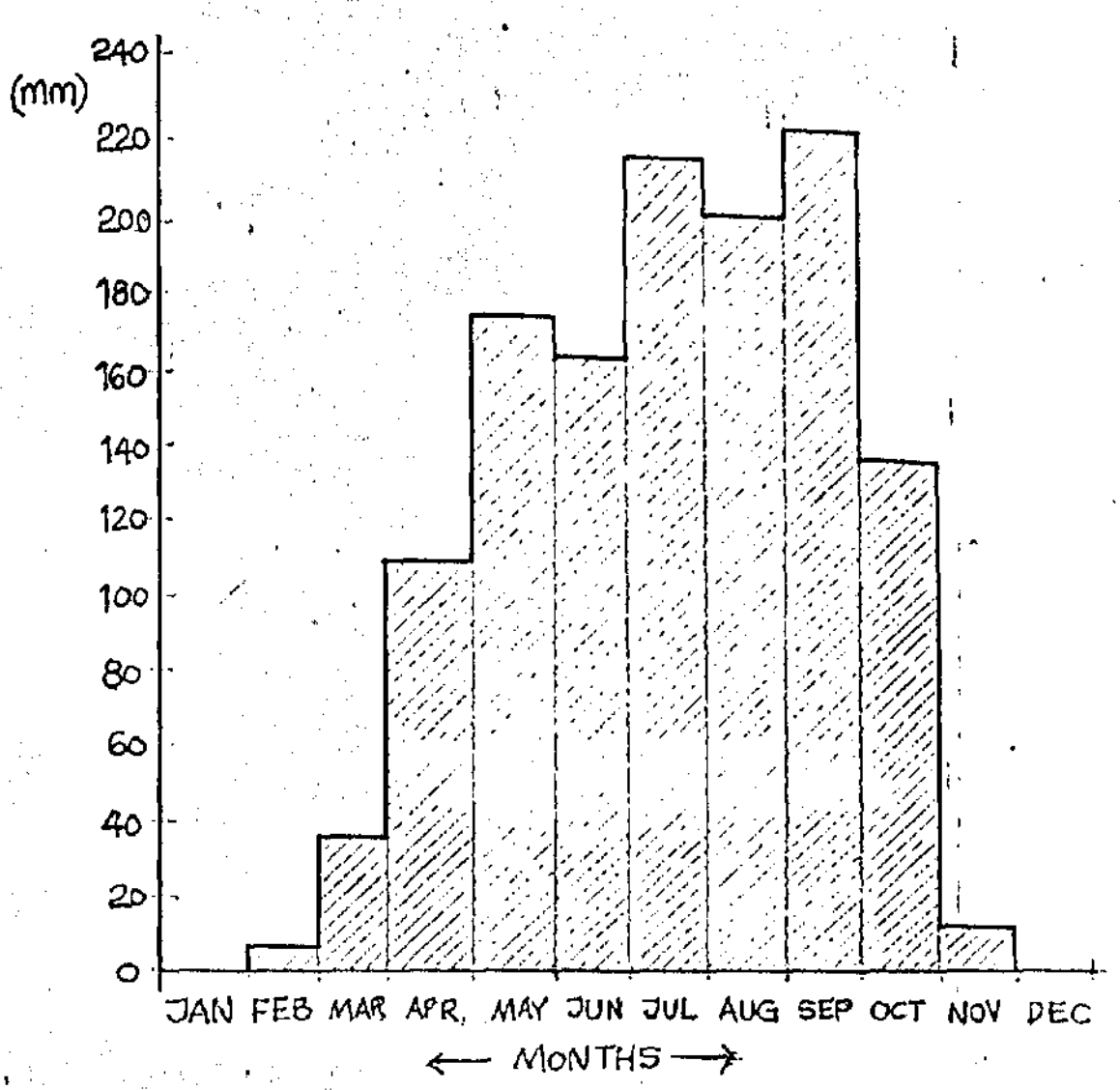


FIG. 8.3 MEAN ANNUAL RAINFALL FOR MAKURDI.

CHAPTER 9

THE DESIGN PROCESS

9.1 The Problems

9.1.1 Environmental Problems

It is the designer's aim that this project succeeds in satisfying the would be users requirements maximumly in terms of spatial organisation of functions and building performance. The success of any building is also measured by the comfort derived there in which is much affected by the various environmental factors of climate.

- Considering the very high humid climate of Makurdi coupled with the high temperatures, it becomes very tasking for the designer striving to achieve an acceptable limit of comfort in his project. Apart from a general copious rainfall lasting from April to October, the problem of high relative humidity (R.H) is also enhanced by the presence of the River Benue. So this Relative Humidity problem compulses the designer to stive to achieve cross ventilation in the design.
- The menace of noise should also be considered; and this could either be external or internal source wise. Whatever the source/s, it must be determined and approriately taken care of.

9.1.2 Functional Problems

This aspect deals with the performance requirements of the building, and aims to give shape to the building in order to achieve the following:

(i) More popularity for the gallaries by placing some ancillary facilities close to them.

(ii) Functional separatim of major activities and circulation with regards to noise and degree of privacy.

(iii) Flexibility and adaptability with regards to the arrangement of exhibitions in the gallaries.

(iv) Proper orientation with adequate consideration to the winds.

9.1.3 Building Forms

Major forms consideration affect building design in the following ways:

(i) Sober monumentality to suggest the significance of a major cultural institution in nthis century.

(ii) Structure: simplicity and honesty of form.

(iii) Functional separation and grouping of activities for space economy and users convenience.

9.1.4 Economy and Time

The fabric and geometry of the building could be greatly influenced by financial constrains (project cost target) as it dictates the following:

(i) Materials to be used.

(ii) Building components to withstand possible rough tendencies of users

(iii) Simple and efficient forms

The performance of a building must be capable of meeting up to the continual use as well as changing mannerisms in users' behaviour. This building is anticipated to take care of a maximum number of visitors especially during festivities and public holidays when there is a sudden increase in the visitor population.

9.2 The Design Criteria

This section highlights the major considerations for the design with due regards to the propbiems highlighted in the preceding section; which forms the basis of the design criteria. This is sought to provide solutions to some of the problems in the following ways:

(i) Orientation of building should be to face due North and South in order to avoid intensive heat penetration into interiors as a result of the rising and setting sun; or as shading devices on the Eastern and Western elevations.

(ii) Building to be orientated at approximately 45° to the direction of the prevailing winds (North-Easterlies and South-Westerlies). This helps to improve the efficiency of natural ventilation by maximising pressure differences on the windward and leeward sides of the building respectively. Building orien-

tation should be made East-West since the prevailing winds are either N.E to S.W or the reverse.

(iii) Natural ventilation could further be efficiently achieved by designing as much as possible a single banked building with functional interiors to one side and external corridors to the other.

(iv) Natural lighting especially of the galleries where desirable could be enhanced by interior courtyards, Sky lighting, etc.

(v) Cross ventilation (and lighting) could be encouraged by spacing the building at least twice its height from the nearest building.

(vi) The building should not go beyond three levels in order to avoid the use of lifts.

(vii) Materials used should be most durable since it is a public building for minimum maintenance cost and should show some nature of conformity to the natural environment.

(viii) Fenestrations should be properly shaded to reduce interior heat gains.

(ix) Site drainage should be such that it does not undermine the building foundation.

(x) Monumentality in this case could be achieved by making the building unique in contrast to its immediate surroundings. This does not only require uniqueness of the plan alone but also the expertly treatment of the facades for the required visual impression.

(xi) Landscaping materials have to be specified for various sections of the site depending on the functions they serve, special note should be taken of the lounges and courtyards. They could also serve for wind breaks and noise buffer.

9.3 Schedule of Accommodation

9.3.1 Analysis of Spaces

This section deals with the spaces the designer intends to provide in the design proposal. These include the galleries, seminar rooms, library, restaurant, snack bar, museum shop, lounges, administrative offices, restoration, crafts village, documentation and printing, laboratory, storage mechanical plant area, transitional spaces, ets.

The Galleries

These serve for the main areas where the actual exhibitions take place. Based on the classification of the types of museum

display objects anticipated, four main galleries can be distinguished aside from an outdoor exhibition area. They include:

(i) Archaeological gallery

(ii) Ethnographic gallery

(iii) Technological gallery

(iv) Modern contempuray art gallery

Seminar Rooms

These could serve for students when they visit the museum and require some formal instructions to enlighten mose some aspects of the objects they had seen in the galleries. The administrative or museum school services section could also use them for seminars, board meetings. Seminar/meeting room - 60m²

Library

A reference library for staff and researchers who would require data on museum objects and related data. The sub-sections include

(i)	Reading room	75m²
(ii)	Chief librarian's office	30m²
(iii)	Attendants	12m²
(iv)	Store	35m²

Restaurant

This serves only local dishes and should be located as close as possible to the main galleries. This inlude snack bars for local snaks. It comprises:

(i)	Dining room/hall	65m²
(ii)	Kitchen/store/servery	54m²
(iii)	Conveniences	20m²
(iv)	Snack bar/servery	40m²

Museum Shop - 30m²

This is the place for the display for sale of items produced in the museum, like craft items, publications, literatures, etc.

Lounges - 40m²

This is a purely resting area, the museum visitors - children/adults could relax here and reminisce over the soothing experience of going around the museum. Provisions could be made for newspapers/journals, etc to be placed here.

(a) Administration

This section is essential for the overall smooth running of the institution. It has direct links to the research areas where appropriate staff connected to the display of museum objects are in close proximity. These include the curator and other professional members of staff, clerks, general offices, security personnel, warding staff and the necessary skilled staff. A detailed analysis of this section includes:

(i)	Director	45m²
(ii.a)	Deputy Director (admin)	40m²
	b Deputy Director (research)	40m²
(iii)	Secretaries	12m²

(iv)	General clerical office	50m²

(b) Archaeological section

(i)	Senior Archaeologist	20m²
(ii)	Sec/waiting	15m²

(c) Ethnographic section

(i)	Senior Ethanographer	20m²
(ii)	Sec/waiting	15m²

(d) Technological section

(i)	Senior Technologist	20m²
(ii)	Sec/waiting	15m²

(e) Contemporary Art Section

(i)	Senior contemporary Artist	20m²
(ii)	Sec/waiting	15m²

(f) Audio Visual section

(i)	Principal Audio-visual officer	25m²
(ii)	Assistant Audio-visual officer	25m²

(g) Education section

(i)	Head, museum school services	25m²
(ii)	Sec.	15m²

(h) Exhibition Section

Restoration

This is a space for maintenance. It is for the repair of broken artefacts, showcases, other display objects, etc.

(i) Restoration head 25m²

(ii) Technical Assistants 15m²

(iii) Equipment store 15m²

(iv) Repair room 45m²

Arts and Crafts Section

This usually comprises semi open spaces where craftsmen and women sit in and work.

The activities that take place include:

(i) Cloth weaving 25m²

(ii) Basket making 25m²

(iii) Mat making 25m²

(iv) Wood carving 25m²

(v) Calabash carving 25m²

(vi) Hair plaiting 25m²

(vii) Pottery works 25m²

Documentation

This area undertakes fieldwork producing films of historic sites and events. They also produce sound recordings, slides, photographs and other visual aid materials. Museum objects on arrival are first recorded in this section before being taken for storage or exhibition.

Spaces required for:

(i) Departmental head 20m²

(ii) Attendants 15m²

Photography section

(i) Chief photographer 20m²

(ii) Assistant photographers 15m²

(iii) Studio 40m²

(iv) Darkroom 24m²

Printing section

(i) Chief graphic artist 25m²

(ii) Sec/waiting 15m²

(iii) Storage room 15m²

(iv) Print room 35m²

(v) Attendants 15m²

(vi) Studio 65m²

Bindery section

(i) Storage room 15m²

(ii) Building room 35m²

Laboratory

It is the usual protocol that museum objects on arrival are first quarantined before they are recommended for storage or exhibition. They could also be treated with chemicals against fungus, weathering, insect attacks, etc. This laboratory needs to be located close to the restoration storage and galleries.

Designated spaces include:

(i) Laboratory Technician 20m²

(ii) Laboratory Assistants 15m²

(iii) Laboratory room 40m²

(iv) Chemicals store 15m²

General Artefacts' store 65m²

Since museums usually acquire alot of objects which cannot all be exhibited at once, a space is necessary where those objects that cannot yet be displayed in the galleries are temporarily housed, hence the need for a central store.

This should be located close to the galleries, laboratory and service bay and the security implications must be resolved.
The dimensions given for the spaces above were a mixed arrived at with due considerations to

(i) Basic anthropometric details

(ii) Expected number of people to use the space

(iii) Expected number and nature of furniture for the space.

9.4 Zoning

This is intended to aid the designer as he co-ordinates the spatial organisation of functions in the design proposal. Based on certain criteria, the functions are grouped under the criteria they fall into. The criteria used here are privacy and noise.

Privacy is subdivided into

(i) Private

(ii) Semi-private and

(iii) Public

while

Noise is sub-divided into

(i) Quiet

(ii) Semi-Quiet

(iii) Noisy

9.4.1 Privacy

This section refers to those functions that require being undisturbed to varying degrees, so according to the degree of privacy required, the sub-sections below distinguish them viz:

(i) Private

- Photographic studio - Print room
- Dark room - Laboratory
- Artefacts' store - Restoration
- Conveniences.

(ii) Semi-Private

- Library - security unit - Documentation
- Photography unit - printing unit

(iii) Public

- Galleries - Lecture rooms
- Theatre - Lounges
- Museum shop - administrative offices

- Arts and crafts section

9.4.2 Noise

Here, the sub-sections designate those functions that generate noise in varying degrees and those that do not tolerate it.

(i) Quiet

- Library. - Laboratory. - Photography unit.

(ii) Semi-Quiet

- Lecture rooms.
- Museum shop - Galleries
- Administrative offices - Lounges
- General store

(iii) Noisy

- Arts and crafts section
- Main lobby
- Restaurant/snack bar

9.4.3 Synthesis of Privacy and Noise Criteria

This section synthesises both criteria and brings out the final basis on which the design proposal is going to be based. This it tries to achieve by bringing together the most compartible sub-sections as shown below:

(i) Private and Quiet

- Photography studio - laboratory
- Dark room - Artefacts store

(ii) Semi Private and Sime-Quiet

- Library - Documentation - Photography unit
- Restoration
- Seminar rooms

(iii) Public and Noisy

- Arts and crafts section
- Restaurant/snack bar
- Galleries - Administrative offices
- Vehicular parking

CHAPTER 10

THE DESIGN REPORT

10.1 Conceptual Development

The designer utilized two concepts to arrive at the design proposal. These are the two-dimensional and three-dimensional concepts.

(i) Two-Dimensional Concept

This was realized at the planning stage. To take care of the design tasks of enclosing the necessary ancillary facilities close to the galleries and also to achive a security-conscious design, by limiting and defining accesses, a complex was proposed; within which all the major functinns of the design brief were located.

The generally curvilinear shape of the plan was chosen because the designer believes that human movement blends more with curves than with right-angle turns, so curves were generally used.

(ii) Three-Dimensional concept

This concept deals with only one aspect of the whole design - the galleries. The designer aimed to make the galleries more unique and prominent, being the main aspect of the design, also

to make them possess a greater cultural appeal. Consequently, the saddle concept was evolved.

The Saddle concept

A saddle is the leather seat for a rider on a horse or donkey (Hornby, A.S. 1985). A saddle was chosen because it is a seat. The designer aimed to show that the galleries are the seats of the design. So the major roofing element of each of the galleries is seen as a saddle to suggest to even the casual observer the extrinsic message.

10.2 The Designer Proper

The design was finally arrived at as a balance between the results/summaries of the analyses, earlier stated aims and objectives of the designers and the concepts.

(i) Site Planning

With due consideration to the importance of the prevailing winds and easier access to the site, the building was positioned at approximately 45° in the direction of the prevailing winds and the one and only access linked from the most less busy road.

The only road into the site leads straight to the entrance of the building where a drive-in is located, before one gets here, to the right, there is a turn to the administrative block parking space and the service parking. Opposite the drive-in the main parking is located.

Outside the site boundaries, a bus stop is provided to cater for would-be pedestrians. A walkway leads from here to the building. The designer intended to achieve that atmosphere in which the building is seen in close contact/harmony with its surrounding, thus many trees are proposed around, also to act as noise buffer for the possible vehicular noise.

As one drives or walks into the site the sculptive garden is encountered on the right, and the landscaping which compliments it.

(ii) Planning

The whole design occupies two floors. The ground floor is occupied by most functions that serve the public and other functions directly related to these ones. The guiding points at this stage were the degree of privacy and noise criteria on one side and sub-title of the thesis on another. The first floor has mostly administrative offices.

Ground Floor

A flight of eight steps leads the visitor to the main lobby during which he cannot fail to notice through the glass windows of the galleries on his sides, the exhibitions on display, thus when he gets inside the lobbly his interest is already aroused. The lobby houses the main staircase leading to the first floor, and the reception/tickets collection area. The four galleries are located on either sides of the lobby, two on each side.

The general concept is like this, the galleries are located in the front, going in after the lounge, one encounters the restaurant/snacks area, on either sides of which exist two court yards. The one on the left houses the craft centre composed of eight functions in a semi-open structure, which are accessed by a walkway linking it to the lounge and the service corridor. The other courtyard is for the outdoor exhibition comprising an open paved area for individual or group exhibitions reserved for interested persons who could book the space from the curator. This paved area is stepped down by eight steps to separate it from the surrounding functions. The enclosing wall of this courtyard contain closets with glass windows inside of which exhibits are displayed, and a walkway located on its side from where they can be viewed.

Leading from the gsalleries on the left (Ethnographic and centempurary art) are the restoration section, artefacts store and laboratory with related offices for the staff. From the galleries on the right (Archaeological and Technological) are basically administrative offices.

The last wing of the design at the rear, is a complimenting curve which houses the graphic section offices. The conveniences for the public and staff are located in same region at the rear near the service park.

There are four staircases, one on each wing of the design. Apart from the main entance, there are two other entrances one for the administrative area and the other one basically for

servicing the restaurant, craft centre, outdoor display and for receipt of exhibition objects.

First Floor

The first floor only exists above the offices and galleries on the ground floor, the rear curved wing on the ground floor does not have an upper floor. There are three wings here, one on the left, another at the centre, over the restaurant area and the last on the right.

From the main lobby on the ground, the stairs leads one to a smaller lobby on the first floor. The wing on the left contains the Ethnographic offices, library and photographic section, the middle wing houses offices for the Accounts Section, Technician, and deputy director with conveniences. The last wing on the right houses the Technologist, Archaeologist, curator, seminar room, meeting room and directors' offices.

(iii) Finishes Recommendation

With adequate consideration to achieving a reasonable level of maintenance cost which should be low, the following finishes are recommended.

Walls: screed finished and painted in subtle colours.

Floors: Sand screed finished all through except for the gallaries, restaurant and corridors where terrazo is recommended. All external walkways will be of roughened concrete pavements. The main lobby should also be of terrazo finish.

CHAPTER 11

CONCLUSION

Present happenings are proofs of the unparalleled significance of museums in the current campaigns for cultural revival, consequently the greater need to make them more alive by increasing their patronage level.

The introduction and development of ancillary facilities around the galleries especially is one strong move by the contemporary museum towards alleviating the problem of attracting a greater public, which goes to prove the importance of the effect of ancillary facilities on the patronage level of galleries.

The problem the museum authorities should also keep in mind is not just the introduction of these facilities, but also their relationship to the galleries and the scope of their services which should not be on a level as to overwhelm the main focus of the museum.

YEAR					
MONTH	1983	'84	'85	'86	'87	'88
JAN	4030	3121	4133	3825	3309	1,589
FEB	2694	3511	3776	3429	1743	1,063
MAR	2538	3038	3476	4574	2649	2,646
APR	3332	4226	5746	3373	3976	4,402
MAY	3444	2756	3823	3668	3571	1,439
JUN	3526	3006	4296	3921	2080	1,636
JULY	6816	4764	5396	3462	2714	3,450
AUG	4742	9403	9127	7142	4126	1,127
SEPT	5285	5945	3750	2396	1821	2,301
OCT	4022	4205	3511	2633	2956	2,864
NOV	3649	4617	4599	2722	1853	2,451
DEC	5036	5327	5413	4491	5053	615
TOTAL	49,314	53,921	57,000	45,686	35,895	26,589

GRAND TOTAL = 268,405 persons

TABLE I: SUMMARY OF VISITORS' ATTENDANCE TO THE MUSEUM GALLERIES

SOURCE: EDUCATIONAL UNIT NATIONAL MUSEUM, LAGOS.

YEAR						
MONTH	1983	'84	'85	'86	'87	'88
JAN	3151	6334	6242	5123	3999	3204
FEB	3948	3205	3912	5696	1040	4634
MAR	2490	4610	4770	4831	3996	2773
APR	3804	5292	5894	4160	3404	5197
MAY	4760	3264	2861	4977	4960	3743
JUN	3942	3660	4069	4564	5250	4331
JUL	6963	5219	5964	4370	4968	4293
AUG	4694	9969	10.610	8693	7660	2404
SEP	6204	6868	3869	4210	5509	3470
OCT	4620	3309	3249	3690	3710	3483
NOV	3968	2441	3247	2111	2198	2040
DEC	4061	5201	3334	5691	4698	5260
TOTAL	52,605	59,392	58,021	58,136	51,387	44,832

GRAND TOTAL = 324,373 persons

TABLE II: SUMMARY OF VISTORS' ATTENDANCE TO THE MUSEUM KITCHEN COMPLEX

SOURCE: EDUCATIONAL UNIT NATIONAL MUSEUM, LAGOS.

BIBLIOGRAPHY

Adam, T.R. The Museum and Popular Culture
George Grady Press, New York. 1939.

Afigbo, A.E. The museum and Nation Building
New Africa Publishing Co. Ltd. 1985

Ashaye I.P. The development of museums in Nigeria
Unpublished M.A. Thesis,
University of Leicester. 1984

Dillon. R. Introduction Page in Museums:
In Search of a usable future
Massachusetts Institute of Technology
(MIT) Press. 1970

Finlay, F. Priceless Heritage: The future of museums
Latimer trend & company Ltd.
Plymouth. 1977

Hornby A.S. Oxford Advanced Learner's Dictionary of current English
Oxford University Press. 1985

Nabegu, A. Dala Museum, Kano
Unpublished M.Sc. Thesis

Dept of Architecture

Ahmadu Bello University, Zaria. 1983.

Neufert, E. ARCHITECTS' DATA

Halsted Press (John Wiley & Sons. Inc)

New York, 1982.

Neyt, Francois, O.S.B. The Arts of the Benue to the roots of Tradition

Oku, M.O. State Museum Complex, Markurdi.

Unpublished M.Sc. Thesis

Dept. of Architecture,

Ahmadu Bello University, Zaria, 1989

Parr, A.E. MOSTLY ABOUT MUSEUMS

American Museum of Natural History Press,

New York, 1959

Wittlin, S.A. Museums: In Search of a usable future

Massachusetts Institute of Technology (MIT) Press,

1970.

OFFICE OF THE DIRECTOR-GENERAL
Telephone: 01-638040, 01-634040

National Commission for Museums and Monuments
HEADQUARTERS P.M.B. 12556, ONIKAN—LAGOS, NIGERIA.

DIVISION ..... REF. TF. 469/

28th January, 91
..... 19.....

Mr. Godwin Oloja,
Dept. of Architecture,
A.B.U.,
ZARIA.

PERMISSION TO DO RESEARCH

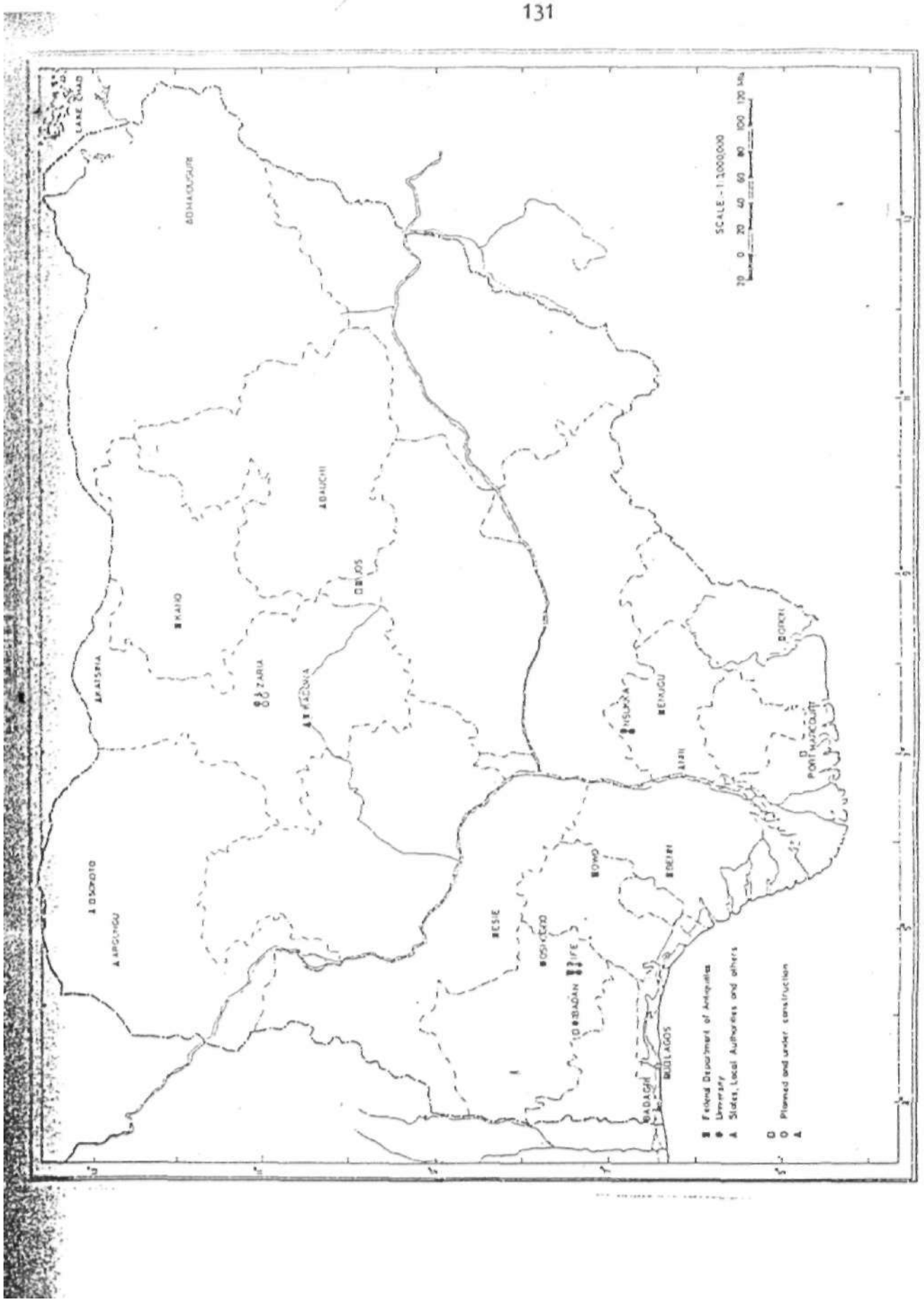
With reference to your application of 28th January 1991. Permission is hereby given for you to do research in the museum but on the following conditions.

1. That the material be used specifically for the purpose for which permission was sought and given.

2. That the National Commission for Museums and Monuments be given proper acknowledgement.

3. And that a copy of your project write-up be deposited with us for record purposes.

V K Agili (Mrs)
for Director-General
National Commission for Museums and Monuments.


SCALE - 1:3000000
Federal Department of Antiquities
University
States, Local Authorities and others
Planned and under construction
BORNO
KANO
SOKOTO
KADUNA
BENUE
IMO
OWERRI
IBADAN
IFE
BADAGRI
LAGOS
PORT HARCOURT

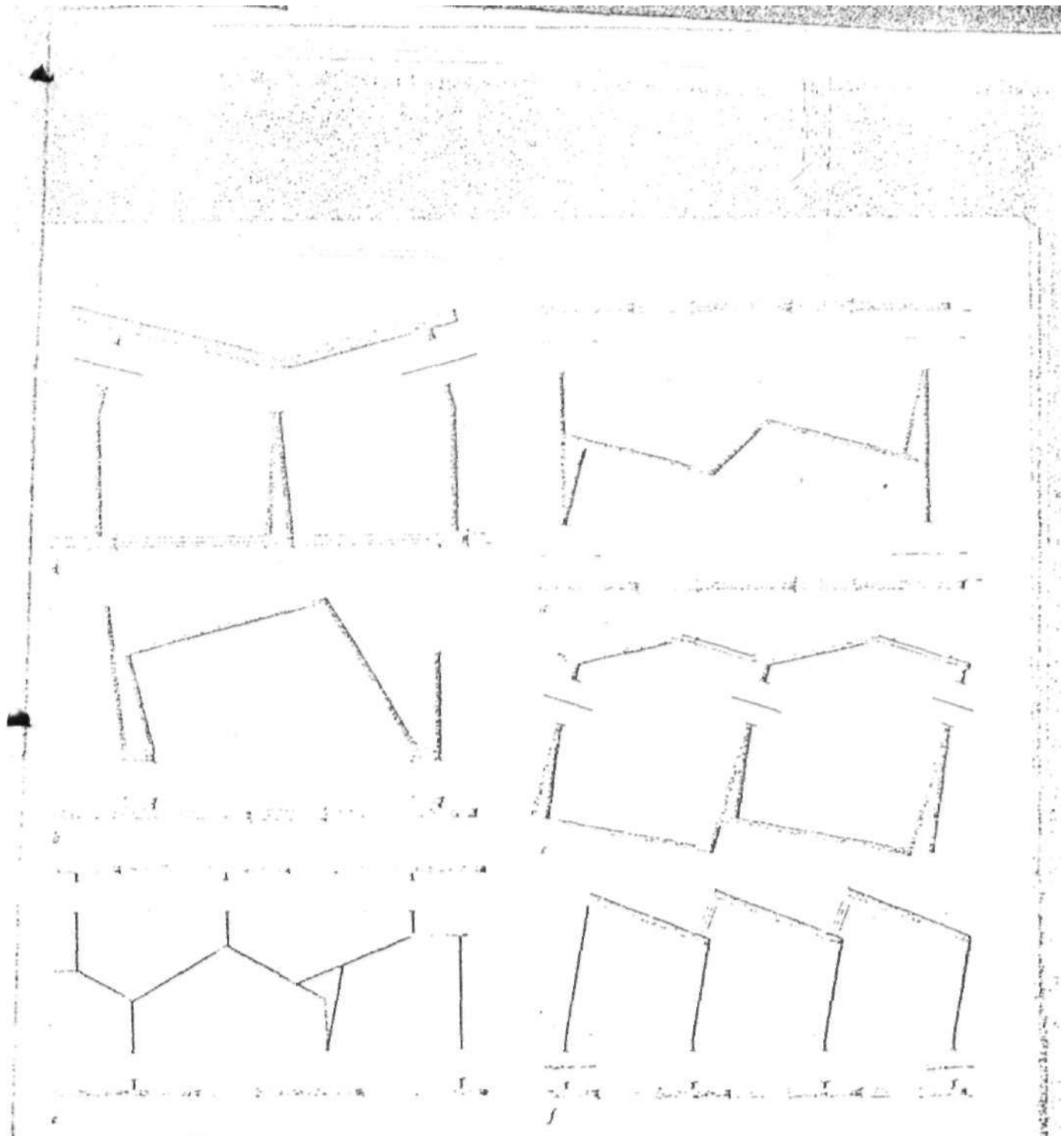


Fig 12 (*a, b, c, d, e, f*) Different ways of lighting a exhibition space.

fashion, as it has been found that the advantage of unbroken walls and the impression of better use of light in a more compact space are offset by the resultant monotony, and that the general effect is not pleasing to the eye.

Lateral lighting requires shallow rooms, their walls set at an oblique angle to the source of light. But the larger the windows, the more difficult it becomes to prevent light from being reflected in the works placed against the opposite wall. It is undeniably difficult to give a pleasing appearance to these asymmetrical rooms; the taste of a fine architect is needed to give them character and harmony, either by

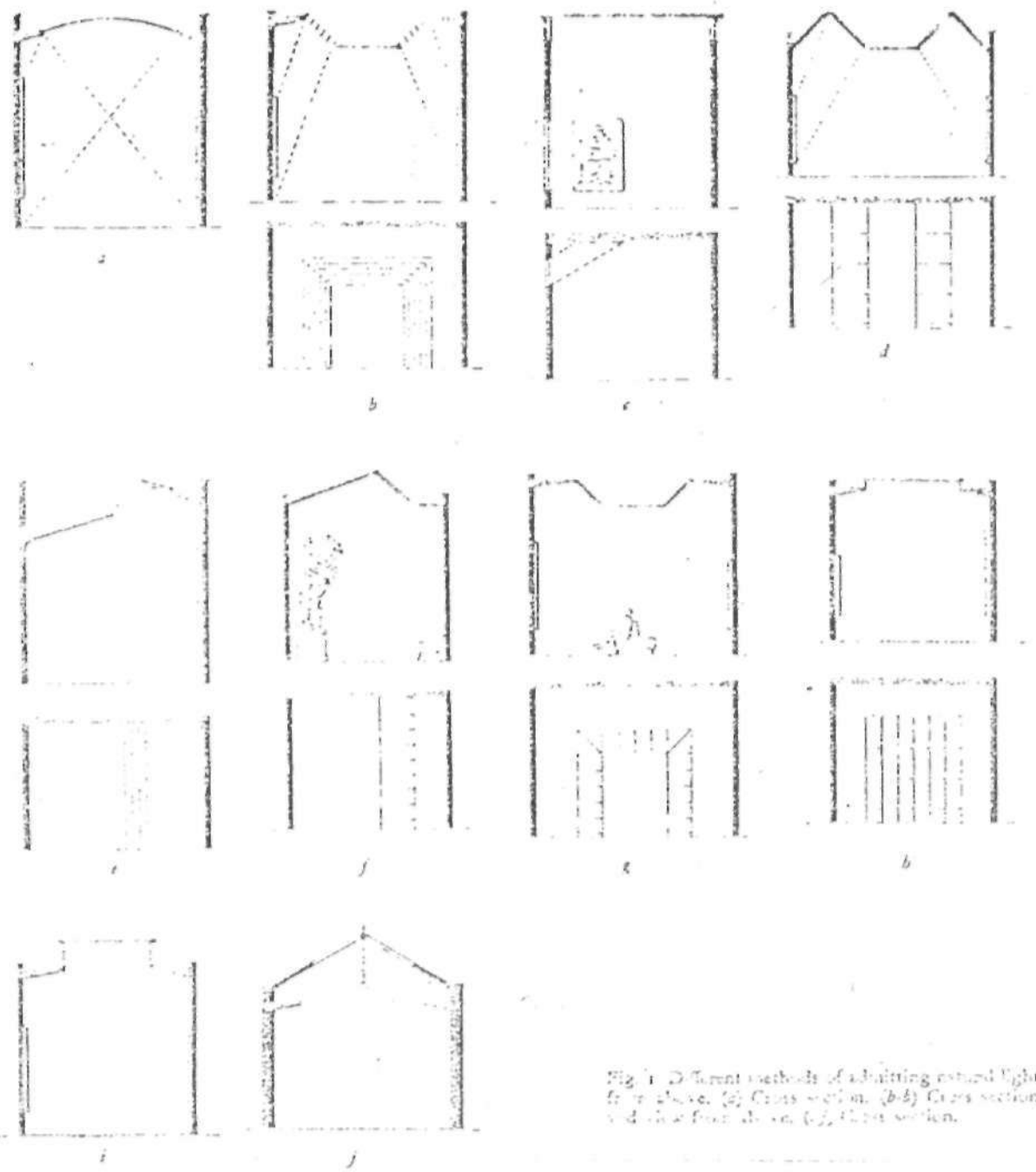
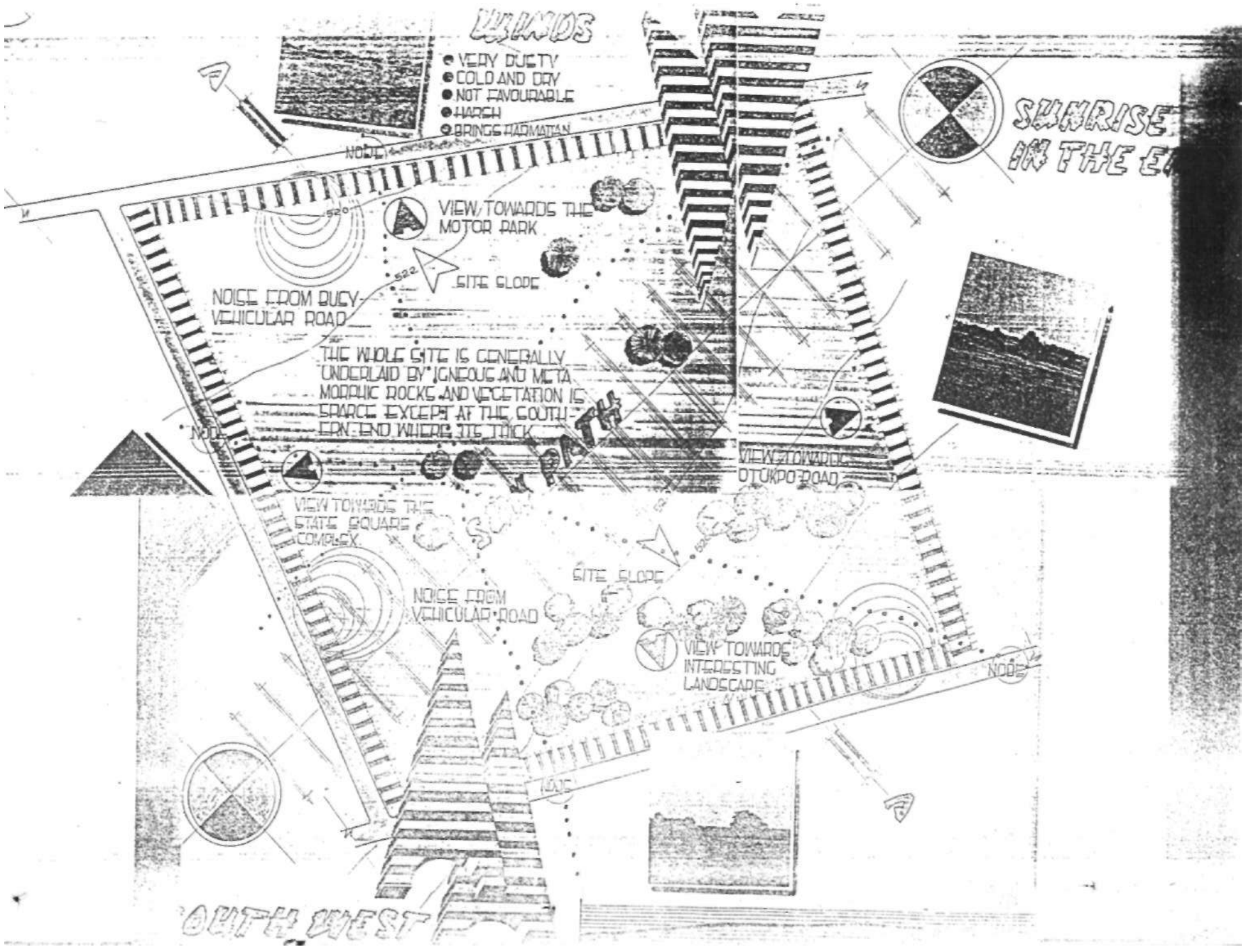
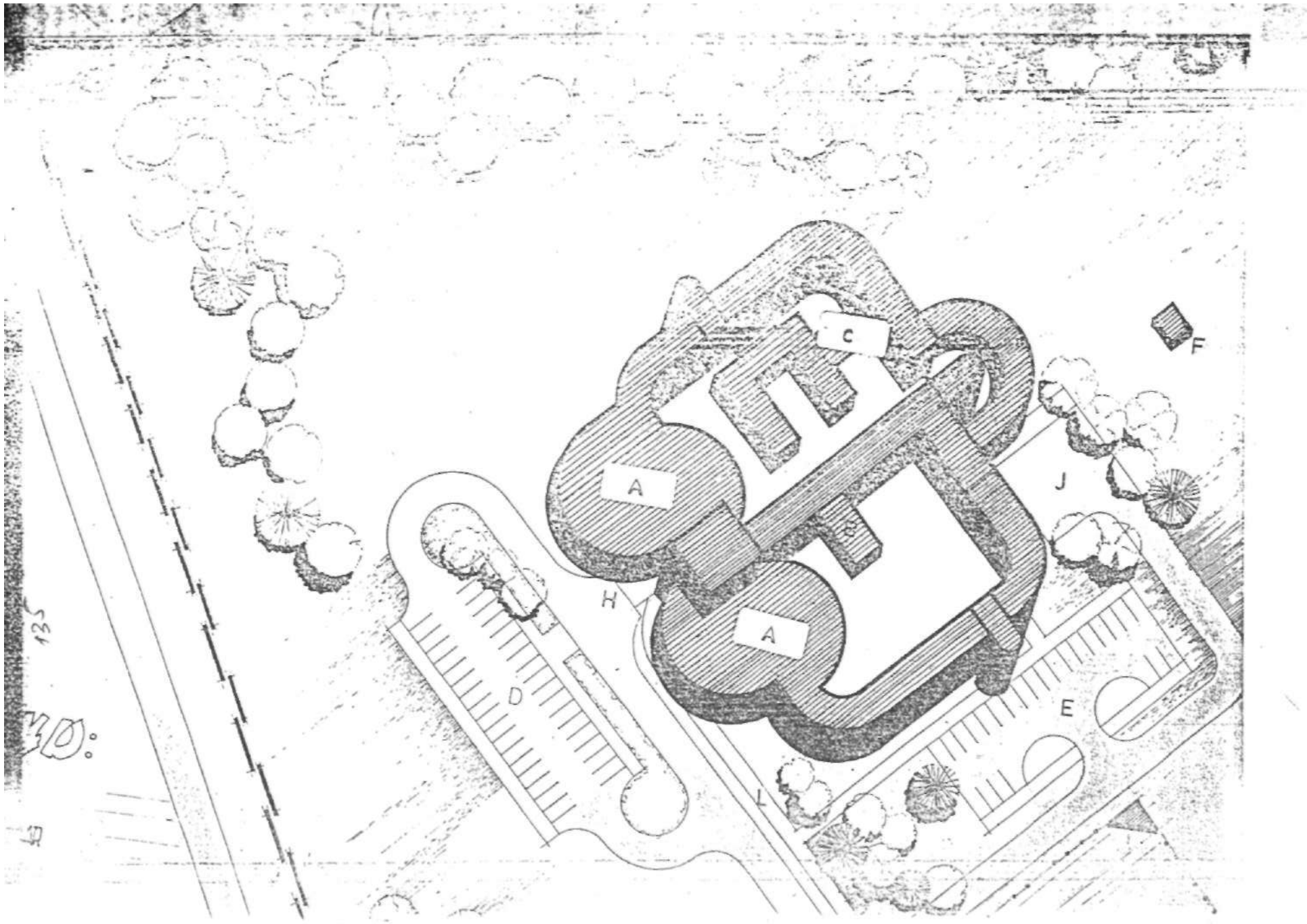
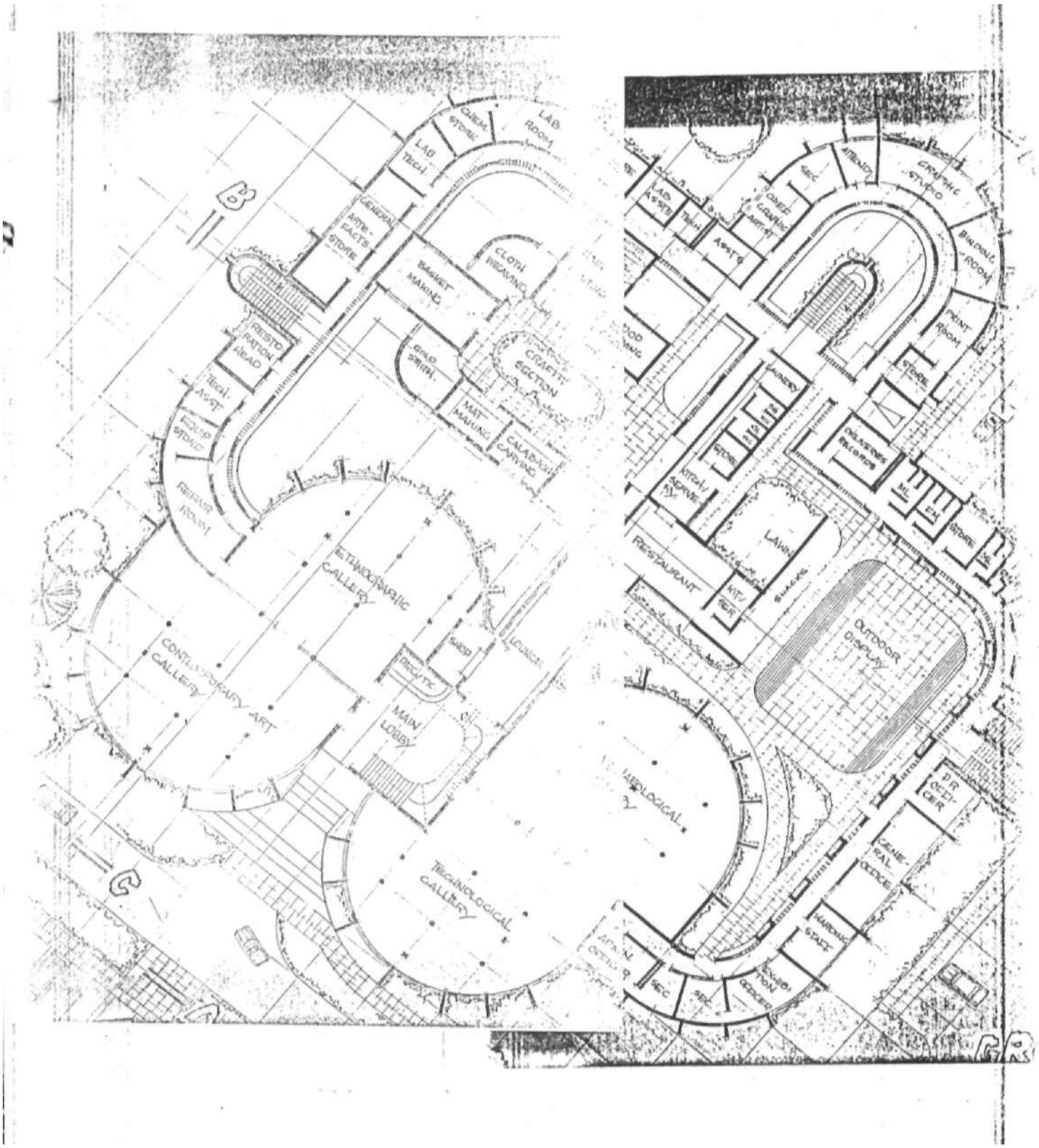
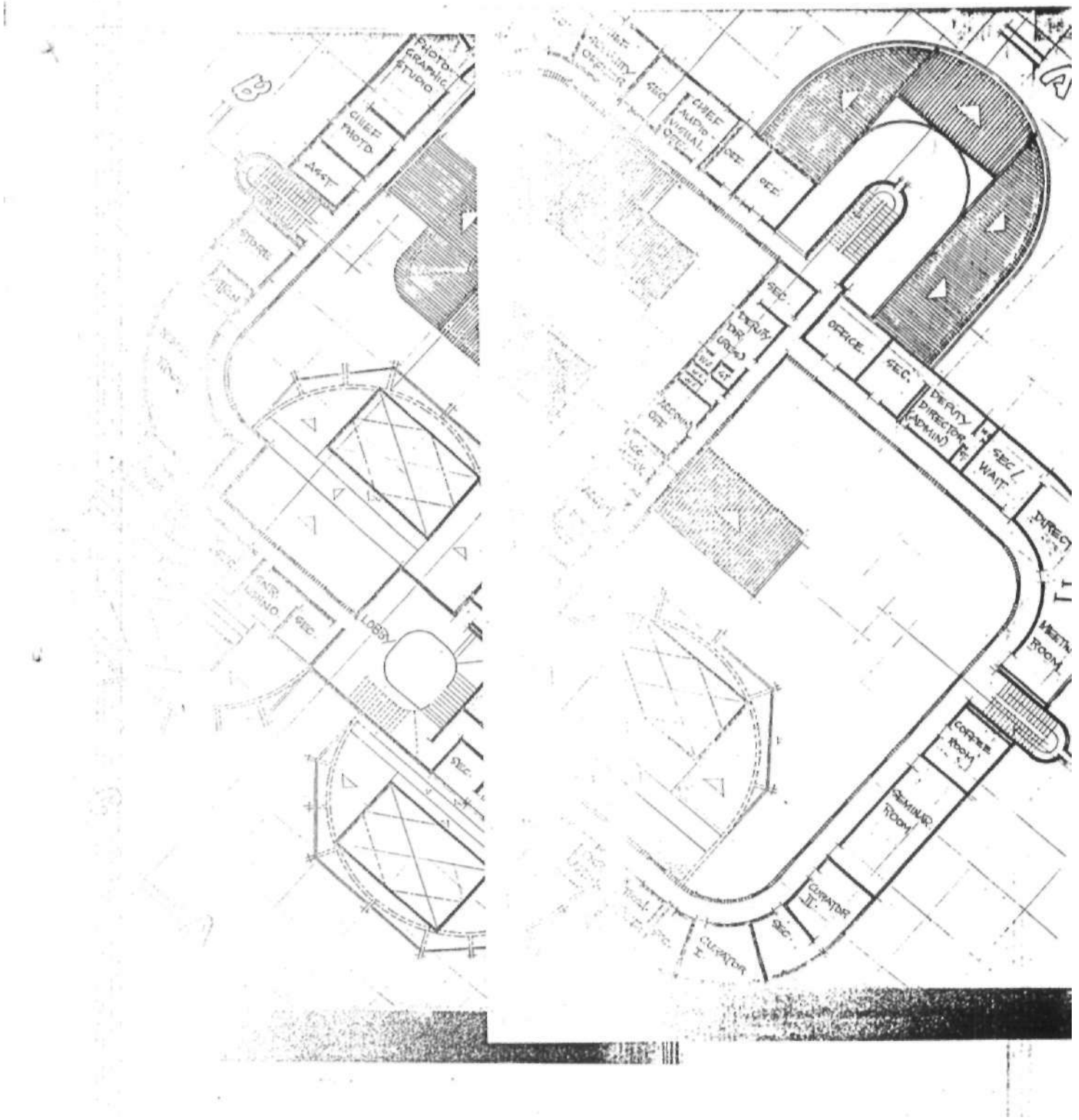


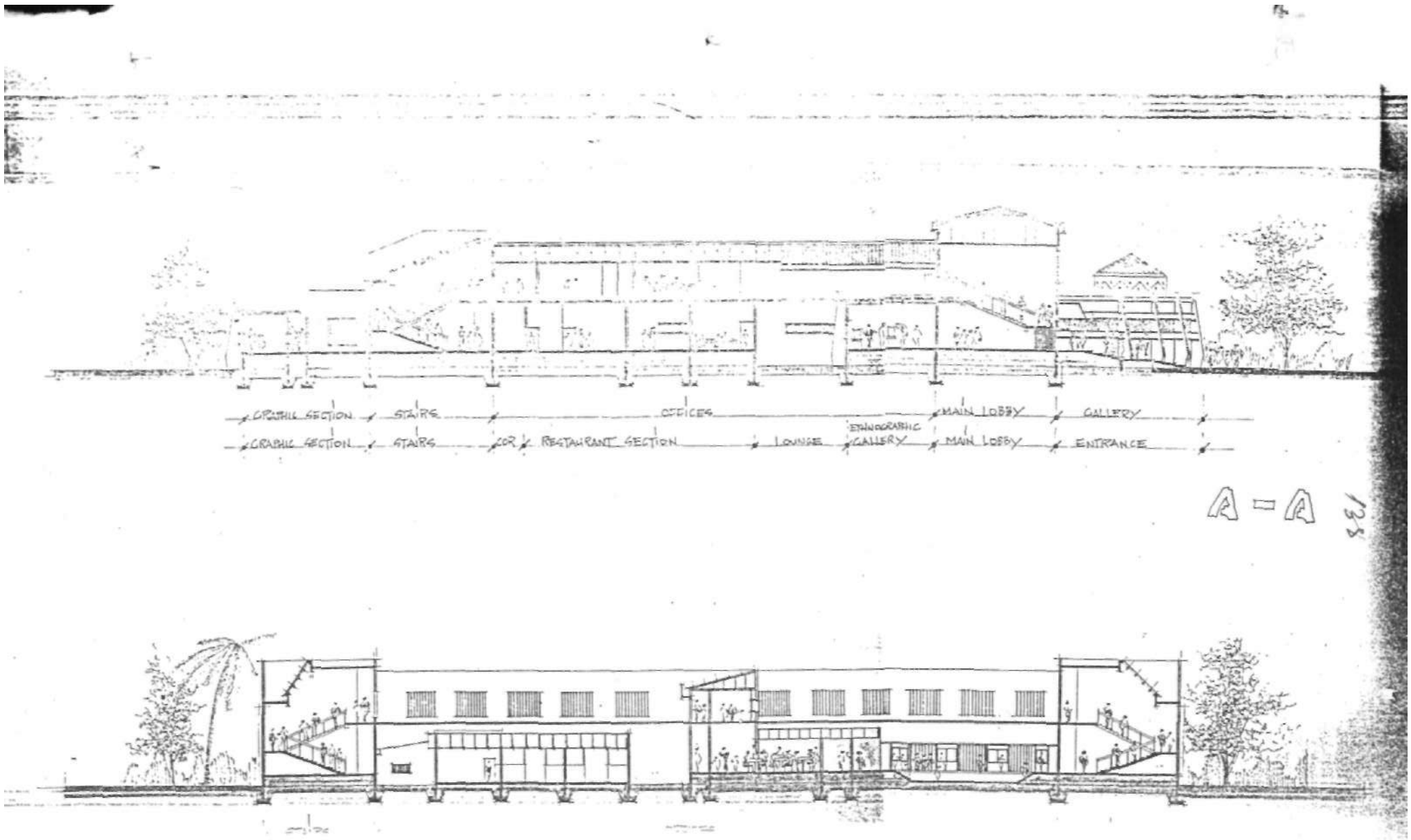
Fig. 1. Different methods of admitting natural light from above. (a) Cross section. (b-b) Cross section and plan from above. (c-c) Cross section.


WINDS
VERY DUSTY
COLD AND DRY
NOT FAVOURABLE
HARSH
BRINGS HARMATTAN
NOISE
VIEW TOWARDS THE MOTOR PARK
SITE SLOPE
NOISE FROM BUSY VEHICULAR ROAD
THE WHOLE SITE IS GENERALLY UNDERLAID BY IGNEOUS AND META MORPHIC ROCKS AND VEGETATION IS SPARCE EXCEPT AT THE SOUTH-ERN END WHERE ITS THICK
NOISE
VIEW TOWARDS THE STATE SQUARE COMPLEX
VIEW TOWARDS OTUKPO ROAD
SITE SLOPE
NOISE FROM VEHICULAR ROAD
VIEW TOWARDS INTERESTING LANDSCAPE
NOISE
SUNRISE IN THE E
SOUTH WEST

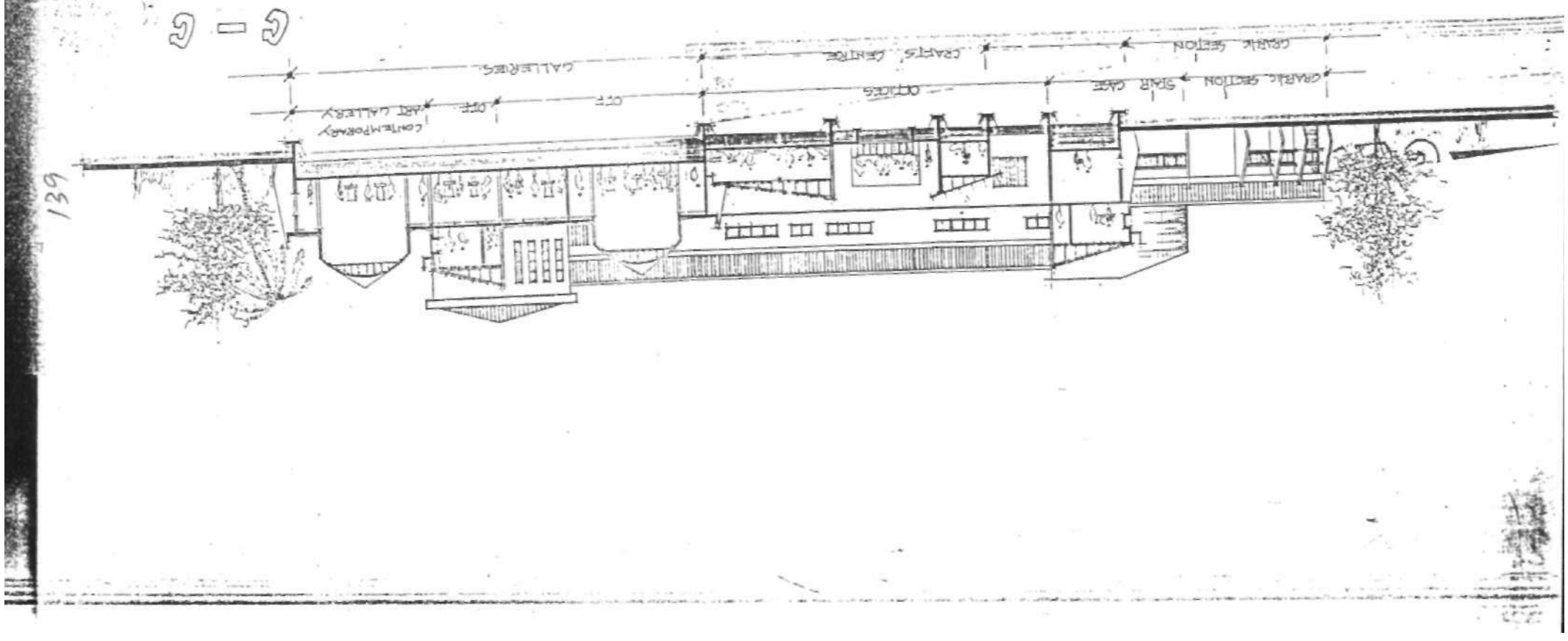

C
A
A
F
J
H
D
E
L
135
40°

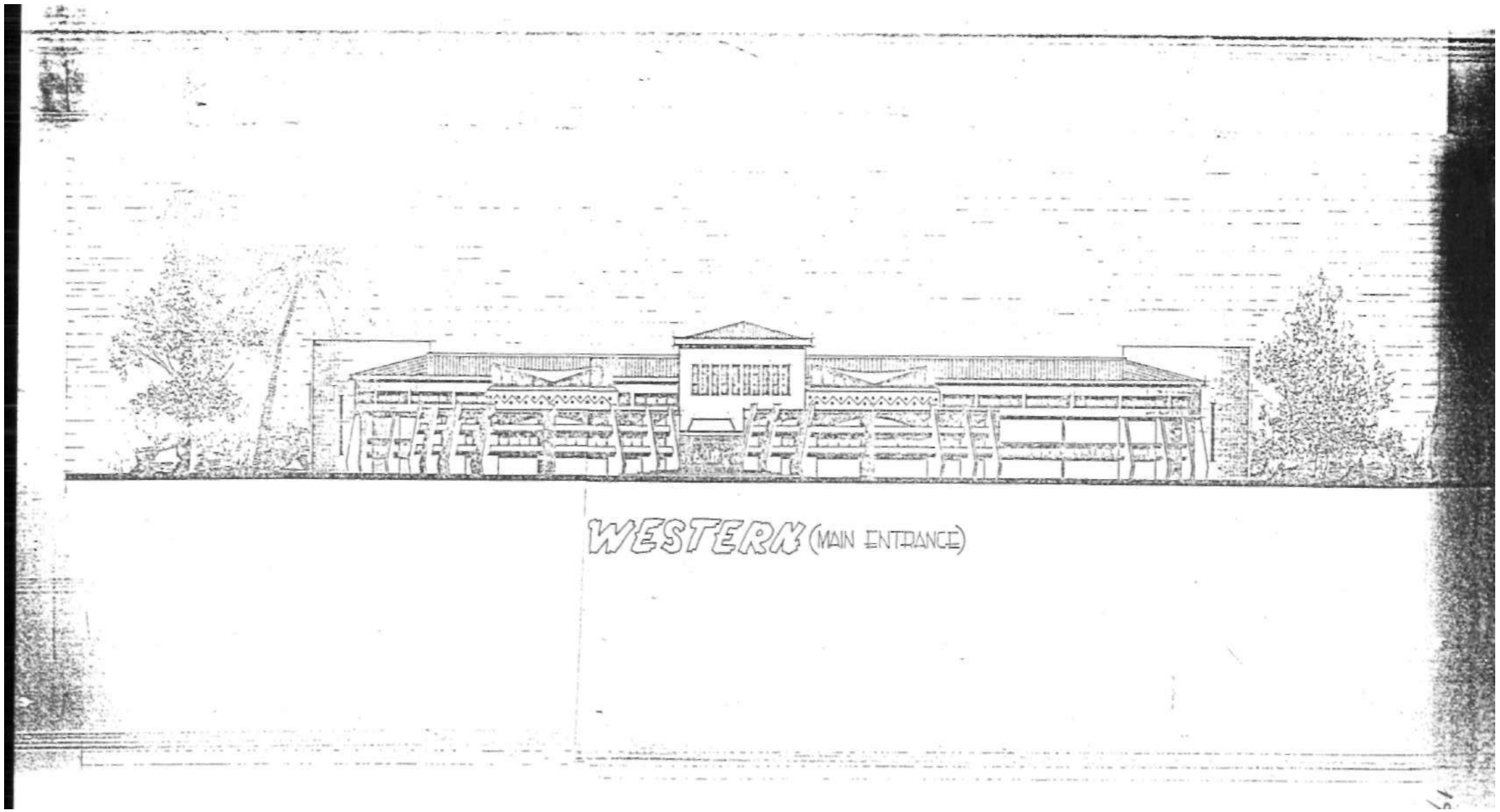

LAB ROOM
CHEM STORE
LAB TECH
GENERAL ARTE-FACTS STORE
BASKET MAKING
CLOTH WEAVING
CRAFTS SECTION
GOLD SMITH
MAT MAKING
CALABASH CARVING
RESTO RATION HEAD
TECH ASST
EQUIP STORE
REPAIR ROOM
ETHNOGRAPHIC GALLERY
CONTEMPORARY ART GALLERY
SHOP
RECEPTION
LOUNGE
MAIN LOBBY
TECHNOLOGICAL GALLERY
ARCHEOLOGICAL
GRAPHIC STUDIO
ATTENDANT
SEC
LAB ASSTS
TECH
ASST'S
GRAPHIC ARTIST
BINDING ROOM
PRINT ROOM
STORE
LAUNDRY
STORE
KITCHEN/ SERVERY
CHAIRS/TABLES RACKING
ML
EM
STORE
LAWN
RESTAURANT
WT/ TER
STAIRS
OUTDOOR DISPLAY
PR OFFI-CER
GENE RAL OFFICE
MARKING STAFF
EXAMI NATION OFFICERS
SEC
SEC
ARAN OFFICER


PHOTO-GRAPHIC STUDIO
CHIEF PHOTO.
ASST.
STORE
LOBBY
HAIR DRESSING
SEC.
CHIEF AUDIO VISUAL OFF.
OFF.
OFFICE
DEPUTY DIR. (ADMIN)
SEC. / WAIT
DIRECT
MEETING ROOM
CONFERENCE ROOM
SEMINAR ROOM
CURATOR III.
CURATOR II.
CURATOR I.

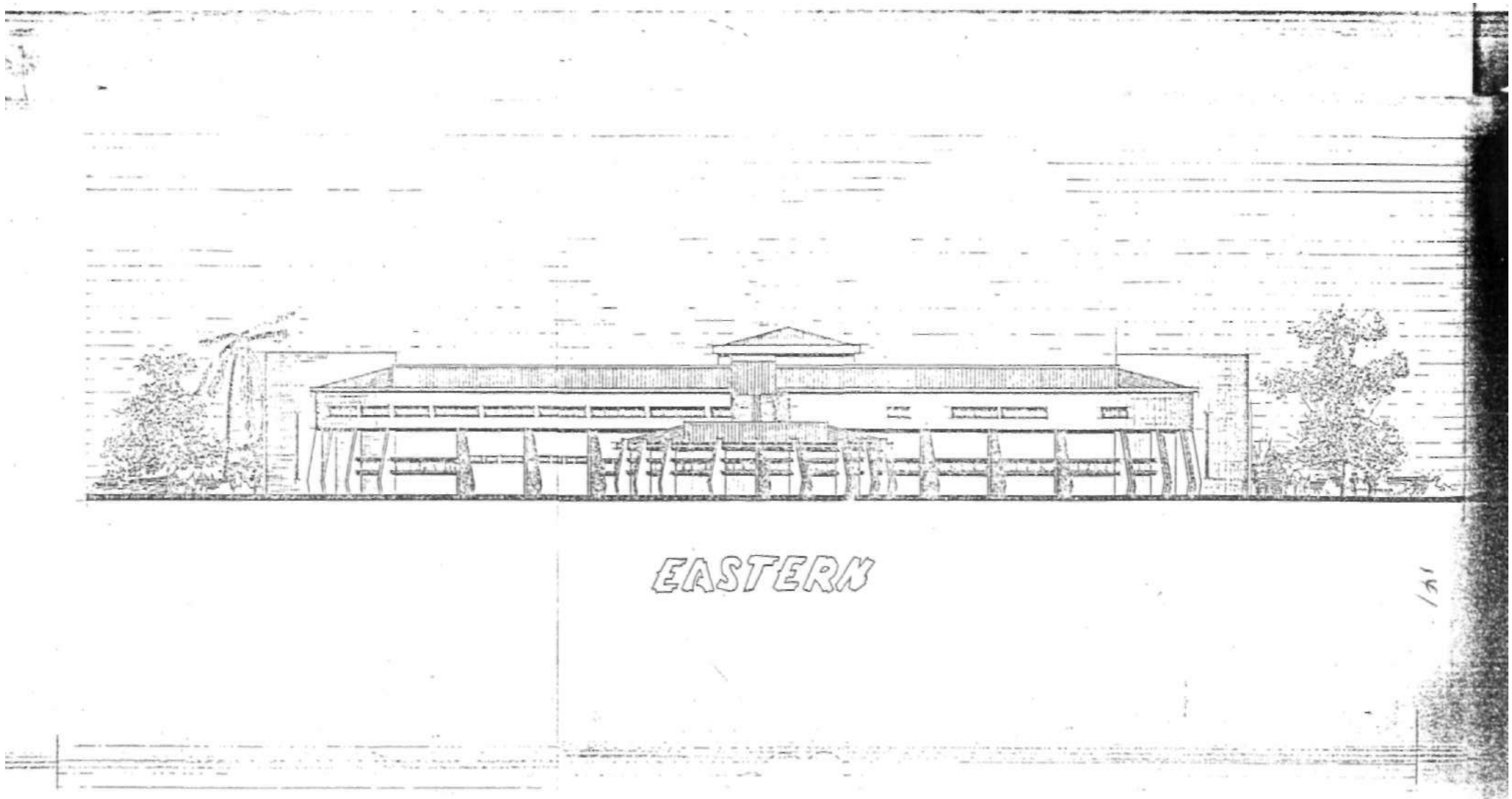

GRAPHIC SECTION
STAIRS
OFFICES
MAIN LOBBY
GALLERY
GRAPHIC SECTION
STAIRS
COR
RESTAURANT SECTION
LOUNGE
ETHNOGRAPHIC GALLERY
MAIN LOBBY
ENTRANCE

A-A

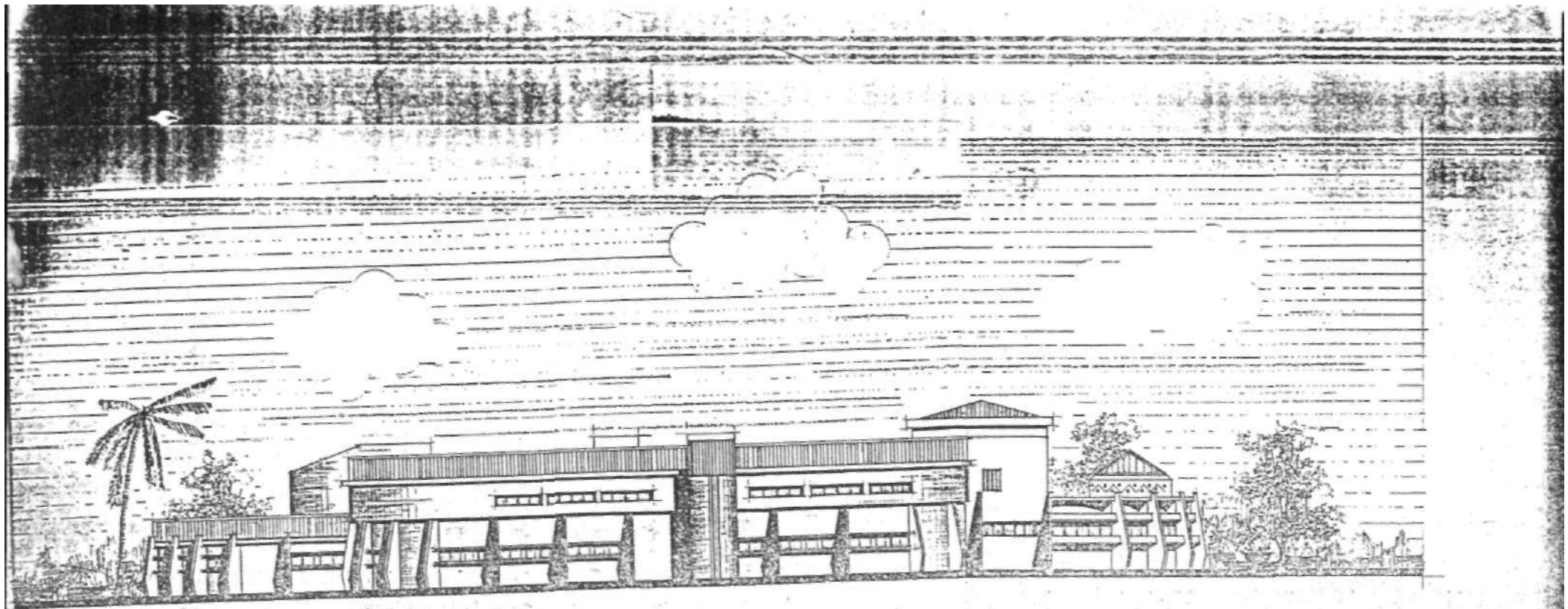

G – G
CONTEMPORARY ART GALLERY
OFF
CIT
GALLERIES
CRAFTS CENTRE
OFFICES
GRAPHIC SECTION
STAIR CASE
GRAPHIC SECTION



WESTERN (MAIN ENTRANCE)



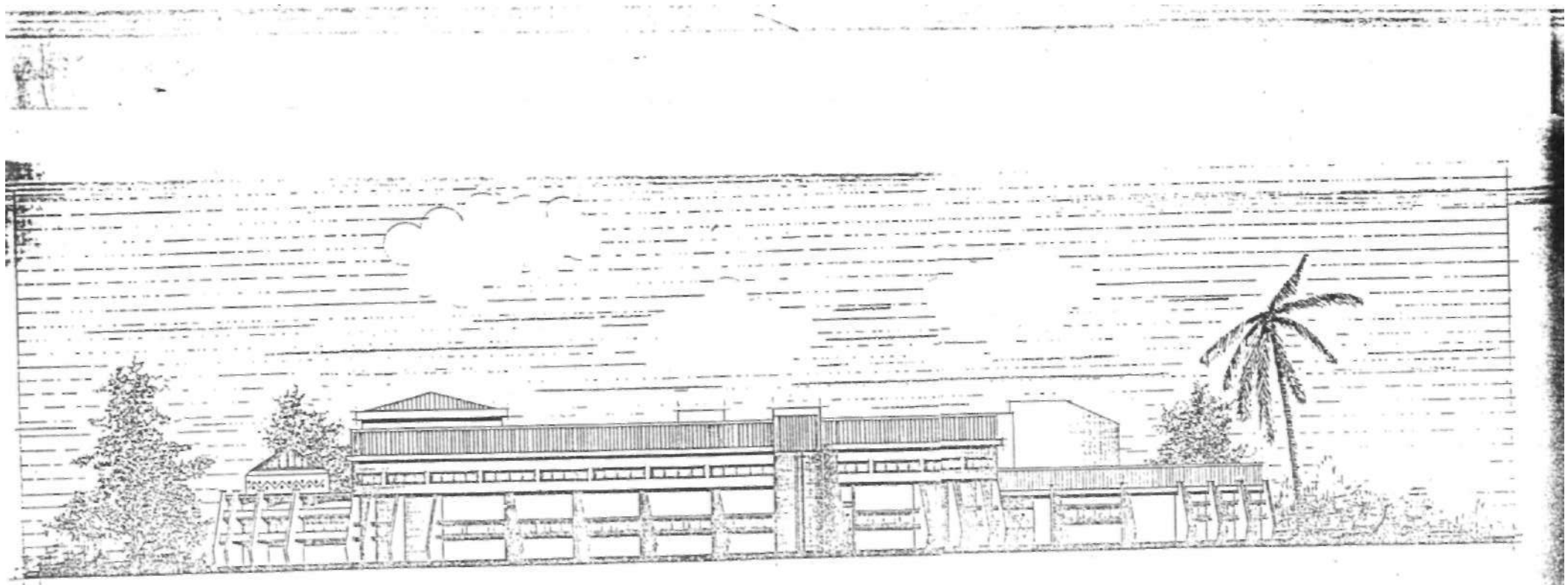
EASTERN



NORTHERN

1:200

192



SOUTHERN

1943

