**THE NIGERIAN INSTITUTE OF ARCHITECTS, ABUJA**

**BY**

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**B.SC (HONS.) A.B.U. ZARIA**

**BEING THESIS SUBMITTED TO THE POST-GRADUATE SCHOOL, AHMADU BELLO UNIVERSITY, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DECREE OF MASTER OF SCIENCE IN ARCHITECTURE (M.SC. ARCHITECTURE).**

**DEPARTMENT OF ARCHITECTURE**
**FACULTY OF ENVIRONMENTAL DESIGN**
**AHMADU BELLO UNIVERSITY, ZARIA.**

**JULY 1987.**

## DECLARATION

I hereby declare that this Thesis is an authentic and original documentation made by me under the supervision of my mentor. All quotations are distinguished by quotation marks and sources of information acknowledged.

OLANREWAJU TOYIN AYINDE
ZARIA JULY, 1987.

## CERTIFICATION

This thesis Project, THE NIGERIAN INSTITUTE OF ARCHITECTS, ABUJA, meets the regulations governing the award of degree of Master of Science in Architecture (M.Sc. Arch) of Ahmadu Bello University, Zaria, and is approved for its contribution to knowledge and presentation.

| | |
|---|---|
| Chairman, Supervisory Committee | Date |
| Member, Supervisory Committee | Date |
| Member, Supervisory Committee | Date |
| Head of Department | Date |
| Dean, Post Graduate School | Date |

DEDICATION

This work is dedicated to God; for his infinite mercies.

Quotes.

"All men have the stars, but they are not the same things for different people.

For some, who are travellers, the stars are guides

For others, they are no more than the little lights in the sky.

For others, who are Scholars, they are problems

For my businessman, they are wealth

But all those stars are silent. You - you - alone - will have the stars as no one else has them"

Anonymous

"Whoever is satisfied with what he does has reached his culminating point - he will progress no more

Man's destiny is to be not dissatisfied but forever unsatisfied"

T. W. Robertson

ACKNOWLEDGEMENT

Most thanks to my God for everything. Then to my parents, Uncles, benefactors, well wishers and friends. I refrain from mentioning all your names because that in itself would form another thesis. But, you, you alone, know what you have contributed. Thanks.

I would, however, wish to express my profound gratitude to my mentor Arc Shim Adesina for his untiring guidance of my work and seeing it to a logical conclusion.

I thank you all for your love for me.

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B.Sc. (Hons) Architecture
Ahmadu Bello University,
Zaria, July, 1987.

**Thesis Abstract**

The Nigerian Institute of architects has come a long way since it's formation on April Pools day in l96o. The Scope and functions of the institute havo also oontinned, to increase. The Institute's Secretariat has also grown fross a no office aoooonedatlon at the time of inauguration to a meagre office aocomodation at 2, Idowu Taylor Street, Victoria Island, Lagos.

The imminent movement to Abuja and also the inadequacies of the present secretariat necessitate a new secretariat for the institute at the Federal Capital. The bail ding is intended to be a means to achieving an end which is the improvement of the dented image of the Vigerlan Architect. The proposal will serve as a place of identity for Vigsrian Architects and as a repository of all knowledge concerning the practice of Architecture. These are achieved, through the provision of spaces for information storage, exhibitions, research public lectures and symposia.

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# CHAPTER ONE

## PROBLEM/PROJECT DEFINITION

### INTRODUCTION

Nigeria as a Cultural entity is presently undergoing some changes which are very similar to the situation that existed just before and necessitating the formation of the "Deutche Werubund" in Germany.

For the Nigerian architect to have any relevance to the society, he must start or initiate a lead. This actually proves a difficult task since even with his level of achievement he seems not to have beenaccorded his rightful place due to lack of or mis-information. This has thus reduced his credibility with all anomolies and blames always heaped on him.

The N.I.A, which was established in 1960 is actually fighting seriously so that many of these anomalies can be put into check.

### THE PROPOSAL

(a) That the N.I.A should as practicable in the nearest foreseable future turn the sod for the building of a new effective and functional secretariat for the institute and the glory of the profession.

(b) That the education board committee in conjuction with the Federal Government reduce the number of architectural Schools so as to make the few available very effective and also continue to improve on the entrance and course requirements so that only well groomed architects are turned out from our Schools.

(c) That the N.I.A in conjuction with the Architects Registration Council of Nigeria (ARCON) and the Federal Government, as soon as practicable in the foreseeable future set up a finishing school for architects, which is much more akin to the Law School, so as to acquaint the fresh graduate with the problems and requirements of Nigerian Architecture.

THE PROJECT

TOPIC:- NIGERIAN INSTITUTE OF ARCHITECTS, ABUJA

The Goal

- To develop an architecturally efficient of building and environment conducive for the favourable and continued propagation of the architectural profession in Nigeria and helping to accord the architect his pride of place.

Objectives

- To evolve a building that will serve the needs of the institute and also a building with which Nigerian architects can identify with and which also the locy public can atleast to as a mark of the creative genius of the Nigerian Architect.

- The consideration of all spaces, both opened and covered as architectural space needing the expert touch of the architect.

Scope 1

The design will take care of all the aspects as contained in the goals and objectives formulated viz the administration, educational section revenue generation and total landscaping.

Limitations

This thesis is majorly constrained by finance and lack of locally available and related sufficient data on similar projects.

Project Fiance

The project will be wholly financed by the N.I.A from the annual subscription of member, sales of emblems, souvenirs, and journals, special levy on members for the project, grants from relevant bodies and contractors and also the taking of bank loan.

# CHAPTER TWO

## RESEARCH METHODOLOGY

Research has been carried out so as to gain a lot of insight to the Project. They have greatly influenced the whole project. Research has been carried out by the author through participation, the use of Case Studies.

The Case Studies have helped to give an insight into the possibility and limitations of a project of the nature as proposed. Another method used was the Study of existing office buildings in Nigeria. An array of these are shown in the plates. They help inform on the present trend in office design in Nigeria.

Discussion also formed part of the method used in the research. It helped in bringing out the diverse views of an array or cross-section of the people. Questionnaires we also employed in the research. They helped informed on the nature of the Project.

## USE OF QUESTIONNAIRES

Another study carried out was through the issuance of questionnaires[1]. These were directed to architects both in private and public practice. This was with a view to sampling their views and opinions. It also helped determine the possible direction of the thesis solution and this greatly had effect on the final outcome of the thesis proposal. This was quite necessary because first and formost, the principal clients are the Nigerian Architects themselves.

Questions were posed by the questionnaire on the suitability of the present building of the Nigerian Institute of Architects. It was agreed unanimously that the building is not suitable and moreso the respondents, not less than 80% of them, recommended a building that would be vigorously expressive having a visual dominance over its surrounding. Some believed that the building should be a monumental piece and this actually formed the major response that is, over 50% of those who filled and returned the questionnaire felt that the building should have an architectural piece both fantastic in form and flexible in function.

Another study carried out was the picture survey of some existing office buildings in Lagos, the Federal Capital. This is to help inform on the project the possible

ways of designing a building that imbibes the high sustaining vitality. The picture mounts show some of the buildings on Marina in Lagos.[1]

1 See Appendix

# CHAPTER THREE

## INDIGENEOUS NIGERIAN ARCHITECTURE

### Introduction

A Study of the Indigeneous Nigerian Architecture will hopefully help the thesis in imbibing some of those qualities and virtues that are relevant to the thesis topic. It will help open a vista of knowledge on planning, design and construction, materials and their possible utilisation in the present day modern Nigeria. It will help to determine the possible reaction to final submission. It will also help inform the project on the mores and norms of the different people that make up the corporate body called Nigeria.

HISTORICAL EXCURSION TO THE BEGINNING OF ARCHITECTURE

If we are to accept the postulations of the anthopologist, then, man actually descended from the apes and monkeys whose ancestors lived in trees. But later, according to the anthopologist, they evolued into higher level of being and started living in the open.

From the foregoing man first lived in trees but later came down to live in the open where he had to look for shelter for himself and his offsprings away from the stinging hands of nature and other predatory animals.

Being ill equiped, he sought shelter in caves. This was more or less a natural reaction to self preservation. Pre-historic man's needs were basic viz food clothing and shelter. Thus, he never wanted for anything He was a food gatherer though he later added hunting and they later organised themselves into nomadic band of hunters.

The discovery of agriculture marked a water-shed in the quest for shelter for man. For it meant his settling down and looking for shelter. The type of occupation indeed affected the type of shelter; the hunter continued to live in his cave but the farmer improvised his own shelter. Thus it could be adduced that caves, trees and huts were the progenitors of the modern building and some of these features still exist today as testimony of existence of primitivity.

SETTLEMENTS IN PRE-COLONIAL NIGERIA

As was stated in the foregoing settlements, or agglomeration of people started with development of agriculture.[1] Man was also able to develop some of his other skills. Thus he invented or discovered fire, improved methods of cultivation domestication of animals and so on.

Many of the towns and cities in Nigeria before the colonial era, came about through a lot of reasons and they had characters peculiar to them.[2] Including trade, religion, war etc. Further study will be limited to the Hausas Ibos and Yorubas, the three major ethic groups.

CHARACTER OF SETTLEMENTS.

HAUSA

Most settlement were influenced by external forces which dictated their mode of agglomeration. But among all the 3 major ethnic groups, though to a lesser extent among the Ibos, the idea of the city wall was very important.[3] Kano and Zaria built walls sometimes as high as between 6 - 12m high and 3 - 6m in width. The walls also had gates which had different meanings to them. In Benin, a moat, was built around the city while Ibadan was surrounded by 7 hills.

Also the settlements were radiatic with either the the palace or market at the centre of the radical and they formed the major institution

USE OF SPACE

The oneness between the physical and spiritual need, juxtaposed with function desired, usually determined the use of space in indigeneous Nigerian architecture. And pre-colonial Nigerian architectural was limited to the compound. The only buildings that might be related to present day institutional builsings were the palaces and places of worship. The palace, essentially domestic, was used for administration and as place of abode for the incumbent which could be said to be on enlargement of the compound.

COMPOUND

Dominant feature of indigeneous Nigerian Architecture is the idea of the compound. They are usually established on thesame line of thought always usually enclosing or partially enclosing on open courtyard.

The Yoruba house forms are usually mud buildings enclosing a courtyard. The courtyards are often bodered by verandahs. All rooms are usually on the peripheral wall. The head of the house usually stayed near the entrance.

The Hausa compound normally has completely enclosed courtyard. They are usually approached through the Zaure. In the Hausa compound, there is a heirachy of courtyards. Usually the courtyard immediately after the Zaure delimits the extent to which male visitors can reach. The second courtyard is very private and used by the women.

The Ibos live in more or less scattered home steads and this is a manifestation of lack of any centralised beaureucratic system.

LOCALLY AVAILABLE BUILDING MATERIALS

INTRODUCTION

This study is to serve as an insight into the possibility of the local building materials that are available. Their possible usage are later elucidated in the proposals.

MUD

Mud consists mainly of sand and clay of varying proportion mud bricks have strength in compression which is provided by the clay contained, thus the more the amount of clay in mud, the more the strength. Because of its compressive possibility, it could be used in dome construction.

Mud has the advantage of plasticity and flexibility in use. Thus lateritic soil, an addition of water, the material attains a plastic state which allows for decorations and design in relief on walls. When exposed to the sun and heat, it sets and hardens and also shrinks resulting in cracks which could be fanciful.

Various types of mud exist viz sun dried bricks, wattle and daub, stabilised earth, swish crete, etc.

THATCH

This building material is readily available. It insulates against heat and cold. It permits the flow of air and filters out dust. Erection is simple and speedy. It can be easily attacked by insects and deteriorated and has fine hazard.

PALM FROND STEMS.

It occurs in various forms in the tropics. It could be used as roof beam to buildings. It could be used as non-structural members as in

(i) Panel or curtain wall
(ii) as light weight screens
(iii) as window creens.

They could be used in windows in lintels but fire and insects attack will reduce their usability.

SPLIT PALM

It's It's usually used as reinforcement for the mud arches. The "Azara" from male date palm, sliced lengthwise has high resistance to termite and can last 10 years.

BAMBOO

It has the most widerspread use. They could, if driven directly into the ground, used as foundation. It's resilience gives it an advantage over other rigid construction materials. It could be used for scaffolding flooring and even roofing. Also when latched together, it could be used as partitioning walls windows and doors.

STONE

Use of stones are very much restricted to areas where they could easily be quarried. They are mainly used as foundation. They are very durable and not easily eroded.

TIMBER

Timber is abundant in Nigeria and there are different types of species available. Timber expands and contracts in hot temperature resulting to early deterioration. It's highly susceptible to termites and fungicidal attack.

LOCAL RENDERING MATERIALS

KATSI

Powdered burnt bricks of the by-product of dyeing pits.

LASO It is best used for roofs. It consists of Katsi + indigo liquid + Horse manure + roofs of wild nine + water. It can last 4 – 5 years.

MAKUBA - Fruit pod of the locust bean tree.

CHAFE - Made from Makuba or acacia tree. It's very good for walls.

COW DUNG - When mixed with water, it would be used to rub floors and walls to prevent rubbing off by holding together the particles of the mud.

LATER DEVELOPMENTS FROM LOCAL MATERIALS

(i) GROUNDNUT SHELLS - Could be used when compressed for ceilings, partitions floors tiles and expansion joints

(ii) SUGARCANE STRAW - as above, for wall partition, sound proofing material and expansion joints

(iii) BAMBOO - Could be used for water pipes and troughs.

APPRAISAL OF INDIGENOUS LOCAL MATERIALS AND TECHNOLOGY

An appraisal of local indigeneous materials will be attemped to rightly ascertain their suitability and relevance in modern day office design requirement as the background.

Most of the local material are not durable. They cannot withstand the wear and tear of the modern day office design requirement. Mud as an example is easily eroded. They are also not strong and need constant renovation though they have the advantage of availability.

Many of the roofing local indigeneous materials are easily combustible and usually cannot span long distances that may be required for present day office design. Also the roofing material leak quite easily and require constant renovation.

Most of the local materials have the advantage of abundant availability. Also there is the lack of requirement of special technology and least wastage of material in their use. There is also easy workmanship of the materials and most of them do not require big capital outlay.

From the foregoing, the use of local indigeneous, local material jurtaposed with modern materials will elucidate further their advantages over local indigeneouies building material and technology.

Modern materials are highly durable and are very neat in their working They can also span very wide spaces depending on type of material and requirement thus lending itself to various solutions. In terms of need,

they meet the requirements of possible large spanning, acoustics and maintainance.

In concluding, some good local materials could be used in concent with modern methods where they will help to enhance the functionality of the buildings and enhance their Nigerianess.

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## CHAPTER FOUR

### THE INFLUENCE ON THE NIGERIAN VERNACULAR ARCH

The indigienous architecture of a people is not usually without extraneous inflence. This is usually due to cultural interaction and mobility. Also religion plays an important role. This interaction could be brought about by wars, trade conquest etc. Nigeria is not an exception in this cultural admixture. The whole fubric of the indigeneous architecture from the North to the South has been greatly aflected.

The Northern Arab traders have had great effect on the Northern states architecture and culture through contact of trade and conquest. In the South, the influence has always been with the European from the seas and the Fulanis in the North but the Europeans had the greatest impact.

### THE EUROPEAN INFLUENCE

The Portueguese first came to Lagos (Nigeria) in 1493 on their way to India. After Sequina, a Sailor, most explorers and traders stopped here to remove seaweed from the keel of their ships. This led to increased contact and cross cultural mix. And, thus the architecture of the area was aflected. Some Europeans also got to the Eastern and Soth eastern part of the country especially Calabar.

The colonialists, as they were later to be known, exerted their own influence on the architecture of Nigeria. This was by their various ways of building which included the wholesome importation of buildings from abroad and assemblying here. This influenced the architecture of Nigeria. Many of these buildings could be found in many of the government residential areas.

THE BRAZILIAN INFLUENCE

At the end of the slave trade, many freed slaves were sent back to their home countries. The arrival of 2 - groups of slaves influenced the architecture of Lagos and it's environment. Immigrant freed slaves from South America especially Brazil and Sierra-Leone, came to Lagos with their acquired capability and skill at building. The skill they acquired from their masters were made manifest in their various buildings which were copied all over the land. The material of the buildings were of local clay bricks normally rendered in Stucco inside and outside with "Pan" streets for roof. Concrete was cast or built in a plastic state for the early balustrade and the decorative motifs.

In the Saro-town of Lagos, otherwise known as "Isale Eko" area of Lagos the effect of the Sierra Leonean returned could be felt. Their buildings were characterised by large wooden windows and white washed Stucco. These buildings, due to constant repetition could be said to have metamorphosed into what might be secribed or called Nigerian vernacular architecture.

MODERN MOVEMENT

The real impact of the modern movement began to be fell with the works of 2 foreign firms of Architects who established parctices in Nigeria. Jane Drew and Max Fry formed a partnership and James Cubitt and Tello Atkinson forming JCFA and Patners.

They handed a lot of initial government projects both in housing, institutions, sports and so on. Many project on the University college Ibadan were handled by Fry Drew and Partners including the library and chapel and also the Centre for African Studies at Obafemi Awolowo University.

Foreign architects handled many of the projects until we began to have local architects though foreign trained. Amongst whom were McGregor, Awani, Balogun, Majekodunmi, Adaba, who was a graduate of Ahmadu Bello University, Zaria all later forming their own firms though after a stint at the P.W.D. or with some of the established firms. They all essentially continued their practices on the tenets and rules of the modern movement.

## HISTORY OF ARCHITECTURAL EDUCATION AND PRACTICE IN NIGERIA

### 1. EDUCATION

The expansion of the building industry has greatly affected the output of Architects and the number of Schools in Nigeria. From the time of the establishment of the Technical Institute Yaba, to now when there are not less than ten commonwealth accredited schools of architecture in Nigeria.

In the earlier times basic architectural education was provided by the School of Architecture, Ahmadu Bello University Zaria, the Technical School Yaba, Macaulay College of Architects, Architects' offices and later the University of Nigeria Nsukka.

From a meagre number of about 50 produced yearly in the fifties, architects are now produced in hundreds to meet the ever increasing number of architects produced yearly. Presently all accredited schools of architecture are not affiliated.

Presently, different course requirements are needed as entry qualification to either the degree programmes or the diploma programmes. Entry requirements for the University programmes leading to award of B.Sc., M.Sc. and B(Arch) programmes are two A level subjects (Appendix) after having satisfied the ordinary level certificate requirement in five subjects including English and Mathematics.

Courses offered are suggested by the N.I.A (Appendix) though Schools are free to chose from or add to the listed subject. After leaving School, the student take their professional exams leading to the Final qualification.

Suffix it to write that architects are trained both here in Nigeria and abroad ever since whose schools require recognition by the N.I.A

ARCHITECTURAL PRACTICE IN NIGERIA

When the British set about colonising the huge delta lands of the Niger and, later the valley of the great river itself, they did not commission their most talented architects to design buildings. But the beginning of the practice of architecture or architect designers buildings could be traced to the time.

Before the coming of the whiteman, the Nigerian, as he is now known, never had need for an architect. In that community, the appelation was to that of a builder. Usually the people designed, owned and infact built their houses. The knowledge of building was known to all and communal building was practiced. And it was not until it became necessary to pass drawings through various town planning and local authorities for approval, that the public became aware of the services of the architect or draughtsman.

The government were the first to make use of Architects. There were essentially foreign or foreign trained ones. In the colonial times, Architects mainly worked in government offices. The first private firms were foreign owned. They included the practices Jane Drew and Max Fry who have designed quite a lot of buildings. Also was Cubitt Fello Atkinson and Partners, also Godwin and Hopwood, among the few foreign firms that still remain in Nigeria.

Nigerians who finished around this period, the late fifties and early sixties, worked in many of these firms or in government establishments before going on to set up their own firms. Among the early practices will include the practice of Pa Onafowokan, the first trained Nigerian architect, the practice of McGregor and Awani, the practice of Alex Ekwueme and others. They formed the first generation of firms to be established in Nigeria.

With, the civil war and the onset of the oil boom, the construction industry had a phenomenal increase, Due to a lot of reconstruction work and the commissioning of new projects. This also helped give rise to a lot of new firms in an effort to contribute towards national development. All the firms were and are still wholly Nigerian owned firms. This is as a result of the low establishing the Architects registration council of Nigeria (ARCON) which stipulated that only Nigerian could set up firms in Nigeria.

Architectural practice, presently in Nigeria is highly diversified. There are architects in practice. There are architects who lecture in the Nigerian Schools of architecture, there are architect model makers, delineators, those in government employ, freelance architects and infact jobless architects.

# CHAPTER FIVE

## NIGERIAN INSTITUTE OF ARCHITECTS - HISTORICAL EXCURSION

Thfugh times, "birds of thesame feather", have always "flocked together".

Men andwomen, even animals of slight inkling of affinity have always had that hidden or latent instinct of coming togeMher tc promote common interests. Thus men and women, not surprising, of thesame professdon come together to organise themselves into societies or club for the advancement of their profession, and the animal instinct of self preservation.

The architect as we know him today, has never been left out in this quest for protection of self, even though his forebears were never known with or by that name. "They the forebears organised themselves into guilds that saw to the day to day running of their affairs.

It is out of this instinct of self preservation that the creative architects, who places himself in pseudo-isolation, before long, if he must survive, discover that the problems of the profession cannot be tackled solely by the proverbial lone voice in the wilderness.

All these must have informed the progenitor of the N.I.A into thinking about the formation of such a body. The idea for the formation of the N.I.A started to germinate amongst some 3 Nigerian architectural students Studying abroad in England in the early fifties. Thus group later expanded and gave a mandate to an 8 - member study group of Nigerian students to carry out the detailed planning for the establishment of the Institute.

The group later formed the nucleus of 13 who formed the members of the newly inaugurated Nigerian society of Architects around the premises of the National House of Representatives on April Fools day in 1960 barely 6 months before independence.

This inauguration was not without efforts to thwart the formation. This was mainly spear headed by the expatrate architects that were working in Nigeria. Anticipating the formation of a Society of Nigerian Architects they quickly formed their own body called Society of Practising Architects in Nigeria (S.P.A.N) sensing that they would be excluded from the Nigerian body.

The name, Nigerian Society of Architects was later changed to the Nigerian Institute of Architects. It is presently the only architectural society of practicing Architects in Nigeria.

The membership of the Institute has continued to increase in leaps and bounds with presently over 3,000 architects and over 10 Schools of architecture spread all over the country.

AIMS AND OBJECTIVES OF THE INSTITUTE

The aims and objectives of the institute are many and varied. This is continued in the institutes' pamphlet on same subject. But a highlight will reveal, the fostering of friendship between members and catering for their welfare, the integration of our traditional models of self expression in Architecture, Painting Sculpture, the unification of members of the profession in Nigeria with their counterparts all over the world, the promotion of architectural education, the protection of Nigeria's interests and aspiration, support for the ARCON, as some of the aims and objectives of the institute.

MEMBERSHIP

Membership of the institute is opened to all Nigerian Architects. The membership of the institute has continued to increase in leaps and bounds since the formation of the institute. At present there are seven categories of membership of the institute as follows:-

(i) Fellows
(ii) Members
(iii) Graduate members
(iv) Student members
(v) Honourary members
(vi) Honourary fellows
(vii) Overseas members

Each of the categories has certain laid down requirement for qualification as a member.

STRUCTURE AND ORGANISATION OF THE INSTITUTE

The institute consists of the elected Executive Council and Committees and they both combine to run the affairs of the institute. Also there is the congress.

THE EXECUTIVE COUNCIL AND COMMITTEES - APPENDIX

The Biennial General Meeting is usually held twice in a year and all members are eligible to attend.

STATE CHAPTERS

Presently, due to the continued increase of the number of architects in Nigeria, the establishment of state Chapters has become imperative. The ultimate aim of the institute is to have state Chapters in allth the states of the Federation and Abuja. Over 60% of this has been achieved.

All sate Chapters get their accreditation from the National headquarters, the parent body, and it's rules and regulations aims and objectives are borrowed from the N.I.A.

FUNDING

The funds of the institute accure mainly from the annual subscription on members, donations, grants, legacies, contributions, levies and proceeds from sales of souvenirs emblems and publications. The institute can also

receive donations, grants and subsidies from outside of it's membership though subject to the approval or conscent of the executive council.

POSTSCRIPT

The institute is not affiliated to any local or international body. It is fully independent. But it is a member of many world bodies. This includes the U.I.A, the C.A.A. and the A.U.A., which it helped found. The N.I.A participated fully in all of the activities of the above mentioned bodies.[1]

FOOTNOTES

1. The Constitution of the Nigerian Institute of Architects.

# CHAPTER SIX

## OFFICE DESIGN-AN APPRAISAL

The scope of office design is still continuing to broaden due to changing needs and requirements. A lot of factors have continued to affect office design and they range from intrinsinc factors to extraneous factors.

Whether speculative or custom bult, offices present a great range of sizes of space than the narrow speculative and "cell"-like offices of the early 1950s. Spaces now could range from some hundreds to as few as 5m band depending on the requirement and needs of the client. These have led to new experiments in the form of the plan, and the consequences of locating fixed elements in various ways in order to increase the utility of the space for various kinds of user. Other experiments are being made in manipulating the section of office buildings and there are also attempts at arriving at office floors which can be made either open plan or cellular.

The design of furniture in conjunction with partition into "systems" have also contributed to the new trend in office designs. New devices to break office space into usuable units, have also been developed; sometimes they are part of the building structure and sometimes they are as temporary as the furniture. And this has continued to give increased ranged of options open to architects and their clients.

Improvements in services have also continued to widen the scope and possibilities in office design. The design of an office is greatly influenced by a lot of factors. The most dominant factor being the shell and core of the office. The shell, could be defined as "The envelope for a floor of office space and it is possible to classify shells into distinct and recognisable types. The core would refer to the array of elements which are brought together for ease of services and construction.

Many factors may influence the shape of office shells. The compactness or otherwise of the building would affect the type of shell since this will affect the height of the building. Also, plot ratio, which relates to area of built floor space to site area would affect the shell of the building. While the core location is affected mainly by the location of the means of escape and the type of subdivision and the degree of adaptability required. The location of the lifts for access required at ground level and then the circulation pattern required at each floor.

Cores can be put essentially into three major categories:

1. Internal core
2. Semi-internal core and
3. External core.

Circulation in an office is also a determining factor in office design. It could be categorised into two basic types; single zone which is circulation to one side of office space only and double zone; which is serving office space on both sides.

For office design, four basic depths of space could be distinguished. Each is accessed on it's merits and demerits to the project at hand and their individual suitability. They range from the shallow depth space of up to 12m, medium depth space 6m-10m and 14m-22m for double zone spaces; deep space varies from 11m to 19m and double zone of up to 32m to very deep space which are deeper than 20m.

CHAPTER SEVEN

# CASE STUDIES

## INTRODUCTION

All aspects of human endeavour have always had to take cue from past informed and experience. Thus, the importance of case studies cannot be overemphasised in relation to this thesis. Because there is not need to re-invent the wheel.

The contemporary worker thus has to study works before him so that he can take off from where the last, stopped. It also gives him a lot of insight into the subject so that unnecessary pitfalls could be avoided and the positive aspects given emphasis or stretched further.

Obviously all of todays technological wonders started with the discovery of the atom only to be given impetus by the law of relativity all of which were gradual developments until today we have the rockets, the nuclear power, computer chips etc.

Thus the use of case studies have greatly helped this thesis in no small measure.

## .100 THE AMERICAN INSTITUTE OF ARCHITECTS. WASHINGTON (D.C)

### BRIEF HISTORY

The American Institute of Architects (A.I.A) was founded in 1852. It emerged from the former Guild of tradesmen which comprised builders, masons, joiners, cabinet workers etc.

They moved into the "Octagon" building, designed by William Thornton in 1798. This building was used mainly for the administrative work of the institute.

But with the increasing membership, and "the increasing numbers of jobs to be done for the profession", a new national headquarters was needed to cater for all these requirements.

The design of the present headquarters was then thrown open to series of competitions amongst American architects.

After the rejection of a winning entry by from Mitchell/Giurgola Associates by the Fine Arts Commission, a later submission by Norman C. Tletcher of The Architects Collaborative, was accepted and forms the design for the present A.I.A. headquarters after satisfying "both physical and spiritual functions" and as a "building of special architectural significance," also serving as "a symbol of the creative genius of our time yet complementing, protecting and preserving a Cherished symbol of another time, the historic Octagon House", which was completed in 1970.

.110 LOCATION

The American Institute of Architects headquarters is located in Washington D.C. It is located at the junction of the 18th street and New York Street on a rhomboid shaped prime plot of land. It shares thesame plot with the Octagon house and has the F.D.I.C as neighbour. It's also at a walking distance from the "White House", the seat of the American presidency.

COMMENT

.111

The closeness of the A.I.A. to the "White House" gives prestige to the building

.112

The location makes it easily accessible to members and the public ar large.

Facade of the A.I.A. Building

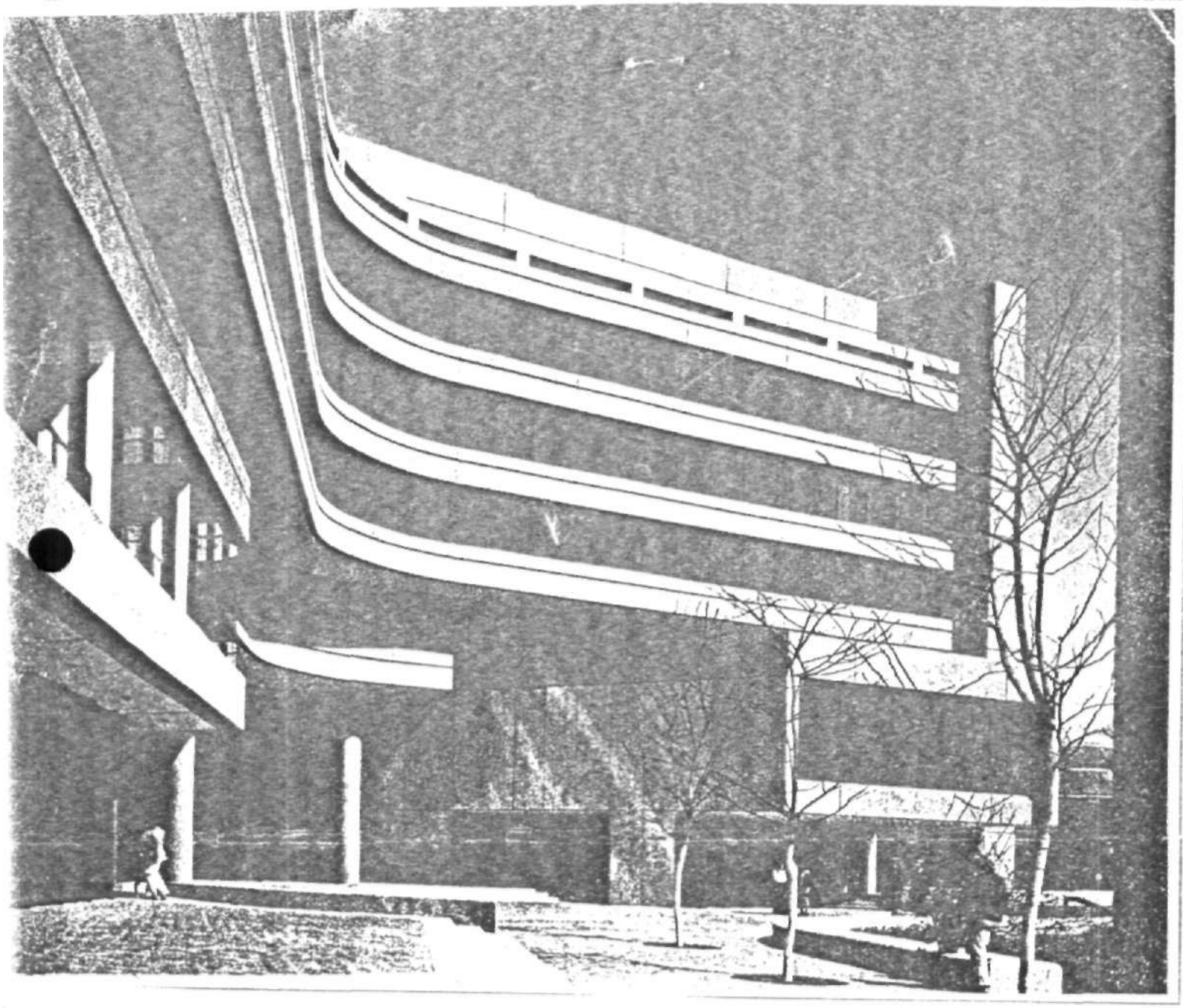


Plate 1

113 The building was greatly influenced by the presence of the "Octagon House" to which it was supposed to be a back drop "without necessarily overshadowing it" thus not allowing for an independent solution.

120 SITE PLANNING

The building was designed to serve as a backdrop for the "Octagon House", thus site planning was derived from, mainly the requirement that as much as space as possible be given to the "Octagon House" and it's garden. Thus the building utilises considerably less square footage than the amount permitted by local zoning.

A plaza thus seperates the Octagon garden from the new A.I.A building and has entrances from both the 18th street and New-York Street.

121 COMMENTS

Much attention was paid to the configuration of the site.

122 There was not the use of the possible maximum utilizable land.

130 FUNCTION

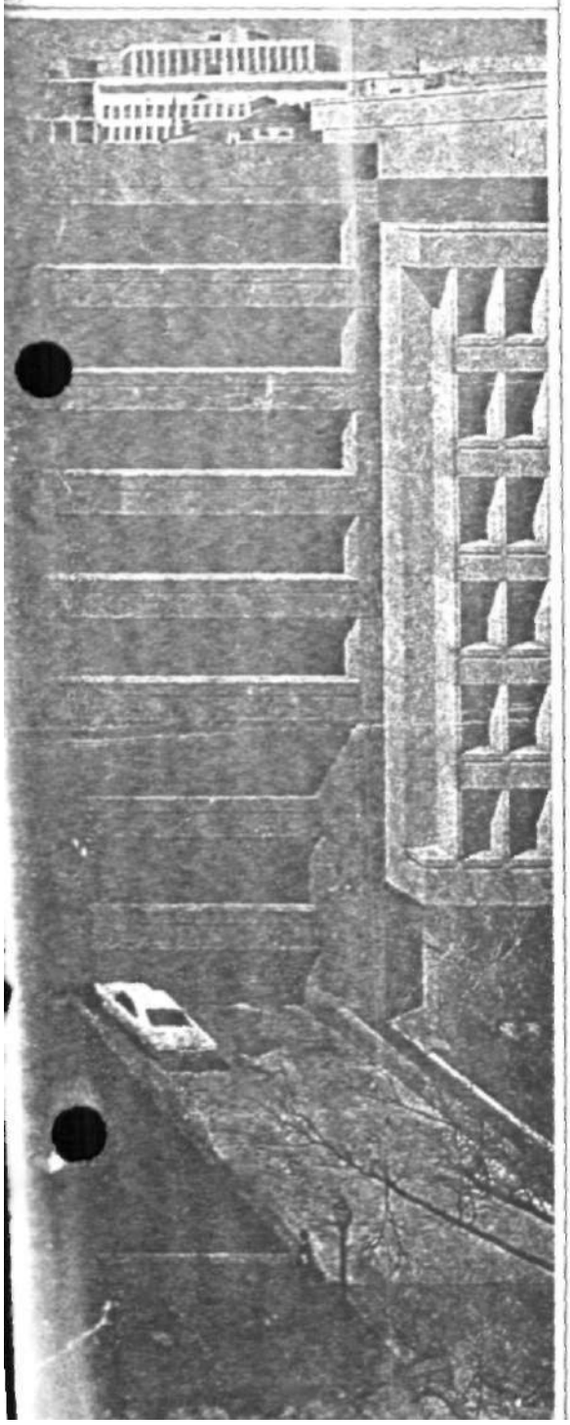
One of the function of the New National Headquarters building as espoused by the competition program was "a building that would satisfy both physical and spiritual functions - a building of special architectural significance establishing a symbol of the creature genius of our time yet complementing, protecting and preserving a cherished symbol of another time, the historic Octagon House.

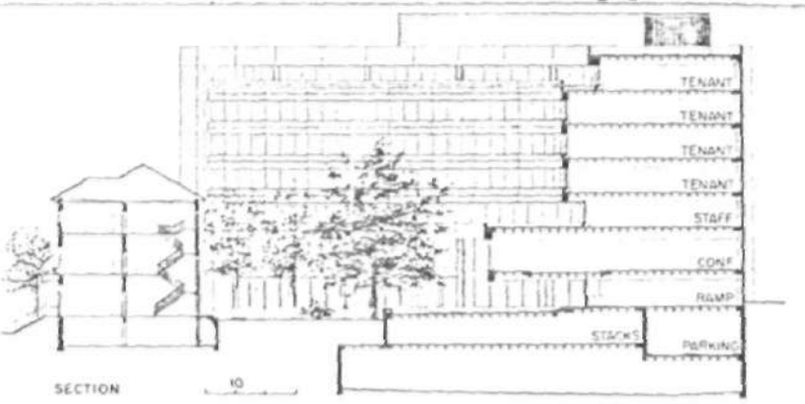
The building is also to serve for administrative purposes, exhibition and the generation of fund.

COMMENTS

131 The building satisfies the program set out for the designer by the program committee.

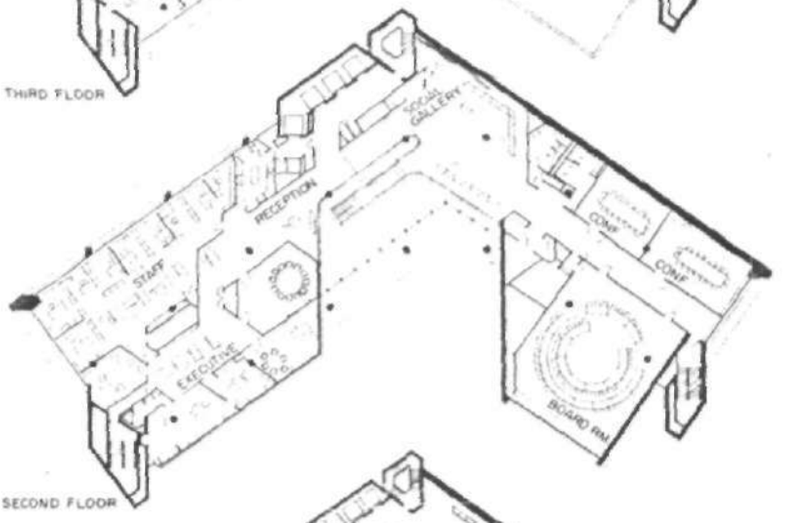
The 175 year-old Octagon occupies the corner of a triangular site at the juncture of New York Avenue and 18th Street in Washington, D.C. The garden at its rear has been rebuilt and is slightly larger than it was before the new headquarters building was wrapped around it. As the section and ground floor plan (right, and the bird's-eye photo (below) indicate, a broad curving plaza forms a pedestrian path, open to the public, which connects the intersecting streets. The architects—Norman Fletcher and Howard Elkus of The Architects Collaborative—conceived the plaza as an extension of the garden, paved it in red brick to match the old brick in the reconstructed garden paths, and extended this brick into the ground floor exhibition space of the new structure. Conceived as a "background building," the new headquarters permits the Octagon House to dominate (left).

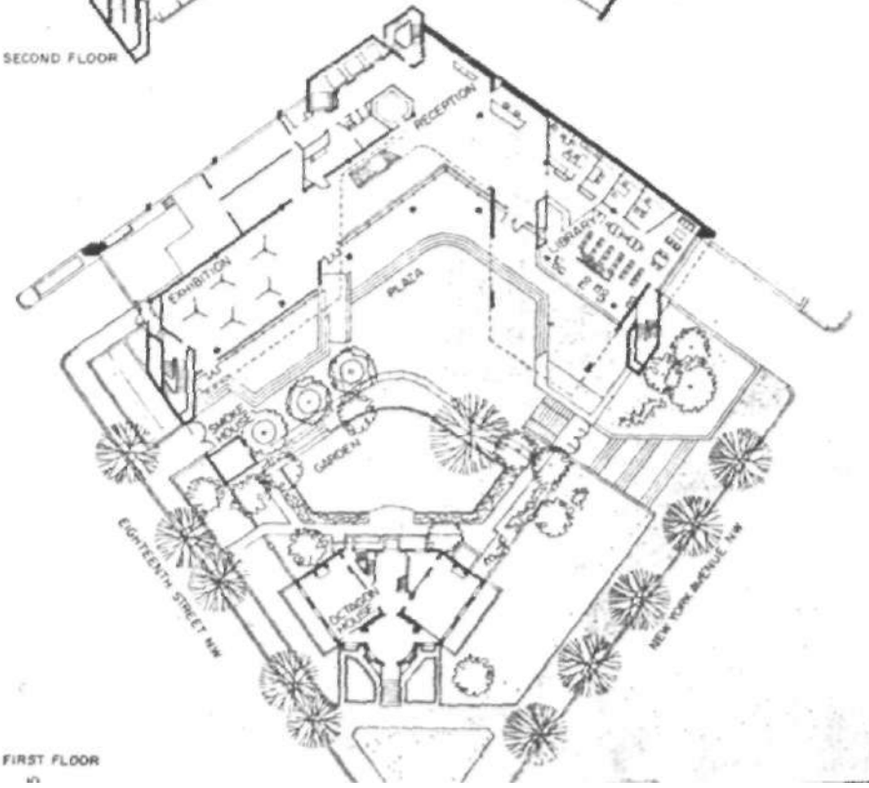










132 The functional requirements of the building has been met

CONCEPT

140
The main concept of the headquarters was to have a building that would not overwhelm it's neighbour but yet, preserving it.

CONTENTS

141
The building does not overwhelm it's neighbour.

142
It has helped to preserve the image of it's neighbour

150 FORM

The form of the building greatly respects the site configuration and the requirements of the program.

The low intermediate element (see diag ) and projecting elements of the boardroom and executive suite recall the Octagon mass but are subordinate in height and size. By also partially recessing the street facade of the headquarters building, the building in it's special setting is thus distinguished from it's neighbours.

The stair towers were designed to relate to the geometry and massing of the Octagon while at thesame time turning the corner.

The curved facade eliminates the appearance of separate wings or a central corner, and stresses the continuity and flow of the building around the garden from one street to the other.

Also the herrace cutback on the 7th floor on the 18th street side of the headquarters building reduces the apparent height from the garden facade to six stories.

The recess at the third story lightens the apparent mass of the office floors thus ameliorating and rendering more sympathetic the scale relationships between the headquarters and the Octagon Building.

COMMENTS

151 Too much of the form of the building is dictated by the site and Octagon House.

160 STRUCTURE

The building is essentially a framed building with non load bearing partitioning. Structural walls have been used to achieve the basement floor location. The lift shaft and the two winged stair - wells serve as stiffener for the building. The floors are carried by waffle plates which help in the open planning used in the building. Well spaced columns are utilised throughout the building.

COMMENTS

161

The structure lends itself to flexibility in the use of space.

170 DESIGN

The organisation of the building derives mostly from the external geometrical form of the building. Thus the building is approachable from both the 18th street and the New York Street which opens unto a plaza leading to the reception through a flight of steps and also to the exhibition space on the left and the library onto the right. Offices are located to the rear of the library and the exhibition area.

Underground parking has been provided in the building and also the mechanical service has been placed underground.

The second floor houses the executives of the institute and the different committees and a conference room are provided on this floor.

The third floor houses the other offices of the institute. Thus the first 3 floors above the ground are for the institute's use while the top four floors are for tenants.

COMMENTS

171 The functional relationship of the spaces lend themselves to efficient working.

172 The general circulation pattern is effective

173 There is possible adaptability in the use of space due to the open planning system adopted.

174 There is no seperation between the institute's visitors and the tenants' visitors.

180 ECONOMY

Essentially the building was built on prime land which was not easily available; being built very close to the white house. Though, thus closeness has helped in no small measure in enhancing the image of the building. The offices are also let out, to generate revenue for the institute.

The material used for building the institute are also easy to come by and not too expensive.

COMMENTS

181 The building is a good return for the money spent on it.

LANDSCAPING

190 The general landscaping is modelled around the garden of the Octagon house which has been extended. This interlocks with the plaza which could be used for outdoor exhibition.

COMMENTS

191 There is some harmony between the general landscaping and the building

192 The landscaping complements the building.

OTHERS

LIGHTING

The curtain walling design allows for a lot of natural lighting of the building. This is supplemented by artificial lighting which is usually concealed to give maximum effect.

VENTILATION

Ventilation is by artificial means though this is achievable by natural means. This is because, the depth of the building is not much thus it lends itself to possible natural ventilation

# THE ROYAL AUSTRALIAN INSTITUTE OF ARCHITECTS

## 200 BRIEF HISTORY

The Royal Australian Institute of Architects was founded more than 57 years ago. It was fashioned after the Royal Institute of British Architects (R.I.B.A.). The Institute is still grapphing with some of her initial teething problems most significant of which is the lack of enough fund to run the activities of the secretariat and the various mounting problems of the institute.

This problem might not be unconnected with the low level of membership of the institute.

It has branches scattered all over the country.

## 210 LOCATION

The institute's headquarter is located on a triangular plot of land at the foot of the Red Hill in Canberra. The site is wholly surrounded by roads; Mugga way, strickland crescent and stone haven avenue.

A deep belt of planted pines, eucalyptus and shrubs traverse the site from south to North and a 305mm water main runs diagonally across the site. The western corners was below the road level and normally filled with run-off water after rain.

COMMENTS

211 The location makes it easily accessible from all directions.

212 Location at the foot of the hill gives room for possible flooding of the site.

213 The location of the institute makes it highly susceptible to noise pollution.

220 SITE PLANNING

The building being at the foot of the hill and being below street level, created a lot of problems especially concerning privacy due to the streets surrounding the site.

The building is set amongst the planted belt and embarkments were us used to ward off possible flooding of the site.

COMMENTS

221 Much money was spent on land reclamation and fortification of the site

222 Possibility for future expansion is limited due to the possible flooding site

230 FUNCTION

The institute was designed as an embassy type complex comprising directors' residence of five rooms, study and family living as well as formal entertainment areas. The other wing comprise the director's office, council room, general office, workroom and Stores.

The institute acts as the clearing house for all major administrative works.

COMMENTS

231 Most of the functions of the institute are not well catered for by the institute

232 There is no adaptability of the spaces

240 FORM

The form of the building is of essentially provincial nature more out of necessity than of design. The roofs have been the main determinal which derives from the 1.2m high embarkments supported by crib block walls internally.

COMMENTS

241 The form of the building does not lend itself to the function of the building

250 STRUCTURE

The general structure of the institutes headquarters is domestic. Because of the nature of the site, piers and beam footings are used, the piers being drilled through the filling. Concrete slab floors are designed as suspended but cast on fill. The walls are load bearing brick walls and roof is of timber truss.

COMMENTS

251 The structure is quite easily achievable not requiring expertise

252 The foundations added unnecessarily to the cost of the building

260 DESIGN

The basis of the design is a single storey arrangement loosely disposed on filled ground within enclosing embankments. Parapets 1.2m high are formed at the top of embankments, supported by crib block walls internally and sloping externally at thesame pitch as the roofs at 26.5 degrees.

The only entrance to the site is from Mugga way. A driveway leads to a brick paved court, from which ingress could be made to either the house, garage, office or the store. A verandah runs the full length of the building on the entrance court frontage.

COMMENTS

261 The courtyards help to entrance the ventilation of the building

262 Natural daylighting is highly utilised in the building

263 There is extreme lean simplicity in the design

264 Possibility for future expansion is nill

265 There is no flexibility in the use of space.

**Roads and paving:** brick [illegible]: dry joints, laid on [illegible] stone road base [illegible] for vehicle traffic

**Floors:** bedrooms and general office: carpet; bathrooms: tile. Living areas, council room: brick paving

**Walls:** common brick, bagged and painted white inside and out

**Skirtings:** red face brick-on-edge

**Roofs:** terra cotta Swiss pattern tiles

**Ceilings:** mountain ash boarding, spaced battens in council room and general office

**Windows:** oiled mountain ash

**Doors:** fexternall mountain ash with glass panels

**Furniture:** specially designed for council room and living areas

**Heating:** hot water, skirting radiators, air conditioning in council rooms and offices

externally at the same pitch as the roofs, 26.5 degrees. The only entrance to the site is from Mugga Way. A driveway leads to a brick-paved court, from which one can enter at different points the house, garage, office and store. A verandah runs the full length of the house on the entrance court frontage. Various courts of different sizes are formed by wings of the house and the embankments.

### Structure

Essentially domestic. Pier and beam footings, the piers being drilled through the filling. Concrete slab floors designed as suspended but cast on fill. Load bearing brick walls, timber truss roofs.

## RAIA Headquarters

Next year the Royal Australian Institute of Architects will celebrate its fiftieth year of service to the profession and to architecture. There will be official celebrations at the convention in Perth in May and a good deal of looking backward and looking forward. During the past year the Institute, the profession and architecture itself have been under close scrutiny as the profession has taken stock of the crisis facing architects in Australia and in other developed countries.

Elsewhere in this issue the Executive Director of the Institute, Donald Bailey, has reviewed the record of the Institute as an institution.

Here we present a description of the RAIA Headquarters building for those members who have not been able to see it for themselves. The recent survey of members turned up widely differing views on the scope of the Institute's activities and how it works, so we include a few brief miscellaneous facts as well.

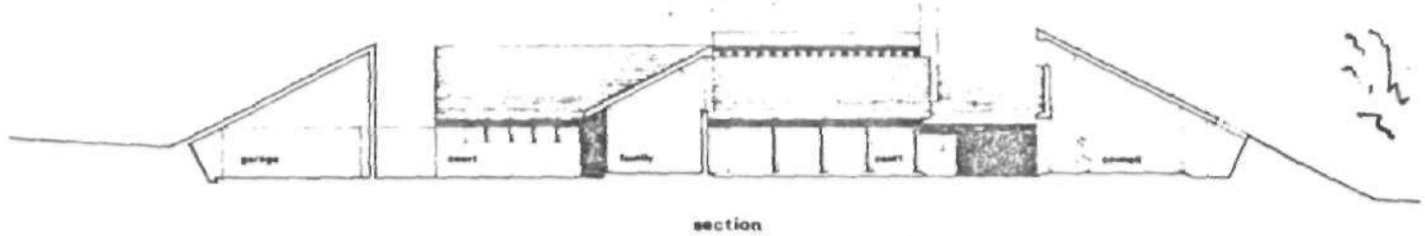
The office of the Institute is open from 9am to 5pm. The telephone number is (062) 73 1548. The postal address is PO Box 373 Manuka ACT.

The staff consists of eight people full time. There is the Executive Director who has a secretary who also works for the ACT Chapter (half a day a week) and for the Institution of Landscape Architects (another half day a week). The Information Director, David Kindon, also the Education Director, has a full time secretary for the Information Division and shares a secretary with the Membership Division for Education matters. The Secretary, Jack Nelson, also Director of Membership, has the other share of the Education secretary. There is one general secretarial assistant and a full time bookkeeper.

The basic routine of RAIA Headquarters is to provide services for the President, the Executive, the Council and the Committees and to attend to queries and requests from the membership. This means producing agendas, minutes and reports, arranging meetings, co-ordinating the many and various activities of members working voluntarily for the Institute and finding answers to the queries.

There are two full Council meetings a year (not necessarily held in Canberra). The Executive and the Membership, Architectural Education and Information Committees meet twice a year; the Information Executive meets three times and the Competitions Committee holds meetings on request.

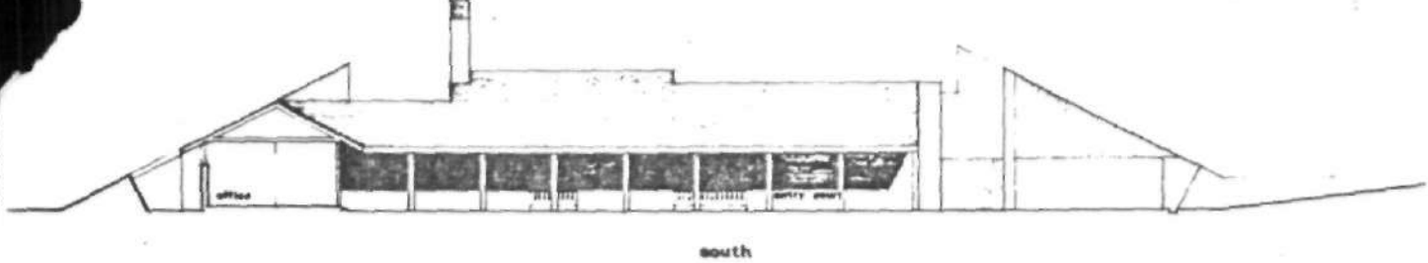
As well as the routine work attending these meetings, the matters which are decided on at them generate a great deal of




section




section




south

300 THE ARCHITECTURE CENTRE, TOKYO

BRIEF HISTORY

The building is built at the same spot of the former Architecture centre, which was turn down, which was built in 1930. The present building was built as part of the centennial of the founding of the Architectural institute of Japan.

The design was by Kazuo Akimoto whose design was selected in a competition. The old one, was turn down to give way for the new centre. Though some of the materials of the old building were preserved and used in the new building, like spandrel, ornaments, medallions, decorative posts and external tiles.

310 LOCATION

The centre is located in the neighbourhood of a heterogenous aggregation of low rise shops and residences in the congested Minato ward of Tokyo.

COMMENTS

311 The downtown location gives it good accessibility to patrons and utilization by the public.

312 There is not enough parking space for the institute

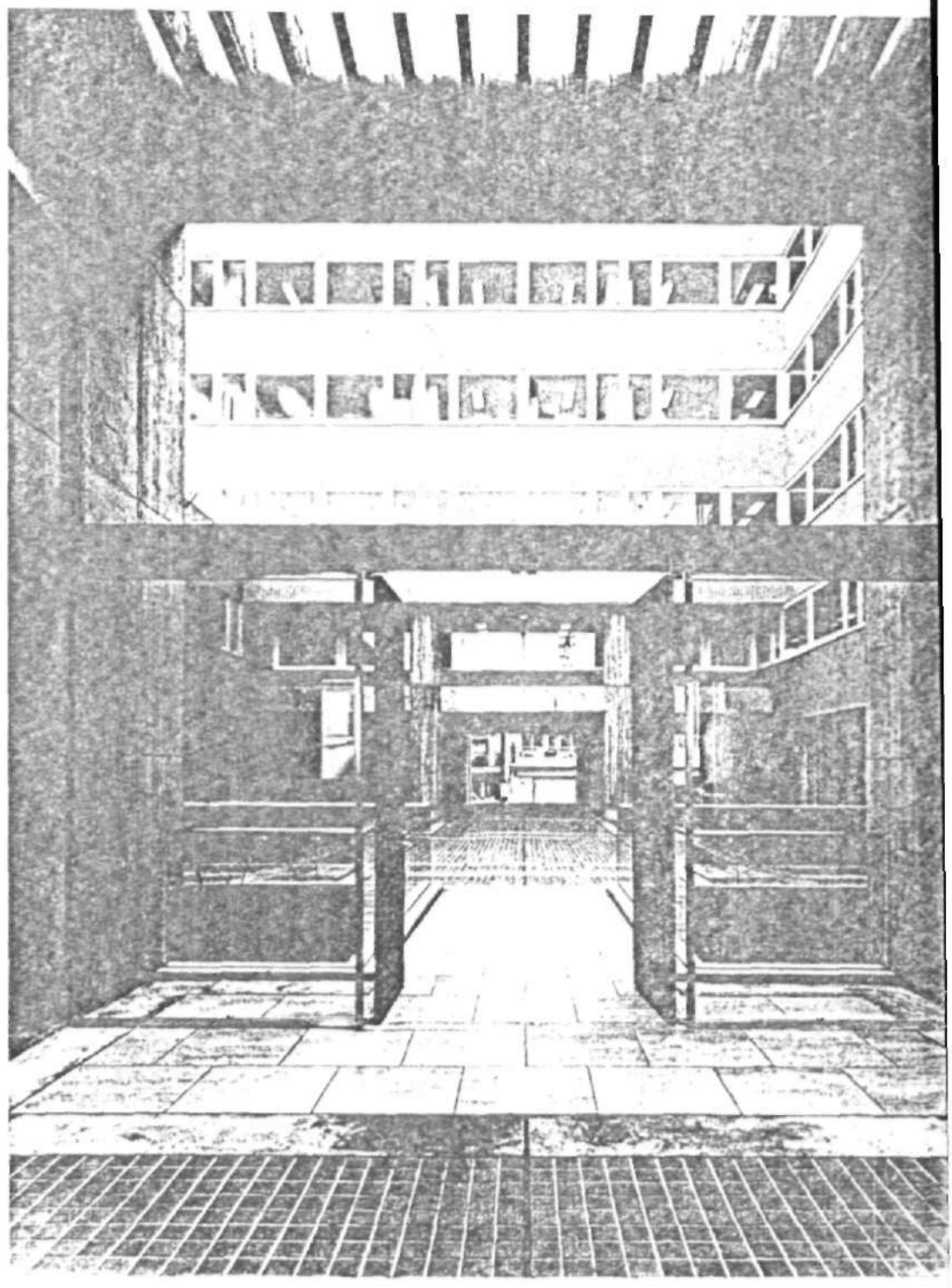
313 Land is expensive and non available for possible future expansion

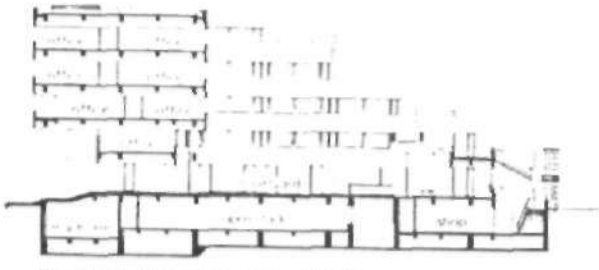
314 Due to it's location, noise pollution poses a problem though design tries to ameliorate this by having small openings to the outside.

SITE PLANNING

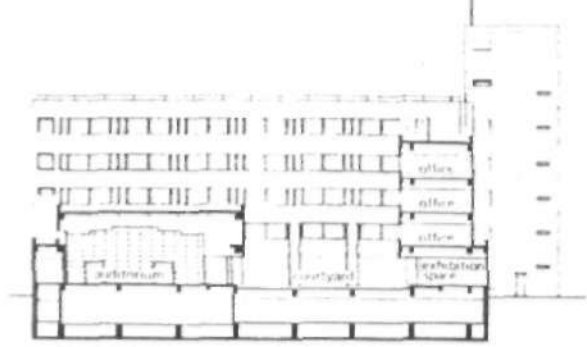
320 Due to the limited size of the plot, the whole area of the plot is built up enclosing a sizable interior courtyard.

(left) A flight of steps leads from the street level toward the courtyard and main entrance. (below) The courtyard seen through the north gate.





North-south section, scale: 1/800.



East-west section.

COMMENTS

There is no possibility for future linear expansion

There is no parking space provided

Available land is used to it's maximum

CONCEPT

The functionalist approach to design was used throughtout the building, though the courtyard concept could be discerned also from the design of the centre.

COMMENTS

The courtyards allow for effective natural ventilation and also natural lighting is aided since all sapces open to the ocurtyard.

Functional spatial relationship is greatly achieved by the centre.

Circulation of the whole building is efficient

FUNCTION

The main function is to serve the exclusive use of the Japan Association of Architects. Some offices were also provided to be leased out to bring revenue to the centre. Lectures are also expected to take place and also seminars, conferences and symposia.

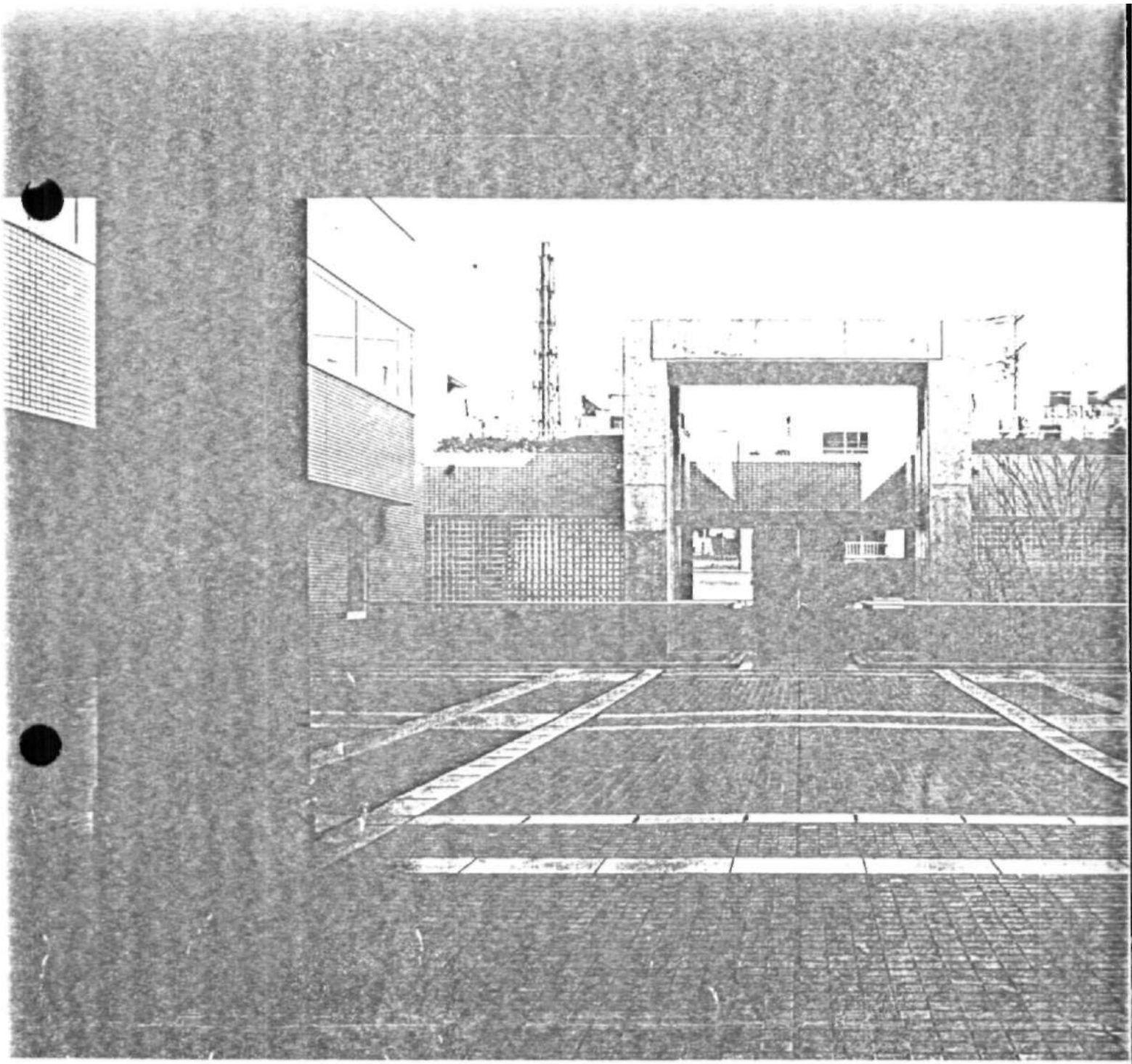
COMMENTS

Adequate functional spaces are provided for a wide range of activities.

342 The rental offices help generate enough revenue for the centre.

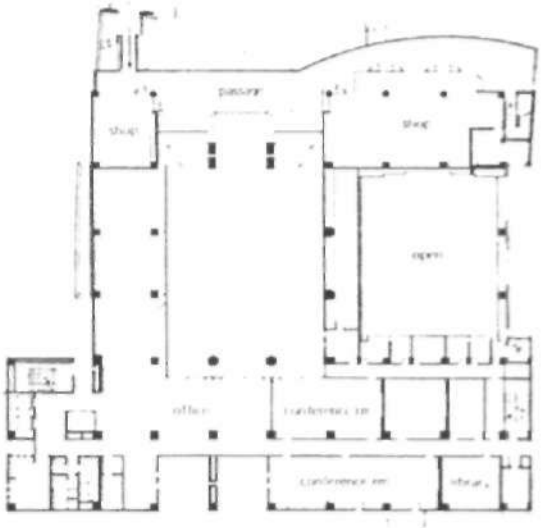
350 FORM

The architecture centre is composed of straight planer walls. The main entrance facade is of continuous planar wall broken only by windows and the main entrance on the street level.






First floor plan, scale: 1/800.




Second floor plan

The form is accentuated by the masterly use of materials, though the monotony of the planar wall is broken in the sunken garden where the rental shops curve and project along this facade.

COMMENTS

351 The form is simple but has high sustaining vitality of form.

360 STRUCTURE

The main structural compositions of the building are that of reinforced concrete and steel frame plus reinforced concrete. Columns and beams are also very well utilised and they are used to carry the floors and the roof. The roof is of the flat roof type.

COMMENTS

361 Construction required some specialised skill adding to the cost of the building.

362 The basements are not properly ventilated

363 Structure allows for easy manipulation of space and the vertical expansion of the building

370 DESIGN

The design made adequate use of available land . The building consists mainly of the basement. A five storey high office space and a two story pent house. A flight of stairs lead directly from the street level to the main entrance and the courtyard.

The lounge is immediately to the right, off the flight of stairs Ahead, to the left is the entrance hall to the offices of the centre and this leads on to the exhibition hall while the auditorium leads to the right.

The bookstore and shops are directly ahead and from this level, though the staircases and lifts, leads to the offices, conference rooms and above this are the other rental offices.

COMMENTS

371 There is adequate provision of spaces for various activities of the association.

372 The design takes good care of the disabled with the provision of a ramp

373 The various functions of the building are not properly zoned.

374 A lot of "dead" spaces dot the building.

380 ECONOMY

Most of the building materials were got locally and the construction did not require any special handling except at the basement of the building.

The material are hard wearing and thus help to reduce the cost of maintainance

COMMENTS

381 Maintainance cost is very low due to the use of hard wearing materials

382 Some revenue accrue to the institute from the lettable office spaces.

383 There is economical use of land with it's maximum utilisation.

390 OTHERS

391 LANDSCAPING

Landscaping is almost nill due to the maximum utilisation of the site. Though, here and there, some flower troughs are provided for a few platings. Thus there is lean landscaping.

392 LIGHTING

The lighting of the is both by natural and artificial means. But most spaces are lit artificially since most of the building is introverted allowing only small openings to the outside and not necessarily permitting much lighting into the building.

393 This artificial lighting adds to the cost of the building

394 VENTILATION

The centre is ventilated both by natural and artificial means. The courtyard greatly helps in the ventilation of these spaces. Artificial ventilations are used to supplement the natural ventilation where it is not adequate.

COMMENT

395 Running cost is increased by the use of artificial ventilations

400 THE NIGERIAN INSTITUTE OF ARCHITECTS, LAGOS

410 BRIEF HISTORY

The Nigerian Institute of Architects (N.I.A) was inaugurated on the 1st of April 1960 at the premises of the house of parliament in Lagos.

At this time of inauguration, it had only 13 registered members and there was no official office accommodation for the institute. Functions of the institute were carried out from the offices of Olawale Odeleye Associate in Lagos.

With time and as the number of the members continued to increase, so also did the demand for an office accommodation become much more pressing.

Thus, it was realised that a building be built which will give the practicing architects in Nigeria a permanent place of identity. A place where members of the profession could meet constantly to exchange and promote ideas about national development.

The design was undertaken by messrs Emplar Associates in Sept 1977. The building was completed in 19 .....

420 LOCATION

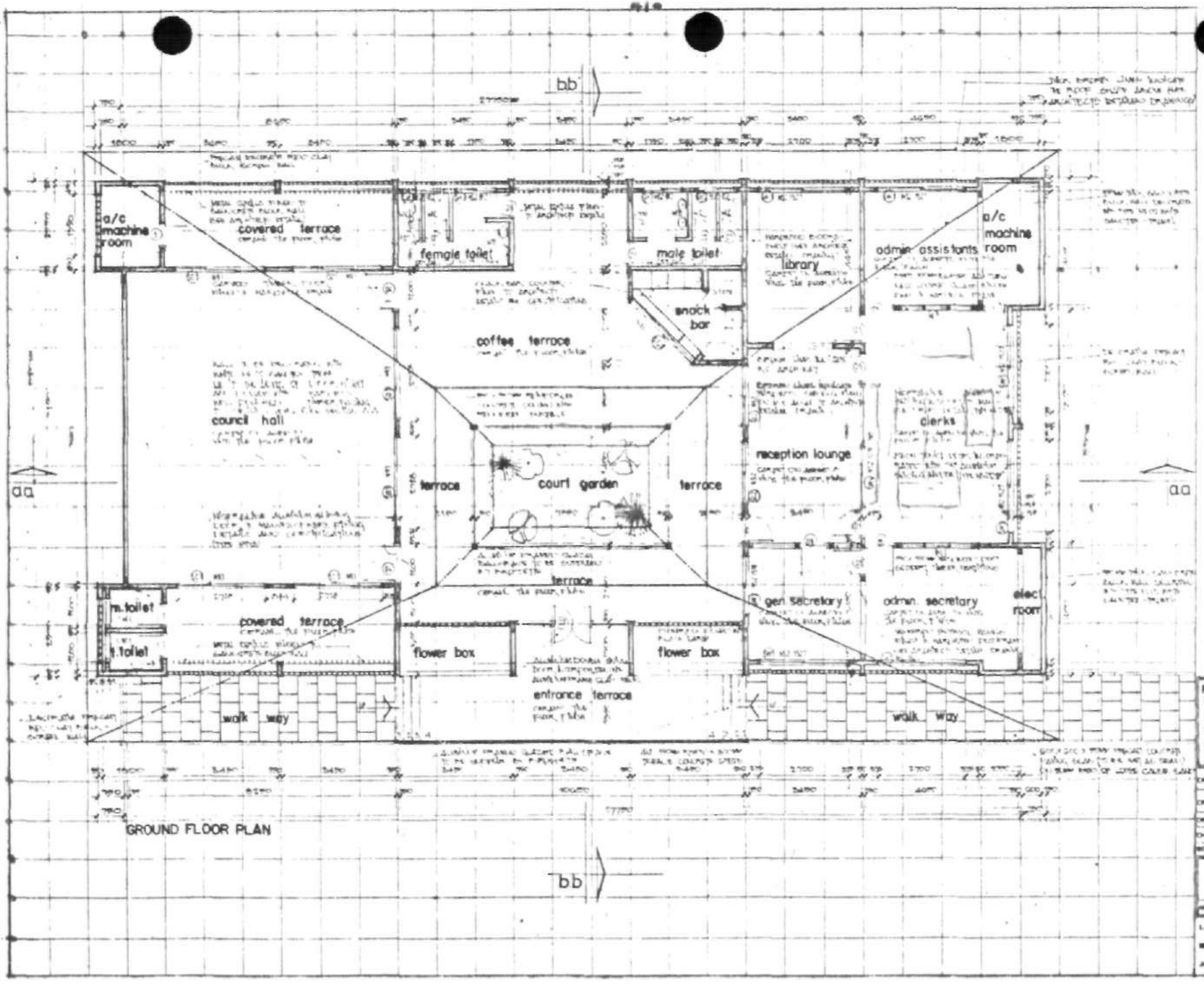
The N.I.A is presently located at the professional Centre in Victoria Island, Lagos. It's located at No. 2 Idowu Taylor Street, Victoria Island Lagos. The plot is in a strategically placed position being a corner plot.

COMMENT

421 The location makes it easilly accessible

422 Being a corner plot it has vantage control of view from two sides of the road.

423 The Victoria Island plot is a prime land which would have added to the cost of the building




GROUND FLOOR PLAN

PROJECT
Proposed Temporary Secretariat for the Nigerian Institute of Architects on plot no pc 38 Victoria island Lagos

DRG TITLE ground floor plan

DRG NO EL AG/NIA/22/2 DATE A

DRAWN

CHECKED

SCALE

enplar

ENVIRONMENTAL PLANNERS, ARCHITECTS, ENGINEERS, INDUSTRIAL AND HOUSING CONSULTANTS

LAGOS OFFICE

IBADAN OFFICE

430 SITE PLANNING

The major structure on the site is the rectangular shaped building. Approach is from the Idowu Taylor Street side. This leads directly to the parking lot after passing by the gate house.

A walkway leads to the entrance terrance of the institute with a flower through dividing the terrace from the car park all through it's length.

The building is erected towards the back of the plot using up most of the land available to it.

COMMENTS

431 There is no possibility for future expansion

440 FUNCTION

The building was designed to serve as an administrative centre for the institute and also to serve as a place of identity for Nigeria Architects.

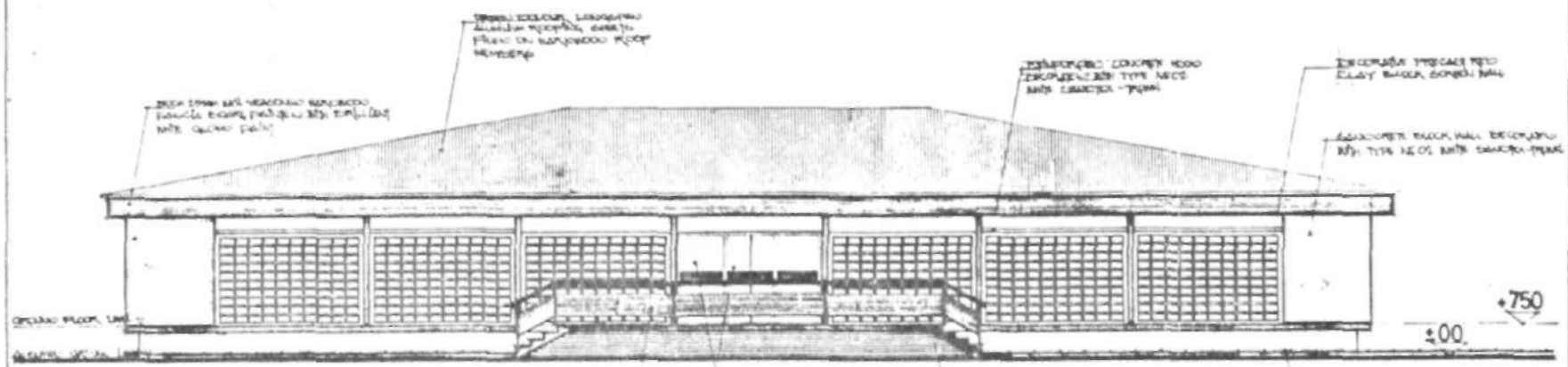
It was also designed to permit for institute members to meet informally and discuss things or events concerned with the practice of architecture in Nigeria.

COMMENTS

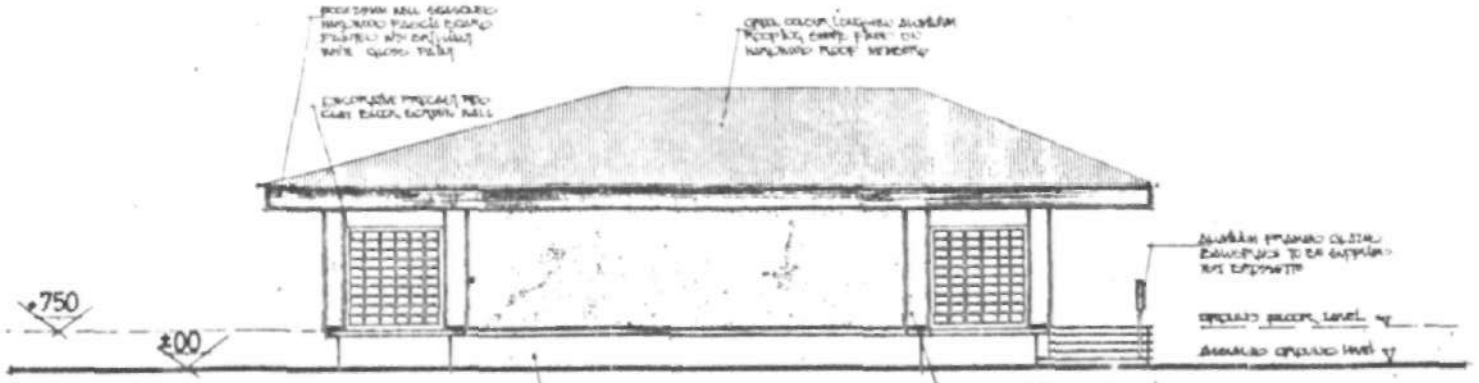
441 The building cannot cater for the various activities and functions of the institute

442 There is lack of provision of adequate spaces for the members and staff of the institute

443 The building lacks a dynamic or sustaining vitality to which Nigerian architects can readily identify with.




South elevation




West elevation

PROJECT
Proposed Temporary Secretariat for the Nigerian Institute of Architects on plot no pc 38 Victoria Island Lagos.

elevations

DWG. NO ELAG/NIA/22/A1 DATE

DRAWN

CHECKED

SCALE 1:50

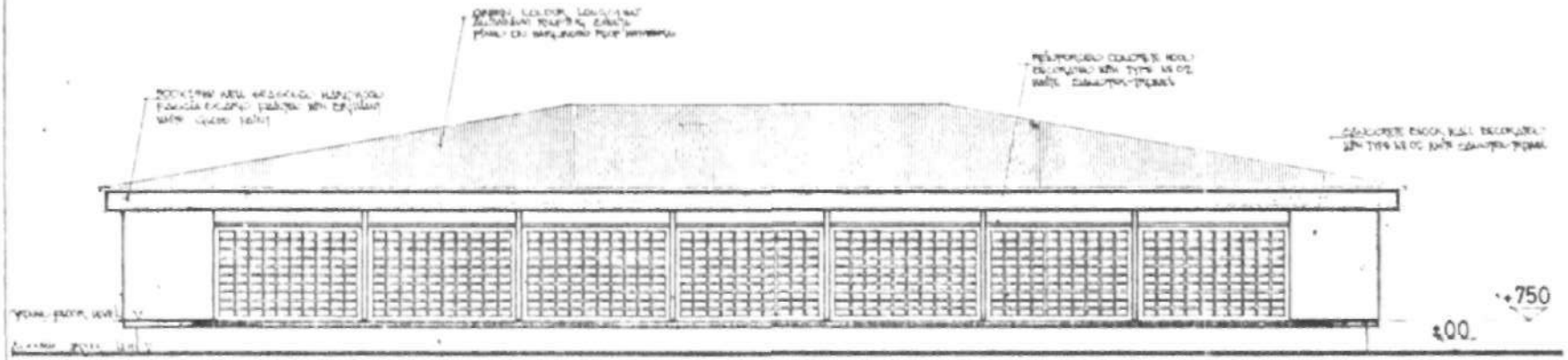
engias

ENVIRONMENTAL PLANNERS, ARCHITECTS, ENGINEERS, INDUSTRIAL AND HOUSING CONSULTANTS

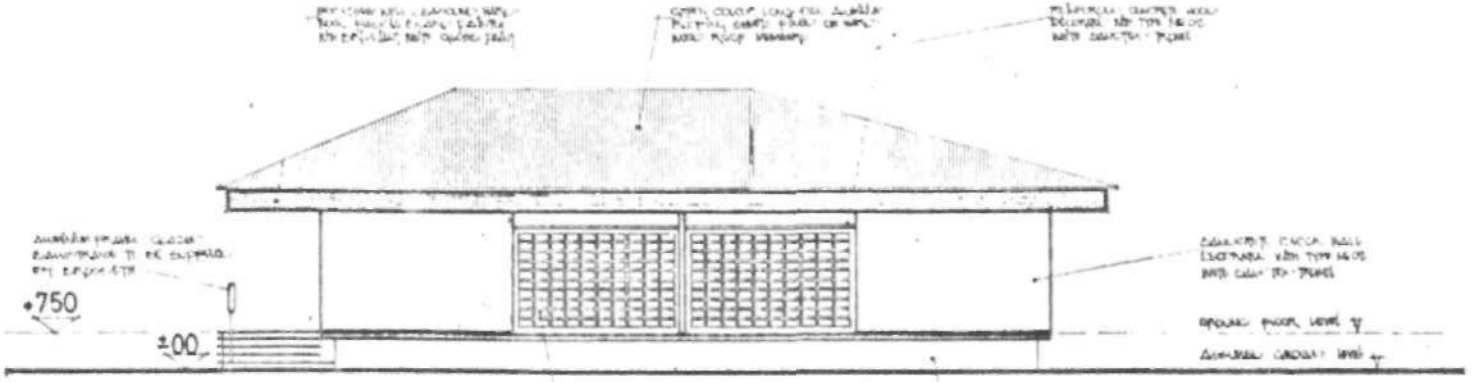
LAGOS OFFICE

IBADAN OFFICE

JOS OFFICE




North elevation




East elevation

PROJECT
Proposed Temporary Secretariat for the Nigerian Institute of Architects on plot no pc 38 victoria Island Lagos

elevations

E.LAG/NIA/22/5

enplar

ENVIRONMENTAL PLANNERS, ARCHITECTS, ENGINEERS, INDUSTRIAL AND HOUSING CONSULTANTS

The building is a simple double pitched roof over a rectangular base. It is composed mainly from an interplay of rectangles and triangles (see diagram). This interplay is carried higher to achieve a symmetrial design all through the building.

The roof could be said to consist of four pairs of triangles through each broken by a rectangle.

The facade is composed from rectangles and with some of the rectangles being further broken into a composition of perforated or screen walls. There is the achievement of symmetry all around the building.

COMMENTS

The building is overly simplistic and does not portray the type of activity that is being carried out at the building.

The building lacks character, allowing itself to be dominated by all other surrounding buildings and thus failing in one of it's primary functions; a symbol of identity.

STRUCTURE

The structure of the building is quite simple. The foundation is of simple strip foundation though good care had to be taken because the area used to be water logged being on a reclaimed land.

All external walls areload bearing walls except the screen walls and partitioning walls. The design is based on a 1.2m grid planning.

COMMENTS

461 The structure of the building is very simple and easy to erect.

462 It did not require any specialised labour to build, thus

463 There was economy in the use of material.

470 DESIGN

The entrance to the building leads directly into the courtyard t terrance. The entrance is reached from the parking lots by two walkways

on both sides of the building. And this parking lot is reached through a gate at the Idowu Taylor Street side of the site.

From the courtyard terrace, to the left, is the council chambers and the main activity spaces provided at the secretariat. Also some conveniences are provided here. The covered terrance to the back of the council hall has been coverted into office space.

To the right hand side of the courtyard terrace is the reception lounge which also opens into the library and the general office. The general office also opens into the administrative secretary's office and the P.R.O. and also to the Honourable Secretary General's Office.

Most clerial works are carried out in the general office. Accountring work is also carried out from this general office. Sales of magazines and souvenirs are also sold here.

The reception lounge of the institute gerves for relation and doubles also as exhibition hall.

The courtyard terrace and a kitchenette.

COMMENTS

471 There is effective ventilation of the interiors of the building

472 Circulation within the building is okay except for a few collision points in the general office.

473 The courtyard and screenwalls allow most of the spaces to be naturally lighted.

474 Adequate flexible spaces were not provided in the secretariat for use

475 The design did not provide for possible future expansion.

480 ECONOMY

With the simple composition of the building, it did not require specialised method of building and the finishes are also simple. Most of the material used were got locally.

In terms of land, the site is located on prime land and it would require maximum utilisation of the land.

COMMENTS

481 There is lean simplicity in the use of materials

482 The materials respond favourably to the climate thus helps in reducing maintainance cost.

483 Being on prime land, maximum vertical utilisation of the land was not taken into consideration

490 LANDSCAPING

All around the fence of the secretariat are planted flowers. And also between the entrance terrace and the parking lot, there exist the flower lrough which extends throughout the facade of the building.

COMMENTS

491 The flowers are not well kept making the building look like a horticulturist centre.

492 The flowers block the proper view to the building.

OTHERS

LIGHTING

Most of the spaces are naturally lit and reinforced by artificial lighting system. A standby generator also supplies power to the complex in case of power failure. Thus the lighting system of the secretariat is efficient and sufficient.

VENTILATION

Ventilation is both by Natural and artificial means which is actually a supplement. The windows and the screen walls with the courtyard form a system of ventilation system when the artificial ventilators are not in use.

REFERENCES

1. Architectural Records ed. Dieon Morris May 1973 pp. 131 - 140

2. Ibid 1

3. Ibid 1

# CHAPTER EIGHT

## THE SITE

### 00 LOCATION CRITERA

Possible criteria for locating the Secretariat for the Secretariat of the N.I.A.

(i) The area should be active in terms of the practice of the architectural

(ii) Good accesibility to all parts of Nigeria

(iii) Being possible influence on govt policies, Architects should have their Secretariat very close to the seat of power.

The choice of location thus rests on Abuja or to continue to be Lagos, but analysis shows that Abuja will be more preferable because

(i) It's the mark capital city of Nigeria

(ii) It is easily reached from all corners of the country being centrally located

(iii) It will be very close to seat of government

(iv) Being a new capital, a lot of developments are emuisage to b be carried out requiring the attention of the institute.

Thus Abuja was chosen over Lagos which now enjoys some of the above mentioned facts, but which will be taken away from her later.

Also Lagos is not centrally located.

### 2 SITE SELECTION CRITERIA

MACRO SITE SELECTION

This has been necesitated by the location of the N.I.A. with a portion of land knows as the professional centre. This centre must

(i) Cater for the land need of all professional and voluntary organisations

(ii) It must be located not far from the central business district

(iii) It must be easily accessible

(iv) Provision for future expansion

# MAP OF NIGERIA - showing the states




LAGOS STATE ϕ PRESENT LOCATION OF N.I.A.

ABUJA AND PROPOSED LOCATION OF N.I.A.

BOUNDRY LINE

SITE A. (Fig

Merits

(i) Site easily accessible and well serviced

(ii) Close to the central business district and seat of government

Demerits

(i) Site is very small and cannot accommodate future espansion

(ii) Too much noise likely from surrounding activity areas

(iii) The site liable to flooring

Conclusion: Site not advisable for development

SITE B (Fig

Merits

(i) It is easily accessible by the use of the freeway and arterials

(ii) It has enough land for possible expansion in future

(iii) Site configuration lends itself to flexibility of land allocation

(iv) There is exclussiveness giving the centre a possible distinct character

Demerits

(i) Site is far removed from the main centre of activities

(ii) Extent of possible expansion reduced by zone of undevelopable land.

Conclusion:- PROPOSED PROFESSIONAL CENTRE.

SITE C

Merits

(i) Site is large enough for possible future expansion

(ii) It's close to residential district

(iii) Some degree of exclusiveness

Demerits

(i) Much noise from the highways

(ii) Far removed from the central district

Conclusion:- Considered as alternative site

MICRO - SITE SELECTION CRITERIA (Undertaken after chosen site is partitioned

(a) Chosen Site must allow for future expansion

(b) The Site must not subordinate itself in the final layout

(c) It must be easily accessible

SITE E

Merits

(i) Has exclusiveness of site

(ii) Has advantage of being a corner plot

(iii) Easily accessible from the freeway and connector road

(iv) Good view towards the roads.

Demerits

(i) Further expansion inhibited by zone of possible expansion

Conclusion:- Chosen Site

SITE F

Merits

(i) Closer to other professional bodies

Demerits

(i) Standard plot size

(ii) Possible overwhelming of site

Conclusion:- Possible alternative site.

SITE ANALYSIS

Site Macro - Climatic conditions

Humidity

There is low humidity during the dry season coupled with high afternoon temperatures, this accounts for the dessicating effect of the dry season. In the rainy season, the relative humidity is high and temperature is slightly lower and this creates a heat trap thereby making the place uncomfortably hot.

COMMENTS

(i) Design solution must cater for proper ventilation and

(ii) The possible use of artificial ventilatoms

Rainfall

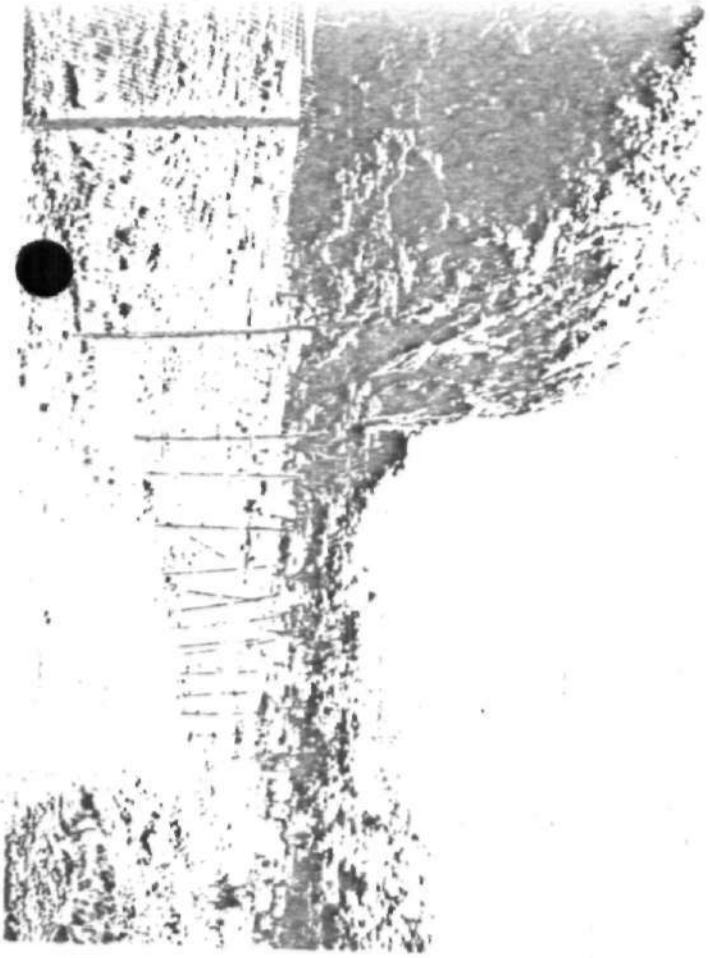
The rains start in the Federal Capital Territory around the 10th of April and tapers rapidly after the 20th of October. Duration of the rainy season is between 180 and 190 days. Mean monthly distribution shows a tendency for concentration in 3 or 4 months. In Abuja, 60% of the annual rainfall is in the months of July, August and September.

Squall lines are also frequent laced with thunder and lightnening followed by strong winds and intense rainfal which may last a few hours. The line squalls normally happen in the afternoon and could cause serious properly damage.

COMMENTS

(i) The concentration of rainfall calls for need of drainage design that would handle large volumes of water very rapidly

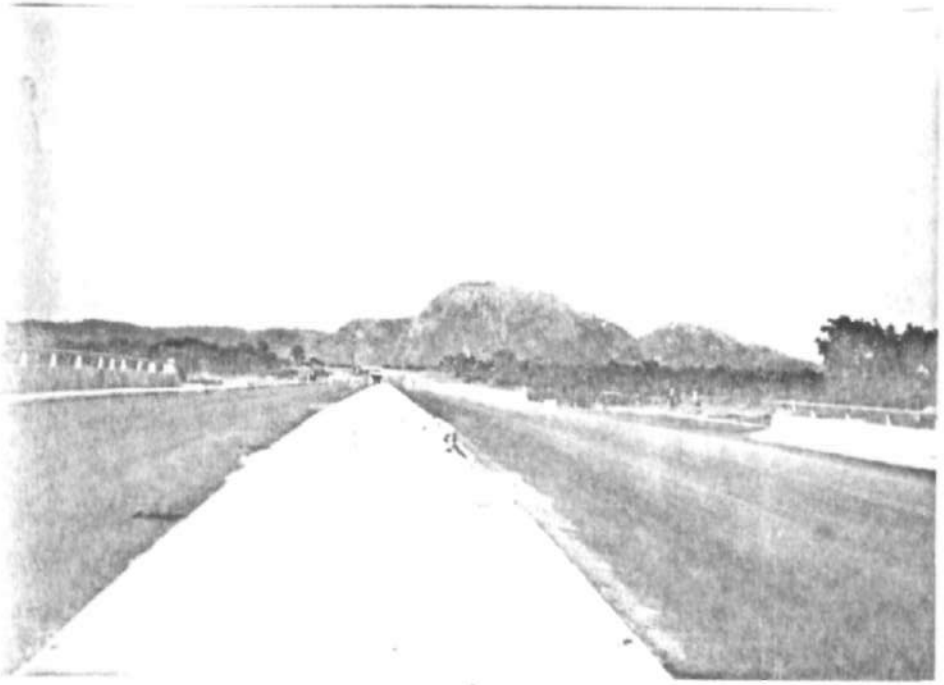
(ii) Possible damage due to the forces of the line squalls must be taken into consideration.



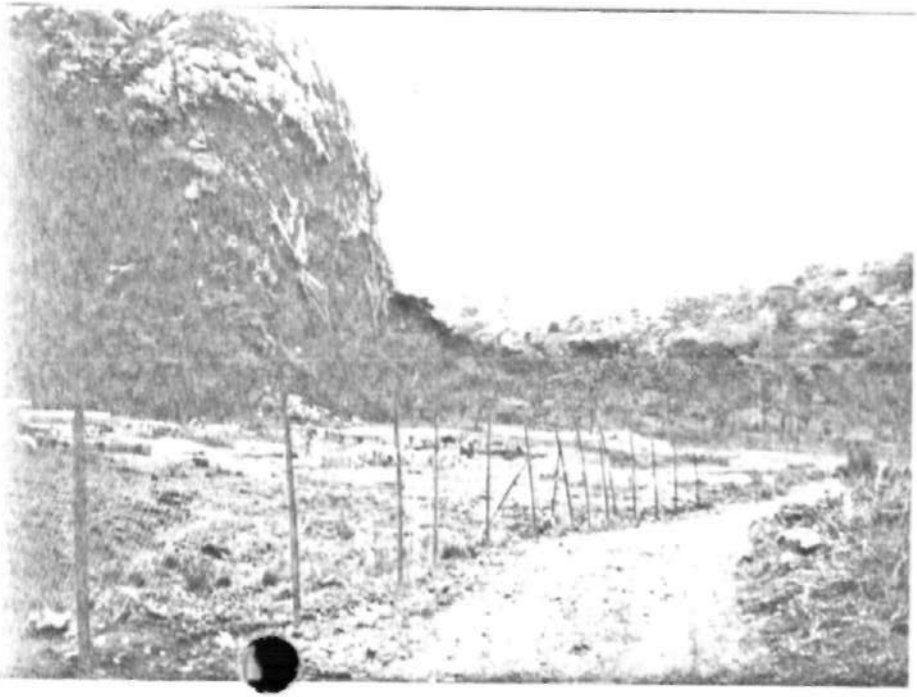


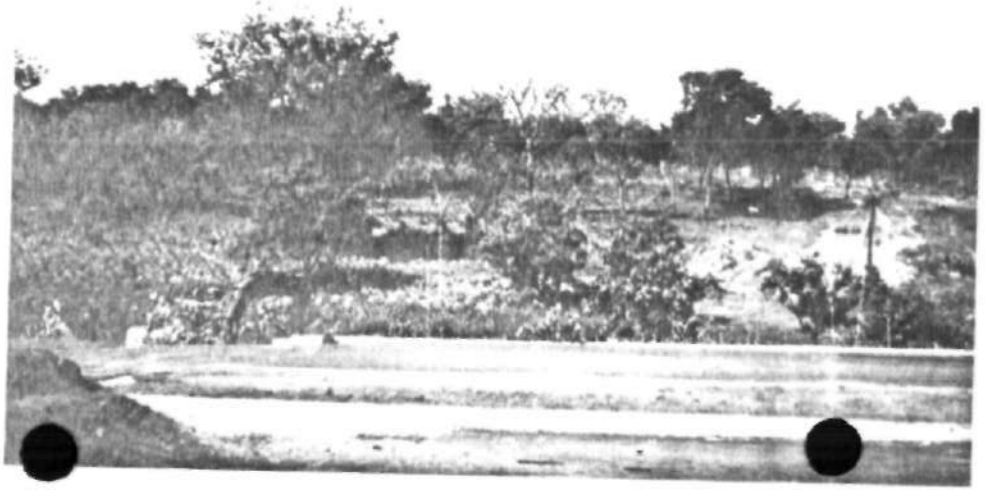












Sun and Cloud Cover

The further away from the Coast, the more the general increase in number of sunshine hours. Abuja area is exposed to about 2,500 sunshine hours annually.

During the dry months (November-April) the monthly variation in the amount of sunshine follows the general trend of an increase from 275 hours over the city site. The approach of the rainy season, reduces the sunshine hours due to cloudiness. This decline becomes intense as the rainy season progresses and reaches it's lowest values in the month of August causing possibly a temperature inversion over the city site.

COMMENTS

Adequate sunshading devices must be thought out for the building.

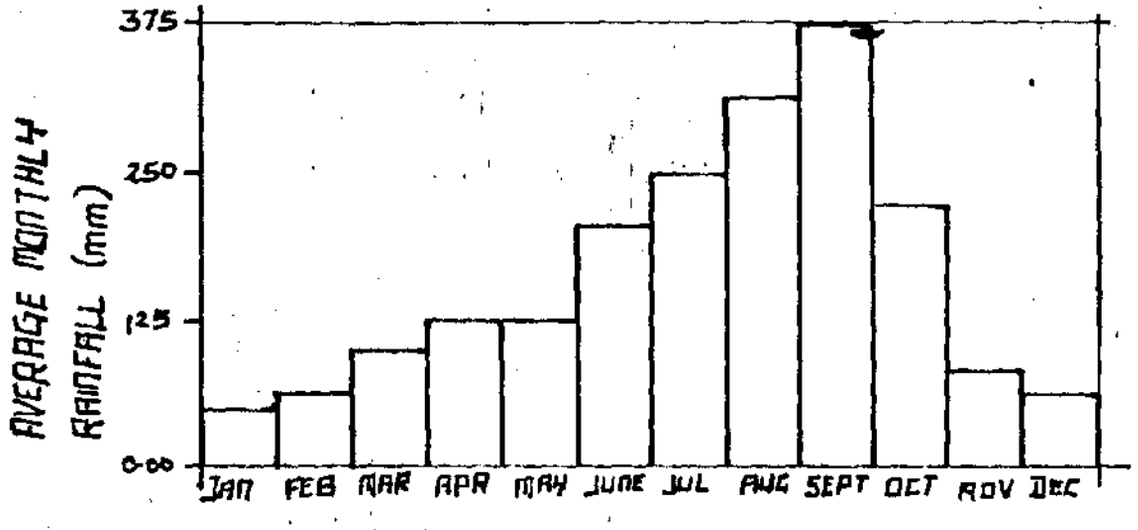
TEMPERATURE

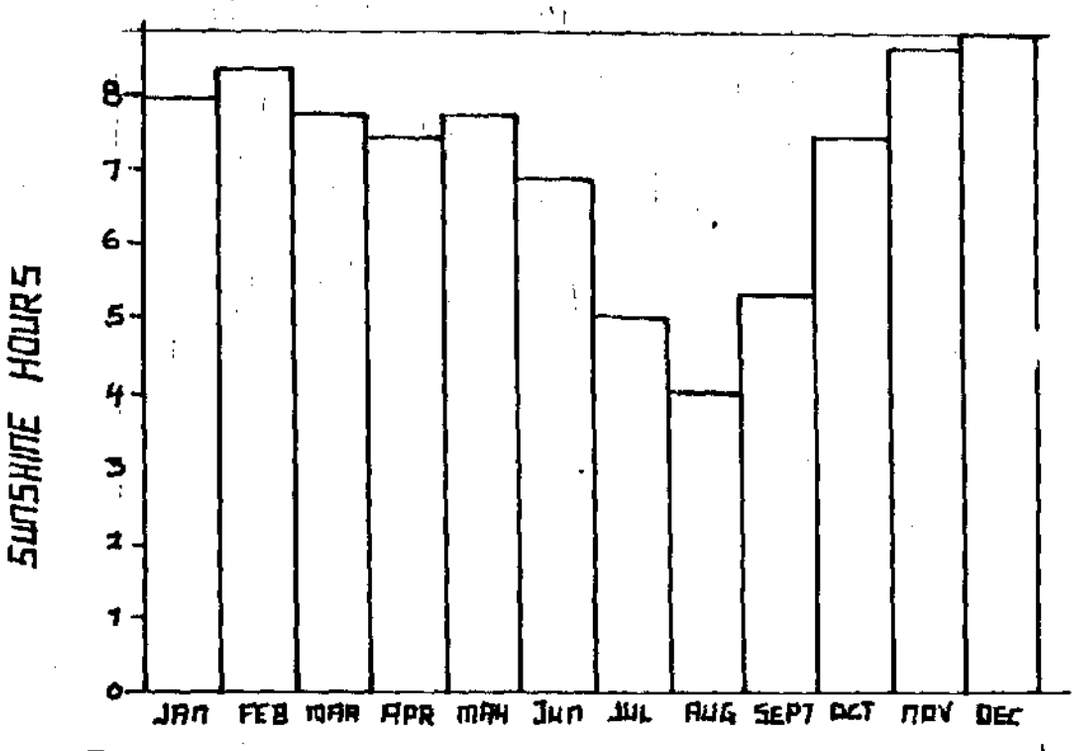
The FCT records it's highest temperatures during the dry season when there are a few if any clouds. Changes in temperature as much as 17°C have been recorded between highest and lowest temperature in a single day. During the rainy season, the max temperature is lower due to the dense cloud cover. Diurnal range is also much lower sometimes not more than 7°C in July and August (Fig X.....

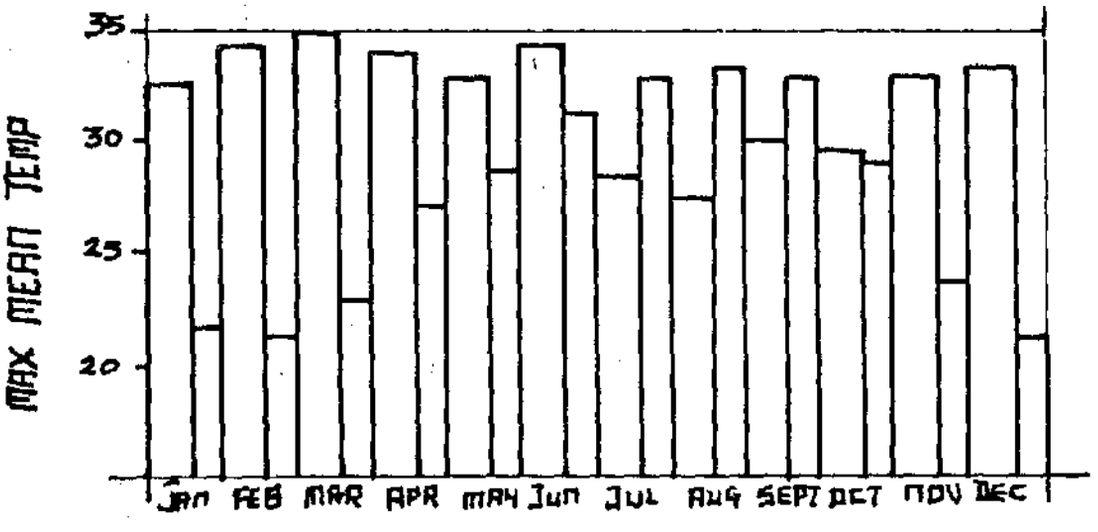
Wind and Dust

Two major air mases dominate the climate of the FCT. These are the tropical maritime air mass and the tropical continental air mass. The tropical maritime is formed over the Atlantic Ocean to the south and is therefore warm and moist. It moves inland generally in a southwest to northeast direction.

The tropical continental airmass is developed over the Sahara desert and therefore is warm and dry and blows in the opposite direction, Northeast to Southwest. It is the interfoue between these two air masses that dictate the intensity and duration of the wet and the dry seasons.


AVERAGE MONTHLY RAINFALL (mm)
375
250
125
0·00
JAN FEB MAR APR MAY JUNE JUL AUG SEPT OCT NOV DEC


SUNSHINE HOURS
8
7
6
5
4
3
2
1
0
JAN FEB MAR APR MAY JUN JUL AUG SEPT OCT NOV DEC


MAX MEAN TEMP
35
30
25
20
JAN FEB MAR APR MAY JUN JUL AUG SEPT OCT NOV DEC

In June, the northerly flow of air component has weakened and only the southerly flow predominates. Being moisture laden, it brings a lot of rain. In September, the tropical continental begins to intensify over the territory and the northeast trades become the dominant wind from October to March bringing with it dry, cloudless but dust laden conditions associated with the harmattan.

Mist and fog are not uncommon around this period due to temperature inversion reducing visibility at times to below 100m due to dust particles which float in the air or settle as thin film over furniture and other objects.

COMMENTS

(i) Trees should be planted as wind breakers on the Site

(ii) Openings to be made with due regard to wind direction

Micro - Climatic Condition of site or Physiography

Topography

The site slopes generally from the junction of the roads towards the undevelopable zone of the site. The whole site is more or less relative flat.

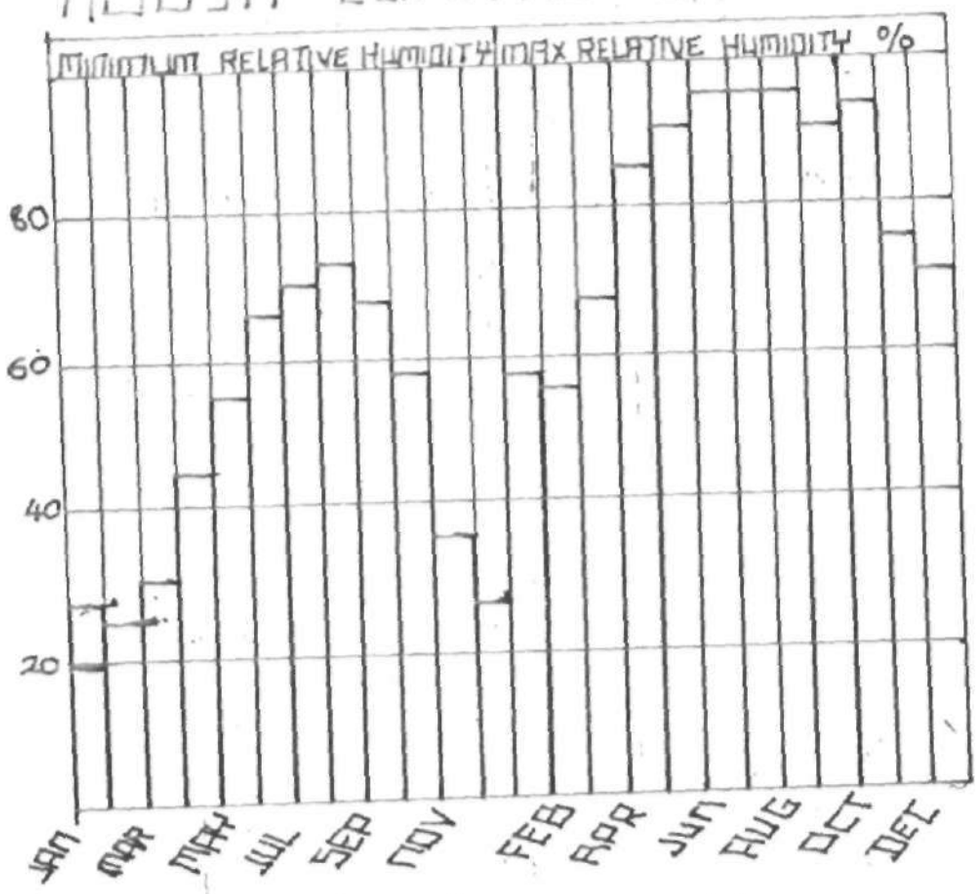
COMMENTS

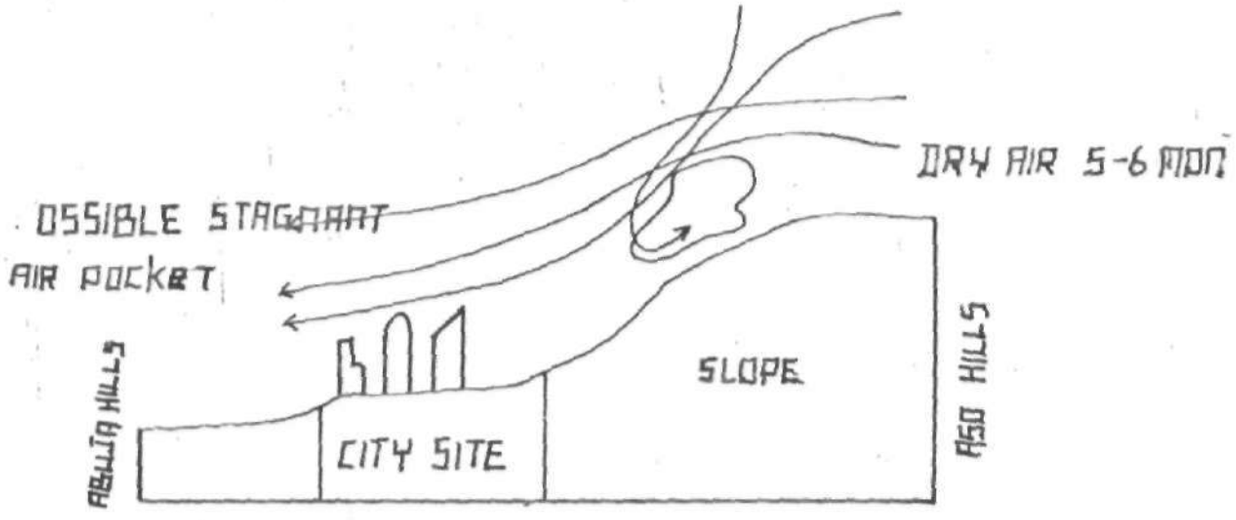
(i) Acute drainage problem not expected

(ii) Cut and filling in of land might not be needed

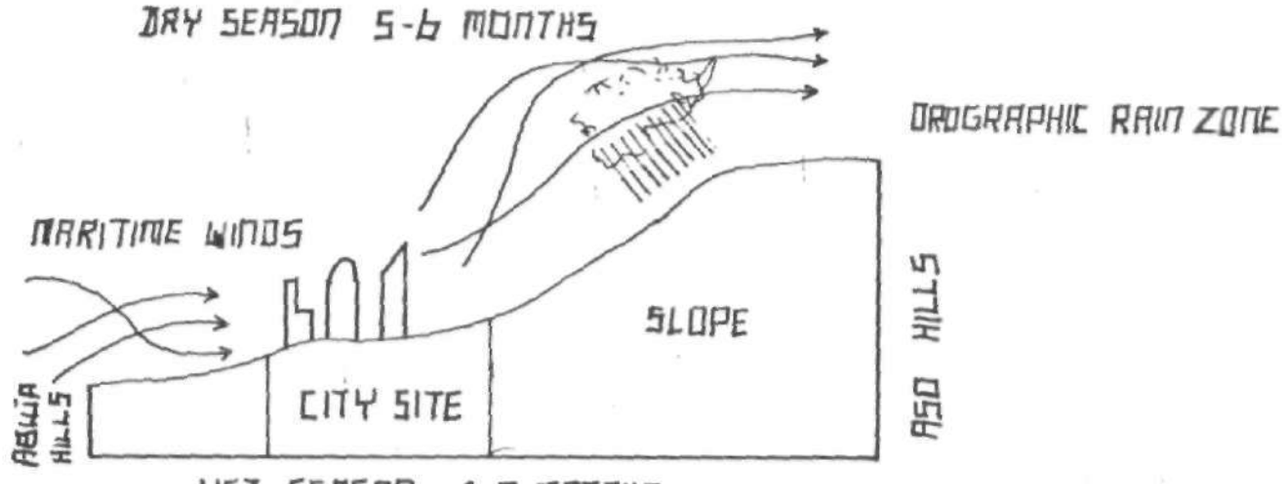
Soils

The soils are deep and well drained and they belong to the "LUSE TYPE" housing low to moderate erodibility and run-off potential. The texture is typically loamy to sandy clay loam




DRY SEASON 5-6 MONTHS




WET SEASON 6-7 MONTHS

COMMENTS

(i) The site workability will be high

(ii) The fertile soil will aid very good landscaping on the site

Geology

The site is made of migmatite metamorphic rock outcropings which are reddish brown in colour and has enough strength to withstand engineering structures.

Vegetation

The characteristic vegetation type is park savanah which normally produces a leasant open but partially shaded environment, though this is undergrown with tall grasses.

Road Analysis (Fig.....

Site Analysis diagram

Site Sections

Sun shading Devices Design (Fig.....

Time Correction

Longitude 0 12noon

Long. 7°E 7y4mins 28 mins 12.28p.m

The permanent overheated period

10.28 a.m. - 4.28 p.m

Activity period

7.28 a.m - 3.28 p.m

Functional Over heated period

10.28 a.m - 3.28 p.m

Site photographs.

# CHAPTER NINE

## THE DESIGN PROCESS

### 9.0 INTRODUCTION

This is more or less a synthesis of all the data gathered in the preceedings Chapter. They shall help to help evolve a viable proposal. Thus the design parameters shall be many and varied. They range from the site planning aspect of the design to the functional space and to the form. The previous study shows that a building to be evalued must be dynamic and have a lasting and sustaining vitality.

### 9.1 FUNCTIONAL REQUIREMENT

These are requirements that have arisen from the needs of the proposal for a successful implementation of it's aims and objectives.

One noticeable feature of the work os the architects is that of designing for the people. Thus, the architect comes into constant touch with the people. Also, a building for a body of architects must not be a closed one but must be left for a ploce for the people, (public). This will help open up the activities of the architects to the otherwise uninformed public.

Another requirement of the Nigerian Institute of Architects is that it will serve as a repository of knowledge concerning the practice and the profession of Architecture. Almost all information will be made available at the secretariat.

Another functional requirement of the proposal is that it has to serve as a working place. That is the provision of office spaces for the running of the affairs of the Nigerian Institute of Architects.

## 9.2 FUNCTIONAL ANALYSIS

### a. Administration

This section is to house the offices of the executive members of the N.I.A. and the various administrative officers at the N.I.A. The offices are to be able to lend themselves to flexibility and adaptability. They must be well lit and made condusive for normal condition. In some form of payments and also enquiries will be made here and adequate provision to be made for same.

A lounge, for the relaxation of visiting members to be provided apart from offices that are present.

President's Office

This is an office for the President of the N.I.A. It's mainly symbolic since the president might not be there all of the time. But the office should be large enough to take informal meetings and the receiving of visiting guests of the institute. Some space for file storage would have to be provided too.

Secretary general

The Secretary General is the administrative work house or head of the institute. In terms of administration, the buck stops at his desk. Requirements are also to be made as in the case of the President's Office.

Council Chamber

This is the Chamber used salely for the executive members of the institute and others that may be invited to attend the council meeting. Spaces for filing of documents should be provided.

Committee Rooms

About 3 committee rooms are to be provided. They are to be used by the various committees that form part of the working organ of the institute. The rooms should lend themselves to possible other uses.

Auditorium

The auditorium will be utilised for multipurpose functions involving the institute and also to be rented out to other bodies for carrying out their functions. Most of the functions of the institute should lend themselves to possible easy use of the space. Such activities will include, architectural film displays sketch drama, symposium, lectures, Annual General Meetings professional practice examinations and others.

Thus flexibility and adaptability is the keyword. Also good aeoustics lighting and ventilation is quite needed at the auditorium.

Laboratories/Workshop

These would be spaces provided for possible research and carrying out of project work. Activities which will include carpentry wood work etc. will be carried out here. Some form of experiments are also envisaged to be carried out in this area. Laboratory attendants would be housed here and they would be expected to take charge of the materials stored in the laboratories.

Library

The library is expected to be a thoroughly research oriented. It would be used by all members of the institute only and those accredited to use it. Thus more space will be alloted to the stocking section according to standards. The scope will require the need of a trained librarian and other supporting staff.

Museum and Exhibition Plaza

On next 2
The museum is to be used for the storage of architectural models, old building or materials, landmarks in Nigeria and others as may be decided by the members from time to time.

Exhibition Plaza

This is to be used for the periodic display of architectural drawings and models. It should lend itself to possible use by members of the institute and the public at large.

## REVENUE GENERATION

### Rental Offices

These are offices that are to be given out for rent. They are to be designed as speculative offices though the type of client or tenant could be dictated but for maximum return, it could be left speculative.

### Bookshop

This would be run by a private individual or the institute. It would specialise only, in the sale of books and materials related to the architectural profession. The publications of the institute, souvenirs, emblems and so on would be sold here. And it would have to be located not too far from the entrance.

### Shops

These are shops that would be let out to well known artists or other related professions, to exhibit and work. These would include painters, sculpture, weavers, carpenters etc. all of very high repute so as to help draw a lot of clientele to the activities of the N.I.A.

### Snack-Bar

It will be used for the relaxation of users of the institute and visitors. The Kitchenette will be use for the cooking of light meals to be sold in the snack bar while store would be used to store empty and full crates of minerals and other drinks that need be stored.

## GENERAL

### Parking

Two kinds of parking are recognised here on the site. They are the staff parking and the visitors' parking lot. Provision to be made for Cars and motorcycles.

## 9.3 SCHEDULE OF ACCOMMODATION

### EXECUTIVE COUNCIL OFFICES

- President
- Honourable Secretary-General
- Assistant Secretary-General
- Public Relations Officer
- Treasurer
- Financial Secretary
- Education Secretary
- Council Chambers
- Committee rooms
- Members lounge/Coffee room
- Social garden

### ADMINISTRATIVE OFFICES

- General Secretary
- Assistant General Secretary
- Finance Office
- General Office
- Reception
- General Store

### EDUCATION FACILITIES

- Laboratories
- Workshops
- Data room
- Offices
- Auditorium
- Library
- Storage
- Museum
- Exhibition Hall
- Outdoor exhibition Plaza
- Publications

REVENUE GENERATION

- Rental Spaces for
- Offices
- Craft Shops
- Painters

GENERAL

- Maintainance
- Toilets
- Storage
- Janitor

CHAPTER TEN

# THE DESIGN CONCEPT

## THE SEARCH FOR FORM

Normally, it is based on the idea that every design problem begins with an effort to achieve fitness between two entities. The form in question and it's context. The solution to the problem is the form and the context defines the problem.

The context as related to the thesis is that of the provision of a rigorously efficient building and the problem is the form of the building of the N.I.A. Thus the real object might not be the form alone but the enselnble comprising the form and it's content.

"The rightness of the form depends in each one of these cases, on the degree to which it fits the rest of the ensemble"-Xtoper Alexander on Notes on the synthesis of form.

Thus a search for form in the content will be stricted to include so called traditional forms and "International forms".

The traditional architecture lacks a variety in forms. This may be due to the lack of variety of building materials and or technology. The traditional architecture also lacks dynamism. It is almost static and does not undergo evolutionary changes. This might be due to the fact that it has served all the basic needs of the common man. In contrast, to indigeneous architecture, modern architecture is modon and dyn mic and has universal technology. Thus can a form be indigeneous or universal? The universality of form is most acceptable since all shapes are a derivation from the basic forms. True as the above statement may be the search for a generally adceptable form for the Nigerian Institute of Architects is expected.

Thus it might be is usual to adopt the most developed of the archy style available. But how to judge the best poses a problem especially in the context of Nigeria problems. viz past civil war, OIC census figure Quota System, Federal Character etc.

Another method is the combination of the elements of the three dominant tribes of the country. But due to climate, culture, material available and level of developement, this might be unpracticable.

Symbolism could be attempted but there exists the problem of determination of symbolism. Thus the return to the rudimentary forms become pertinent According to Le Corbusier, "Cubes Cones, Spheres, Cylinders or Pyramids are the great primary forms that light reveals to advantage. The image of these is distinct and tangible within us and without ambiguity. It is for this reason that there are beautiful forms, the most beautiful forms". These primary forms can be said to form all of man composition and all buildings, from the primordial hut could be reduced to just these. And it is for this that the primary forms are used in the architectural solution since they form the primary forms which the architect use in the solution of his problems.

SOLUTION

The circle has been employed. The quality of it's being centralized introverted, normally stable and self centering in it's environment. Placing a circle in the centre of a field will reinforce it's natural centrality and associating it with straight or angular forms, or placing an element along it's circumference, can induce in it an apparent rotary action.

The Triangle signifies stability. When resting on one of it's sides, the triangle is an extremely stable figure. The square represents the pure and the rational. It's neutral and static natural figure having no prefered direction. All other rectangles could be considered as variations from the norm. square.

The sphere is centralised and highly concentrated form. It's also self centering and normally stable, in it's environment. From any view point, it returns it's circular shape. Other possible forms are the cone, pyramid and the cube.

Site Planning Concept

As much as compactness of design is necessary, the site is intended to invoke a sense of openness. This helps psychologically in drawing people to the site. And thus helps to achieve one of the aims of the Project.

# CHAPTER ELEVEN

## DESIGN REPORT

### The Site

Compact site planning has been rigorously purused in the planning of the site. This has been necessitated by the envisaged possible cost of land in Abuja in the future. Also because of future possible expansion, this compactibility has been pursued to a logical conclusion. The wings of the building have been designed around an open courtyard for maximum possible natural ventilation.

The site catered for both pedestrian and vehicular circulation. Because of the corner location of the site, the circulation provided for two possible pedestrian access for possible maximum experiencing of the building. A pedestrian access is provided from the B6 road and the connecting road from B6 to the Wuse district. These two pedestrian access roads enclose an architectural garden which is well planted to present a cool and pleasant environment and for possible enjoyment of the site by passers by.

Parking is provided for on the approach side of the site through the connector roads. The parking space provided is few in number since this is likely to eat up a lot of valuable land space on the site. Moreso, it is proposed in the master plan for parking garrages and parking lots not far from the complexes.

The whole site has been well landscaped with the use of select trees and grass to give a naturalness to the structure on site and provide cool environment for the carrying out of the various functions on site. The delivery yard has been placed conveniently at the rear of the site for easy service.

Plans

The planning has been based on free planning for possible flexibility of the spaces. Since it was discovered from case studies that, the function and activities of the N.I.A. will continue to increase and become much more varied. Most dimension has been put in the multiples of 1.5m.

Three basic primary forms have been used. This is an attempt in conceptualising the N.I.A. as the convergence of divergent ideas that are meant to blend in one location. This is reasonable moreso when the institute is meant to serve as a unifying spot for "unity in diversity". The use of the forms is a conscious attempt to force users to experience these spaces.

The part of the circle has been adopted for the administration wing. The circle has the property of centrality and concentration of form. It thus gives the administration some centrality and repose. This administrative wing has been made to project so as to assert itself on the site.

The entrance foyer leads into a lobby from where there is the trifurcation of spaces and function. Immediately ahead is the exhibition area and museum that has been demanded by the use of levels. On this floor also is the library which is also connected at the upper level to the reference section of the library.

On this level is the continuation of the exhibition space and other ancilliary spaces.

And on the last floor of the administrative building is the spaces for the administration, house all secretariat's administration.

To the left of the lobby is the second wing or revenue generation wing rentable offices have been provided to generate revenue for the institute. The ground floor has been designed to cater for shops which are specifically related to the arts. The form used here is the rectangle which is a deviation of the square which is the one of the primary forms.

The third wing is the educational wing which has provided for the auditorium and the workshops for testing of materials and other laboratory works related to architecture. The form utilised is the triangle.

All the forms have been tird to the diameter of the circle to give a unity of purpose to the institute.

Circulation

The circulation around the complex has been designed to be free flowing to give a lot of freedom to the users of the building. Their free flowing has also allowed for good coordination.

Elevations

The elevations has been designed to make use of contrasts in form for visual vitality. The composition, being of primary recognisable forms, will always leave a lasting impression on the mind of the viewer. Thus the building will likely be imposing without necessarily overwhelming the observer, instead the observer gets overwhelmed. The forms have high sustaining vitality and will surely always stand out in it's environment, thorugh good proportioning of the forms and their interrelatedness.

Ventilation and Lighting

Maximum natural ventilation is ensured in all the wings through the windows provided and the courtyards. The bays also are not made deep to allow for maximum ventilation and lighting. The curtain walling will help entrance the lighting while in the exhibition area, the geodesic dome will help light and give life to the space enclosed therein. All spaces have opening to the outside.

STRUCTURE

In the administration building, the use of beams and columns have been used and contilevering on two floors with the use of reinforced concrete. In the rental offices, two-way waffle grid structure slab with reinforced concrete pilottis has been utilised.

SERVICES

Proper drainage has been taken care of by the design. All storm drain has been directed to storm drains and away from the site. And these are channelled along the slope of ground to the public sewer.

Pipe borne sewage is also directed to the city central sewage system Other office refuse to be collected and taken to the Wuse incinerator.

Electricity will be supplied by the National Electric Power Authority, though a temporary standby is proposed in case of power failure.

Also, automatic sprinkler systems have been proposed incase of fire and all lift and stair wells have been made fire-proof.

Water to the site will be taken from pipe of the city distribution network.

BUILDING MATERIALS

An array of building materials have been used. They have ranged from glass, through concrete to burnt brick. This it to express the spirit of the age as it relates to Nigeria. The Office building has been clothed with curtain walling, the administrative building has been left with it's natural concrete while the workshop has it's brick facing.

LANDSCAPING

A sense of openness has been given to the site by the shrubs proposed for the site and almost green area around all of the building. A reflective pool also helps to add colour to the site. The exhibition plaza has been located outside of the building to give maximum enjoyment by the public.

## CHAPTER TWELVE

## CONCLUSION

In conclusion, all hands must continue to be on deck to see to it that the N.I.A. is accorded her rightful place in the Society. The Nigerian Institute of Architects must continue to

- disseminate relevant architectural information to Architects,
- organise competition and exhibitions among practising and student architects for the upliftment of the profession.
- store information for the use of both practising and student architects and other related professions.
- must pursue a rigorous public enlightenment programme for the good of the Secretariat

The Institute must also implore the architects on the virtues of

- continued acquisition of knowledge
- engaging in designs that are problem solving
- producing high quality of workmanship and
- maintaining the good image of the profession.

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AHMADU BELLO UNIVERSITY, ZARIA

M.Sc. ARCHITECTURE THESIS RESEARCH/SURVEY 

BY

APPENDIX A

Olanrewaju T.A.

1) Your Proffession ?

2) Do you know or have idea how the N.I.A. building looks? Yes/No
If Yes; Pick one (a) Been there (b) seen pictures of it
(c) heard about it from discussion

3) Do you think that the building is expressive enough as an edifice for a collective body of Nigerian Architects

4) What are your personal views about building? (Architecturally or otherwise).

5) Do you think the Nigerian Institute of Architects deserves a new building.

6) What other activities would you expect the institute to indulge in

7) How expressive would suggest a Nigerian Institute of Architects secretariat building to be.

8) With the general movement to Abuja, do you ascribe to the location of a new secretariat for the institute at Abuja? Yes/No.

9) Give general comments.

Thanks.

AHMADU BELLO UNIVERSITY, ZARIA

**APPENDIX 2(a)** M.Sc. ARCHITECTURE THESIS RESEARCH/SURVEY

BY

Olanrewaju T.A.

1). Could you give a breakdown of the membership strength of the Institute; (a) Fellows .....(b) Member.....
(c) Graduate member.....(d) Student member
(e) Honorary members (f) Honorary Fellows (g) Overseas members.....

2) Give the average percentage of active or paying members of the institute.

3) How many chapters of the N.I.A. exist presently.

4) Does the institute have an ultimate number of chapters
Yes No

5) If yes how many?

6) What are the main activities of the year? (use table)

| Activity | Frequency | Duration Average | turmul | Location |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |

7) List those activities that would have taken place at the secretariat if adequate space is provided.

(a)..... (b)..... (c).....(d).....

APPENDIX 2(b) - 2 -

8) Participation in the activities of the year

| Activity | Secretariat | State Chapter | Other prof. bodies | extermal | members | Public |
|---|---|---|---|---|---|---|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |

9) How many sections or departments are there at the institutes secretariat?

List: (a)..... (b)..... (c)..... (d).....

10) How many of these are carried out of the institutes secretariat?

List: (a)..... (b)..... (c)..... (d).....

11) Are the spaces available presently adequate for the performance of the function for which they were provided

12) Does the institute plan to move to Abuja now in the future.

13) Has the institute applied for land in Abuja

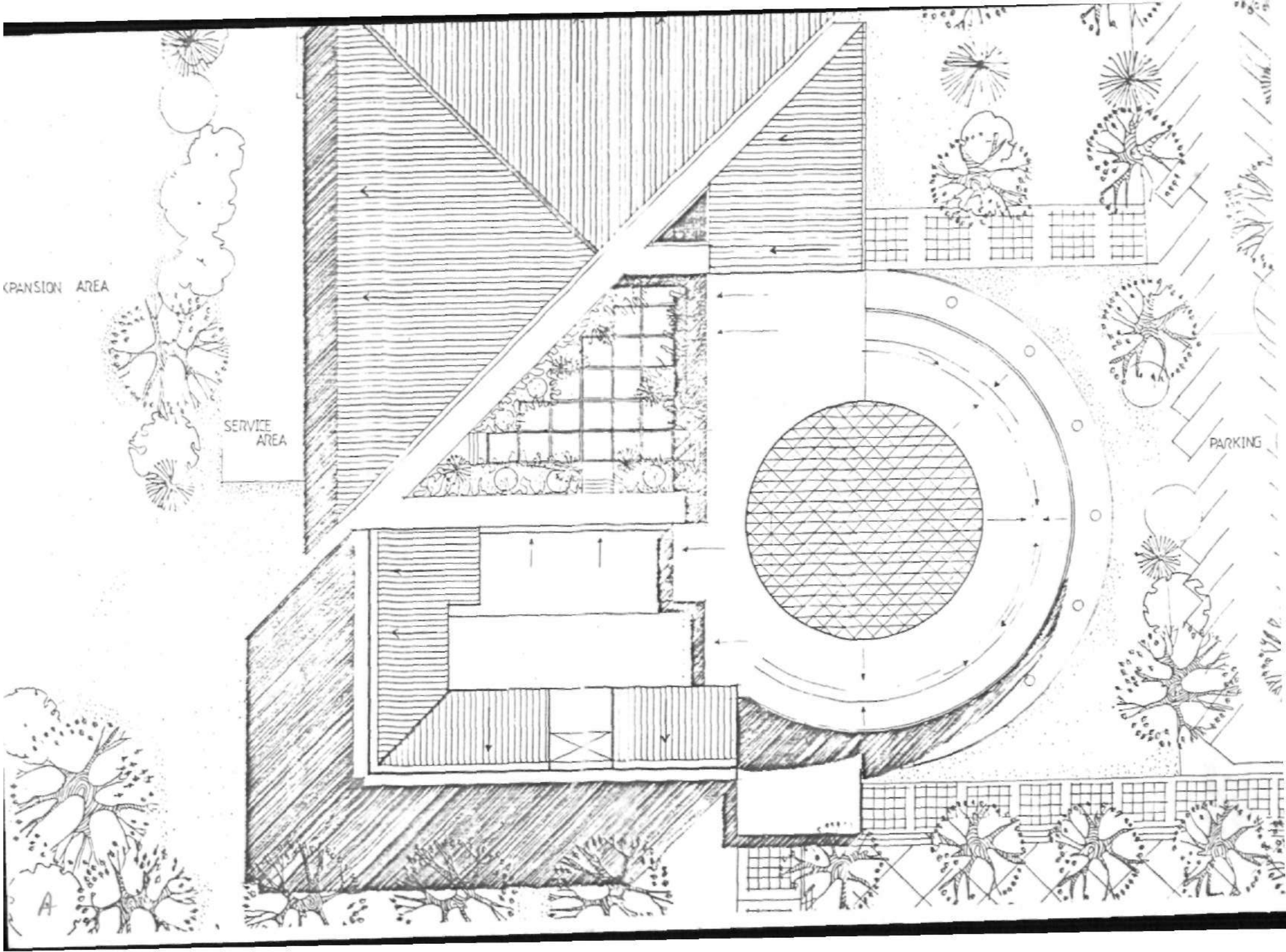
14) If yes, could area of location be supplied

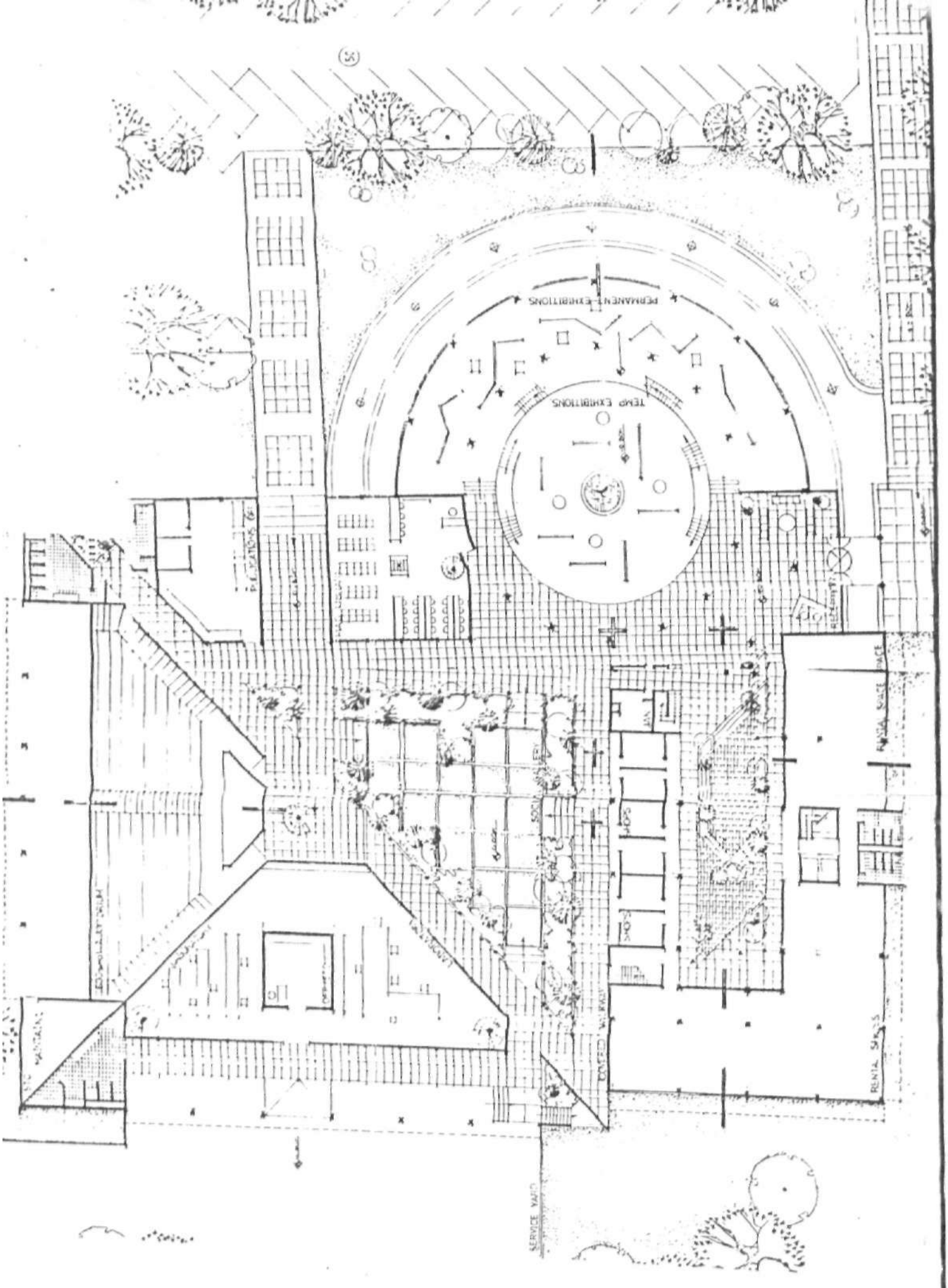
15) If No, does the institute intend to apply for land in the future.

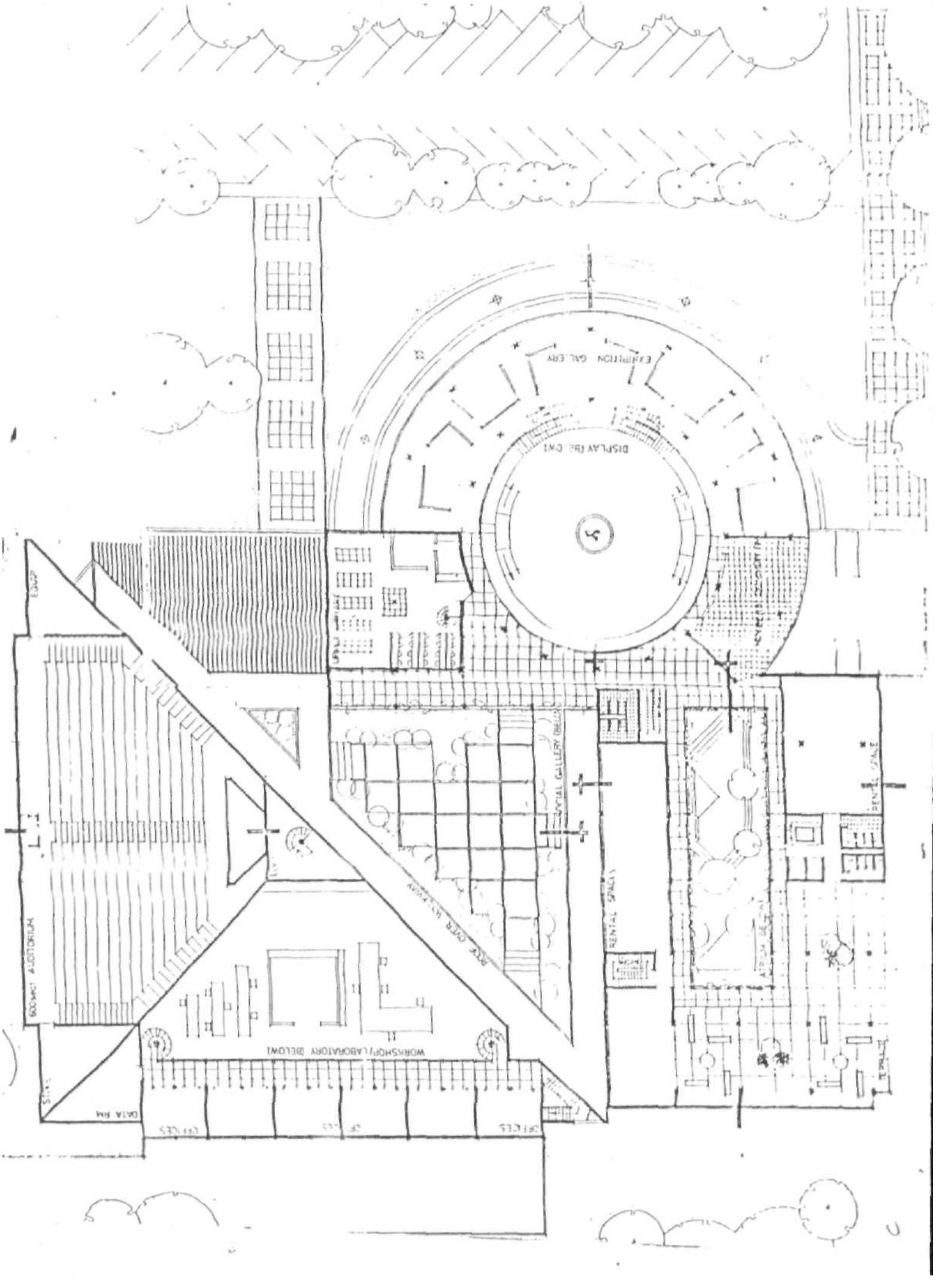
## APPENDIX 3

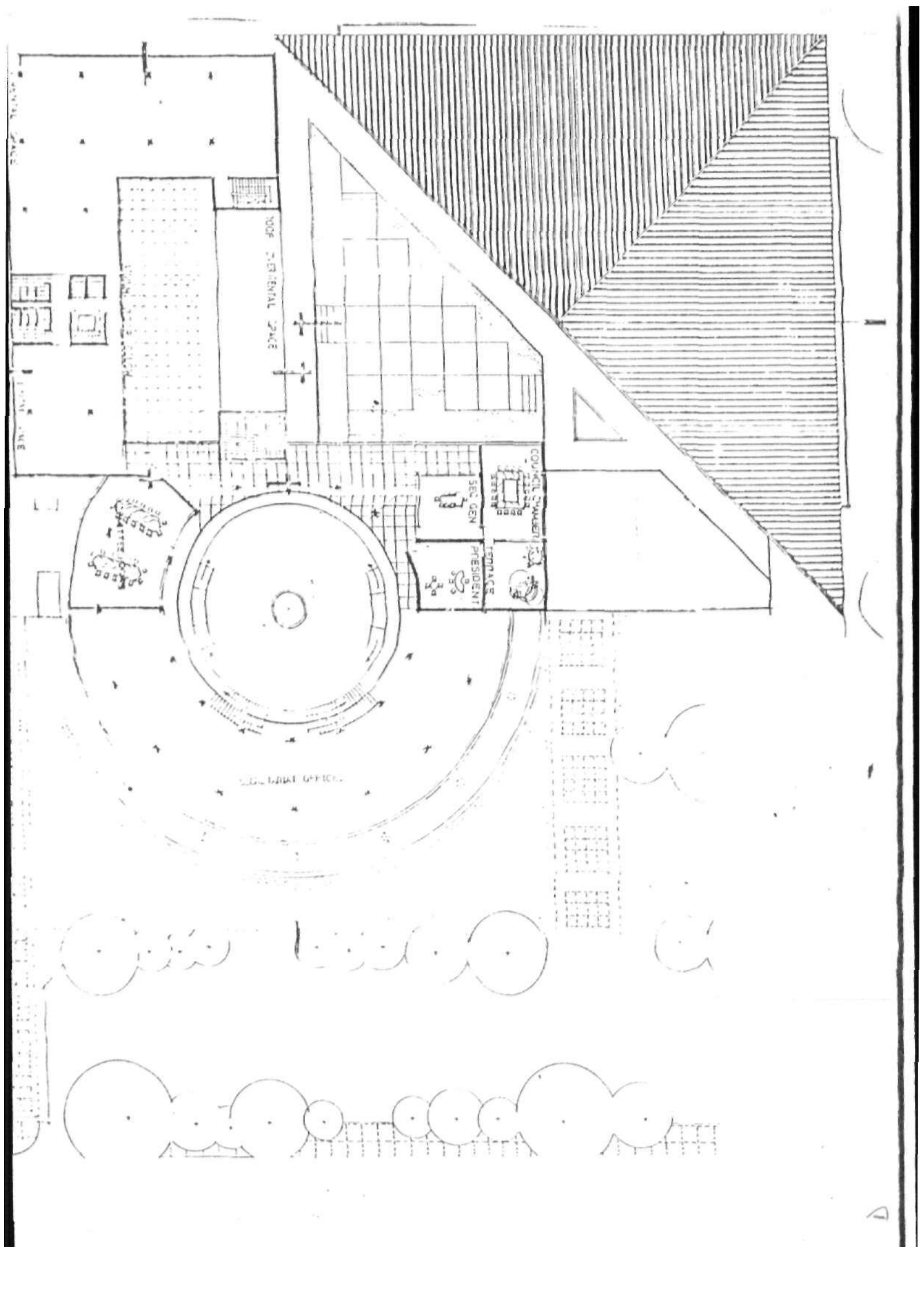
## TABLE OF DRAWINGS

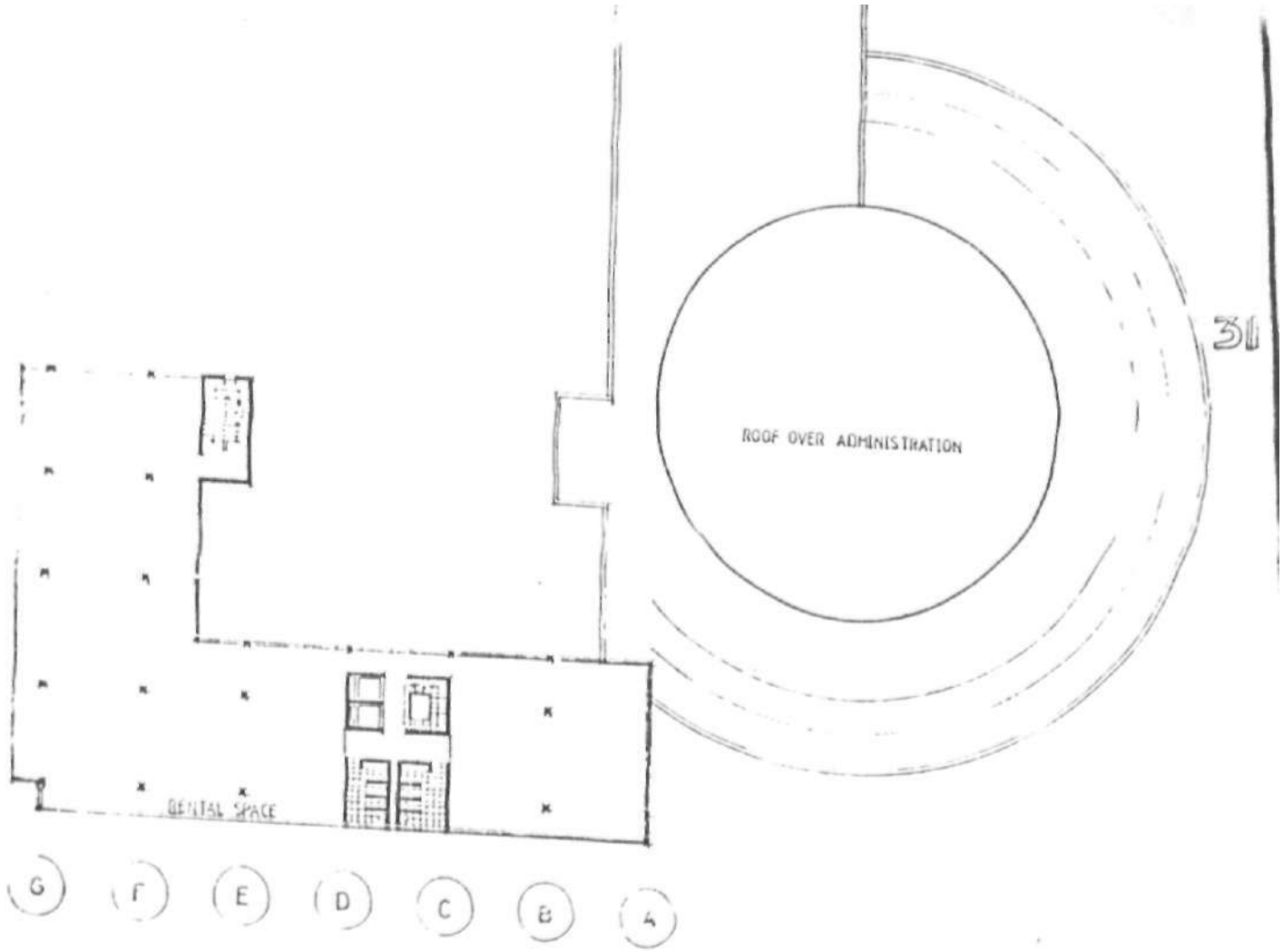
| | | |
|---|---|---|
| A | - | SITE PLAN |
| B | - | GROUND FLOOR PLAN |
| C | - | 1st FLOOR PLAN |
| D | - | 2nd FLOOR PLAN |
| E | - | 3rd FLOOR PLAN AND TYPICAL FLOOR PLAN |
| F | - | ELEVATIONS |
| G | - | ELEVATIONS |
| H | - | SECTIONS |


KPANSION AREA
SERVICE AREA
PARKING
A

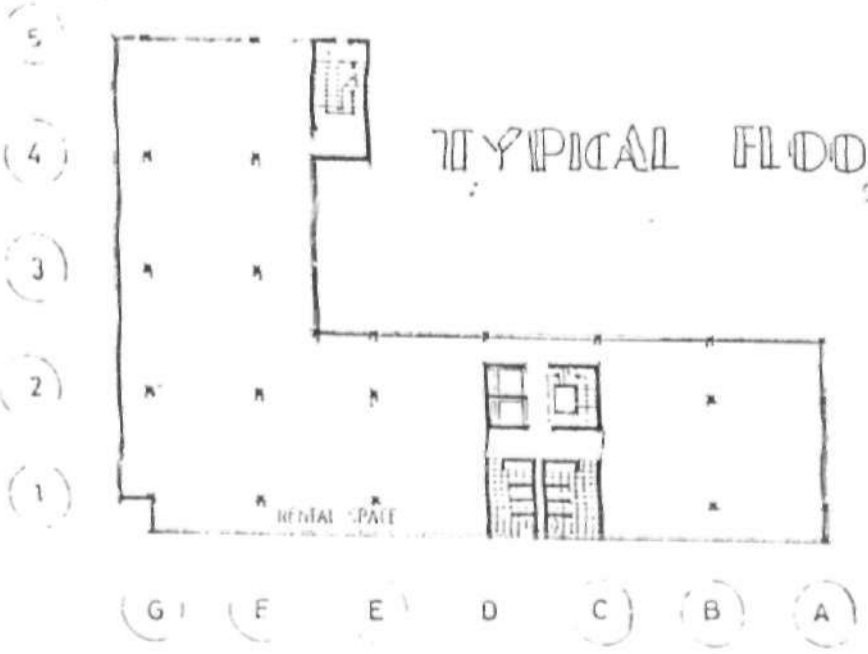

PERMANENT EXHIBITIONS
TEMP EXHIBITIONS
RENTAL SPACE
RENTAL SPACE
SERVICE YARD

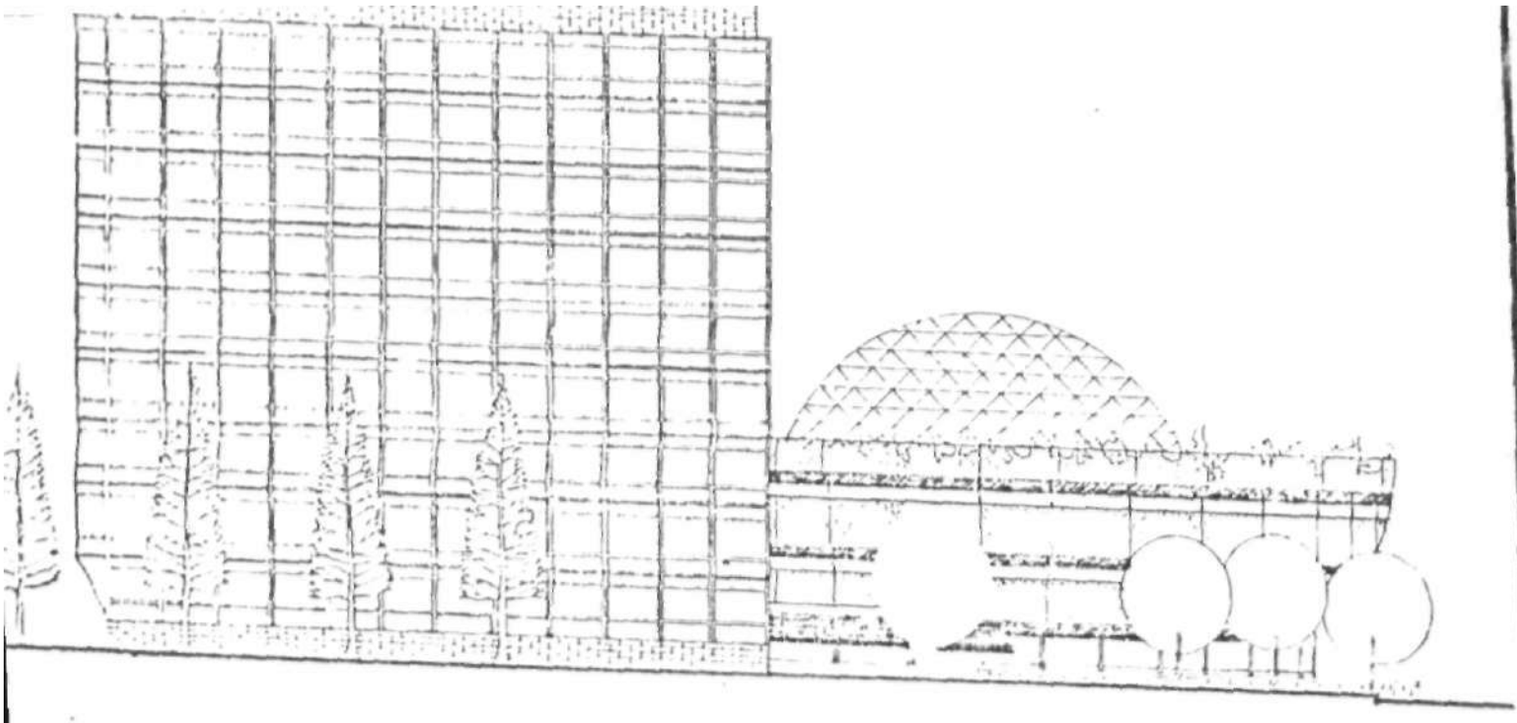

EXHIBITION GALLERY
DISPLAY (BELOW)
ATRIUM (BELOW)
RENTAL SPACE
RENTAL SPACE
ROOF OVER AUDITORIUM
600 SEAT AUDITORIUM
WORKSHOP/LABORATORY (BELOW)
OFFICES
OFFICES
OFFICES
DATA RM


ROOF GENERAL SPACE
SEC GEN
PRESIDENT

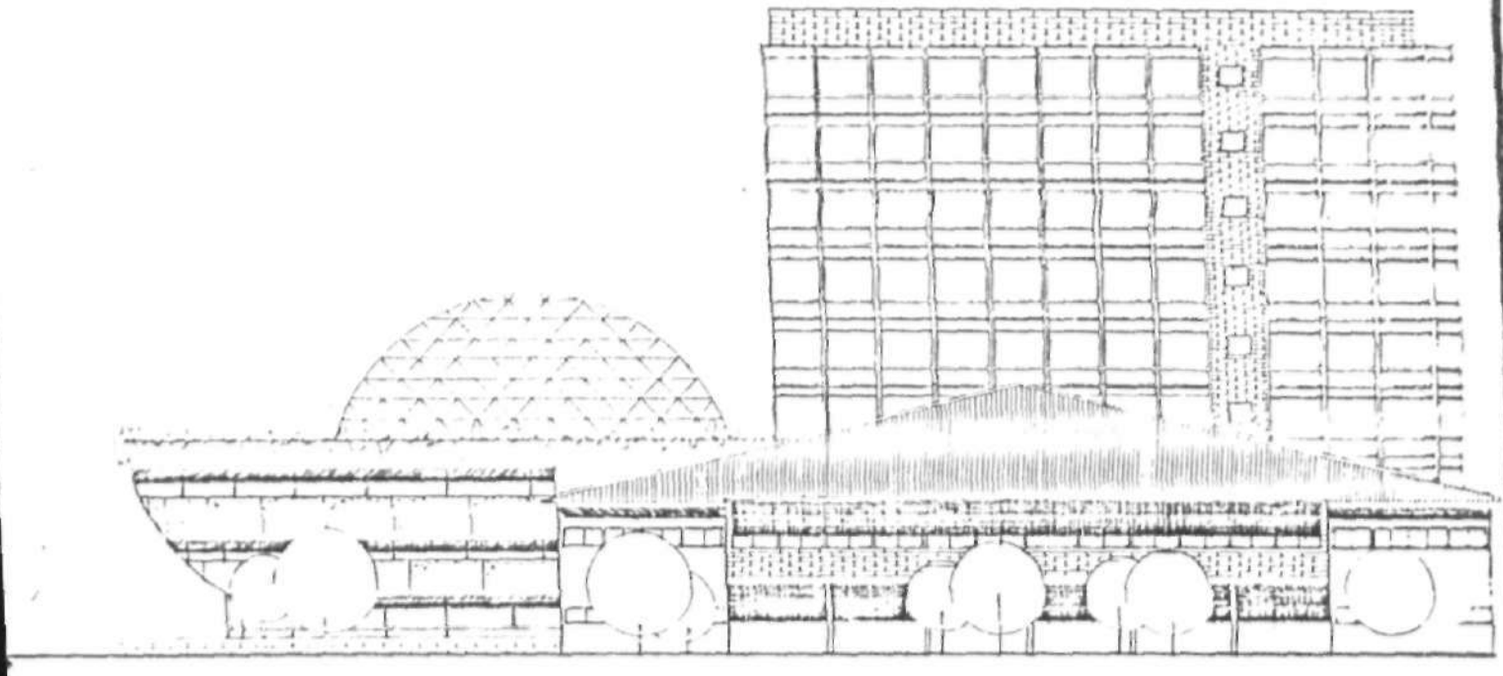



# TYPICAL FLOOR PLAN

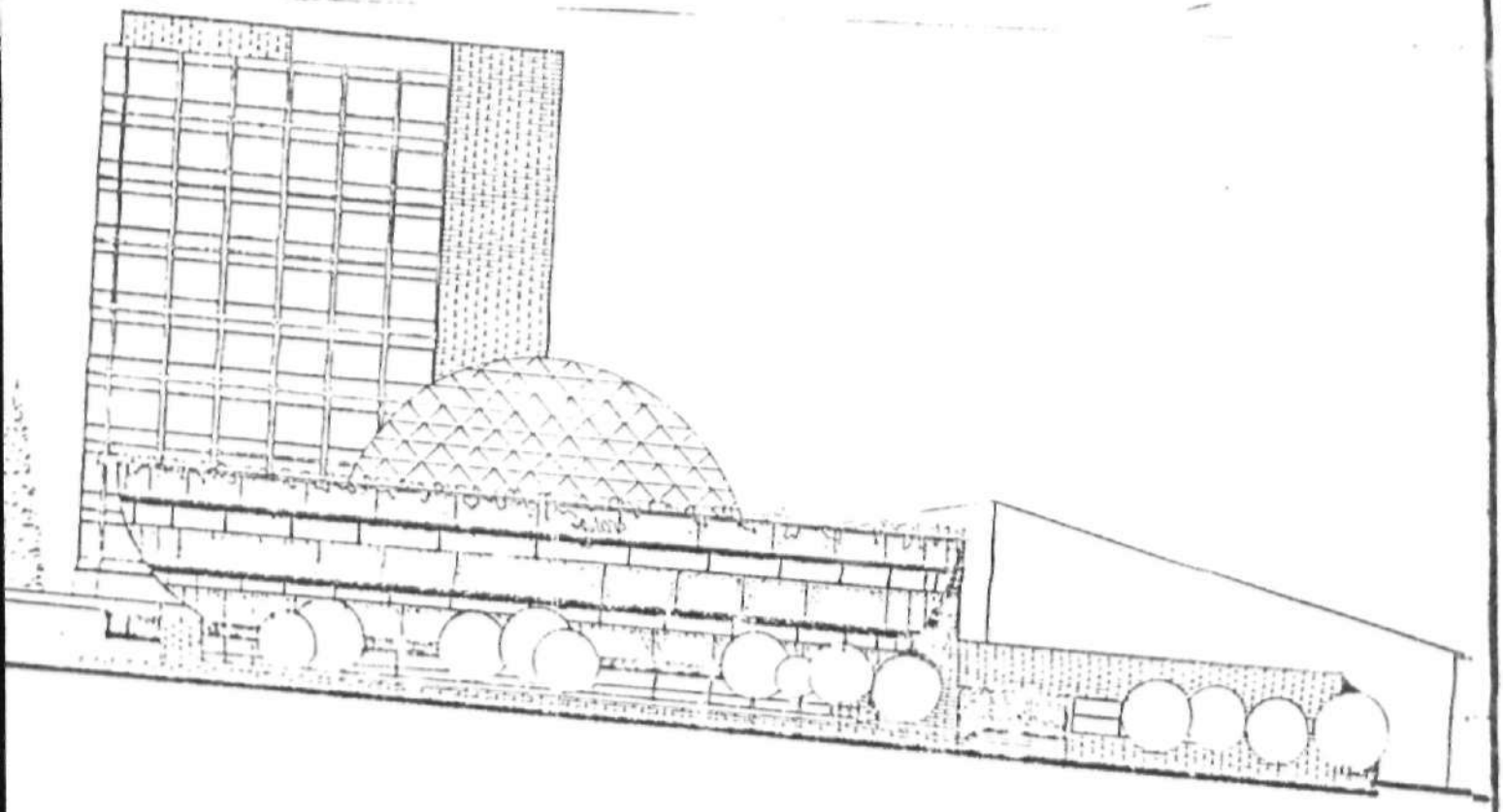




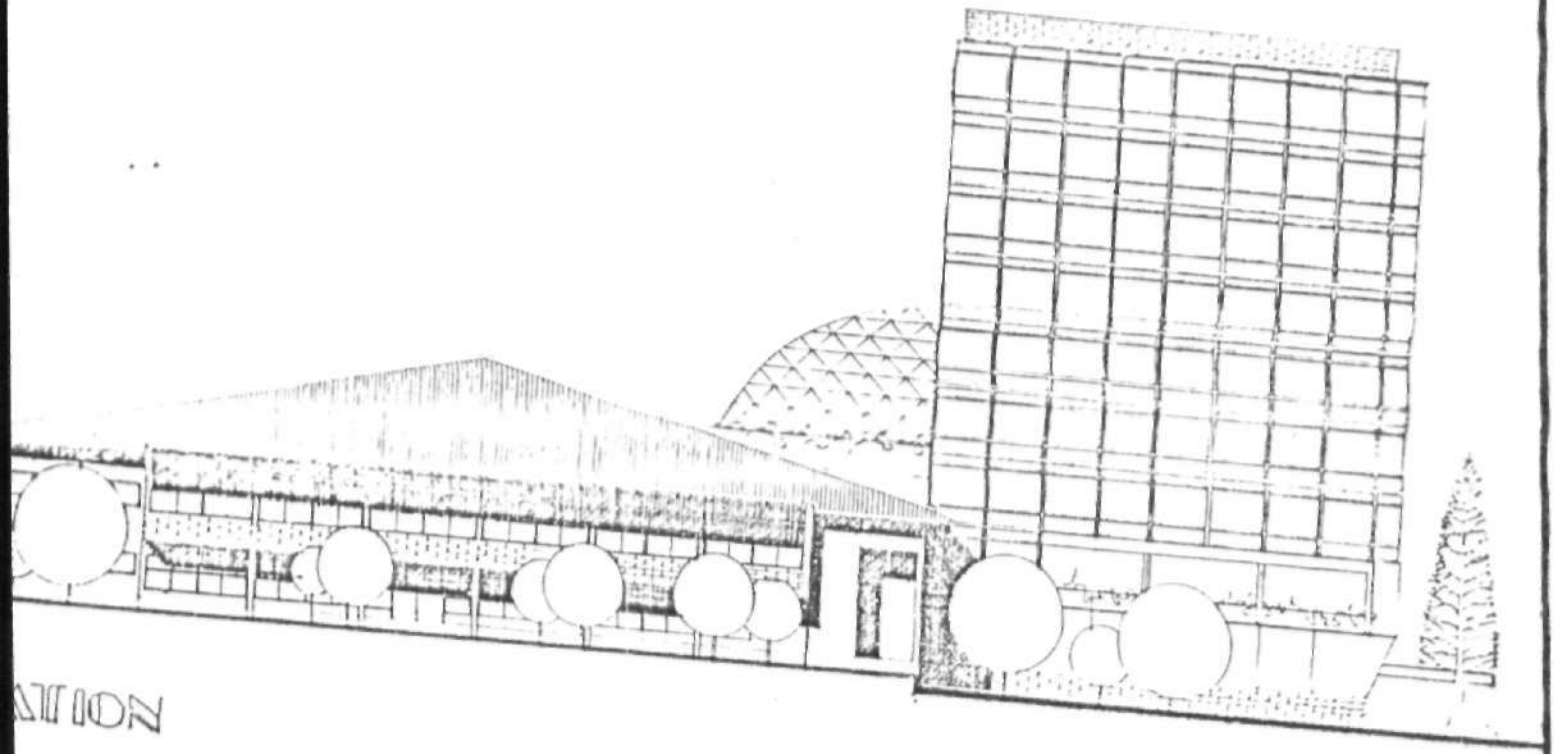
SOUTH ELEVATION



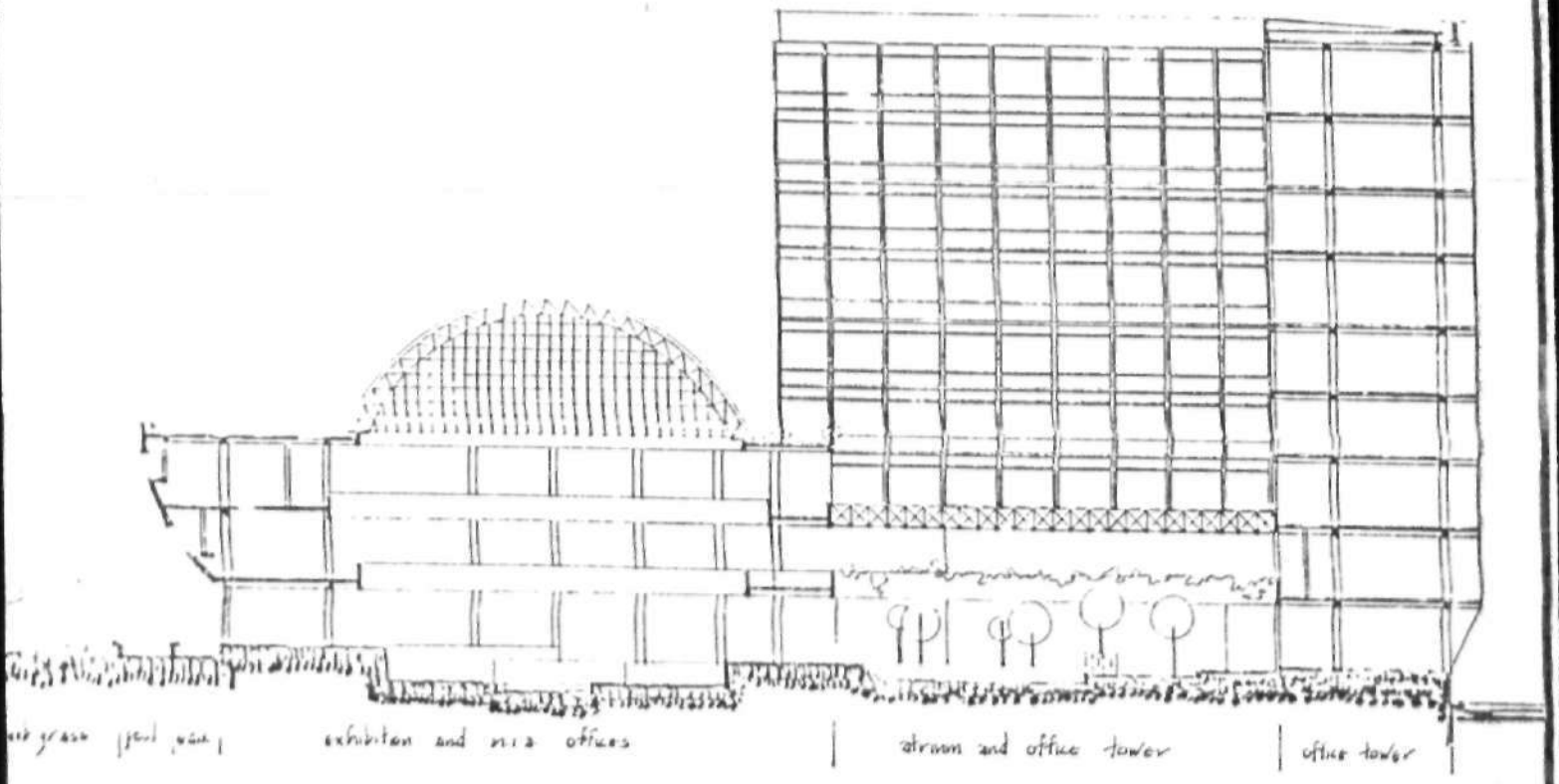
ELEVATION

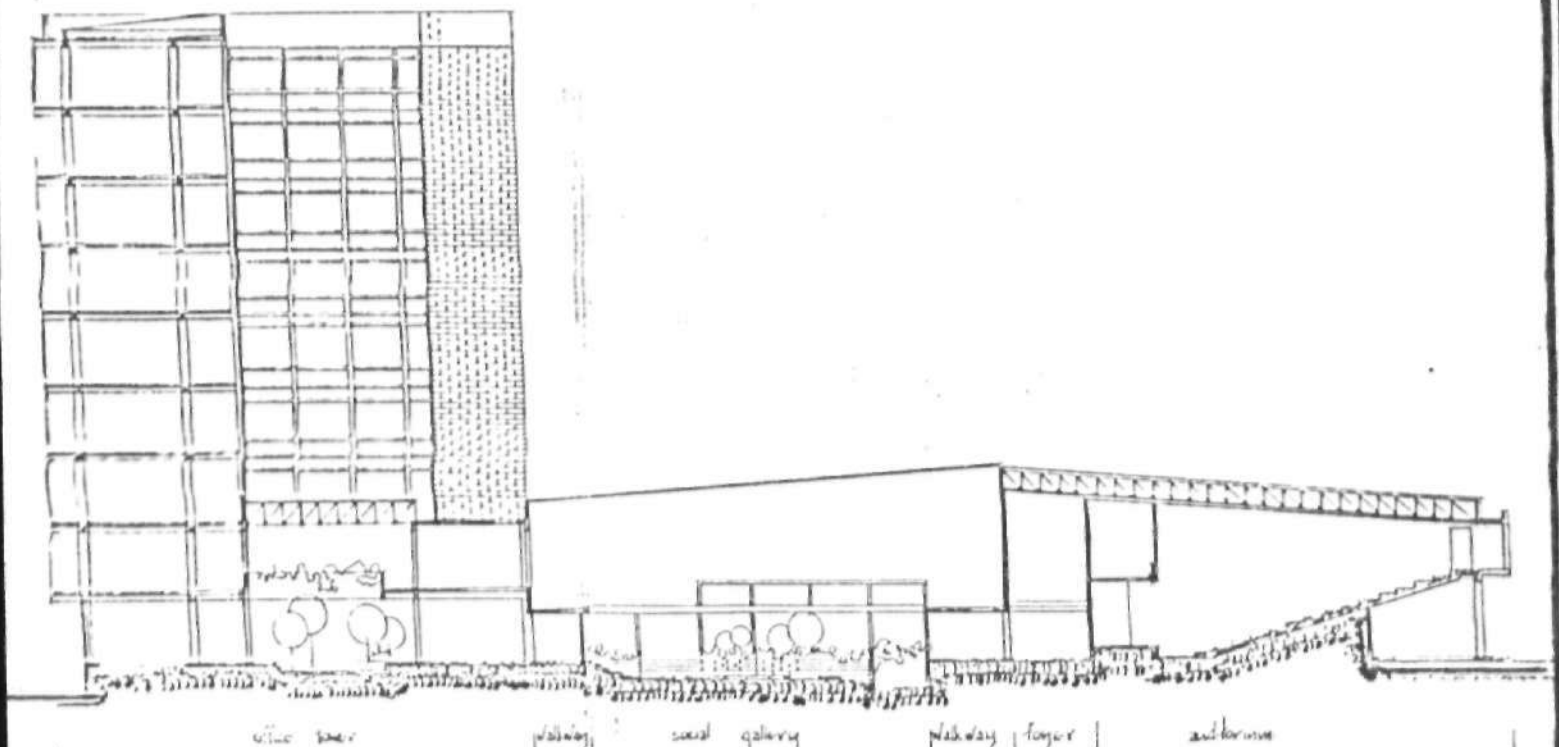


EAST ELEVATION



ATION




institute of architects al